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**INVITED ARTICLE**

# Maternal and Child Nutrition in Timor Leste[1]

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## INTRODUCTION

Timor-Leste is a small, post-crisis country with a population of about 850,000, of which in 2001, more than 40% were below 15 years of age. Average life expectancy is 57 years. 85% of the population live in rural areas. 40% of the population 15 years or older cannot read or write. 70% do not have electricity.

The people of Timor Leste have experienced harsh and difficult conditions as a result of colonial and occupational rule, which has greatly contributed to today's poor nutritional status. The country is one of the poorest in the region, with not only low income but also poor performance on social indicators such as education, literacy and health.

Despite the efforts and achievements witnessed during the first two years of reconstruction, most sectors are still facing major challenges in running their programs effectively. The overriding burden of poverty, with its accompanying variables of poor water and environmental sanitation, nutrition and housing has significant repercussions on the health of the community. Post-independence Timor Leste faces these problems with optimism but recognises the difficulties ahead.

## MATERNAL AND CHILD HEALTH

Infant Mortality Rate (IMR) is estimated at 88 per 1,000 live births, the Under-5 Mortality Rate (U5MR) is 125 per 1,000 live births, and the Maternal Mortality (MMR) is 800 per 100,000 live births. There is an increasing incidence of teenage pregnancies and of short intergenesic periods. 2002 MICS data show that 12% of children under age 5 are moderately wasted, 47% are stunted and 43% are underweight. Immunisation rates are low in Timor Leste; as of June 2003, BCG coverage is 89%, DPT3 61%, OPV3 58%, measles 51% and TT2 50%.

Records of nearly 2,500 hospital births in Dili in 1997 found 17% to be of low birth weight. In the MICS 2002 survey, 25% of mothers said their babies were "below average weight". The survey found 21% of women to be shorter than 145cm and therefore considered to be at significant risk. 28% of women had a Body Mass Index (BMI) lower than 18.5, which is underweight. It is estimated that 30% of women suffer from chronic energy deficiency.

Breastfeeding practice in Timor-Leste is prolonged but rarely exclusive. About 53% of East Timorese mothers exclusively breastfeed their infants from 0 to 3 months. The Timor Leste government considers promotion of exclusive breastfeeding and adoption of the International Code for breast milk substitutes as a priority.

Complementary feeding practices have received significantly less attention than breastfeeding. In some areas, mothers feed their children rice or maize porridge

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almost exclusively from weaning until age six years. It is critically important to address the issue of complementary feeding. Improper and inadequate child feeding is directly linked to malnutrition and poor psychosocial development. A functioning system for child growth monitoring and promotion at both health centre and village levels is an area that needs urgent action.

Surveys show there is low coverage of Vitamin A supplementation (43%) for children < 5 years of age and 27% for postpartum women. Doctors who work in hospitals and Community Health Centres (CHC) at district & sub-district levels have reported significant numbers of children with keratomalacia in the mountainous parts of the country.

Overall, 29.1% of the children have anaemia (Hb < 110 g/L), 5.6% have moderate to severe anaemia (Hb < 90 g/L), and 0.8% have severe anaemia (Hb < 70 g/L). The highest prevalence of anaemia is seen in children aged 0 to 23 months, with a peak at age 6 – 11 months. 31.5% of the non-pregnant women have anaemia (Hb < 120 g/L), 5.3% have moderate to severe anaemia (Hb < 90 g/L), and 1.0% have severe anaemia (Hb < 70 g/L).

## POLICIES AND PROGRAMMES ON MATERNAL AND CHILD NUTRITION

The Constitution of Timor Leste recognises the right to nutrition. The Constitution incorporates many of the principles from UN human rights instruments. During a countrywide popular consultation in 2002 involving nearly 40,000 people, education and health were identified as the highest priorities by 70% and 49% of respondents respectively. Timor Leste's government has prioritised and specified the areas of maternal and child health for intervention in the 5-year National Development Plan (NDP) for 2002-2006. Strategies include those below which focus on the issue of maternal and child nutrition:

a) Targeting mother and Child health by:

- Increasing immunisation coverage of all children under five
- Growth monitoring
- Adopting Integrated Management of Childhood Illness (IMCI) and providing training at the Community Health Central level
- Providing antenatal service close to the community
- Upgrading Midwifery skills

b) Improving nutritional status of mothers and children through:

- Micronutrient supplementation
- Growth monitoring
- Health education on good nutrition

All the above-mentioned components are an integral part of the NDP, which drives Timor Leste towards post-war rehabilitation and development. The Health Policy Framework (HPF) of the Ministry of Health (MoH) of Timor Leste assigns greatest priority for resource allocation to a comprehensive primary health care approach. The National Nutrition Strategy is developed within the multi-sectorial philosophy of the MoH such as collaboration with the Food Security Policy. This Strategy highlights the issues of maternal and child nutrition as well as community food security.

## CURRENT HEALTHCARE AND NUTRITION DELIVERY SYSTEM

Poor and unequal access to health services, the inadequate regulatory framework as well as inexperienced health staff and health managers are some of the problems affecting the performance of the health system in the country. There is a need for further development and refinement of the health sector strategies and

policies, development of long-term budget requirements, capacity building of local staff, increase in public awareness and education on health issues.

Four smaller hospitals have been rehabilitated to function as small, 24-bed referral hospitals, with the capacity to provide some surgical services such as emergency obstetric care. Baucau hospital, with 114 beds, functions as a larger regional referral hospital for the three eastern districts, offering surgical and basic specialist services. The national hospital in Dili with 226 beds provides medical, surgical and specialised services including visiting specialists and is to have a more comprehensive set of diagnostic equipment.

Health posts that are staffed by a nurse and a midwife provide services closest to the community at the sub-district level. These are supplemented by mobile clinics operating from community health centres, which involve regular visits to remote communities by motorbike. Under the services configuration, each sub-district has a level 2 community health centre with a staffing complement of six. Each district has a level 3 or 4 community health centre with a staff of ten to fourteen including a doctor, some in-patient capacities and some laboratory facilities. Community health centres are to have radio communications, and access to ambulance services with one ambulance per district.

Alongside the Government health service delivery system, health services are also provided by private practitioners, churches, and other non-government organizations. It is estimated that there are 190 health care workers operating 40 clinics in the non-government sector. This compares with a staffing complement of 625 health workers for government health posts and community health centres in districts (not including regional hospitals).

The Ministry of Health has a policy of community involvement and with the devolution of Health Services Planning to the District level, significantly increased community involvement is anticipated.

United Nations Children's Fund (UNICEF) has supported the Alola Foundation, a local Non-Government Organisation (NGO) directed by Timor-Leste's First Lady, Kirsty Sword Gusmao, for the promotion of exclusive breastfeeding. Together with Ministry of Health and Alola Foundation, UNICEF launched nationwide breastfeeding promotion activities, and established a Breastfeeding Counselling Room at the Dili National Hospital. A National Breastfeeding Association has been established and chaired by the First Lady. Together with other partners, the International Breast-feeding Week has been celebrated to promote awareness on the benefits of exclusive breastfeeding.

Community-based health education activities were initiated in Timor-Leste by the Pastoral da Criança. Pastoral da Criança is a movement within the Catholic Church which mobilises the community, through community volunteers, to promote maternal and child health and nutrition. In Timor-Leste, it is a joint collaborative project between the Catholic Church, Pastoral da Criança of Brazil and UNICEF, with the support of the Ministry of Health. The project is helping families of poor communities to better understand how to prevent diseases and promote better healthcare practices amongst children and women. UNICEF has been providing technical and financial support for the establishment of the community network. So far, Pastoral da Criança has organised 2,836 families in 94 communities, with 249 community volunteers ("leaders"). The activities are concentrated in Dili and Manatuto Districts but expanding to Ermera.

## MONITORING AND SURVEILLANCE SYSTEMS IN PLACE

The monitoring and surveillance systems are currently under review and will

be a development of the existing monitoring and surveillance system established by World Health Organisation (WHO). It is planned that routine monitoring and surveillance mechanisms will be used to detect and deal with outbreaks of disease

The system under development is based on the Basic Package of Services (BPS) which is a combination of clinical, public health and rehabilitative services and comprises of Maternal and Child Health, Communicable Diseases, Non-communicable Diseases, Health Promotion and Environmental Health. It is also linked to the District Health Plans (DHP) and will inform those plans over time. The six priority areas will be supported with policies and comprise of specific strategies to address key priorities. To date, Maternal Health has policies approved or under review for maternal nutrition, family planning, and maternal reproductive health. Child Health currently has policies for immunisation and integrated management of childhood illnesses (IMCI) under development. Thus, the monitoring and evaluation system will link back to the BPS by measuring the indicators consistent with the policy settings.

The Government's strategies, policies, protocols and guidelines are linked to the Millennium goals and in particular, halving - between 1990 and 2015 - the proportion of people who suffer from hunger. Indicators to be monitored include prevalence of underweight children under five years of age and the proportion of population below minimum level of dietary energy consumption.

Similarly the Health Ministry's surveillance system is being developed and should result in a system that incorporates weekly and monthly reporting on a range of diseases including:

- Viral gastroenteritis
- Dysentery - bacillary (Shigella) or amoebic
- Cholera
- Dengue fever, influenza, measles
- Malaria
- Measles
- Meningococcal infection, Japanese encephalitis
- Influenza
- Influenza, pertussis
- Hepatitis, leptospirosis
- Poliomyelitis
- Neonatal tetanus

Public expenditure (including those of donors) on health amounted to around $23 per capita in the financial year (FY) 2002-2003. This is significantly more than in other low income countries where the average level of public expenditure on health is estimated at just under $6 (based on data for the latest year available over the period 1990-98). The estimated combined sources expenditure on health in Timor-Leste in FY2002/03 was equivalent to 7% of gross domestic product (GDP). By comparison, public expenditure on health in low income countries averaged the equivalent of 1.2% of GDP (based on data for the latest year available over the period 1990-98), while the corresponding figure for low and middle income countries of East Asia and the Pacific was 1.7%.

The Government's financial systems, being a little more than 2 years old, are still being developed and are not yet sophisticated enough to provide a thorough breakdown of expenditure other than by major programmes. More informative reporting is being developed through Free Balance and 'Grimes' financial applications.

The most pressing health needs will not be addressed through extensive investment in secondary healthcare services such as hospitals, but through the strengthening of primary healthcare. This has been enshrined in the HPF which specifies that no more than 40% of the recurrent healthcare budget be devoted to hospital services. Primary healthcare services at the district and sub-district level will continue to receive considerable funding

with 48% of projected expenditure being directed to district health services. Under the proposed programme, public spending per capita would rise to an average of $30 a year during FY2003/04 through FY2006/07.

## PARTNERSHIPS AND EXTERNAL SUPPORT FOR MCN

The amount required to fund the Government's Health programme will lift expenditures from $70 million to $110 million over the next four years. Of this total, $82 million will be funded by ongoing donor support and Consolidated Fund for East Timor (CFET) budget allocations, and discussions are underway with donors regarding the balance of $28 million. $1,530,000 has been allocated directly for maternal and child health including nutrition.

The Government is committed to an appropriate mix of public and private sector service provisions in the health sector. Some 20% of all primary healthcare is provided through NGOs, FBOs and private clinics. The exact number of patients treated is unknown as most 'private' providers do not send regular reports to MoH. NGOs such as CARE and CARITAS are active in providing nutritional support to mothers and children. In the area of nutrition, technical assistance and support is provided by WHO, UNICEF and World Food Programme (WFP).

The Ministry of Health is currently discussing a proposal with WFP to provide supplementary feeding to rural school children, as well as pregnant and lactating women in those 7 districts with the worst nutritional status. If successful, the program would be rolled out to the remaining 6 districts. If approved, the programme would be implemented in CY2005 and would represent the first attempt at a national food supplementation strategy, although significant issues around sustainability and logistics are yet to be overcome.

## PROBLEMS AND CHALLENGES

Timor Leste Government has limited resources to provide a comprehensive/ complete Maternal and Health package. But steps have been taken to be focused and prioritise the package by establishing the centre-based growth monitoring and recording facilities, distribution of Vitamin A for children and post-partum women, training of midwives in ante-natal and delivery services emphasising the micronutrient supplement for pregnant women. Health education for nutrition is still in its very early stages, except for some initiatives that have been taken by local and international NGOs, community and church organisations.

Access to health services is one of the major challenges for the government. Many communities are still located far from existing health facilities and many community groups are currently moving back to ancestral land located up in the mountaineous areas further away from health facilities. Communications problems, especially during the rainy season, make it even more difficult to reach health services when needed. Mobile clinics were initiated in order to serve some of these communities. They were designed to ensure regular and comprehensive services twice weekly. It has been difficult to maintain these regular services because of transportation and other problems. The Ministry of Health has responded to these challenges by opening up some new Health Posts in remote areas with limited staff and supplies.

All facilities are facing shortages of staff and limited technical capacity of the existing staff. The number of laboratory technicians in country is inadequate to provide laboratory services to all community health centres. Recruiting midwives

for remote areas continues to be difficult and the Ministry of Health is therefore planning a midwifery course, which is planned to start at the end of 2004.

## OUTLOOK AND PRIORITIES IN MCH

The priorities for the MoH and Government are to ensure food security in the medium term by adopting a multi-sectoral approach involving the Ministry of Agriculture, Forests and Fisheries, the Ministry of Education, Youth, Culture and Sports and the Ministry of Transport, Communications and Public Works. The MoH will continue to develop partnerships with the 'private sector' including International Non-Governmental Organisations (INGOs), local NGOs, FBOs and private providers to reduce under-nutrition and improve the quality of primary healthcare. Specifically in the areas of nutrition, the MoH continues to develop its relationship with UNICEF and has entered into a long-term partnership with IHA to improve maternal and child health through the IMCI strategy.

The devolution of the health planning process is consistent with improved quality of care and priority setting within both the HPF and the BPS.

## CONCLUSIONS AND RECOMMENDATIONS

Clearly the issue of under-nourishment and food security is one that has hindered the economic and social progress of Timor Leste. The new Government in this newest nation is completely committed to the improvement of the nutritional status of the entire population. However, priority for intervention will initially be focussed on children, particularly those under 5 years of age, and lactating and pregnant women.

The Ministry of Health is confident that a continual development of District Level Health Services with a strong focus on Maternal and Child Health through a range of strategies including IMCI will facilitate an improvement in nutritional status.

The discussions with the WFP to provide supplementary feeding to the most vulnerable in the community will lead to a sustainable intervention which will bridge the gap between the present and a Timor Leste with food security for all her people.

Therefore, it is strongly recommended that the existing MCH programs continue to be developed; that District level planning with strong community input be encouraged; that the Districts be provided with sufficient support to allow them to have both the capacity and skill to manage the district level planning process; that a responsive HMIS and IDSS system be put in place; and that financial reporting systems at a government wide level be developed to allow appropriate managerial interventions to ensure the most efficient, effective and appropriate use of both financial and human resources.

To achieve this, the Government generally and the Ministry of Health specifically will continue with its multi-sectoral approach to nutrition involving other Ministries, build on the already sound base of partnerships with International and local NGOs, FBOs WHO, WFP and UNICEF and continue to seek innovative ways to address the health issues of the nation.