

*Report from East Timor*

**EAST TIMOR IN TRANSITION: HEALTH  
AND HEALTH CARE**

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East Timor was liberated from 400 years of conquest and exploitation in an armed struggle that ended, in September 1999, in a conflagration that destroyed its social and physical infrastructures. For two years the territory has been under United Nations administration. Political conditions remain unstable as the result of many intrinsic and external factors. Its economy continues to depend upon infusions of funds from multilateral, bilateral, and private sources. Efforts by expatriates to introduce Euro-American cultural and technical models have been applied to the factors that determine health, with modest results. East Timor expects to be totally independent of foreign control early in 2002. Its future health will depend upon continuing collaboration between international and local leadership in evolving effective government, economy, and health services designed, managed, and executed by Timorese.

The political entity called East Timor is some 360 kilometers (223 miles) in length and 120 kilometers (74 miles) at its widest point. It was carved out by European imperial adventures in Asia that began in the 1500s. It was a colony of Portugal from 1859 until 1975, when it was invaded and illegally annexed by Indonesia with the tacit support of the United States, in the administration of Gerald Ford and Henry Kissinger (1). The result was a war of national liberation lasting 24 years, during which East Timorese suffered widespread human rights violations that some believe contributed to the deaths of as many as 300,000, more than a third of the region's population (2). The territory's present can be best understood in the light of its past (see Appendix).

An internationally monitored referendum in August 1999 confirmed overwhelming popular support for independence. This was followed by an orgy of destruction carried out by Indonesian forces and their paramilitary allies, which

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left a “non-self-governing territory” under the temporary management of the U.N. Transition Administration for East Timor (UNTAET), which (as of completion of this report in August 2001) has come to include 8,000 peace-keeping forces of various nationalities, 1,400 civilian police, and 1,000 civilian workers (3). Its present population is estimated at 800,000; a civil registration carried out by UNTAET in June 2001 totaled 737,800, seeming to confirm this estimate (4).

Since September 1999, efforts by Timorese and the international community to establish a healthy society have had limited success, due to political instability resulting from both internal and external forces, economic insecurity due to 400 years of foreign domination and the final conflagration, and lack of effective preventive and curative health care.

This article explores the historical and recent forces that have resulted in the present condition of East Timorese health, the efforts that are under way to improve it, the effectiveness of these efforts, and future options.

#### THE SOCIAL DETERMINANTS OF HEALTH

In any community, political and economic forces determine the distribution of power and wealth and thus the social determinants of health, particularly nutrition, sanitation, housing, and risk of injury. Less importantly, they determine the distribution and quality of health services. East Timor as a “province” of Indonesia was notable for having the most inequitable income distribution and the lowest per capita household expenditures of any of the provinces (5).

##### *Political Instability*

Currently, in East Timor interactions among three levels result in uncertainty about the future: (a) internal differences, (b) disorder in the Indonesian Empire, and (c) the impact of external powers, principally Australia, Europe, the United States, and the United Nations.

The minority of Timorese who favored integration included many economically powerful elements (coffee planters, miners, loggers) who profited from the established colonial structure. It included much of the civil service, no doubt in part due to the issue of job security. It also included many Muslims who had “transmigrated” (as the Indonesians termed it), often with government subsidies, from the overpopulated Javan heartland. Before the conflagration they constituted 10 percent of East Timor’s population.

Following the conflagration several factions became apparent. Their constituents and goals have only gradually emerged. Fretelin (Revolutionary Front for an Independent East Timor) was the major party of resistance, dominating the armed coalition, Falintil (Armed Forces for the National Liberation of East Timor). Alexandre “Xanana” Gusmao was Fretelin’s commander (captured in 1992 and imprisoned in Indonesia until 1999), and José Ramos-Horta was its best known

foreign voice. Conservative elements that opposed integration but also opposed the socialist policies of Fretelin had been defeated in a brief civil war in 1975. They yet played a significant role in the resistance struggle and joined Fretelin in opposing integration. Many rural elements joined the resistance struggle but have tribal loyalties that resist domination by the modernized urban class.

Student activists also suffered casualties, through assault, torture, imprisonment, death. They speak Indonesian and were schooled in Indonesian history, culture, law, political theory. Young people have their own ideas about society, and some are angry that their contribution has been less recognized and their voices less heard.

Language issues overlie other disagreements. There are perhaps a dozen mutually incomprehensible local languages, of which Tetun, spoken by at least half the population, is dominant. Many favor it as the official language as a means of enhancing national self-esteem. Portuguese is the first language of the middle-aged heroes of the resistance, including Gusmao and Ramos-Horta, many of them ethnic Portuguese or mixed-race, who favor strong political ties with Portugal. Indonesian is the second language of the population educated since 1976, some of whom argue that Indonesia will inevitably be the country's future cultural and trading partner in spite of all. The reality is that English is now rapidly becoming the second language, because the major providers of aid, trade, and jobs use English (6). It is also seen as the global language that it is. Adult literacy, presumably including Portuguese and Indonesian, is estimated at 10 percent (7).

The National Council of Timorese Resistance (CNRT), which constituted the shadow legislature of the future government, was disbanded in June 2001. Following an election scheduled for August 30, 2001, its appointed representatives will be replaced by 88 elected members of a Constituent Assembly—the future Parliament—which will spend the rest of the year evolving a constitution for an independent nation, expected to come into existence early in 2002 (8). Sixteen political parties, including Fretelin, the Social Democrat Party, the Timorese Socialist Party, the Timorese Democratic Union, and the Democratic Maubere Party, are preparing to present 1,138 candidates. Of the 737,800 registered inhabitants, 409,000 are of an age to vote and eligible (9). Predictions are that Fretelin will almost certainly achieve a majority. Election of a president will follow at a yet-unspecified date. Due to rumblings of conflict, Gusmao had renounced any intention of standing for the office. However, his popularity is enormous and he has recently agreed to do so on condition that “not a single drip of blood shall be spilt” during the election process (10).

Timorese are disappointed with what they consider the paternalistic attitudes of the UNTAET administration and the slow progress toward independence. UNTAET's mandate ends on January 31, 2002, when it will cease to govern but will continue in an advisory role. Many Timorese and others fear that it is early to consider a transfer of power, since the parties are actually factions with traditions of resolving differences by force and unfamiliar with the democratic mechanisms

of negotiation and compromise. However, an intensive program of grassroots education concerning the aims and mechanisms of democracy has been taking place.

### *Indonesian Disorder*

Indonesia is a colossal empire inherited from the Dutch, dominated by the Javanese. It includes 13,670 islands and stretches 5,100 kilometers (3,200 miles) from the Indian Ocean to the Pacific. Its population totals 212 million, making it the fourth largest in the world (following China, India, and the United States). Like all empires, it includes people of varied racial, ethnic, and political persuasions, with 250 regional languages. All sea traffic between the Indian and Pacific Oceans must pass through Indonesian waters (unless the route south of Australia, which more than doubles the distance, is chosen). Japan, major ally of the United States in Asia, imports 70 percent of its hydrocarbon fuels by those lanes, and U.S. plans for rapid deployment of its naval forces depend upon them.

Following the Asian economic meltdown of 1997, which turned a young tiger into a beggar state, Indonesia has been torn from within and battered from without. One view is that the disorders are deliberately exacerbated by the army to discredit recent democratic reforms and to convince Indonesians that only firm military rule can restore order and provide a base for economic recovery.

Some Indonesians and other Asians view Western support for East Timor's liberation as (a) a continuation of the confrontation between Christendom and Islam that began in A.D. 638 when the Caliph Omar's desert warriors defeated Roman legions at Jerusalem, and (b) a Caucasoid conspiracy to snatch back a fragment of their lost colonial empires, including the submarine oil and natural gas fields between Timor and Australia, said in press reports to be "the richest new hydrocarbon area outside the Middle East." There are elements of truth in both views.

Australia, for example, was the only political entity in the world to recognize Indonesia's annexation of East Timor in 1976, and in 1989 negotiated the Timor Gap Treaty to share with Indonesia on a 50-50 basis the exploitation of hydrocarbon reserves, which, by international law, lie within East Timor's waters. Yet Australia, following the disintegration of Indonesia's economy in 1998, with democracy's familiar mix of altruism, pragmatism, and greed, suddenly became the most vigorous of the industrial countries in supporting East Timor's right to choose. An American diplomat recently noted to an Australian journalist that "East Timor is your Haiti."

### *Economic Insecurity*

Coffee has been the only important export product in recent years. Before the conflagration its production and trade was controlled by Indonesian military officers. There was no significant harvest in 1999 or 2000, due to disorder.

Oil and gas are often cited as the new country's hope. In July 2001 Australia negotiated a new agreement with East Timor to share the expected gas revenues from the Timor Gap on a 90-10 basis in favor of East Timor (11). This arrangement is at present stalled by economic realities: the costs of financing a pipeline to deliver gas to consumers in southern Australia, and a heavy tax proposed by the future East Timor government (12).

Alien gold from donations and investments now drives the consumer economy. It provides almost the only paid labor, directly or indirectly, to interpreters, drivers, manual laborers, office clerks, domestic servants. This year, out of a budget of U.S.\$305 million, only \$25 million came from taxes and fees, the rest from foreign donors (12). A stratification seen in many lands is developing:

- an elite class that, through fair means or foul, accumulates wealth;
- high earners employed by contractors, nongovernmental organizations (NGOs), national and international agencies;
- low earners: subsistence farmers, fishers, craftsmen, small traders, sex workers;
- nonearners: the considerable population that lacks soil or boat or marketable skill, that survives through the support of the extended family, through begging, or through crime.

The foreign income has diminished over the past two years and will decrease abruptly in the near future due to donor fatigue, to a relatively stagnant world economy, and to the laudable intention of the Timorese to run their country without the costly foreign technical community. At present East Timor receives U.S.\$700 million yearly for U.N. costs alone and is the world's largest per capita recipient of international assistance (12). U.N. civilian personnel will decrease 80 percent in January 2002 when the UNTAET government shrinks to an advisory group (3).

The scarcity of training for skilled workers in construction crafts, mechanics, office management, and the other jobs that make a modern society run, and of education in the arts and professions, most critically in teaching, is troubling.

#### HEALTH SERVICE PROVIDERS

The Portuguese invested few resources in this farthest, poorest sliver of a colonial empire that once ruled Brazil. Only a small minority was converted to Christianity, and the mountains were never fully pacified. In 1973 adult literacy was 7 percent, and in 1974 there were only 39 East Timorese attending university in Lisbon (13). The few health services that existed were concentrated in urban communities. The traditional care available to the vast majority of Timorese consisted of the detection and neutralization of sorcery, magical practices appealing to spirits, ancestors, saints, gods, and folk remedies such as herbal preparations and counter-irritants (cupping, moxibustion).

*Indonesia*

Under the Indonesian occupation, due to the power of the Church as a source of resistance and humanitarian aid, 90 percent of East Timorese became at least nominally Catholic, while continuing many animistic practices. These were prosperous decades for Indonesia, and modern health care services were introduced throughout the empire.

During the 1990s, police and military penetration into every accessible corner of East Timor resulted in a period of relative peace that was the peace of death. Reprisals included the annihilation of communities. At the same time, government health services were expanded and abundantly supplied in an effort to win hearts and minds. Eleven modern hospitals were established in district capitals, and 60 health centers, many in major villages. In 1997 there were 398 doctors in East Timor, the majority recent graduates doing their obligatory three-year rural service, often more interested in private than in public service. There were 1,877 registered Timorese nurses (14).

During late 1998 and early 1999, the year preceding the conflagration, resistance attacks became bolder due to the economic crash and the decreased status of Indonesia as a world power. In response the army accelerated its creation of paramilitary militias, consisting of mercenaries, transmigrants, and soldiers in civilian garb, presented to the world as pro-integration patriots that Indonesia was unable to control. These, particularly in border districts, were relatively free to abuse communities suspected of separatist tendencies, including invading homes at night, raping women and girls in front of their families, and abducting them into sex slavery. In Liquica, in April 1999, more than 50 people seeking sanctuary in the church were slaughtered (15).

As violence escalated, most doctors left the region, and the few that remained were evacuated during the conflagration. In September 1999, the region was without the basic elements of government. As the U.N. peace-keeping forces arrived late in the month, health services were reestablished urgently, with little planning or coordination.

*U.N. Agencies*

In September 1999 the U.N. Security Council created UNTAET as the arm of international governance. In February 2000 UNTAET established the Interim Health Authority, later renamed the Division of Health Services (DHS), staffed by 16 Timorese and 7 experienced international health professionals, to coordinate health care during the transition from emergency to reconstruction (14). Dr. Rui Araujo, a young physician trained in public health in New Zealand, was appointed its head in May 2001 and is expected to become the first minister of health.

The World Health Organization (WHO) has been chiefly concerned with coordinating health services and tracking public health issues, particularly

nutrition and communicable disease. In September 1999 it established a Disease Surveillance System. The U.N. Children's Fund (UNICEF) has organized and provided supplies for immunization (measles, polio), distributed vitamin A, and trained midwives. The U.N. Population Fund (UNFPA) provides some resources for reproductive health. The U.N. Development Program (UNDP) has supported the reconstruction and building of health units.

#### *Other Agencies*

As of November 2000, health care was provided by 15 international NGOs, six local NGOs, 23 Church organizations, four peace-keeping contingents, and two private health providers (16).

Nongovernmental organizations, both international and local, responded effectively during the post-conflagration period. However, their operations are enormously costly as well as individualistic in their approaches. They often bring great experience from elsewhere to bear on the East Timorese tragedy, but are often unable to alter their practices to conform with plans for the nation's future. The contracts between the DHS and all NGOs will expire in September 2001. It seems likely that they will not be renewed and that the DHS will assume responsibility for these health services, managed by local authorities and supported by temporary expatriate services chosen to fit their needs.

#### HEALTH CARE UNITS

Dili Hospital had been an Indonesian "provincial" hospital. It is a pleasant, sprawling, tropical unit with pavilions, providing 210 beds, connected by open, sheltered "breezeways." The International Committee of the Red Cross (ICRC), which had provided some emergency services during the preceding year, assumed responsibility for the hospital in September 1999. It supported a European-style administration, 26 doctors, and 311 Timorese professionals. It has been the territory's major surgical unit, providing only urgent care because of its limited resources. It has also been the only referral center for obstetric emergencies, with some 20 Timorese midwives advised by tutors brought in by the ICRC for six-month tours of duty.

The ICRC's mandate is not reconstruction but emergency care in war. From the beginning the ICRC attempted to find long-term replacements from the international community, without success. It terminated its contract in June 2001, turning administration and management over to the Timorese DHS, which will be supported by the Catholic Organization for Overseas Relief and Development, Netherlands (17). The hospital is now staffed by Timorese doctors supported by short-term specialists from abroad.

Baucau Hospital, the second largest, has been managed by Doctors Without Borders, Belgium. It is the only other civilian hospital providing surgical care,

carried out by one very busy surgeon. Maliana and Oecusse hospitals, managed by NGOs, have offered outpatient care, including minor surgery, and beds for general care. On several occasions peace-keeping forces' surgical units—for example, New Zealand units in Covalima, Jordanian in Oecusse—have provided emergency care. The Australian unit in Malanaro has provided emergency helicopter evacuation (30 minutes) to Dili as an alternative to land transport (five hours).

On June 28, 2001, the U.N. Transitional Administrator stated that, beyond the four hospitals noted above, there were now 64 health centers, 88 health posts, and 117 mobile clinics, managed by NGOs, the Catholic Church, and the Coffee Cooperative (18).

During the conflagration, the territory's Central Medical Laboratory in Dili was badly damaged and the equipment looted. It was reconstructed and equipped by UNICEF and the Australian Agency for International Development (AUSAID) and began operations in 2000. The hospitals and some health centers have small laboratories capable of routine examinations, particularly blood smears for malaria and sputum tests for tuberculosis.

Due to its relatively small territory, the DHS plans to dispense pharmaceutical stocks to district units directly from Dili rather than to establish district warehouses. The Central Pharmacy in Dili was damaged during the conflagration, restored by UNICEF and other agencies, and reopened in April 2000. Timorese doctors and a WHO technical consultant have drawn up an Essential Drugs List to encourage rational use of pharmaceuticals (14).

#### HEALTH CARE WORKFORCE

Under Indonesia there were approximately 2,632 health workers in the “province” of East Timor. These in retrospect are seen to have been too many, poorly placed, and underemployed. In 2000 the CNRT determined that a total of 1,087 might be sufficient for the needs and feasible within the future budget of the nation (19).

##### *Doctors*

Before the conflagration there were 135 doctors in the territory, the majority Indonesian. There are now 25 Timorese physicians, including a surgeon and a public health specialist (19). The University of East Timor was established by Indonesia but did not offer medical training. Several East Timorese were studying medicine in Indonesia at the time of the conflagration; most were forced to flee. During 2000 some of them planned to return but received letters sent by Seroja, a consortium of right-wing Indonesian youth organizations, stating that if they did so the women would be raped and all would be tortured and killed. As of June 2001, the WHO has established ten scholarships for medical studies in Indonesia (19).

*Nurses*

There are approximately 800 nurses in the territory. Some are doing administrative jobs while the majority provide patient care in hospitals and health centers. The National Centre for Health Education and Training (NCHET) opened early in 2001 to produce nurses and other technical personnel. It is expected to establish training programs that will upgrade selected nurses into nurse-practitioners, thus decreasing the country's dependence upon that very expensive item, the doctor. The majority of health care interventions can be managed effectively by appropriately trained nurses, as is actually the practice in every poor country and in many poor regions of rich countries, such as the U.S. Appalachian Mountain zone and the Canadian North.

*Midwives*

Some 370 midwives work in the public sector, trained in a midwifery school in Dili (closed since the referendum) and in Bali; 27 are employed at Dili Hospital, the only referral hospital in the region. Several have worked with NGOs, which are now preparing to leave. There is little demand for their services in the private sector, due to lack of funds and the disinclination of women to trust their lives and those of their fetuses to the hands of young, childless women (as many midwives are) when there is a granny in the village who has delivered generations. Many of the midwives have received further on-the-job training in Dili, Baucau, and Oecusse Hospitals and in NGO units in other districts. UNICEF provided a short course to upgrade 15 selected midwives in "clean and safe delivery," who are now in training and supervisory positions.

*Technicians*

A few laboratory technicians have received informal training in hospitals and NGO clinics. One has been invited to Australia for a full course of laboratory medicine. The NCHET will provide full courses as well as short courses to produce "microscopists" capable of basic sputum, blood, and urine examinations, and particularly the diagnosis of malaria and tuberculosis.

## HEALTH

Few reliable health data exist. The following estimates are offered by various agencies:

- Infant mortality rate (IMR; deaths in first year of life per 1,000 live births): 135 per 1,000 (16). The rate in Indonesia is 38 per 1,000; the U.S. rate is 8 per 1,000.

- Life expectancy at birth (LEB): less than 50 years (16). LEB in Indonesia is 66 years; in the United States it is 77 years.
- Maternal mortality ratio (MMR; pregnancy-related deaths per 100,000 live births): this is one of the most difficult public health data to determine. Some estimates place it as high as 890 per 100,000 (19). The MMR in Indonesia is reported to be 450 per 100,000; the U.S. rate is 8 per 100,000.

In poor societies the main causes of premature death are malnutrition and communicable diseases. The drivers of these disorders are found in much of the world: exploitation by local or absentee power-holders that extract wealth from communities through monopolization of resources and oppressive labor practices, created and maintained by police/military violence. In East Timor such practices prevailed under occupations by Portugal (400 years), Japan (3 years), and Indonesia (24 years). Their effects have been magnified by an exploding population (augmented by transmigration from crowded Java and Bali) and environmental damage (deforestation, agricultural burning, erosion). They increased exponentially during the events of September 1999.

#### *Communicable Disease*

The WHO estimates infections to be responsible for 60 percent of deaths in East Timor. The most devastating are malaria, tuberculosis, and diarrheas (19). Malnutrition is a common co-factor in such deaths, particularly in childhood.

Mosquitoes carrying malaria and dengue swarm in low regions, particularly in the wet season. In late 1999 and 2000 a large proportion of the population, both urban and rural, lived in open improvised shelters under blue U.N. tarps. Insecticide spraying around inhabited areas was discussed but not considered practical, though some was done by U.N. peace-keeper units around their bases. Many bednets have been provided by the WHO and NGOs, but the supply has not begun to meet the need.

Dili groundwater and sewage drain directly into the bay through concrete-walled canals, which local inhabitants dam to produce areas of sludge in which they grow greens for the market. A WHO malariologist noted that these were superb mosquito nurseries. He suggested that the weirs should be cleared, but noted that clearing them would decrease the fresh vegetables available as well as remove a source of income for poor families (14). Some canals were cleared but the weirs rapidly returned, as did sludge, vegetables, and mosquitoes.

The WHO implemented a Roll Back Malaria campaign in 2000, chiefly involving the provision of more bednets and education in their use, and equipment and training for district laboratories in diagnosing malaria from blood smears. It also began a study to determine the prevalence of chloroquine resistance in falciparum malaria.

Some cases of Japanese encephalitis, including a few deaths, were diagnosed by serology. This mosquito-borne virus has its reservoir in the domestic pigs that lumber free in the streets, often a sow followed by up to six piglets, foraging for edible garbage. Eliminating that traditional source of fat, protein, and income seems politically impossible until alternative sources exist. The WHO has considered the universal immunization of children against this disease (19).

Twenty thousand East Timorese, 2.5 percent of the population, are believed to have active tuberculosis (19). With WHO support, some 90 workers were trained in TB diagnosis and all of the 13 districts established programs of Directly Observed Treatment. About 6,200 patients have been registered, of which some 3,000 have finished or abandoned treatment. Thirty-one percent of those under treatment are under age 15 (16). In May 2001, two multidrug-resistant TB cases were reported in Dili, and this menace is being investigated.

Diarrheas are mostly water-borne and most diarrheal deaths occur in children. Incidence and mortality rates are unknown. Outbreaks of suspected amebiasis and of shigellosis in Aileu District were reported but not confirmed. Notable is the fact that expatriates invariably drink bottled water imported from Australia, which neatly epitomizes the economic divide that separates those who have access to the wealth of the industrial world, who are rarely victims of enteric diseases, and those who do not.

### *Malnutrition*

Immediately after the conflagration, with three-fourths of the population driven from their homes by fear or force, there was widespread malnutrition and some starvation, which increased the prevalence and severity of infections, particularly tuberculosis. During late 1999 and 2000 food shortages were to a great extent offset by aid, though there were pockets of famine in some mountainous sectors, particularly when a series of heavy rains cut off access. The WHO collected reports concerning shortages, actual and threatened, enabling UNTAET to direct available aid to the most needy localities, when accessible. Some was delivered by barge to isolated areas on the south coast and some dropped into mountain regions by military aircraft.

Endemic malnutrition is not likely to disappear until political and economic conditions become favorable for production and trade. From the patients appearing for health care, particularly in rural areas, it is evident that there is widespread deficiency of both calories and micronutrients. Iron deficiency anemia is a serious problem, particularly in the very young and in women of reproductive age. The few studies that have been done indicate malnutrition of greater severity in areas such as Ermera, which are dedicated to coffee culture at the expense of subsistence farming. The WHO, in August 2000, estimated chronic child malnutrition to be 20 percent (14).

### *Injuries*

The impact of injuries in East Timor is significant, but no data have been collected. Only very incomplete information is available from health units and from police and military records.

Concerning unintentional injuries (“accidents”), motor vehicle crashes are undoubtedly the major source. Roads, vehicles, and drivers are not of high quality, and pedestrians, particularly children, are abundant and incautious.

As regards intentional injuries, political assaults are still common, particularly in the districts bordering West Timor. There is constant infiltration of militia groups, allegedly with internal support, often with Indonesian Army equipment. Assaults involving East Timorese of different political persuasions are also reported. Armed robbery, relatively rare during the first year following the conflagration, has increased, though no figures are available. Gender-related assaults, the majority rape and spousal abuse, are reported to be frequent and increasing.

Effective administration of justice is an obvious requirement for political stability and for health. In the view of a report issued by Amnesty International on August 4, 2001, law and order are barely maintained, justice is not being administered effectively, and human rights are not guaranteed (20). An East Timor Jurist’s Association has been formed, which includes 25 judges, 23 lawyers, 8 public defenders, and 11 public prosecutors (16). The Hong Kong Bar Association has arranged a seminar dealing with trial processes. UNTAET has supported a school for police training since early 2000. There are now 1,073 graduates who work in counterpart with civilian police professionals from other countries. There should be a fully trained East Timor police force of 3,000 officers by April 2003 (8).

### *Reproductive Health*

Reproductive health is concerned with prevention and management of pregnancy and with sexually transmitted infections (STIs), including HIV/AIDS. Sex education is a fundamental tool in empowering the young, particularly girls, to deal with sexuality. Its goals are the prevention of unwanted pregnancy and of STIs. East Timor is a society in which discussion of sexuality is taboo, an attitude reinforced by Catholic attitudes. Although UNICEF and other groups are aware of the importance of sex education there has been little opportunity to implement it.

During the Indonesian occupation there was a heavy-handed government family planning program, largely aimed to prevent an increasing Timorese population from competing with transmigrants from Java and Bali. Forced contraception is believed to have been common. It will be some time before birth control is seen as the liberating tool that it is. In addition, the local Catholic Church has fully endorsed the Papal prohibition against any form of artificial birth control, including condoms. Abortion is even more anathematized by rumors of forced

abortion during the occupation and by Catholic teaching. The hemorrhages and infections that complicate unsafe abortions are appearing in health services. Deaths undoubtedly result, rarely reported as such because of the stigma.

Maternity care exists only in some NGO- and Church-managed centers. The majority of births take place at home and are accompanied by women of the family or by traditional birth attendants. A further problem is that while midwife management of labor improves outcome, at least 15 percent of pregnancies require the intervention of a higher technical level, often surgery. There are now only two hospitals in the territory, Dili and Baucau, with surgical capability, and perhaps four U.N. peace-keeper hospitals that lend a hand in emergencies.

Sexually transmitted infections, particularly syphilis, gonorrhea, chlamydial infections and chancroid, are endemic according to clinical reports. Prevalence and distribution are unknown. Asia-Pacific is now the region in which HIV/AIDS is spreading most rapidly through both sexual transmission and intravenous drug use. Indonesia has been invaded only recently and penetration is not yet extensive. In East Timor a recent survey found that only 2 percent of Timorese are aware of the existence of HIV/AIDS. The WHO and DHS have begun a prevalence survey. In the first six months of 2001, of some 300 blood donors tested, three were positive, giving a prevalence of 1 percent in this small and biased sample.

Commercial sex is increasing due to social turmoil and the sudden intrusion of some 12,000 mostly male and relatively affluent foreigners from the four corners of the earth. UNTAET considered requiring that peace-keeping forces be screened for HIV before deployment, but the political implications killed that idea. Bishop Belo widely circulated a letter in June 2000 stating that “the Catholic Church disagrees completely . . . with artificial family planning . . . even in an extreme therapeutic case.”

### *Mental Health*

In late 2000 the International Rehabilitation Council for Torture Victims carried out a study of the post-conflagration impact that included 1,033 households. Ninety-seven percent of respondents had experienced a traumatic event: witnessed the death of a relative or friend; lost a spouse or child to political violence; been subjected to rape or torture. Some 34 percent were judged to be suffering from post-traumatic stress disorder (21).

An AUSAID project has trained approximately 200 mental trauma counselors that have worked since early 2000, supported by visits from Australian psychologists. Clearly, Western-style psychosocial support can be of only limited use here due to different belief systems and languages. By default, local institutions (the extended family, traditional healers, the Church) are now the major providers. A special problem: rape is probably the most frequent traumatic event, and the culture stigmatizes raped women and children born of rape (21).

## CONCLUSIONS

As of August 2001, East Timorese, helped and hampered by a variety of inputs, have not yet established effective government, economic stability, or preventive and curative health care. Their health professionals, trained in an Indonesian system, have found themselves confused participants in the creation and management of a Euro-American model in which, thus far, few of them have had a meaningful role. Some have stated that their best strategy is to wait until the expatriates go home and then to reestablish a system that, at least, they understand.

In reality the Indonesian system they knew derived from the Euro-American system of a generation ago, which in the interval has evolved with mind-numbing speed both technically and in social attitudes, such as patients' rights and gender equity. And that same Indonesian system denied most Timorese the opportunity to gain administrative skills. Furthermore, a large proportion of their professionals left during the years of conflict, never to return. There are at present few Timorese with the experience to suggest that they will be able to do better in these challenging circumstances.

The elections for members of the National Assembly on August 30, 2001, and the constitution-building that follows will be critical. Judging from the courageous, disciplined, and enthusiastic participation in the referendum exactly two years earlier, and by Falintil's remarkable restraint, there is reason to expect that Timorese will avoid the destructive patterns of authority established by 400 years of colonial rule, as well as the improvised model provided by UNTAET, to establish a robust democracy based on equity and the rule of law. A national economy, using technology appropriate to local resources, with limited external assistance, can develop diversified production for internal consumption and carefully selected export commodities for world markets.

Public health—food security, sanitation, shelter, prevention of infections and injuries—will be an integral function of stable democratic government. Last and least important will be curative care for the remaining disorders that cause sickness, disability, and premature death.

**Update.** The August 30, 2001, election was conducted peacefully, exactly two years after the vote for independence and its ill-fated aftermath. Voted into the 88-seat Constituent Assembly were 55 representatives of Fretilin, the party representing the leaders of the 24-year struggle for independence. The assembly has drafted a constitution and circulated it widely for comments. Following an election for a new president in April 2002, expected to be won by Xanana Gusmao, the country will gain full independence in May 2002. As yet, none of those most responsible for the atrocities around the time of the 1999 referendum, or during the years leading up to it, have been held accountable.

The phasing out of international NGOs from providing district-level health services has been completed, and the national health care system is gradually

increasing its service delivery and management capacity. The new Ministry of Health has posted 832 national staff at government health units, with another 321 positions under recruitment. A total of 21 international physicians are being recruited to assume district-level responsibilities. The medical supply system has been updated and expanded, and the national training academy now provides ongoing training to nurses and midwives. However, the health problems of East Timor continue to be extreme. The WHO recently estimated maternal mortality to be 890 per 100,000 births, infant and child mortality remain very high, and health care access is still low for much of the rural population. The greatest cause for optimism about the future of East Timor lies in the strength of the Timorese people, demonstrated many times over during the last 25 years.

#### APPENDIX A CHRONOLOGY OF EVENTS

- Early pre-history: Migrants from Southeast Asia and Melanesia settle in the Indonesian Archipelago.
- Around the beginning of the Common Era, arrivals from India and China introduce Hinduism and Buddhism.
- 1200s: Arab traders bring Islam to the Archipelago. To a great extent it displaces Hindu and Buddhist beliefs.
- 1500s: The Portuguese establish trading stations.
- 1600s and 1700s: The Dutch East India Company dominates the Archipelago, in constant conflict with local kingdoms and with Spanish, Portuguese, and British rivals.
- 1859: The Dutch and Portuguese agree upon the present boundaries of East Timor, fixed by treaty in 1915.
- 1942: The Japanese occupy Southeast Asia. Sukarno, a liberation activist released from a Dutch prison, collaborates.
- 1945: The Japanese are defeated, the Dutch reoccupy the East Indies, as do the Portuguese East Timor. Sukarno leads an armed struggle.
- 1949: The Dutch accept defeat. Indonesia becomes a Republic with Sukarno its first president. East Timor remains a Portuguese colony.
- 1965–66: A coup by General Suharto followed by a pogrom of suspected communists and ethnic Chinese results in a half million deaths.
- 1974: A bloodless coup in Portugal ends the Salazar dictatorship and establishes a socialist democracy. Transition governments are established in the African colonies.
- 1975: In East Timor conflict between pro-Indonesian and pro-independence forces results in the establishment of a Democratic Republic of East Timor with a socialist agenda. The Indonesian Army invades, with the tacit agreement of the United States and Australia, “to establish order.” This it attempts to do for 24 years at the cost of an estimated 200,000 Timorese lives.

- 1997: The Asian crisis devastates Indonesia's economy. International Monetary Fund support vanishes into the bottomless pit of corruption.
- 1998: Economic hardship and ethnic conflict against Chinese and Christians result in widespread disorder. Suharto, his image stained by corruption and brutality, resigns under internal and external pressure; his vice-president, Habibie, succeeds. Resistance in East Timor is met with increased repression and accelerated creation of pro-Indonesian militias.
- 1999 January: The Habibie government, hoping to cut its losses in East Timor, proposes a "popular consultation" offering a choice between promotion to "autonomous province" or independence. The Army is not amused, and escalates violence against pro-independence Timorese.
- 1999 May: Indonesia, Portugal, and the United Nations sign an agreement establishing the mechanisms of a referendum for or against independence. Unarmed peace-keepers, mostly Australians, and volunteer observers from many countries are permitted to enter.
- 1999, August 30: After two postponements due to violence, voting occurs. Of the 450,000 registered voters, 90 percent vote in spite of brutal intimidation.
- 1999, September 3: The result is announced. Favoring independence: 78.5 percent.
- 1999, September 4: Generalized violence by militias, with the support of police and the Army, engulfs East Timor.
- 1999, September 8: Dili and other towns are smoke and ashes, three-quarters of the population have fled their homes, the dead are yet uncounted.
- 1999, September 20: Armed peace-keeping forces, mostly Australian, land under U.N. Security Council mandate.
- 1999 October: The Security Council establishes the U.N. Transitional Administration for East Timor (UNTAET).

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