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1. OVERVIEW

At the early stage during September 1999-January 2000, WHO together with UNICEF acted as a "Temporary Ministry of Health" coordinating health sector activities in East Timor. ICRC and fifteen International NGOs, together with military medical teams from International Force for East Timor (INTERFET) provided curative services to the general population.

WHO actively participated in and technically supported the review of health services of East Timor (conducted in December 1999 and January 2000) and the subsequent establishment in February 2000 of the Interim Health Authority - a precursor of the Division of Health Services, which in September 2001 became the Ministry of Health (MoH). WHO continues to work in partnership with the Ministry of Health and other relevant government agencies.

WHO's collaborative activities have been aligned accordingly to be consistent with the latest developments in East Timor which is now ready to move from a state of emergency to a developmental phase.

The visit of the WHO Director-General, Dr Gro Harlem Brundtland in October 2000 was instrumental in raising awareness and understanding in the East Timor Transitional Administration on the importance of the health sector, as a major part of social and economic development of East Timor. Consequent upon her visit, health was given priority in administrative as well as at all political levels.

In 1999-2000, WHO adopted a flexible and responsive approach in providing technical support to the MoH by recruiting consultants in the areas where expertise was urgently needed, viz., Epidemiology, Human Resources Development, Essential Drugs and Malaria. As the national recruitment process of the MoH staff at the different levels moved towards completion in 2001, it became evident that Reproductive Health, Epidemiology, Public Health, Human Resources Development, Laboratory, Nursing, HIV/AIDS/STI, Nutrition and Food Safety are the priority areas in which MoH needed long-term professional support from WHO. For this purpose, WHO has already recruited highly qualified professionals in most of the above-mentioned areas.

This paper is intended to give an account of WHO's contribution to East Timor since January 2000 up to December 2001. It is important to mention that in addition to its own resources, the work of WHO in East Timor has been supported mostly through resources provided by AusAID, ECHO, USA, Italy, UK, Spain, Sweden and Portugal.

2. EXISTING SITUATION AND HEALTH SYSTEM

- Estimates continue to suggest an infant mortality rate (IMR) of between 70 and 90 per 1,000 live births; the most common causes being infections, prematurity and birth trauma.
- Only one in five births is attended by appropriately skilled personnel prior to the crisis.
- The maternal mortality ratio has been estimated to be as high as 890 per 100 000 live births, although this estimate is difficult to verify at the present time.
- The under 5 mortality rate (U5MR) was reportedly 125 per 1 000 live births (World Bank Joint Assessment Mission, 1999), but this may be an underestimate.
- The most common childhood illnesses are acute respiratory and diarrhoeal diseases, followed by malaria and dengue infection. An estimated 80% of children have intestinal parasitic infection.
- Cross sectional nutritional surveys conducted in selected districts suggest that 34% of children aged 6 months to five years are acutely malnourished, while one in five are chronically malnourished.
- Malaria is highly endemic in all districts, with the highest morbidity and mortality rates reported in children. The peak transmission periods are July/August and December/January, although a longer transmission season exists in the east of the country (Lautem district), owing to the prolonged wet season. Based on historical and recent data, *P. falciparum* and *P. vivax* malaria are equally represented. Four districts, including the capital, are high transmission areas and chloroquine resistant strains have been reported.
- East Timor is endemic for leprosy; the registered leprosy case prevalence rate is 1.8 per 10,000.

- East Timor is also highly endemic for lymphatic filariasis; three species are present (*Brugia timori*, *Brugia malayi* and *Wuchereria bancrofti*), and patients with clinical manifestations of chronic lymphatic obstruction have been well documented.
- Tuberculosis is a major public health problem, with an estimated 20,000 active TB cases nationally (over 2.5% of the total population, representing a prevalence of approximately 2,500 per 100 000). To date, a total of 4 cases of multi-drug resistant TB have been confirmed.
- Sexually transmitted infections (STI) are common. The existing curative institutions report a total of about 35 STI cases per week, mostly in Dili and Baucau districts. However, the actual situation is still to be ascertained.
- Routine childhood immunization was recommended in early March 2000. To prevent an expected outbreak of measles, more than 45,000 children were immunized during a special campaign. National Immunization Days (NID) for polio eradication campaign in the entire territory were observed in November and December 2000 with a total coverage of over 84%. At the same time, the routine EPI coverage was noted to be very low, e.g., DTP-3 coverage was less than 25%.
- The level of knowledge on health matters in the general population is poor, and health promotion has been identified as a key component of the basic package of health services to be introduced.
- Between 1 January 2000 and 31 October 2001, the curative institutions (international NGOs and the military medical team from INTERFET) provided 1,365,219 consultations and curative interventions to the population.
- Communicable diseases account for the majority of deaths, approximately 60%, particularly in children. These deaths are associated with respiratory infection, diarrhoea and malaria, followed by non-communicable diseases, chronic diseases, road traffic accidents and other conditions.

WHO played a catalytic role in East Timor in the formation of future direction of health development, its health authority and formulating health policy, planning and health regulations. During the emergency phase, WHO was instrumental in overall coordination of NGOs, national and international institutions, UN Agencies and Donors involved in the restoration process of the health sector in East Timor.

In January 2000, a group composed of representatives from WHO, UNICEF, UNFPA, international NGOs and the East Timorese Health Professionals' Working Group undertook a review of health service provision throughout the territory and drafted a document defining minimum standards for health care service provision. At the second workshop, which took place in mid February 2000, a consensus was reached on the minimum standards document and the formation of the Interim Health Authority was formally announced. The Interim Health Authority was composed of 16 senior East Timorese health professionals supported by seven international UNTAET staff.

Later, on 15 July 2000, as a result of reorganization and the establishment of an East Timor Transitional Authority (ETTA) the Interim Health Authority was renamed the Division of Health Services (DHS). Dr Rui Maria de Araujo was appointed as the Head of Division of Health Services on 24 May 2001. After the elections for the Constituent Assembly, the Ministry of Health was established in September 2001. Dr Rui Maria de Araujo was then appointed as the Minister for Health. Dr Joao Martins became the Vice Minister, while Dr Rui Paolo de Jesus was appointed as the Director General for Health.

Health sector redevelopment has been based on a sector-wide approach advocated by WHO and aims both to restore access to basic services and to rebuild a sustainable health system. Health services in East Timor are currently provided by a large number of different entities. Coverage of the population is uneven both in terms of physical access and the services provided. This situation has arisen from the necessary involvement of international NGOs in health service provision during the emergency and early development phases. A strategy was developed in May 2000 to implement and guide the restoration of the health sector, which intends to:

- ◆ Be rapidly implementable
- ◆ Ensure delivery of basic services to the maximum possible population
- ◆ Build capacity among East Timorese health staff
- ◆ Ensure more efficient use of resources
- ◆ Not interfere with the development of the future health system

- ◆ Take into account the principles developed by the East Timorese Professional Working Group (technically supported by WHO) including sensitivity to culture, religion and traditions of the East Timorese people.

To ensure more equitable coverage, more efficient use of resources, and a clear division of responsibilities along with greater accountability, the MoH has proposed one key entity to be identified in each district to plan, organize and manage the provision of services. The MoH requested proposals from lead NGOs for the provision and management of health services for each district, in the form of a District Health Plan. Other health agencies working in the district need to collaborate and coordinate their activities with the lead agency.

To facilitate the development of District Health Plans, WHO organized a workshop, on 10 June 2000. In addition, during the preparation of a District Health Plan, all NGOs involved in the health sector received technical support from WHO.

Following MoH review of the NGOs' proposals and district health plan, a Memorandum of Understanding between the MoH and each of the district service providers was signed in September 2000.

The District Health Plans (DHPs) include a total of 64 community health centers, 88 health posts and 117 mobile clinics. During the first year, emphasis has been put on the use of mobile clinics in some areas to allow for a more careful selection of sites for additional fixed facilities. Data collected in March 2001 indicates that 80% of population now has access to permanent health care facilities. However, monitoring of DHPs suggests that utilization of health services is low and highly variable with just below 40% of health facilities appropriately utilized. WHO has been providing technical backstopping in the implementation of the DHPs in the field of communicable diseases surveillance and control activities, outbreak investigations, health promotion as well as the training of nationals in priority areas required for provision of basic health services.

As no medical literature was available in East Timor, WHO provided Emergency Health Library Kits and District Health Library Kits to major health providers in all the districts. WHO/East Timor is also in the process of establishing a medical reference library to cater to the needs of service providers all over the territory. This library currently stocks about 1000 medical reference publications.

3. HUMAN RESOURCES DEVELOPMENT

The Human Resources Development (HRD) database which was developed jointly by WHO and HealthNet International showed that there had been 2632 employees in the former East Timorese Health System. The East Timorese Health Professionals Working Group estimated that approximately 2000 of these were present in the country and ready for work. Most of the senior level health service managers and doctors were Indonesians and have left, leaving a serious gap at senior and middle management level.

The total workforce establishment, which was originally fixed at 1087 by CNRT and NCC, is the basis for the numbers currently being recruited. The national recruitment of the health workforce has suffered from many delays but is now nearing completion. WHO supported the MoH in the development of all the national job descriptions and the recruitment process.

WHO provided an intensive 5-week training in management for the staff newly appointed to senior management posts in the MoH to prepare them for their new posts. Two batches have already graduated from this program (in June and September 2001 respectively). Two officials from the MoH were also supported by the WHO to attend an Educational Skills Development Study Tour in Sydney under the University of New South Wales. The participants are expected to produce modules for the training of district level personnel.

A special problem is faced in the medical workforce, where the current information shows that there are only approximately 34 East Timorese doctors, of which 25 are in East Timor, 3 are currently studying in Australia on AusAID scholarships, 6 are living overseas and it is uncertain as to whether they will return. In addressing the shortfall in the medical profession, it is crucial to ensure that current medical students, who have achieved the required academic standards, continue pursuing their studies. WHO is currently providing scholarships for 10 medical students to continue their studies in Indonesia. Furthermore, WHO is supporting the visit of a monitoring team to assess the progress achieved.

After the MoH has taken over the district health care services from the NGOs, there will be around 15 expatriate medical officers who will be recruited to cater to the medical needs at the district level. The WHO supported the MoH induction seminar held during the second week of December 2001. WHO produced course materials that served as the reference manual which the physicians will be able to take to the field. This included standard treatment guidelines for diseases common in East Timor and the national essential drugs list.

The reduction in the workforce together with the shortage of doctors necessitates health workers of all categories taking on extended roles and functions in clinical areas. WHO in close collaboration with UNICEF and UNFPA have developed structured training plans and programmes in areas such as Reproductive Health, Integrated Management of Childhood Illness, Communicable Diseases and Advanced Patient Assessment and Clinical Decision Making. These training programmes, designed to strengthen clinical capacity at health centre level, are presently being implemented. As with the management training, the first cohort of midwives from Dili, Baucau, Covalima, Bobonaro, and Oe-Cusse have now graduated from the Training of Trainers Programme.

The former “ad hoc” approach to training is now being replaced by implementation of standardized, structured, competency-based training courses which will be accredited. All future training will be coordinated through the National Centre for Health Education and Training (NCHET).

WHO has provided ongoing support to the MoH on all aspects of human resources development since March 2000 through provision of a technical adviser. WHO has given particular attention in providing technical support to the recruited staff of the Human Resources Sub-Division to strengthen its role and function within the MoH.

WHO undertook an analysis of the current nurse training curricula in relation to the newly defined nursing roles in East Timor. The current and planned national continuing education modules were examined and future training requirements were identified. It was noted that the current training for nurses and midwives is not adequate enough for advanced health assessment and clinical decision-making skills. WHO recommended that a new expanded role of existing nurses and midwives must take place in the context of Primary Health Care to bridge the gaps of health care delivery problems.

The next phase on the development of human resources policy for the country started with the recruitment of an HRD consultant by the second week of December. Policy development process recognizes four influential factors: 1) support by competent and committed human resources; 2) presence of an accurate data base; 3) ownership by East Timorese nationals; and 4) agreement of all stakeholders. The policy that will be developed shall address three main issues: rational production, upgrading of existing skills mix and rational utilization of the health workforce.

4. IMPROVEMENTS IN BASIC HEALTH PARAMETERS

Pharmaceuticals and Drug Supply

- In order to facilitate future development of a National Essential Drugs Programme, WHO supported the development of a national Essential Drugs List for East Timor during June/July 2000. Since most of the health facilities will have to be staffed by nurses/auxiliary staff in the absence of qualified doctors, detailed instructions with the Essential Drugs List have also been prepared for use by such staff.
- WHO has also recommended a system for a comprehensive essential drugs programme for East Timor, including the framing of a national drug policy, the drafting of drug legislation and promoting the concept of rational use of drugs among the health services.
- The implementation of these systems could now materialize with resources as proposed in the World Bank project. The major thrust from WHO will be towards capacity building and training national staff in the development of the pharmaceutical component of health care facilities.
- WHO supported two MoH staff members to participate in the International Course on Drug Policy Issues for Developing Countries, which was held in Yogyakarta, Indonesia, from 29 October to 9 November 2001.

Communicable Disease Surveillance

- In order to encourage the timely recognition of and response to epidemic diseases, WHO established a communicable disease surveillance system early in its presence in East Timor. The original system was subsequently modified in January 2000. Based on the data from the surveillance system, it has been possible to coordinate and provide guidance to the NGOs involved in providing clinical and public health services in East Timor.
- All laboratory services in East Timor were destroyed in the wake of the post-referendum violence. The surveillance system is therefore based on regular clinical reports submitted by NGO lead agencies providing primary health care in the field, using WHO case definitions. Diseases currently subject to surveillance include: simple and bloody diarrhoea, suspected cholera, suspected malaria, other (non-malaria) febrile illness, suspected measles, suspected meningitis/encephalitis, upper and lower respiratory tract infection, acute jaundice syndrome, acute flaccid paralysis (suspected poliomyelitis) and neonatal tetanus.
- Weekly analysis of the surveillance database is summarized in a *Weekly Epidemiological Bulletin*. The WHO *Bulletin* is disseminated to all institutions involved in health in East Timor, and to many international collaborators. The Bulletin is published in both English and Tetum, and an electronic version of the *Bulletin* has been available via the *Timor Today* internet site since May 2001.
- Since the system was established in September 1999, consultations numbering 1,612,866 have been recorded. Major communicable disease problems recorded include:
 - 202,969 cases of suspected or confirmed malaria,
 - 108,697 cases of lower respiratory tract infection,
 - 79,964 and 613,263 cases of watery and bloody diarrhoea respectively,
 - 2,190 cases of suspected measles, and
 - 592 cases of suspected meningitis.
- The communicable disease surveillance network also identified for the first time in East Timor, cases of Japanese encephalitis (JE). On the basis of this investigation and epidemiological-epidemiological studies, JE infection has been identified as an important public health problem in East Timor. The immunization of children against JE should be considered an appropriate intervention, and an immunization schedule will be developed using the serological findings from this study. The intervention will require the allocation of adequate resources and an understanding by donor and other agencies of the importance of the elimination of JE as a public health problem in East Timor.

Control of Outbreaks

- Between January 2000 and December 2001, the following outbreaks or sporadic cases of communicable diseases of public health importance have been investigated:
 - acute flaccid paralysis (suspected poliomyelitis) – 5 clusters or sporadic cases; all cases have been confirmed negative to polio viruses by the international reference laboratory in Melbourne, Australia
 - dengue fever – four outbreaks in urban Dili;
 - Japanese encephalitis – in Viqueqe District (May 2000) and Bobonaro district (April 2001)
 - Unknown diseases – two reports requiring field investigation (one each in Liquica and Manufahi districts).
 - Pertussis – a small outbreak of pertussis was reported by staff at the Dili Hospital. All of the 6 cases were reported from one district. One of the cases was identified in a children's home where the patient had gone to recuperate from Dili Hospital. Appropriate measures were instigated to vaccinate other residents in the home, the staff, and their children. Parents of many local children also took advantage of the opportunity to have their children vaccinated.
 - Diarrhoeal diseases - four outbreaks were investigated: two in Aileu district one simple (suspected amoebic) and one bloody diarrhoea (suspected Shigella); one of dysentery like disease in Oe-Cusse district during which 28 deaths were recorded in children <5 years old. A subsequent verbal autopsy

study attributed 10 deaths solely to diarrhoea and a further 9 deaths to diarrhoea plus either malnutrition or pneumonia. The fourth was in Atauro Island (part of Dili District). This was believed to be due to cholera and accounted for almost 500 cases in a population of 900 people. There were four deaths. However due to technical and logistic difficulties, cholera was not confirmed as the definitive cause of the outbreak. All four outbreaks were attributed to contaminated water supply and poor hygiene practices.

- An outbreak of measles occurred with 23 cases in a three week period. No immediate vaccination was carried out, but the episode was used to encourage increased efforts to achieve satisfactory vaccination coverage.
- WHO has worked with MoH and other agencies in a community education campaign for the control of dengue fever, Japanese encephalitis and malaria, which was repeated before the wet season.

Health Laboratory Services

The capacity of laboratories in East Timor for both communicable and non-communicable diseases is very limited. The Central Laboratory at Dili is the main laboratory of the territory. It does not cover all the branches of laboratory medicine and has been conducting a limited range of tests. There is a very basic network of health laboratories at district and peripheral levels although only malaria and tuberculosis microscopy is carried out in most districts.

The MoH, recognizing the importance of laboratory services, requested WHO to provide technical support in the restoration of laboratory services in East Timor. WHO provided technical services of a consultant who developed a plan for the reconstruction of laboratory services in East Timor. Based on the expert's assignment, it was recommended by WHO that Health Laboratory Services should be developed as an integral part of national health services and include both clinical medicine and public health. The consultant provided both short and long-term plans ranging from one to three years for establishing and strengthening full-fledged laboratory services at central and peripheral levels of East Timor.

Following these recommendations, since February 2001 WHO has provided the services of a laboratory manager/advisor whose main task is the provision of support for the management of the Central Laboratory. The Consultant also provided support to the district laboratories and gave advice on the future structure of the overall laboratory system. WHO has already prepared a programme for training of laboratory staff aimed at establishing a set of standard operating procedures. This programme shall also allow for the training of Central Laboratory staff as trainers who would be responsible to organize and conduct training at the level of district laboratories.

The WHO laboratory adviser will also be involved in the WHO-initiated survey that will investigate two important medical questions in East Timor. The first aspect of the survey is to determine the prevalence of glucose-6-phosphate-dehydrogenase (G6PD) deficiency in the population. This information is required for introduction of primaquine for radical treatment of *P. vivax* infection, as it is contraindicated for those with this deficiency. The second part of this survey is to collect samples to determine the prevalence of lymphatic filariasis which is known to exist in East Timor but at an unknown level. It is important to have baseline data before initiating a programme of mass treatment. The WHO programme for the eradication of filariasis is effective and economical and can be easily adopted in East Timor.

Roll Back Malaria

Due to the breakdown of surveillance, vector control activities and treatment facilities, malaria showed a three-fold increase in East Timor following the crisis in 1999. Jointly with two international NGOs – Merlin and IRC – WHO has been actively collaborating for control of malaria by:

- ◆ establishing a Vector Borne Disease Control Working Group to help coordinate the activities of and to provide technical back-up to the NGOs involved in vector control activities
- ◆ establishing malaria diagnostic facilities, including retraining of microscopists and equipping 13 district laboratories in the country
- ◆ arranging anti-malarial drug supplies

- ◆ promoting and distributing bed nets, especially for protection of pregnant women and children under 5 years
- ◆ orientating clinicians through dissemination of WHO guidelines for management of dengue fever and dengue haemorrhagic fever/dengue shock syndrome.
- ◆ disseminating protocols for case definitions and treatments
- ◆ conducting social research into community knowledge, attitudes and practices related to malaria

Based on the current situation, WHO has identified the following integral strategy for control of malaria and other vector borne disease activities in East Timor in future:

- ◆ mapping of high risk areas
 - ◆ setting up of entomology and vector control strategies
 - ◆ distribution and re-treatment of bed nets, and assessment of their efficacy
 - ◆ redesigning of drainage systems with proper gradients
 - ◆ timely diagnosis and treatment of patients
- Pending the establishment of a National Vector Borne Disease Control Programme as part of a coordinated Environmental Health initiative, the MoH has requested WHO to coordinate vector control activities in East Timor. From July 2000 up to April 2001, WHO conducted regular meetings, with the participation of NGOs involved active in vector and vector borne disease control: Merlin, IRC and Oxfam, as well as the PKF Health Cell. This group has been active in coordinating both VBD research activities and applied VBD control activities, and have been a vital resource in framing a national vector borne disease control strategy. In April 2001, after the MoH appointed international staff in the field of vector control, the work of this group has been coordinated by MoH with technical support from WHO.
 - The Vector Borne Disease Control Working Group is now a multi-sectoral group and has just completed a situational analysis of vector borne diseases in East Timor as the first step in the development of a national control strategy.
 - For Dengue control, community-based promotion of the storage of water in mosquito proof containers/cisterns/mandies indoors is essential. In addition, there is an urgent need for the professional and routine management of solid waste disposal to support community efforts to reduce vector-breeding sites.
 - Development projects, particularly related to water resources development and agriculture sectors, are known to be associated with potential high build up of vector borne diseases, especially malaria and Japanese encephalitis (irrigation) and dengue haemorrhagic fever (harvesting of rain water/domestic storage of water). It is therefore strongly recommended that all development projects should be subjected to an environmental health impact assessment to anticipate adverse health impacts and to recommend mitigating measures for incorporation at the design and planning stage, and costs should be budgeted in the project.
 - A pilot project to control mosquito breeding by introducing fish into rice fields was proposed to the MoH. This was supported and WHO is now leading a collaboration between the UN Agencies and several government sectors to develop a full project proposal.

Entomology

Epidemiological data on the weekly reports of suspected malaria cases were organized and analyzed. Based on the Annual Case Incidence, the area has been stratified into high, medium, and low endemicity. Four epidemiologic types of malaria in East Timor have been identified. They include forest malaria, rice field malaria, coastal malaria, and swamp malaria. Rice field malaria contributes numerically to a greater number of cases. Malaria distribution maps have been prepared showing the magnitude of the problem and incidence of cases. Trend analysis on malaria case incidence showed that there has been significant reduction in the incidence following the introduction of detection of malaria cases based on the guidelines recommended by the WHO.

The WHO entomologist conducted an extensive survey on the entomological aspects of malaria. Survey on the potential breeding sources of vectors in different sub-districts showed that the entire country is highly potential in supporting vectors of malaria. Both larval and adult mosquito samples were collected. Five anopheline species known to be vectors elsewhere have been recorded. They are *Anopheles maculates*, *An. barbirostris*, *An. annularis*, *An. sundaicus*, and *An. subpictus*. The breeding sources of these vectors have been identified. The extent of breeding sources and their overlapping in different physiographic zones and prevalence of five vector species makes the entire country receptive for malaria transmission. Based on the risk factors in terms of type and extent of breeding habitat malarious areas have been stratified and risk maps have been prepared. The maps on malaria distribution and receptivity of the areas can be used in decision making on prioritizing the areas for intervention and developing appropriate control strategies.

Based on the information gathered on entomological surveys, appropriate vector control options with technical guidelines have been recommended to control malaria. Necessary technical expertise is also extended to the Ministry of Health in developing a national malaria control strategy.

WHO is preparing a macroplan to demonstrate comprehensive mosquito control in an area in Dili under a community partnership approach. Guidelines have been prepared to develop vector surveillance system to predict and forecast epidemics.

Tuberculosis

- Significant progress has been made in the establishment of a national TB control programme in East Timor. The programme is based on the WHO DOTS strategy. Caritas Norway, together with Caritas East Timor, the Menzies School of Health Research in Darwin, Australia, and WHO have actively supported the establishment of this programme. To identify the role, function and involvement of each agencies in the implementation of the National Tuberculosis Control Programme, a Memorandum of Understanding has been signed in November 2001, by the Ministry of Health, Caritas Norway, Caritas Dili and WHO.
- The National TB Control Programme was officially launched on 21 January 2000 and has achieved much in its first year. The programme is active in all the 13 districts of East Timor. There are 20 diagnostic centers working within the NTP structure. Eleven satellite centers for treatment of TB patients are operating in Dili. Since inception, over 6,000 patients have been diagnosed and started on treatment within the NTP.
- The majority of diagnosed TB cases in East Timor attend the three Dili TB clinics (Motael, Bairo Pite and Becora), with each clinic enrolling 25-30 new cases for treatment each week.
- On the request of WHO, the WFP has been able to provide to the TB patients supplementary food like rice and cooking oil from January to September 2000.
- To date, a total 4 cases of multi-drug resistant TB have been confirmed; one has died, one is on a standard retreatment regimen and the others are not being treated. All four cases are resistant to first line drugs but sensitive to all second line drugs. A further 7 cases are suspected to be treatment failures and are under investigation. Discussions are underway to decide on the national policy for managing multi-drug resistant cases.

Expanded Programme of Immunization

- Routine immunization services in East Timor were re-established and supported by UNICEF, under the coordination of IHA and with WHO technical support, in early March 2000. The service is implemented by NGOs involved in health service provision in the field. After two months of implementation, issues to be resolved from both technical and managerial aspects included vaccine supply, differing needs between districts, and clarification of roles among all parties involved.
- On 16 June 2000, in order to facilitate clarity and consensus among all parties involved regarding the policies and implementation plans of the national immunization services, UNICEF and IHA (with WHO technical support) conducted a National Workshop on immunization services in East Timor. This workshop resulted in agreement by all participants in the use of a standard immunization schedule recommended by WHO and a plan of action for conducting National Immunization Days and the immunization of primary school children. All districts conducted two polio immunization days during

November and December as part of the National Immunization Day programme. Preliminary reports suggest high (>84%) coverage rates in the target age-groups.

- WHO initiated a proposal to prepare a submission to the Global Alliance for Vaccines and Immunization (GAVI) for support to East Timor. An Interagency Coordinating Committee has been formed initially comprising the MoH, WHO and UNICEF. Membership will be widened by inviting other interested agencies to participate. The submission is expected to be prepared by May 2002, following the conduct of a comprehensive EPI review and the preparation of a five year plan to improve vaccination coverage rates.
- WHO and UNICEF supported a study of prevalence of Hepatitis B markers among pregnant women at the ICRC and Bairo Pite clinics, Dili. This study identified that 14 out of 219 (6.4%) pregnant women were found positive for HBsAg. This result indicates the importance of introducing hepatitis B vaccination of newborns in East Timor within the framework of EPI. This will be only possible after improving the performance of routine EPI coverage in the territory.

Nutrition

Maternal and child malnutrition have long been common in the country. After the referendum in 1999, there was widespread disruption of government services, commerce and agriculture due to displacement of almost the entire population. Commodity prices rose dramatically, by up to 200%. Thanks to massive humanitarian and food aid, catastrophic food shortages were mostly averted and farmers were mostly able to plant crops late in 1999, and again in 2000, giving good harvests in 2000 and 2001. Food and coffee marketing facilities are however still severely curtailed.

A partial survey of children 6 months to 5 years in 4 districts in March 2000 showed 45% underweight, 41% stunted (height for age below median $-2SD$) and 22% wasted (weight for height below median $-2SD$). The same survey showed nutritional status of mothers to be poor –35% having a body mass index (BMI) below 18.5 which is a “critical situation” according to WHO criteria.

Subsequently, however, conditions continue to be restored towards the pre-disaster level of about 35% underweight in children less than 5 years of age. Sixty-eight per cent of children under 5 and 30% of mothers were anemic. The Indonesia health profile (1995) showed 40% of children below 5 and 50% of women to be anemic. The main cause of anemia is believed to be iron deficiency, possibly with folic acid and zinc deficiencies also. Intestinal parasitism may be a factor. A 1976 survey showed high rates of infection with ascaris (49%) and hookworm (67%). A survey of vitamin A deficiency in 1990 in East Timor found 0.14% of the population to have corneal scarring (the upper-limit for WHO is 0.01%). A survey of iodine deficiency disorders (IDD) in 1998 showed total goiter rates of 21-49% in primary school children and 22-39% in pregnant women. In 2001 a survey of maternal diets and child feeding practices was done in 5 districts. Another country-wide data-set indicates that over 70% of households regularly experience food shortage and hunger in December and January.

Overall, malnutrition is mostly related to:

- Poor maternal diet, health, and nutritional status
- Frequent use of milk powder and sugar before 4 months of age
- Inadequate feeding (quantity and/or quality) for children 4 months to 6 years
- Recurring infections—malaria, diarrhoeal and respiratory diseases, measles
- Household hunger and food insecurity
- Underlying poverty and low level of education

Current efforts of the MOH are mainly directed towards implementing the nutrition component of the Integrated Management of Childhood Illness (IMCI), i.e., a nutritional assessment/management of all sick children at health facilities, and also organizing

- 6-monthly vitamin A for children 6 months to 5 years
- iron supplements for pregnant women and children with severe anemia
- 6-monthly deworming for children 2-5 years

A National Demographic and Health Survey is planned for 2002, to include an assessment of nutrition and feeding of children. In the MoH, the district level nutrition is the responsibility of the District Public Health Officer in charge of nutrition and environmental health. An initial training of these persons was undertaken in September 2001. The child "Road to Health" charts have been prepared and are being printed. Iodized salt is widely available in the country but some locally produced salt is not iodized. Legislation for iodization of salt is, therefore, needed. An intersectoral food and nutrition strategy was drafted by the MoH with WHO collaboration in November/December 2001 and in consultation with UNICEF and FAO.

Food Safety

The level of urban and rural illness attributable to food contamination in East Timor are not known. Surveillance activities are limited to the reporting of diarrhoeal diseases which are at very high prevalence in the community but which may be from either food contamination or from the widespread lack of potable water and seriously inadequate sanitation infrastructure. From the limited data available, water sources are extensively faecally contaminated. The proportion of foodborne cases of diarrhoea may be as high as 70% but, in the absence of laboratory facilities, this cannot be confirmed.

Accepting the WHO criteria for the level of underreporting of foodborne diseases in developing countries (about 1%), then it is highly likely that the most sensitive group of the population, infants and children under 5 are subject to 3-10 diarrhoeal episodes per year. A serious consequence of the repeat episodes of diarrhoea is the effect on the nutritional status and immune systems of infants and children. Repeat episodes lead to reduced food intake aggravated by loss of nutrients due to malabsorption and vomiting, fever and impaired resistance to other infections (often respiratory). Many do not survive under these circumstances.

There are presently no substantive quarantine or food control mechanisms in place. This deficiency is being addressed by the development of a Food Safety Strategy (FSS) as part of an overarching National Food and Nutrition Plan. The FSS shall concentrate in the short to medium term on:

- strengthening surveillance systems for foodborne diseases
- adoption of international risk assessment methodologies
- improving the skills level of government staff
- ensuring that the private sector fulfills its responsibilities;
- health promotion at all levels in the system

Upon the request of the MoH, a WHO consultant conducted a survey at the supermarkets, medium sized general food stores, the traditional markets and a number of small family owned businesses in December 2001. The results indicate that for most imported food products, mainly of Indonesian origin, the foods were well within their expiry dates for all the food outlets surveyed. The products were also generally in compliance with the Food Registration requirements of the exporting countries. Inadequate labelling appears mainly limited to products of East Timorese origin and in particular for local alcoholic beverages and snacks which are repackaged for sale in small quantities (e.g., krupuk). Should a food poisoning outbreak occur, it would not be readily possible to track back to the source/manufacturer.

Integrated Management of Childhood Illness (IMCI)

- An important objective of the still to be developed health plan for East Timor will be to reduce the Infant Mortality Rate (IMR) and Under-5 Mortality Rate (U5MR) from their present high levels. It is very likely that these rates have increased during the period of instability following the independence referendum. Data presented in the *East Timor Province Health Profile* (Ministry of Health, Indonesia, 1998) showed that, for children under 5 years of age, diarrhoea, malaria, and acute respiratory infection (ARI), including pneumonia, constitute the majority of reasons for paediatric consultation at health centres and hospitals. The same conditions, plus TB, are the principal causes of death in the same age group.
- Data from the first 12 months of infectious disease surveillance coordinated by WHO confirm that ARI, malaria and diarrhoea, in that order, continue to be the most common reason for consultation at mainstream health care centres, with malaria being the most common reported cause of death.

- One of the strategies that may be used to achieve a reduction in IMR and U5MR is the development and implementation of a system of comprehensive care for sick children who visit health facilities, such as the one promoted by IMCI.
- The advantages of introducing an IMCI strategy in East Timor would include:
 - improved quality of care in situations where a disease specific approach is not appropriate (e.g., when children present with more than one complaint, or for young infants with non-specific clinical signs);
 - methodical approach where medically trained staff are scarce;
 - emphasis on prevention of childhood illnesses, through immunization and, if necessary, vitamin A supplementation;
 - promotion of improved infant feeding, including breast feeding;
 - avoidance of duplication of efforts in the fields of training, monitoring, supervision and management; and
 - less wastage of resources, because children are treated with the most cost-effective intervention for their condition.
- An IMCI approach would also immediately address three essential components of building up a new health system – improving health worker skills, improving the health system, and improving family and community practices.
- When implemented, IMCI should eventually lead to a lower U5MR.
- The generic WHO and UNICEF guidelines and training materials for IMCI generally need to be adapted to reflect the epidemiological situation, language and national policies of the country in which they are being implemented. Under the former administration, East Timorese health workers were often trained in Bahasa Indonesia. Moreover, the disease pattern has not changed at the macro level since independence. It should therefore be relatively easy to develop a national IMCI approach for East Timor from the current IMCI materials from Indonesia.

Because of the importance of IMCI, WHO started to create awareness of and increase the knowledge on IMCI among health authorities through a series of meetings and seminars. It has supported various activities to contribute to the development of a plan for IMCI implementation in East Timor.

- A set of IMCI guidelines and related training materials adapted for East Timor from the Indonesian programme is completed, focusing on the needs of health workers who deal with sick children under 5 years in outpatient settings in hospitals and clinics.
- WHO supported the participation of an NCHET staff member to the IMCI Introductory Training Workshop held in Semarang, Indonesia, from 4 to 15 June 2001.
- From 2 to 23 July 2001, a course was conducted for future trainers and supervisors of IMCI. This was held at NCHET.
- WHO supported participation of East Timorese trainers to the Training of Facilitators in Surabaya, East Java, from 30 September to 10 October 2001.
- The participation of Dr Rui Paolo de Jesus, Director-General of Health Services, at the Child and Adolescent Health technical briefing in Geneva in October 2001 was facilitated by WHO.
- Final adaptation meetings were held in November 2001 with East Timorese senior medical and nursing staff. Issues of ongoing concern included malaria guidelines, nutrition guidelines and deworming activities.
- Support was also extended to a national IMCI Workshop conducted by the Ministry of Health at NCHET on 19 and 20 November 2001. Participants included the IMCI working group, senior East Timorese medical and nursing staff, UN agencies (WHO and UNICEF), nurse managers and District Health Management Team members from Dili and Baucau. As a result of this workshop, the Plan of Action for IMCI Early Implementation in East Timor will be completed.

- A National IMCI Officer has already been recruited. This officer will be responsible to assist with all aspects of IMCI implementation in East Timor. Furthermore, the expatriate IMCI Team Leader position was also filled.

Reproductive Health

The provision of Reproductive Health services is an integral element of a basic package of health services in East Timor. Reduction in maternal mortality has been identified as one of the priority issues for the health service.

The MoH acknowledges that the only way to reduce the burden of ill health and disability and maternal deaths is to focus efforts on increasing access of pregnant women to have a skilled attendant, in the form of a competent midwife or a nurse with additional midwifery skills where no midwife is available, for care during pregnancy and childbirth and for the important changes in family dynamics following birth. Furthermore, the MoH recognizes that the country's midwives need further training to improve and enhance their skills. For some, this training will include extended midwifery skills. In addition, there is a need to develop effective supervisory and monitoring systems and links to both basic and comprehensive Emergency Obstetric Care (EOC). All of these activities need to be planned strategically so that they fall into the overall framework being developed for the provision of basic care in East Timor.

WHO is supporting the MoH in a sector-wide approach to health care and it has recruited a Reproductive Health Advisor since May 2001 to assist the MoH in strengthening reproductive health. WHO is working in close collaboration with other UN Agencies in this field. A Joint Plan of Action for Strengthening Reproductive Health in East Timor was agreed between WHO, UNFPA, UNICEF and MoH in March 2001. This plan is regularly reviewed and updated according to local needs and developments. This plan was reviewed during the time of arrival of both the WHO advisor and the World Bank Mission.

UNICEF, UNFPA and WHO have agreed with the MoH on a training schedule for midwives to increase their capacity to deliver appropriate midwifery services. The activities started in May 2001 with re-training of key staff in basic delivery care. In August 2001, a first cohort of midwives selected from 5 districts completed a Training for Trainers (TOT) program for the implementation of the WHO Standards of Midwifery Practice for Safe Motherhood, and planning for the January-March evaluation and review of this initiative has been completed. Under the joint plan, it is envisaged that this TOT's program will expand across more districts in 2002 and into 2003 until these standards are in use across East Timor.

This further training is hoped to run in parallel with the development of national standards for maternal-newborn care, standardized treatment protocols, operational systems planning for effective referral for emergency obstetric care, as well as for district monitoring of quality of care which will hopefully feed into these processes.

An action-oriented system of quarterly district reporting of key events has been implemented during the past year, including reporting on the number of skilled attendants at births. This reporting provides the districts and the MoH with a rapid method to assess progress in key intervention areas. These reports have shown that the percentage of deliveries attended by a skilled midwife has begun to increase and it is hoped that as the value of these midwives are recognized, many more women will use their services. Despite the increase, the overall attendance rate is still very low, it being only between 20-25%. Part of the Joint Plan of Action is to develop strategies to improve this situation. Work is continuing in this area and remains to be a priority.

WHO and UNFPA are currently collaborating in the production of a Reproductive Health Trainers Manual that will be used to direct collaborative workshops for midwives and medical officers in East Timor. This Trainers Manual is projected to be completed by the end of February 2002 for presentation to the MoH.

HIV/AIDS and Sexually Transmitted Infections

In East-Timor, before September 1999, there was no proper surveillance system and laboratory facilities for HIV testing. In the absence of these facilities, it is difficult to retrospectively conclude as to when the infection was introduced in East Timor. High incidence of sexually transmitted infections (STI) such as

gonococcal infection and syphilis cases among East Timorese population were reported during 1996-1998 (East Timor Health Profiles published during 1996-1999 by the Indonesian health authorities). Prevalence of high rates of STI during the period would possibly enhance the risk for spread of HIV infection among East Timorese population. Trends could be similar to other parts of Indonesia. No official data is available about screening for HIV infection and AIDS cases in East Timor. However, pre-independence Indonesian data reported at least one suspected death in East Timor due to AIDS. With the establishment of an epidemiological surveillance system by WHO in East Timor, the reports received from different clinics from all the districts indicated that STI are not uncommon among sexually active age group.

Since September 1999, East Timor has been receiving properly screened blood supplies from Australia to meet its requirements. At the same time, to meet emergency requirements for blood supply, "replacement donors" are being used. Persons who donate under this scheme, prior to acceptance of blood donation, are screened for HIV and Hepatitis-B Virus (HBV) using rapid tests. Available data from Baucau and Dili Central Hospitals indicated that between February 2000 and January 2001, 531 blood donors were screened for HIV infection. Of those screened, five males and two females in the age group of 26-35 and 18-35 respectively, were found to be positive for HIV infection. High incidence of STI before the crisis period and rumour about one suspected death in East Timor due to AIDS, gives indirect evidence that HIV infection existed in East Timor before the 1999 crisis.

In East Timor today factors are present which can contribute to an epidemic developing. These include the disruption of society which occurred in 1999, a lack of information as to what constitutes risky sexual behaviour and on sexually transmitted infections, low level of HIV/AIDS/STI awareness, poverty, and large groups of young men and women who are unemployed/not in school or involved in other rehabilitation activities.

Presence of large number of young, predominantly male expatriates and their possible sexual interaction in the territory may also attribute to the increased risk for HIV transmission.

Realizing the urgent need for initiating timely steps to prevent the spread of infection in East Timor, the MoH, together with WHO, UNICEF, UNFPA, UNDP (core group of UNAIDS), has evolved prevention and control measures focusing on health education, dissemination of information, promotion of safe sexual behaviour among the population, counselling HIV positive persons, establishment of facilities for early identification and treatment of STI and provision of safe blood transfusion services.

An Interagency HIV/AIDS/STI Mission to East Timor was undertaken during 12-24 November 2000. The Mission consisted of representatives from UNICEF, WHO, UNFPA, Family Health International, USAID and UNAIDS. The work programme of each UN Agency was clearly identified. Under the responsibility of WHO, strengthening of HIV surveillance, support for the establishment of safe blood transfusion services, laboratory diagnosis for HIV/STI, training for treatment and establishment of other curative services for STI have been identified. A consultant assisted in the preparation of the documents on (1) Syndromic Management of Sexually Transmitted Infections, (2) Strategies for Prevention and Control of STIs in East Timor, and (3) Syndromic Management of STIs – STI Management in East Timor: Guidelines for Health Workers. These have since been translated into Bahasa Indonesia. As a follow-up, WHO is in the process of recruitment of experts in the field of STI Syndromic Management, HIV Testing Policies and Guidelines and HIV/AIDS Prevention and Control. WHO is also contributing to the development of a national strategy for the prevention of an HIV epidemic.

In December, the first HIV positive patient with opportunistic infection of AIDS was diagnosed in Dili. WHO subsequently provided specific advice to the MoH on HIV testing policies, HIV surveillance, management of HIV infected individuals, and post-exposure prophylaxis in occupational settings.

Mental Health

East Timor lacks any form of formalized mental health care. There are no East Timorese psychiatrists, psychiatric nurses, mental health outpatient clinics or psychiatric hospital beds in the country.

The absence of mental health care in East Timor is not only due to its very limited professional and financial resources, but also to the fact that a large segment of the East Timorese population is hardly familiar with concepts of mental disorders like psychosis, epilepsy, dementia, drug and alcohol dependence, post-traumatic stress and other neuropsychiatric illnesses.

WHO provided the services of a consultant during March-April 2001 to support the establishment of a mental health policy in East Timor. This policy is recommended to be adopted nationwide and should coordinate all programmes and services related to mental health through a common vision and plan. Without such a plan mental disorders are likely to be treated in an inefficient and fragmented manner.

A mental health policy addresses objectives for prevention, treatment, care and rehabilitation related to mental disorders in community-oriented programmes in order to (1) reduce the number of people who develop mental health problems, (2) assist those with mental disorders to improve their overall quality of life, (3) eliminate the stigma associated with having mental and emotional problems, (4) improve effective interventions to all needed, and (5) promote ongoing research into the causes and treatment of mental disorders.

Based on WHO recommendations, AusAID is supporting the Project with a main aim “to strengthen the service and management capacity of the Division of Health Services to provide a community based National Mental Health Programme consistent with the World Health Organization policies and strategies for mental health services”.

AusAID will be supporting a long-term mental health programme with the MoH which will commence in May 2002. WHO is actively involved in the transition activities from the phasing out of PRADET to the eventual handover of service to the new project holder.

Environmental Health

The water supply and sanitation system was not spared from destruction during the post-ballot violence. There were widespread looting, burning and damage to town and village water supply and sanitation system. Towns with public water supply systems had their pumps, vehicles, motors, water treatment plants, offices including facilities for testing of water quality and pipelines stolen or damaged.

WHO recruited a consultant to stress the importance of environmental health and to improve coordination of the then Division of Health Services. The consultant was involved in coordinating the efforts in this direction by having discussions with the Department of Water and Sanitation Services (now with the Ministry for Water and Public Works), Environmental Protection Unit of ETPA and other key partners like UNICEF, Asian Development Bank, and other international NGOs involved in the process of rehabilitation and development of water and sanitation sector in East Timor.

WHO has been requested by the Department of Water and Sanitation to technically scrutinize the project proposal on Dili Water Supply Rehabilitation and improve the work plan prepared by Tokyo Engineering Consultants Co., Ltd. The project only dealt with the work of source abstraction and did not cover the future implementation of water distribution or wastewater disposal. WHO together with MoH recommended that the proposed water supply rehabilitation work, including the distribution system in Dili, should be prepared with the simultaneous development of sewage reticulation system and improvement of the existing drainage system.

Recently, WHO recruited another consultant to do follow-up work focusing on environmental sanitation. It is clear that poor sanitation, unsafe drinking water, lack of drainage and solid waste management, and poor housing and indoor air quality, continue to be the major threats to community health. There should therefore be a substantial programme of activities to be undertaken in terms of rehabilitation, restoration, capacity building by the Water Supply and Sanitation services. Furthermore, there seems to be a need to have a well coordinated inter-sectoral action plan, based on nationally agreed priorities.

WHO supports the need for a legal provision or institutional framework for requiring Environmental Health Impact Assessments for developmental projects. Intersectoral consultation and coordination for planning and prioritizing externally funded projects in the WSS sector may need to be strengthened.

WHO is presently undertaking a situation analysis for the development of a national strategy and action plan for improving environmental sanitation in the country.

Because of the last diarrhoea outbreak in Oe-cusse, WHO conducted a technical survey of water supply and sanitation conditions in the high risk areas of the district WHO has also supported the international NGO, OXFAM, in conducting a small scale intervention project for health promotion on water and sanitation.

Disaster and Health Emergency Preparedness

The hazards that face East Timor are varied. Natural disasters that have a high risk of occurrences are: floods, drought, earthquakes, tropical storms, and landslides. The possibility of a political/civil conflict still looms. Epidemics of water and vector borne diseases also pose a very high risk since environmental and water sanitation remains very poor. However, among all these, the hazard of epidemics will most likely be the priority hazard that should be looked into and addressed by the health sector. If these diseases are not controlled during non-disaster situations, we can expect these to rise rapidly during disasters to levels that are more difficult to control. The status of environmental sanitation and water supply in East Timor needs to be further developed. Also the capacity for surveillance and control of epidemics has not been installed. Capacity building should therefore be the long-term goal of being able to prepare and respond to these potential disaster situations, but in the short term, focus should be on the aforementioned priority hazards. Thus, for disaster and emergency preparedness for East Timor, the WHO has developed the following:

- Strategy for a National Health Sector Preparedness Plan: 2002-2004
 - A strategy outlining priority areas the Ministry can focus in the short term to improve disaster and emergency response has been developed. The document identifies priority hazards and practical approaches cognizant of the minimal resources available with the health ministry.
- Standard Operating Procedures (SOPs) for Epidemics and Disaster and Emergency Response
 - SOPs for epidemics and disasters (with mass displacement) were drafted. These procedures outline the response and management of an epidemic or disaster situation for the central office of the Ministry and how they relate to the district health management office and other agencies.
- Training Materials for the District Health Management Team
 - Training materials were developed for the District Health Management Team. Based on the needs identified the materials were developed on the following topics: 1) basic disaster management concepts; 2) planning for disaster and emergency preparedness; 3) rapid health assessment; and 4) community preparedness. The materials are designed for flexible learning combining self-learning, face to face sessions, and practical work.

As for human resource development, WHO supported participation of an East Timorese national in a WHO Regional Workshop on Disaster Management in Bali, Indonesia, in June 2001. Further, two MoH staff members were supported by the WHO to participate in the Australian Disaster Medicine Course held in Mt Macedon, Victoria, from 3-7 December 2001.

Health Promotion

With the appointment of the Head of the Sub-Division of Health Promotion of the MoH in June 2001, the WHO provided technical support in the development of the action plans for Health Promotion. A Health Promotion Working Group has already been created by the MoH and it has been active in overseeing activities of NGOs in health education and health promotion. Assistance has been provided in the development of: policy for health promotion, guidelines for health promotion campaigns, and policy framework for social marketing. WHO also assisted the health promotion sub-division in conceptualising the establishment of a Health Communication Resource Centre which shall be the base for the development of health promotion materials and the depository of references on health promotion.

WHO has also assisted the MoH in the creation of a School Health Working Group. This group is mandated to develop policies and activities for the promotion of the health of students and teachers, for ensuring healthy environmental conditions of schools, and the development of school curricula for health. A policy framework on school health has already been drafted and is awaiting the approval of the Ministry of Education.

During the recent Joint Donors Mission, the group proposed that a collaborative strategy for health promotion be developed using the resources from the WHO, AusAID, and Trust Fund for East Timor. An initial 3-month period of technical assessment is recommended to focus on stimulating dialogue and discussion about health promotion policy to accelerate progress towards a national health promotion strategy. This is then to be followed by the development of a design for a longer-term activity (3-5 years' duration). This aims to develop skills in formative social research and evaluation that would assist in the prioritisation of activities and guide community mobilisation and the development of health promotion materials and messages.

Disability Prevention

WHO has been participating in the Disability Working Group which has been convened by the Secretary of State for Labour and Solidarity. Discussions have revolved around education, health support concerns, and training for the disabled. The Working Group was active in the activities for the International Day of the Disabled held on 3 December 2001.

There is a need to assess the prevalence of disability in the country and WHO shall assist the MoH in conducting a study in a few districts.

Other Areas of Need

- No progress has been achieved in development of control programmes against intestinal parasitic infection, lymphatic filariasis, and iodine deficiency anemia in children and women, which also are common public health problems.
- Currently there is no leprosy control programme for East Timor. The only intervention that took place during year 2001 was that WHO distributed, through the NGOs providing health services, MDT drugs and WHO's guidelines regarding clinical diagnosis and treatment of leprosy patients. It is proposed to establish a Leprosy Control Programme that will be integrated with the activities of the Subdivision of Communicable Diseases. WHO will provide the required technical support and MDT drugs for the leprosy patients.
- WHO has also conducted visits to Aileu, Baucau, Covalima, Manatuto, and Oe-Cusse to look into the situation of leprosy in the country. At present, WHO is providing drugs to the clinics in Bairo Pite, Oe-Cusse, Dili, Manatuto, Aileu, and Baucau. A leprosy consultant is currently conducting an assessment of the leprosy situation in East Timor, with particular attention to Oe-Cusse district, including assessment of diagnosis and treatment practices.
- One of the problems that have been seen in East Timor is yaws which has been documented in Aileu, Bobonaro, Los Palos, and Viqueque. It is believed that there are more cases throughout the country. WHO is in the process of formulating strategies to eradicate this poverty-related disease.

5. PARTNERSHIP FOR HEALTH

WHO collaboration with UN Agencies and NGOs

WHO has been one of the ten UN Agencies (UNICEF, UNDP, UNFPA, UNHCR, ILO, WFP, FAO, UNIFEM and UNOPS) working in close cooperation to support rebuilding and developmental activities in East Timor. These agencies, both collectively and individually, are joining hands with other active development partners in bringing to East Timor their global networks, technical expertise and many years of accrued experiences and lessons learnt in developing countries across the globe.

A number of UN Agencies have embarked upon the task of preparing a Common Country Assessment (CCA) for East Timor, in cooperation with all relevant development partners in the country to establish a common database of development indicators as well as a common analysis of key development challenges. This document will serve as a major input into the debate about the development agenda for East Timor in the years to come.

WHO and other UN Agencies in East Timor, under the leadership of UN Development Coordinator had submitted a paper outlining specific areas of strategic support to be provided to the Transitional Government of East Timor in the immediate period ahead, and eventually, in support of the East Timorese Government as and when established.

WHO has and will continue to extend support and cooperation to other UN Agencies, donors, NGOs and different institutions in their respective efforts to raise the health delivery levels in East Timor. Notable activities and partnership of the WHO are:

- Joint working with Merlin and International Rescue Committee (IRC) implementing a Roll Back Malaria Initiative

- Close collaboration with Merlin, IRC, Oxfam and Timor Aid to enhance the control of vector borne diseases.
- Close collaboration and involvement of all national and international NGOs in disease surveillance, outbreak investigations, organizing training activities and prevention and control of communicable diseases.
- Technical support of UNICEF, in EPI activities.
- Jointly with UNICEF, organized screening of vision for school children and teachers in Dili. The vision of more than 16% of the students and 60% of teachers was found to be deficient and arrangements have been made to provide them with spectacles free of cost in collaboration with Laila Foundation and Territory Health Services NT (Australia).
- WHO also supported the surgical team that conducted a mission for eye surgery in the first week of December 2001. Patients from Oecusse were operated upon and provided with spectacles and other post-surgical care.
- Provide technical sectoral support to the World Bank Project with a grant of US\$12.7 million for the Health Sector Rehabilitation and Development.
- Cooperation with Health Net International has enabled the transfer of personal records of all former health staff into a computerized database linked to the civil service database. This will be a useful tool to support both long- and short-term training planning of the workforce.
- Jointly with Caritas Norway, Caritas East Timor and the Menzies School of Health Research in Darwin, Australia supported establishment of a National Tuberculosis Programme. A notable support to mention is that on the request made by WHO to the WFP, the TB patients were provided supplementary food.

WHO Profile and Visibility

- ◆ During 2000-2001, with the visit of the Director-General of WHO to East Timor, the importance of health as an essential element of the national development was realized among East Timorese leaders.
- ◆ WHO and the MoH jointly issued statements on the issues of Environmental Health and HIV/AIDS situation in East Timor.
- ◆ MoH, UNICEF, UNFPA, UNDP and WHO, jointly organized the World AIDS Day in 2000 and 2001.
- ◆ WHO and UNICEF jointly conducted a national workshop on EPI and participated in NID in November/December 2000.
- ◆ Several radio interviews and TV talks were organized on health topics.
- ◆ Up to October 2000, the Humanitarian Assistance and Emergency Rehabilitation, Pillar of UNTAET produced more than 80 situation reports. More than half of these reports covered WHO activities in East Timor.
- ◆ WHO contributed a substantial portion of the UN Secretary-General's report to the General Assembly, *Humanitarian Relief, Rehabilitation and Development for East Timor*.
- ◆ WHO participated in the Health Sector Joint Donor Review Missions held in May and November 2001.

6. CONSTRAINTS

- The absence of national health professional staff, such as medical doctors and senior health managers.
- Delay in civil service recruitment has slowed down the efforts of WHO in implementing activities in collaboration with MoH for health sector development.
- Inadequate communication facilities and difficulties of accessibility between districts, particularly during rainy seasons.
- Non-availability of appropriate travel documents/passports for MoH staff nominated for training abroad has hampered their participation in important training activities.
- Delay in release of committed funds for activities in East Timor has also been a significant problem in undertaking the activities as planned.

7. STAFF AND CONSULTANT VISITS TO EAST TIMOR OFFICE

A number of WHO staff, STCs/STPs/Temporary Advisers visited and worked in the Territory in difficult conditions to provide assistance in establishing and strengthening the health sector during emergency/developmental phase. The names of these persons are listed below:

On assignment:

Name of STC/STP	From	To
Dr B.K. Verma	28 September 1999	12 January 2000
Dr E. Gambini	September 1999	May 2000
Dr Jim Black	September 1999	May 2000
Dr Rob Condon	21 May 2000	18 November 2000
DrGuiseppe De Sole	16 January 2001	15 April 2001
Dr N.L. Kalra	8 May 2000	7 June 2000
Dr Prem K. Gupta	26 May 2000	26 July 2000
Prof D.S. Agarwal	30 October 2000	31 November 2000
Prof. Chaiyos Kunanusont	12 November 2000	24 November 2000
Ms Joyce Smith	15 June 2000	13 September 2000
	14 November 2000	13 February 2001
	15 March 2001	14 September 2001
Dr Sandra Chaves	November 1999	January 2000
Mr S.K. Varma	June 2000	October 2000
Dr Sean Nicholas Tobin	10 November 2000	5 January 2001
Mr Sharad Adhikary	27 November 2000	22 February 2001
Prof Penchan Suwansang Monaiyapong	14 December 2000	16 January 2001
Ms Helen Counihan	10 February 2001	9 October 2001
Dr Frank Kortmann	11 March 2001	14 April 2001
Ms Della R Sherratt	01 May 2001	31 March 2002
Dr Arturo Pesigan	30 May 2001	29 April 2002
Mr Wayne David Melrose	4 June 2001	25 June 2001
Dr Sean Fergus Drysdale	June 2001	May 2002
Dr K.G. Krishnamoorthy	16 October 2001	22 December 2001
Dr Roderico Ofrin	17 October 2001	29 December 2001

Ms Elizabeth Ann Wood	17 October 2001	28 March 2002
Prof. K.J. Nath	17 October 2001	19 December 2001
Dr Kenneth Vernon Bailey	28 October 2001	23 December 2001
Dr Keith William Bentley	13 November 2001	22 December 2001
Prof. M. Muzaherul Haq	15 December 2001	23 March 2002
Dr M. Mathews	16 December 2001	20 February 2002
Prof. C.J. Babapulle	4 December 2001	4 February 2002

WHO staff:

Mr Howard Stephenson, MSO, SEARO	26 June 2000	30 June 2000
Dr Frits Reijnsenbach de Hann, Medical Officer, Jakarta	16 June 2000	23 June 2000
Dr Georg Petersen, WR Indonesia	12 October 1999	14 October 1999
Dr Buriot, WHO/HQ	October 1999	
Dr M. Connolly, WHO/HQ	November 1999	
Dr Lianne Kuppens, WHO/HQ	13 February 2000	21 February 2000
Ms Karin Timmermans, STP (Drug & Traditional Medicine), Indonesia	April 2000	
J. Larusdottir, TO/EHA/SEARO	October 1999	
H. Caussy, Scientist (Epid.), SEARO	October 1999	
Dr E. Sorensen, EHA, SEARO	23 September 2000	1 October 2000
	14 October 2000	16 October 2000
Dr Linaung, EHA,SEARO	14 August 2000	19 August 2000
	12 May 2001	18 May 2001
Dr Gro Harlem Brundtland, DG	14 October 2000	15 October 2000
Mrs Ann Kern, Executive Director	14 October 2000	15 October 2000
Dr Daniel Tarantola, Senior Policy Adviser	14 October 2000	18 October 2000
Mr Jon Liden	14 October 2000	15 October 2000
Dr Duangvadee Sungkhobol, Regional Adviser	8 January 2001	13 January 2001
Dr Sultana Khanum, Regional Adviser	22 April 2001	28 April 2001
Mr Terence Thompson, WSH	5 July 2001	9 July 2001
Dr Abdul Aziz Adish, TO-VAB	13 October 2001	17 October 2001
Mr Soren Spanner, Vaccines	13 October 2001	17 October 2001
Dr P.T. Jayawickramarajah	12 November 2001	16 November 2001

SEARO Staff deputed to work in Dili Office on travel status:

	From	To
Dr Alex Andjaparidze	January 2000	
Mr S.K. Marwah	April 2000	June 2000
Ms Chandni Debnath	June 2000	November 2000
Mr C.S. Sharma	6 October 2000	5 December 2000
Mr S. Ragupathi	6 October 2000	6 April 2001
Mr E. Rangarajan	31 March 2001	30 September 2001
Mr K. Surendranathan	19 September 2001	19 March 2002
Mr S.S.R. Anjaneyulu	19 September 2001	19 March 2002

Serving Local Staff

Sl.No.	Name of serving local staff	Title
1	Ms Sonia Goncalves Silveira	Secretary
2.	Ms Anggres Kadja	Secretary
3	Mr Jose Barreto	Assistant
4	Mr Francisco da Silva	Driver
5	Mr Jose da Costa	Messenger
6	Mr Pedro Araujo	Driver

8. EXTERNAL EVALUATION

In May 2001, a team of two reviewers examined WHO's response to the post-referendum in East Timor, covering the first year of WHO's presence, from September 1999 to August 2001. The review covered important areas such as initial response by WHO, priority setting, co-ordination, normative function and surveillance, post-emergency phase, response capacity, capacity building and training, partnership with NGOs and donor relationship and accountability.

9. FUTURE PLANS

In view of the fact that East Timor is not a Member State of WHO, a country-specific regular budget for health development activities could not be established. It is expected that East Timor will seek membership with WHO some time in mid-2002, during the World Health Assembly. However, to successfully continue provision of technical support, a detailed WHO Plan of Action for 2002-2003 biennium for East Timor has been prepared with an estimated budget of US\$4.2 million. To mobilize these resources, WHO will make efforts at the headquarters, regional and country levels exploring possibilities from different stakeholders currently involved in the health sector development of East Timor.

As an initial step forward in this direction, efforts have been made by WHO through the submission of a proposal to the European Commission for possible funding of some important activities identified in our Plan of Action to be carried out in 2002-2003, particularly in the area of IMCI, HIV/AIDS/STI, blood safety and laboratory services. These funds are expected to be available from January 2002 onwards.

Needless to say that mobilization of financial resources is the key factor to be addressed. WHO is committed to stay longer in East Timor and actively participate in the development process together with other UN Agencies.

10. CONCLUSION

WHO has a unique opportunity and responsibility to utilize its high technical expertise and to work together with other UN agencies, national and international NGOs and donor institutions in the field of development of East Timor, where health has been seen as a priority and important component.

A conscientious effort is needed to re-establish sustainable health services in the territory. While the international agencies have been strongly involved in provision of health services during emergency period, Timorese are gradually taking over the responsibility for the service delivery. The establishing of the East Timor Public Administration (ETPA) and the Ministry of Health, representing the national health authority are in right direction.

The main health problems facing the population now are those that existed before the crisis: common childhood diseases, communicable diseases (especially malaria, TB, Japanese encephalitis and dengue fever) and reproductive health problems, including a high maternal mortality. WHO has been fully involved in providing technical assistance through assignment of consultants and professionals in these areas.

As a direct consequence of unemployment and losses suffered by the people, the nutritional levels of families, especially children, need to be assessed and remedial measures put in place. Assessments to-date suggest that where child malnutrition exists, it is mostly consequence of inadequate feeding practices as well as infections and other childhood diseases.

The re-establishment of health services at the district and sub-district level is vital for ensuring access to health care for the Timorese people. The district health plan, carried out in cooperation between the MoH and International NGOs, will be carefully monitored. Basic services such as EPI, care during pregnancy and maternity as well as treatment of common childhood diseases, in particular diarrhoea and ARI, must be given highest priority.

The absence of national health professional staff, such as medical doctors and staff at managerial levels, is one of the key constraints. Since a minimum of 6-7 year period is needed to educate and train a doctor, the problem cannot be solved in the near future. The roles of trained nurses and auxiliary staff have been redefined requiring them to provide basic diagnostic, curative and preventive advice to patients at village and sub-district levels. Substantial resources are therefore needed for training and human resource development. There is an urgent need for doctors to be able to provide comprehensive obstetric care and without such assistance progress in reduction of Maternal Mortality Rate (MMR) will be limited.

The situation of laboratory and other diagnostic facilities is difficult, as can be gauged from the fact that there is only one trained X-ray technician in the country. This has serious implications for the diagnostic capability of the five referral hospitals in the country. Current capacity of laboratory services in these hospitals is limited to very basic blood and stool tests. There is an urgent need to strengthen capacity of Central Laboratory to fulfill its role as a reference laboratory through renovation, upgrading of facilities and training of staff.

The Ministry of Health has actively functioned as a coordinating body with national and international agencies and institutions involved in the development of the health sector in East Timor. As senior East Timorese health professionals assume their new posts and take over the running of the health services from the international staff, WHO will continue its technical advisory and supportive role to the Ministry of Health, along with other sister Agencies, national and international NGOs and other institutions involved in health.

Better health for the East Timorese is not just an important objective of the rehabilitation and development efforts, it has also become a key driving force for the rehabilitation and participation of the East Timorese in directing their own institutions. WHO is proud of the East Timorese achievements in the field of health and looks forward to an increasingly productive programme of work for a Healthy Timor Lorosae.