Migration Patterns Survey
and
HIV Vulnerability Assessment Mapping
in
Selected Districts of Timor-Leste

August 2006

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This report is based on field work carried out between September and December 2005 in six districts in Timor-Leste. The opinions expressed in this document are those of the authors.

The research was made possible through UNAIDS PAF funding and implemented via IOM (Timor-Leste Mission) and the UN theme group on HIV in Timor-Leste.

The survey instrument and workshop schedules are available on request from the researchers.

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ISBN 1 74067 461 8

ACKNOWLEDGEMENTS

We would like to acknowledge the constant support throughout the project from the International Organisation for Migration (IOM), Timor-Leste Mission, especially Mr. Luiz Vieira, the Chief of Mission and Nata Andjaparidze, assistant to the Chief of Mision and personnel in the mission office in Dili, Timor-Leste .

The United Nations Theme Group on HIV/AIDS in Timor-Leste provided useful input and feedback throughout the research process: for this we are grateful. We acknowledge the support of the Ministry of Health in Timor-Leste during the data collection.

We thank the whole field research team and our research assistants, without whom the project would never have been possible. We would also like to thank Ms. Elisa Pepall, Ms Margaret Karr, Dr. Richard Woodman and Ms. Nerellie Richards for assistance with in-field data collection, data analysis and editing respectively. We acknowledge Bridget Khuwa & Nishita Parmar, postgraduate students from the department of Spatial Sciences at Curtin University who helped us with developing maps using GIS software.

Our sincere appreciation, to our local East Timorese research assistants, Jorge Carvalho Martins and Evangelita Periera. Last but not the least our sincere thanks to all those who volunteered their time: the respondents of the Migration Patterns Survey and the participants of the focus group discussions.

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EXECUTIVE SUMMARY

Timor-Leste, the world's newest democracy, is one of the least developed countries in the world. The violence following the 1999 referendum destroyed most of the country's economic and social infrastructure. The country today faces enormous challenges in the rebuilding of infrastructure, strengthening civil administration and generating jobs for its young people. Currently, East Timorese have a life expectancy of 57 years, a high rate of illiteracy, poor nutritional levels, extremely high rates of infant and maternal mortality and the highest rate of poverty and worst health indicators in Asia.

Until recently very little was known about HIV and associated risk behaviours in East Timor-Leste. Research in 2004 showed it to be a low prevalence country. The country is faced with a combination of vulnerability factors that include: displacement, very low access to knowledge about sexually transmitted infections (STIs) and HIV, lack of condom availability for STI/HIV prevention, lack of access to treatment for STIs, cultural taboos, and high-risk behaviour among particular groups. In 2002, when the National AIDS Strategy was developed, reliable information about the spread of HIV/AIDS in Timor-Leste did not yet exist.

Around the world, research and experience have shown that migration and mobility increases vulnerability to engaging in HIV-risk behaviour. In the case of Timor-Leste, mobility is particularly relevant due to massive population movements in recent years associated with the post-referendum conflict. During the violence of 1999, it is estimated that approximately 250,000 people, or one quarter of the population, fled to neighbouring West Timor. Since the cessation of violence, nearly 200,000 Timorese have returned to their villages and communities. However, endemic poverty and lack of opportunities in rural areas continue to contribute to rural-urban migration movement and mobility.

The overall aim of this study was to provide baseline data on mobility patterns, HIV/AIDS awareness and vulnerability in Timor-Leste and comprised of two parts - the **Migration Patterns Survey** and **Vulnerability Assessment Mapping.** The objectives of the Migration Patterns Survey were to: estimate the proportion of the local population

that travels elsewhere as migrants; measure the relative age, gender, socio-economic status and education level; get a reliable estimate of where the population is migrating to and from; identify push and pull factors for mobility and to measure basic HIV-related behaviour and knowledge among migrants. The objectives of the Vulnerability Assessment Mapping were to: identify locations of support (VCT, health promotion and education etc) and HIV-risk behaviour; identify factors that increase personal and societal HIV vulnerability and to map mobility patterns. This research was carried out from September to December 2005 in the six districts of Dili, Baucau, Liquica, Bobonaro, Cova Lima and Oecussi.

As anticipated, a considerable number of high-risk locations were identified in Timor Leste's most populated district, Dili. A range of HIV/AIDS health and education services were identified as being provided in Dili and some of the districts. All workshop discussion groups acknowledged the work being done by the Ministry of Health and Faith-based organisations to address HIV/AIDS in Timor Leste. In addition, several different UN agencies, International and National NGOs were identified by participants as providing valuable HIV/AIDS programs. A comprehensive list of mobile populations and typical travel routes was prepared by participants. The key emerging themes from personal and societal vulnerability discussions during the workshops were poverty, education, gender roles, marriage practices, stigma and taboo regarding sex, influence of the church, westernisation, domestic violence, the environment, the political system and homosexuality. By examining personal and societal vulnerability, the focus group discussions provided an insight into barriers perceived by participants that increase vulnerability and impede access to information and general health care services.

Analysis of the data from the survey identified that the main language spoken in most households was Tetum. Only 65% of survey respondents had some schooling. Evidence from this study suggests that many rural residents are travelling to urban areas in search of employment, to study and/or to escape family problems. The additional impact of international development agencies also increases migration and mobility, particularly to the capital city Dili.

A significant proportion of respondents were still moving around, within or out of the districts. Examining relations between demographic and socio-economic factors to migration and mobility behaviour, the following interesting relations and trends were found. Of all the districts, the largest proportion of migrants was enumerated in Dili. More than half of the respondents in Dili were migrants to the capital. Overall, there was a trend for 18-30 year olds to migrate. A trend to migrate could be found among those who had some schooling. Pull and push factors cited as reasons for migrating were poverty, having to support large families, and family problems.

Nearly 85% of respondents had left their homes during the conflict in 1999. Displaced persons, regardless of whether displaced within or out of Timor-Leste, returned mostly within the first 6 months after the conflict. The proportion of respondents displaced during the conflict varied within the 6 districts with Oecussi and Cova Lima having the largest proportions of displaced persons in this sample during the conflict.

Both the Vulnerability Assessment Mapping workshops and Migration Patterns Survey documented a very low knowledge and awareness of HIV/AIDS. Misconceptions were very prevalent during the workshop and the mode of infection/transmission rather unclear. Of the 1213 survey respondents, 60% had heard of HIV/AIDS, but were not sure whether there was any in Timor-Leste. Knowledge and usage of condoms was extremely low. An issue which emerged strongly at all workshops was the traditional role of women in East Timorese society being an impediment to HIV/AIDS and sex education.

The patriarchal structure of East Timorese society makes women vulnerable, as they cannot negotiate safer sex and often have no say in family planning matters. Illiteracy, poverty and a lack of employment and income generating opportunities further worsen this situation. People lack the capacity to access information and have a low level of knowledge about sexual health. More long-term research needs to focus on possible behaviour change projects to improve the situation of women in Timor-Leste. Cultural factors often impede programmes targeting sensitive issues such as sexual health and HIV/AIDS. These factors (the patriarchal nature of Timorese society, the dowry system, the role and status of women, cultural beliefs and taboos) will need to be addressed in a sensitive and culturally appropriate way. There is a lack of data, and a

reliable estimate of HIV prevalence in the general population in Timor-Leste. Information about HIV prevalence would greatly assist in prioritizing and allocating funds and resources.

This study is the first systematic, in-depth study of Migration and Mobility patterns and Vulnerability Assessment in the transitional society of Timor-Leste. The context of the conflict ridden transitional society of Timor-Leste is unique as changes since 1999 have been rapid, radical and complex. This study represents conclusions based on rigorous fieldwork and a robust methodology that used both quantitative and qualitative methods. The challenge for the Government of Timor-Leste, the Ministry of Health and the international community lies in the country's ability to respond to the recommendations proposed in the study and address the multiple social, cultural, political, economic and educational realities.

LIST OF ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
BSS	Behavioural Surveillance Survey
CSW	Commercial Sex Work(er)
CVTL	Cruz Vermelha de Timor Leste (East Timor Red Cross)
EPI	Expanded Programme on Immunization
FDTL	Forcas de Defesa de Timor-Leste, East Timor Defense Force
FGD	Focus Group Discussion
FHI	Family Health International
FSW	Female Sex Worker
GIS	Geographical Information System
HIV	Human Immunodeficiency Virus
HSV	Herpes Simplex Virus
IDU	Injecting Drug User
IEC	Integrated Education and Communication
INGO	International Non-government Organisation
IOM	International Organization for Migration
KAP	Knowledge, Attitudes & Practices
MOH	Ministry of Health
MPS	Migration Patterns Survey
MSM	Men who have sex with Men
NGO	Non-government Organisation
PLWHA	People Living with HIV/AIDS
PNTL	Policia National de Timor-Leste (East Timorese Police)
RA	Research Assistant
SES	Socio-economic Status
SPSS	Statistical Package for the Social Sciences (software)
STI	Sexually Transmitted Infection
TWG	Counter-Trafficking Working Group
UN	United Nations
UNMISET	United Nations Mission in East Timor

UNOTIL	United Nations Office in Timor-Leste
UNTAET	United Nations Transitional Administration in East Timor
UNTG	United Nations Theme Group on HIV/AIDS in East Timor
VAM	Vulnerability Assessment Mapping
VAMW	Vulnerability Assessment Mapping Workshop
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

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Chapter 1

Introduction & Overview

1.0 Introduction to the Chapter

In many countries of the developing world HIV/AIDS has created a public health challenge. The global pandemic seems unabated with more than 40 million currently infected, and another 2-3 million newly infected each year[1]. In Timor-Leste, to date, only 30 cases of HIV have been officially reported to the Ministry of Health[2]. However, recent studies by FHI[3] and WHO[4] suggest that the official figures in Timor-Leste may be underestimated. Data concerning HIV/AIDS prevalence in Timor Leste is limited due to prioritization afforded to several other pressing health needs. Current available data suggests that levels of HIV infection are presently quite low, but that the potential exists for a possible explosion in the rate of HIV infections.

1.1 Timor-Leste - The World's Newest Nation

The Democratic Republic of Timor-Leste is in many regards a 'new' nation. From 1975 until an historic independence referendum on August 30, 1999, and subsequent independence in May 2002, the nation was governed by the Republic of Indonesia[5, 6]. For the more than 450 years prior to Indonesian involvement, Timor-Leste was a Portuguese colony[7]. Following the vote for Timor-Leste's independence, anti-independence groups led a violent assault on the nation's people and infrastructure, in which many East Timorese were killed or injured and many public buildings, private homes and businesses were destroyed[8]. Up to three-quarters of the estimated population of 850,000 were displaced. In addition, the emigration of core health professionals caused the "total collapse" of the health system[9]. While much 'nation-building' work has since been undertaken by numerous United Nations-sponsored groups, non government organisations (NGOs), donor nations such as Australia and the new East Timorese Government itself, health remains a core priority for the nation's development.

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[1] UNAIDS (2005). *Report on the global AIDS epidemic: 5th global report*. UNAIDS

[2] MOH (2006). *National HIV/AIDS/STIs Strategic Plan 2006 – 2010*. Ministry of Health, Dili, Timor-Leste. Ministry of Health, Dili, Timor-Leste.

[3] FHI (2004). *HIV, STIs and risk behaviour in East Timor: an historic opportunity for effective action*. Family Health International, Dili, Timor-Leste.

[4] MOH (2005). *Expanded comprehensive response to HIV and AIDS in Timor-Leste*. Submission to the Global Fund.

[5] Dunn, (2003). *East Timor: A Rough Passage to Independence*. New South Wales: Longueville Books

[6] WHO (2000). *East Timor health sector situation report: January – December 2000*. World Health Organization. Dili, Timor-Leste.

[7] Dunn, (2003); ibid

[8] Adhikary, (2002); *Environmental Health in East Timor. Assignment report: 23 November 2000 – 2 March 2001*. World Health Organization Regional Office of South-East Asia, New Delhi.

[9] WHO (2000); ibid, p 1

1.1.1 Health Indicators in Timor-Leste

Although currently 70% of the population has access to health services of some description (with an average walking time of 70 minutes), a lack of trained health workers and of effective health and legal systems, means that overall population health remains extremely poor[10]. Continuing problems include:

- A strong potential for epidemics of malaria, dengue haemorrhagic fever, Japanese encephalitis, cholera, typhoid, tuberculosis and diarrhoea.
- Maternal, infant and under-five mortality rates are at unacceptably high levels.
- Only marginally over 50% of the population is covered with DPT3 immunisation.
- Around half of all women and young children have anaemia. Around half of all children under 5 are under-weight.
- Wet season food shortages can leave up to 70% of households suffering regularly from hunger.
- Water supplies and sanitation reportedly remain very poor, with inadequate or non-existent systems for the formal collection of garbage[11].

Currently, institutions such as the WHO, UNICEF and UNFPA are assisting the Government of Timor-Leste by providing technical assistance and programs to develop local skills for emergency and disaster planning; surveillance of communicable diseases; health staff training and a core program of immunisation[12].

1.1.2 HIV and Timor-Leste

Until recently, very little was known about HIV and associated risk behaviours in Timor-Leste. The country is however faced with a disturbing combination of risk and vulnerability factors that include displacement, endemic poverty, low literacy, very low access to knowledge about sexually-transmitted infections (STIs) and HIV, lack of condom availability for STI/HIV prevention, lack of access to treatment for STIs, cultural taboos, extremely high levels of STIs, bridging of low and high-risk sexual networks and high-risk behaviour among particular groups.

In 2002, when the first National AIDS Strategy was developed, reliable information about the spread of HIV/AIDS in Timor-Leste did not exist. The first completed large-scale study of HIV/STI prevalence and risk behaviour was undertaken by Family Health International in late 2003[13]. The study uncovered high HIV-risk behaviour among particular segments of the population, extremely high prevalence of STIs, and enormous potential for the spread of HIV among the people of Timor-Leste. The study indicates the need for immediate action to prevent HIV infection among high-risk groups.

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[10] WHO, (2003). Democratic Republic of Timor Leste: Country profile for emergencies and disasters. Geneva: World Health Organization.

[11] Adhikary, (2002); *Environmental Health in East Timor. Assignment report: 23 November 2000 – 2 March 2001*. New Delhi: World Health Organization Regional Office of South-East Asia.

[12] WHO, (2003). Ibid, p.5

[13] FHI (2004). Op cit.

In addition to low awareness, lack of condom usage and high STI prevalence, the FHI (2004) study also discovered that unprotected bisexual and extramarital sex are quite common in Timor-Leste. In addition to the reported cases known by the Ministry of Health in the country, the FHI study also identified a few additional positive cases, which suggests that the prevalence HIV/AIDS may be under-estimated in Timor-Leste.

1.1.3 Mobility/Migration in Timor-Leste

In the case of Timor-Leste, mobility is particularly relevant due to massive population movements in recent years associated with the occupation and withdrawal of the Indonesian military. During the violence of 1999, it is estimated that approximately 250,000 people or one quarter of the population fled to neighbouring West Timor[14]. Since the cessation of violence, IOM has assisted the voluntary return of nearly 200,000 Timorese back to their communities of origin[15]. Poverty in rural areas continues to contribute to rural-urban migration movement and mobility. The results of the recently completed 2004 Census indicate that Dili district and Baucau sub-district (the country's second city) have seen a 39.3% and 11.6% population increase respectively from 2001[16].

Evidence from this study suggests that many rural residents are travelling to urban centres such as Dili and Baucau in search of employment, to study and/or to escape family and social problems. The additional impact of international humanitarian and development workers, UN Peacekeeping Forces and foreign entrepreneurs, also increases migration and mobility, particularly in the capital city, Dili, and the border towns in Bobonaro and Cova Lima District. Around the world, research and experience have shown that migration increases vulnerability to both engaging in HIV-risk behaviour and to trafficking in persons.

1.2 Aims & Objectives of the Project

1.2.1 Aims and objectives

The overall aim of this study was to provide baseline data on mobility patterns and HIV/AIDS awareness and vulnerability in Timor-Leste. The data will then provide a basis on which informed decisions can be made by the Ministry of Health and multi-sectoral agencies in Timor Leste regarding future research, policies and interventions.

Objectives of the **Migration Patterns Study** were to:

- estimate the proportion of the local population that travels elsewhere as migrant workers
- measure the relative age, gender, SES, and education level of those migrating
- obtain a reliable estimate of where the population is migrating to and from
- identify push and pull factors for mobility
- measure basic HIV-related behaviour and knowledge among migrants

[14] AUSAID. (2001). *Country report on East Timor*. The Australian Agency for International Development, Canberra, Australia.

[15] IOM (1999). *IOM News: Timor returns*. Newsletter of the International Organisation for Migration. Retrieved 20 November 2005 from http://www.iom.int//DOCUMENTS/PUBLICATION/EN/in_3_99.pdf

[16] NSD (2004). *Census 2004*. National Statistics Directorate, Dili, Timor-Leste

Objectives of the **Vulnerability Assessment Mapping** were to:

- identify locations where HIV-risk behaviour takes place;
- identify some of the factors that increase HIV vulnerability in those locations;
- identify existing and potential service provision points for HIV prevention programmes and STI treatment;
- map mobility patterns, including source, destination, and transit points.

1.3 The Research Process

The research was carried out by an international team of 3 Researchers (an over-all team leader, an in-field project manager and a research assistant) from the Centre for International Health at Curtin University of Technology in Western Australia. The research process was structured into three different periods. The first period was carried out from July to mid-September 2005, during which an in-depth literature review was carried out. The **Migration Patterns Survey** (MPS) and the **Vulnerability Assessment Mapping Workshop Schedule** (VAMWS) were developed and piloted. Feedback was incorporated and the survey instrument was translated into Bahasa, Tetun and Portuguese.

During the in-country period, a team of 10 local Timorese Research Assistants (RAs) was recruited and trained. Two local RAs assisted the primary researchers to facilitate the **Vulnerability Assessment Mapping Workshops**, while a larger team was trained in administering the **Migration Patterns Household Survey**. The team was supervised by a specially trained local survey team supervisor. Data analysis and report writing took place during the third phase of the study, which culminated in a presentation of the research process and the field data collection process at the National AIDS Congress in December 2005. The findings and preliminary report were presented to the UN Theme Group on HIV/AIDS in Timor-Leste in April 2006.

1.4 Outline of the Report

This research report is presented in 8 chapters:

1. Chapter 1 provides an introduction and background to the study;
2. Chapter 2 presents a background to Timor-Leste;
3. Chapter 3 provides a review of literature on HIV/AIDS globally and the dimensions of vulnerability and mobility;
4. The methodology, quality criteria and ethical considerations used in the study are discussed in Chapter 4;
5. In Chapter 5, Programmatic Vulnerability and Mobility Patterns are presented together with maps developed using GIS software;
6. Chapter 6 presents several personal and societal vulnerability themes identified by participants at the Vulnerability Assessment Mapping Workshops.
7. The results of the Migration Patterns Survey are presented in Chapter 7.
8. Concluding remarks and recommendations form the content of Chapter 8.

Chapter 2

Context of the Study: A Background to Timor-Leste

2.1 Background to Timor-Leste

Timor-Leste, also known as Timor Lorosae or 'Timor of the rising sun', is located on the eastern part of the island of Timor. Also part of the national territory of East Timor-Leste is the enclave of Oecussi in the western part of Timor Island and the islands of Ataúro and Jaco[17]. Timor's rough, irregular terrain has made large, continuous settlements almost impossible, as a consequence, the population of Timor-Leste has lived scattered across the island, or has concentrated seasonally at specific sites to exploit available resources[18].

Figure 2.1: Geographical location of East Timor

[17] UNDP (2002). *United Nations Development Programme:East Timor Human Development Report. 2002*. Dili, Timor-Leste.

[18] Fox, J. (1996). *The Paradox of Powerlessness: Timor in Historical Perspective*. The Nobel Peace Price Symposium: Focus on East Timor. Oslo.

2.2 History

Since1522, colonisation of Timor-Leste by the Portuguese, and presence of the Dutch and various missionaries have brought about changes to the island[19]. Dili was settled by the Portuguese in 1520 and became capital of the Portuguese colony in 1596. The Portuguese occupation was only briefly interrupted during the second world war, when Japanese troops invaded East Timor for three years, from 1942-1945. Portuguese colonisation finally ended when the Indonesian army marched into East Timor in 1975 and declared it to be part of Indonesia. A UN supported referendum on 30th August 1999, led to an overwhelming majority of pro-independence votes, and caused the already tense situation to erupt. An estimated 75% of the East Timorese population was displaced, thousands were killed and 85% of the existing infrastructure was destroyed by the withdrawing Indonesian military and its sponsored anti-independence militia. The international community sent over 9,000 peacekeepers to the country and established a transitional administration (UNTAET), which was in place till May 2002. At that point, Timor-Leste became officially independent and the East Timorese government took over, with the reduced, but continuous presence of the UN Mission in Tomor-Leste[20].

2.3 Population

The estimated population of Timor-Leste in 2004 was 924,642 people with almost half (48.1%) under the age of 17. Timor-Leste is divided in to 13 provinces and 67 sub-districts. The population is predominantly Roman Catholic (90%), with small Muslim (5%) and Protestant (3%) minorities. Timor-Leste's two official languages are Portuguese and Tetum; Bahasa Indonesia and English are defined as working languages under the Constitution[21].

2.4 Socio-Economic Factors

Timor-Leste is the world's newest but also one of its least developed countries with extremely low human development indicators. The violence following the 1999 referendum destroyed most of the country's economic and social infrastructure: 80% of schools and health clinics were destroyed; half of all livestock was lost; virtually all lines of communication, transportation, banking and documentation were lost. More importantly from an economic point of view, after the referendum, the country lost over a quarter of its civil servants who were Indonesians and who had filled the highest positions in administration: judges, police, doctors, and secondary school teachers[22]. Natural offshore oil and gas resources in the Timor Sea are the county's most valuable assets and contracts have been signed with Australia, allowing the country to exploit these resources, which are expected to generate seven billion US$ over the next two decades. Timor-Leste does not have other major natural resources and, for the

[19] Fox, J. (1996). *The Paradox of Powerlessness: Timor in Historical Perspective*. The Nobel Peace Price Symposium: Focus on East Timor. Oslo.
[20] Bork, E. (2004). Countries at the Crossroads: Country profile East Timor. UNPAN: Geneva.
[21] NSD (2004). Census 2004. National Statistics Directorate, Dili, Timor-Leste.
[22] UNDP (2002). *United Nations Development Programme:East Timor Human Development Report. 2002*. Dili, Timor-Leste.

foreseeable future, agriculture will continue to employ almost three-quarters of the workforce[23].

2.5 Health

Health standards in Timor-Leste are low with an overall life expectancy of only 57 years. Low health standards are partly the result of a lack of basic services. Whilst prior to 1999, Timor-Leste had facilities in place, they were usually under-staffed and short of medical supplies. During September 1999 around three-quarters of the health facilities were damaged and the majority of doctors and many other health staff, who were primarily Indonesian, left the country[24]. Currently there is an acute shortage of doctors, in 2002 there were only 12 East Timorese doctors and 21 international doctors in the whole country [25].

Dili Hospital is the only tertiary care facility in the country, and has a total bed capacity of 228. It is relatively well equipped, and has round-the-clock staffed Emergency Room, Out Patient Department and surgical, paediatric and obstetric facilities. A 114 bed referral and secondary care hospital is functioning in Baucau, and four more such hospitals of 24 beds each are being set up in four different districts. Laboratory facilities are limited and conduct only a limited range of basic tests.

Of great concern is reproductive health as only 30% of births are being attended by a skilled birth attendant, and these figures are even lower in rural areas where facilities for pre-natal and post-natal care are non existent. With a comparatively high birth rate, poor reproductive health, high incidence of teenage pregnancies and short periods between each pregnancy, the maternal mortality is estimated to be as high as 800 deaths for every 100,000 live births. Infant mortality (70-95 deaths per 1,000 live births) and under-five mortality (124-201 deaths per 1000 live births) figures are equally disturbing and high[26].

[23] Madanpotra, S. (2002), *Health Profile of Timor Leste*. Ministry of Health: Dili. p. 25
[24] UNDP (2002). United Nations Development Programme:East Timor Human Development Report. 2002. Dili, Timor-Leste.
[25] Madanpotra, S. (2002), *Health Profile of Timor Leste*. Ministry of Health.
[26] UNDP (2002). Op cit.

Chapter 3

The Global Context of HIV/AIDS and Dimensions of Vulnerability and Mobility

3.1 The Global Context of HIV/AIDS

Since the first case was diagnosed in 1981, HIV/AIDS has reached epidemic proportions in many developing countries and is beginning to affect increasing numbers of women. In the hardest hit countries, AIDS dramatically reduces life expectancy and economic potential, creates generations of orphans and threatens national security and stability. The dynamics of HIV/AIDS has changed over the last two decades. Whereas earlier the infection used to be concentrated in a few high risk groups, it is now spreading through the general population. UNAIDS estimates that in 2004, over 4.9 million people became newly infected with HIV and 3.1 million people died of the disease in the same time period. In 2004, approximately 39.4 million people were living with the disease which has killed over 20 million since the first cases of AIDS were identified in 1981[27].

3.2 Understanding Mobility and Migration

UNESCO has defined 'Migration' as the crossing of the boundary of a political or administrative unit for a certain minimum period of time. This includes the movement of refugees, displaced persons, uprooted people and economic migrants. IOM and UNAIDS have a generic definition for 'Mobile People' as people who move from one place to another temporarily or permanently for a host of voluntary and/or involuntary reasons. Of existing definitions, the UNAIDS definition is the most relevant when addressing vulnerability of migrants. Migrants are mobile people who take up residence or remain for an extended stay within the country or in a foreign country[28].

Thus mobility and migration is a continuum, where migration is one form of mobility. Mobility and migration are not a static phenomenon. Forms of mobility and migration can be characterised by duration, distance, relocation and response to push and pull factors[29]

3.3 HIV and Vulnerable Populations

Globally, HIV/AIDS affects women more severely then men because of gender inequalities and lack of power within sexual relationships, which make it virtually impossible for them to negotiate safer sex with partners. Furthermore, because of their greater biological vulnerability to infection transmission, women face greater risk of infection. Currently about half of all people in the world infected with HIV are women

[27] UNAIDS/WHO (2004). *AIDS epidemic update: 2004*. UNAIDS/WHO: Geneva.
[28] SARDI & UNDP (2004). Situational Assessment on Migration and HIV/AIDS: A generic tool. South Asia Research and development Initiative & UNDP, New Delhi, India
[29] SARDI & UNDP (2004). Ibid p.8.

and girls, however in areas where the epidemic is driven largely by heterosexual intercourse, more women than men are HIV positive[30].

Studies from Asia and Africa have found that marriage and other long term monogamous relationships do not protect women from HIV infections; in fact it appears that in some settings it increases women's risk of HIV. In sub-Saharan Africa, 57% of all HIV-positive people are women and the difference in infection levels between women and men is even more pronounced among the 15–24 age groups where up to 76% of HIV infections are in women[31]. HIV transmission between husbands and wives has become a significant cause of new infections in Asian countries (eg: India, Cambodia, Thailand and Myanmar). In 2004, it was estimated that 22% of HIV cases in India were house wives with a single partner and 90% of those who test positive at antenatal clinics are in monogamous, long-term relationships[32]. In Cambodia up to 13% of men admitted having sex with both a sex worker and their wife, whilst a study in Thailand found that 50% of new infections in 2002 were due to current or former customers of CSWs passing the virus on to their spouses[33].

3.4 High Risk Groups [Category 1]

A variety of demographic, behavioural and social factors place people at risk of infection with HIV, for example, age, multiple sexual partners, partners with multiple sexual partners, history of STIs and drug and alcohol use. In the early days of the AIDS epidemic, there was a tendency to refer to "high risk groups"— groups of people who have historically contracted the infection in large numbers. This often included sex workers, intravenous drug users and homosexuals. However it has become clear that risk is not based on who you are, but rather on what you do. In the coming sections, the traditional 'high risk groups' are defined and discussed, followed by groups whose members, due to their behavioural and social situations, are now being infected by HIV in very large numbers[34].

3.4.1 Commercial Sex Workers (CSWs)

Commercial sex workers are a high risk population for a multitude of reasons. First, their individual behaviour whether due to lack of knowledge about HIV/AIDS and STI prevention or due to lack of choice due to being forced in situations where they have no control over any part of the sex transaction, such as when being trafficked, place CSWs at extremely high risk of contracting the disease, and subsequently spreading it to their customers who then introduce it into the general population or less high risk groups. Second, social factors such as migration for work purposes (whether voluntary or involuntary), allow CSWs to introduce the disease into their community upon their return, either to their local customers or to their partners. Furthermore, a large proportion of CSWs are also injecting drug users and thus their risk of exposure to HIV

[30] UNAIDS/WHO (2004). Ibid p.94
[31] UNAIDS/WHO (2004). Ibid p.94
[32] Heffernan, G. (2004), *Housewives account for one fifth of India's HIV cases*. India Post and NCM, New Delhi
[33] UNAIDS/WHO (2004). *AIDS epidemic update: 2004*. UNAIDS/WHO: Geneva
[34] UNAIDS (2004). Report on the global AIDS epidemic: 4th global report. UNAIDS, Geneva. p. 236.

is significantly increased[35]. The WHO estimates that in places where sex workers have poor access to HIV prevention services prevalence rates are as high as 60-90%[36].

3.4.2 Injecting Drug Users (IDUs)

The fastest way to spread HIV is through the sharing of needles and other injecting drug use equipment as this introduces the virus directly into the blood stream. In most countries IDUs have the highest prevalence of HIV, especially in countries where needle exchange programmes are non existent, and education on the risks of sharing needles is lacking. Even today, rates of HIV infection among IDUs are extremely high with UNAIDS reporting that in China, for instance, in 2003, HIV prevalence rates in Xinjiang Province ranged from 35-80% among IDUs. In Vietnam, where HIV/AIDS has yet to reach epidemic proportions, 65 % of HIV infections are found among IDUs. Another dimension to this issue is that a large proportion of IDUs (male and female) also sell sex commercially (usually to feed their habit), thus increasing the risk of spreading the HIV infection to their clients[37].

3.4.3 Men who have sex with Men (MSM)

Whilst male to male sexual activity is common in Asia, the practice is usually clandestine and is not publicly acknowledged or discussed. Furthermore, studies have shown that condom use is low among MSM and many MSM have multiple partners, some of whom are women[38]. In many cases, MSMs are married and hard to reach with prevention messages, putting them at particularly high risk for HIV infection. For example 14% of MSM tested in Cambodia in 2000 were infected with HIV; similar levels of infection were recorded among male sex workers in Thailand[39].

3.5 Mobile Populations = High Risk Groups [Category 2]

Throughout history, migration has spread communicable diseases farther and faster as roads and transportation improved; the pattern of spread usually follows major highways, international airports and seaports. People who move frequently have been shown to have a high risk of HIV infection, and this category includes truck drivers and other transportation workers, seasonal agricultural workers and other temporary migrants such as peacekeepers and military personnel in conflict situations[40].

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[35] Solomon, S. & Ganesh, A. (2002). *HIV in India*. International AIDS Society, USA, 2002. 10 (3).

[36] Evans, C., & Zoysa, I. (2004). *Toolkit for targeted HIV/AIDS prevention and care in sex work settings*. WHO: Geneva.

[37] WHO (2002), *Report on the Global HIV/AIDS Epidemic*, *in United Nations Programme on HIV/AIDS*. 2002, WHO: Geneva.

[38] IOM (2004) HIV/AIDS and mobile populations in the Caribbean: a baseline assesment. International Organisation for Migration, Santo Domingo.

[39] WHO (2002). Ibid

[40] Gardner, R. & R. Blackburn, (1996). *People who move - a new reproductive health focus*. Population Reports, Series J (45).

3.5.1 Truck Drivers

Long-distance truck drivers are of particular concern to HIV/AIDS control programmes because they often are at high risk and can spread HIV and STIs. They not only travel frequently, they usually have access to ready cash, are sometimes also injecting drug users and they also may have many different sex partners because they are away from home for long periods of time[41],[42]. Another more recent study in 2001, found that 87% of Indian truck drivers had frequent and indiscriminate change of sexual partners; only 11% of them used condoms, even though their AIDS awareness was fairly good[43].

3.5.2 Sailors

Sailors and seafarers, like migrant workers, truck drivers and naval personnel are a high risk group because they are highly mobile, they have a steady income, and are away from family and partners for prolonged periods. A 2004 survey with Nigerian navy personnel found that over one third bought sex from a female sex worker and 41% did not use a condom during their most recent sexual encounter. A study in the Pacific island nation of Kiribati found that some of the men who leave the country to work on foreign ships have become infected with HIV and have spread the virus to their wives and partners upon returning home[44].

3.5.3 Migrant Workers

Migration for economic reasons is extremely common all around the world. There are two types of migration, intra-national, usually from poor rural areas to urban areas, and international migration, from one country to another. The incidence of HIV/AIDS among international migrants appears to be low due to the fact that long distance international migrants tend to be relatively well-educated and the majority appear not to engage in high-risk behaviour[45]. In the case of internal, rural-to-urban migration, the situation is more complex and is dependent on individual and social situations, culture, politics and individual behaviour.

Generally, it can be summarised that most migrant workers are highly mobile. They often live in unhygienic conditions with long working hours and relative isolation from the family, factors which have been shown to increase the incidence of casual sexual relationships and which make this group highly vulnerable to HIV/AIDS[46]. Furthermore, migrant workers usually have little access to HIV/AIDS information, voluntary

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[41] Spurgeon, D. (1992). What do young black South Africans think about AIDS? *IDRC Reports*, 20 *(2)*, p. 10-12.

[42] Haouri-Knipe, M. (1997). Migration and ethnicity issues. *AIDS Care*, 9*(1)*, p. 115-119.

[43] Byran, A., Fisher, J., & Benzigar, TJ (2001). Determinants of HIV risks among Indian truck drivers. *Social Science and Medicine*, 53, pp 1413 -1426.

[44] Brevis, A (1992). Sexually-transmitted disease risk in a Micronesian atoll population. *Health Transition Review*, 2 (2), p. 195-213.

[45] Skeldon, R., & L. Hsu, L. (2000). *Population Mobility and HIV Vulnerability in South East Asia: An Assessment and Analysis*, UNDP, South Asia: Bangkok.

[46] Gardner, R., & R. Blackburn, R. (1996). People who move - a new reproductive health focus. *Population Reports*, J (45).

counselling and testing, health services and, in places where such services are available, cultural and language barriers prevent migrants from accessing these services[47].

3.5.4 Peacekeepers, Military and Police

Data on HIV/AIDS prevalence and incidence in among peacekeepers, military and the police are quite soft because of a lack of systematic screening among many of these forces. However this group is at high risk of HIV infection due to being one of the most sexually active age groups, having a culture that esteems risk and a high rate of alcohol and other substance abuse. Furthermore, the stress of war and long absences from family results in risky behaviour which is exacerbated by frequent opportunities for casual sex. Peacekeepers, military and the police are generally highly mobile and they are also often financially much better off than those in surrounding communities, which leads to greater exposure opportunities[48].

Of more concern is the issue of peacekeepers spreading HIV to host communities. For example, the Cambodian government has blamed the presence of the UN peacekeeping mission for the rise of HIV in the country. Welfare groups and NGOs in Timor-Leste and in Kosovo have raised similar concerns regarding UN peacekeepers, however the absence of reliable data on HIV prevalence before and after conflict in those countries makes it difficult to assess the actual impact of the presence of peacekeepers on national epidemics[49].

3.5.5 Refugees and Complex Emergencies

Factors other than the ones mentioned in relation to economic migrants may increase risk for refugees. Communicable diseases, including STIs and HIV, spread fastest in conditions of poverty, powerlessness, and social instability, which are usually found during refugee emergencies. Furthermore, the disruption of social ties and family life that occurs in situations of poverty and crisis also increases risk of disease as migrants find new sex partners and sometimes women have no choice but to sell sex for protection, money, food, and other goods[50]. During complex emergencies, sexual violence may increase risk of HIV transmission, though the epidemiological significance is still debatable[51].

3.5.6 Protracted Conflict, Post Conflict & Transitional Situations

Post conflict and transitional situations are high risk situations for the spread of HIV/AIDS, other STIs and other communicable diseases. During such situations large numbers of civilians are on the move in the form of forced or voluntary migration, as was the case in Timor-Leste before, during and after the 1999 referendum. Most such

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[47] IOM (2004) HIV/AIDS and mobile populations in the Caribbean: a baseline assessment. International Organisation for Migration, Santo Domingo.

[48] UNAIDS (2005). On the front line: A review of policies and programmes to address AIDS among peacekeepers and uniformed services. Joint United Nations Programme on HIV/AIDS. UNAIDS, Geneva.

[49] UNAIDS (2005). Ibid, p.42

[50] Hulewicz, J., (1994). AIDS knows no borders. World AIDS, *35*, p. 6-10.

[51] Spiegel, P., (2004). HIV/AIDS among Conflict-affected and Displaced Populations: Dispelling Myths and Taking Action. Disasters, 28(3): 322-339.

migration is associated with movement from sparsely populated to densely populated areas, such as refugee camps, which usually increases disease transmission due to several factors namely poverty, economic insecurity and social disruption[52].

Populations emerging from war are often uninformed about HIV risk and health issues in general, a point that was highlighted by the Pisani report, where a large proportion of East Timorese CSWs did not even recognize a condom when shown one, much less know that it can protect against HIV infection [53]. Furthermore, populations that have experienced extended periods of war develop a culture of violence, which usually translates into higher levels of sexual violence leading to the spread of HIV and STI's [31, 32]. Transition periods often are also marked by poverty and orphan-hood which lead to large scale migration in search of employment, which in turn can increase vulnerability and encourage risky behaviours such as unprotected sex[54].

3.5.7 Mobility in Timor-Leste

The years of violence under Indonesian rule caused significant population movement in Timor-Leste. The first major movement of people occurred when the Indonesian government moved thousands of Indonesians into East Timor and forcibly relocated East Timorese communities, as part of their transmigration program. The second population migration occurred prior to, during and after the 1999 referendum when more than half the population of East Timor were forced to leave their homes. Migration to other parts of East Timor accounted for 300,000 people whilst approximately 200,000 fled or were forced into West Timor[55].

By 2002 however, the UN agencies and the International Organisation for Migration assisted and helped repatriate almost 150,000 refugees back into Timor-Leste. A further 50,000 refugees returned by themselves. The 1999 post-referendum upheaval, coupled with the search for employment, has led to a steady rural-urban migration to the capital city of Dili and to the second largest city, Baucau. The lure of higher incomes in the cities is likely to result in a continuing and steady increase in the urban population[56].

3.6 HIV Studies done in Timor-Leste

The first case of HIV/AIDS was reported in 2001, and, as of 2004, only 30 cases of the disease had been confirmed, however it is estimated that accurate figures could be considerably higher[57]. In 2003, the FHI survey team interviewed CSWs, MSMs, taxi drivers, soldiers and university students using a structured questionnaire which included

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[52] CERTI (2002). Resource Manual for Large-Scale Surveys for Planning and Monitoring Social Reconstruction in Post-Conflict Countries. Complex Emergency Response and Transition Initiative, New Orleans.

[53] FHI (2004). HIV, STIs and risk behaviour in East Timor: an historic opportunity for effective action. Family Health International, Dili, Timor-Leste.

[54] Gardner, R., & R. Blackburn, R. (1996). People who move - a new reproductive health focus. *Population Reports*, J (45).

[55] UNDP (2002). *United Nations Development Programme: East Timor*. Human Development Report. Dili, Timor-Leste.

[56] UNDP (2002). Ibid

[57] MOH (2006). *National HIV/AIDS/STIs Strategic Plan 2006 – 2010*. Ministry of Health, Dili, Timor-Leste. Ministry of Health, Dili, Timor-Leste.

questions about HIV–related knowledge, sexual and drug–taking behaviour, symptoms of STIs and treatment seeking behaviour. Over 59% of the taxi drivers and soldiers reported having recent sex, mainly with a CSW, and more than a quarter of these men were also married. Rates of gonorrhoea and chlamydia were approximately 14% in both groups and a similar percentage of women were infected with trichomonas. Rates of Herpes simplex type 2 (HSV–2), which facilitates HIV transmission, was found to be 60% among sex workers and 30% among MSM. HIV prevalence among CSWs was 3%, while among MSM it was under 1% and all of those who were infected with HIV reported sex with foreigners. The report also found that HIV/AIDS related knowledge was very low in Timor-Leste, with 80% of CSWs not knowing that a condom can prevent HIV and STI. Most of the people in these high risk groups had no access to basic prevention services such as information, condoms and STI treatment[58].

Despite the HIV/AIDS epidemic presence in South and South-East Asia, Timor-Leste has remained a low prevalence country. However, as analysis from the research indicates that local conditions are favourable for an HIV epidemic. High risk behaviour and high levels of STIs are common in certain groups and multiple sexual partners and sex outside marriage occur frequently. There is very low levels of condom usage, low knowledge of HIV and AIDS and a highly mobile population: all factors that constitute ingredients for a possible epidemic.

[58] FHI (2004). HIV, STIs and risk behaviour in East Timor: an historic opportunity for effective action. Family Health International, Dili, Timor-Leste.

Chapter 4

Methodology

4.0 Research Methodology

This chapter outlines the research methodology used for the study. The project started with a two month pre-field stage, during which the tools were developed and tested, an in-depth literature review was done and the in-country period was planned. During the in-country period of four months, governmental and non-governmental organisations involved with HIV, migration, health and gender were contacted and invited to participate in the VAM workshops. A team of ten local RAs were recruited and trained to administer the MPS to households, supervise the survey administration and facilitate the workshops. Subsequently, the seven VAM workshops took place in six districts – Dili, Baucau, Liquica, Cova Lima, Bobonaro, Oecussi and the Migration Patterns Survey (MPS) was administered to a total of 1213 households in the six districts as well.

4.1 Research Approach

Figure 4.1 provides an overview of the Research Approach employed in this study. The research used a quantitative component in the form of the Migration Patterns Survey and a qualitative component for The Vulnerability Assessment Mapping. The qualitative and quantitative components complemented each other and helped obtain a holistic and comprehensive picture of mobility patterns and the vulnerability context to HIV in Timor Leste. The VAM workshops made use of mapping and focus group discussions to help identify locations of risk and support and personal factors that impact vulnerability.

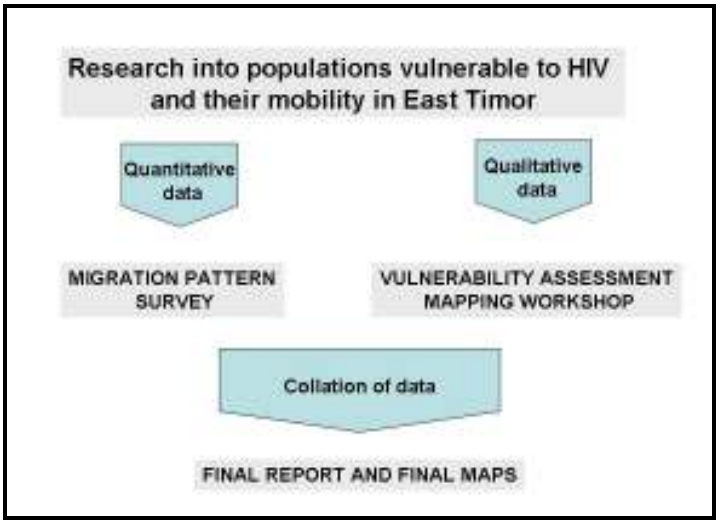

Figure 4.1: The Research Approach

4.2 Vulnerability Assessment Mapping

The HIV Vulnerability Assessment Mapping is a participatory, qualitative process. Methodology for the mapping exercise is drawn from a Vulnerability Assessment Mapping Guide developed by the UNDP SEA HIV/AIDS programme and partners[59], which was be piloted through this initiative. Minor changes had to be made to adjust the suggested methodology to the context of Timor-Leste.

4.2.1 Definitions and Dimensions of Vulnerability

Vulnerability defines the characteristics of a person or group and their situation that influences their capacity to anticipate, cope, resist and recover from a hazard[60]. Vulnerability involves a combination of factors that determine the degree to which someone's life, livelihood, property and other assets are put at risk by a discrete and identifiable event or a cascade or series of such events in nature and society.

There are social, generational, geographic, economic and political dimensions that impact people in various ways. Changing social, economic, environmental and political factors usually alters power balances in a society. Vulnerability can be increased through powerlessness, exploitation and discrimination.

In the context of HIV/AIDS, vulnerability results from personal, programmatic and societal factors that affect one's ability to exert control over one's health or well-being. These factors influence a person's decision and choice on their own livelihoods. Therefore, the degree and type of vulnerability vary over time and between countries, are highly contextual and vulnerability is a relative state - **a multifaceted continuum between resilience and absolute helplessness** [61].

4.2.2 Vulnerability and People, Poverty & Human Security

What makes people more vulnerable and what mitigation steps can be taken to reduce vulnerability? These questions need to be addressed when discussing vulnerability. Vulnerability is also gender differentiated. Women experience vulnerability in ways different to men due to socially constructed gender roles and power relations. Factors such as lack of access to resources, lack of entitlements and lack of an ability to negotiate all undermine their ability to cope. Children, the elderly, people with disabilities and women tend to be more vulnerable[62].

Poverty is a core dimension of vulnerability and creates a vicious cycle that makes the poor more vulnerable. Poverty is the state of deprivation and lack of access to key resources necessary for life. Vulnerability is more about defencelessness, insecurity, exposure to hazards and the ability to cope with these shocks[63].

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[59] UNDP (2004). Mapping made easy: A guide to understanding and responding to HIV vulnerability. UNDP-SEA HIV & Development Programme, Bangkok, Thailand

[60] Actionaid (2003). Participatory Vulnerability Analysis: A step-by-step-guide for field staff. Actionaid Intenational. UK

[61] World Bank (2004). Other Vulnerable Children Toolkit. Retrieved 16/02/2006 at http://info.worldbank.org/etools/docs/library/108875/toolkit/index.htm

[62] Actionaid (2003). Ibid

[63] Yamin, F,. Rahman, A. & Huq, S. (2005). Vulnerability, adaptation and climate disasters: A conceptual overview. *IDS Bulletin*, 36, 4, 1-14.

The notion of human security provides us with a useful framework to analyse the links between vulnerability, power and rights. Understanding vulnerability requires a closer scrutiny of the power relations that determine who in a given society gets what, who makes decisions and who is excluded.

4.3 Vulnerability in this Project

4.3.1 Programmatic Vulnerability

Programmatic vulnerability includes information and education services, health and social services and human rights programmes. This aspect will focus on the various HIV/AIDS programmes in the district, and can be further divided into support structures based on the 3As (availability, accessibility and awareness) and high risk locations. Support structures in this context have to be seen as service provision points for information and health promotion, health care, including Voluntary Testing and Counselling (VCT), and general support in regards to HIV/AIDS, sexual health and family planning and gender issues (lack of empowerment of women). High risk locations are locations at which high risk behaviour is likely to take place, or which act to increase risk behaviour, for example where alcohol might be consumed, and sex is available or might be arranged, paid or unpaid.

4.3.2 Personal and Societal Vulnerability

Personal vulnerability to HIV/AIDS focuses on factors in the individual's development or environment that render him or her more or less vulnerable such as: physical and emotional development, socio-cultural factors and knowledge and skills. Societal vulnerability includes issues such as political structures, gender relationships, attitudes to sexuality, religious beliefs, violence and poverty. These are contextual factors that influence personal and programmatic vulnerability. Societal and personal vulnerability are difficult to separate in a distinct manner, which led to them being discussed together in the second session of the Vulnerability Assessment Mapping Workshops.

4.4 The Multi-levelled Approach to Vulnerability Assessment Mapping

Vulnerability Assessment Mapping Workshops (VAMW) were carried out in each of the six districts, with an additional one in Dili as the number of key informants and stakeholders by far exceeded the other districts. To allow for comparison, the VAMW was always conducted according to the same pattern and in a similar manner in each of the districts. After having briefed the participants on the study and the researcher's background, they were introduced to the concept of vulnerability used for this study, and the link between the spread of HIV and mobility /migration.

Participants for the workshop were recruited using a matrix of all organizations – national and international, governmental and non-governmental – involved with HIV/AIDS, migration/mobility, health and gender. The NGO Forum in Timor-Leste provided further contacts on local organisations. Snowball sampling approach was used through participants in Dili to provide contacts and colleagues in other districts. The identified organisations were invited to participate in the VAMWs held in the districts in which they work. The VAMW was carried out using the stages listed below:

Stage 1: Identifying the VAM District and Sub-district

- The VAM component focussed primarily on district-level workshops and for this study six districts were identified, the capital (Dili), three border districts (Oecussi, Cova Lima, Bobonara), the second largest district (Baucau) and the district that had maximum migration to the capital (Liquica).
- The project first involved the researchers acquiring base maps of the target districts.
- Thereafter, a one-day workshop of 12-20 individuals in each target site was held. The workshops in each district explored personal vulnerability, programmatic vulnerability, mobility patterns and societal vulnerability.
- The workshop participants included government officials, community representatives and NGO staff involved in HIV projects with a good representation of both male and female participants.

Stage 2: Introducing the Base Map

- The Base Map of each district was obtained, printed into A0 size and introduced to the participants
- These poster-sized district and country maps had been developed during the preparation stage. The physical landmarks and boundaries were labelled in the maps.
- The intent at this stage was to introduce the concept of mapping to the participants.
- The groups were then introduced to the concept of vulnerability and what makes people vulnerable.

Stage 3: Collecting and Organising Thematic Data

Participants were asked to map the following:

- **Locations where high-risk behaviour occurs**, as well as any physical locations that may promote risk-behaviour (e.g. bars, gathering places) (on the district/sub district map)
- **Existing and potential programmatic sites** (on the district/subdistrict map)
- **Mobility patterns** to and from the district / subdistrict (on the country map).

The participants were shown how to create legends. For the legends, a colour code was chosen, whereby red meant '**high risk**', blue meant '**support**' and green '**mobility/migration**'. Groups were left free to decide on individual symbols for different high risk, support or migration/mobility structures, which then had to be included into the legends on each map.

Stage 4: Incorporating Thematic Group Data

- The data obtained from each individual group was incorporated into base maps and organised into spread sheets for categories into themes

- Information was organised in a manner that was simple yet informative
- Each group was given an opportunity to present their assessment

Stage 5: Final Production of Maps

- Simple maps were produced by the group members from the base maps
- These maps were then digitized, enhanced and electronically produced using GIS software at Curtin University of Technology in Western Australia

4.5.1 The Workshop Sessions

Each VAM workshop was divided into two sessions. During session one, participants were asked to map the following: **Locations where high-risk behaviour occurs**, as well as any physical locations that may act to increase/decrease risk-behaviour (e.g. bars, gathering places, others – on the district/subdistrict map); **existing and potential programmatic sites** (on the district/subdistrict map) and **Mobility patterns** to and from the district / subdistrict (on the country map). The second session focused on the inter-related aspects of societal and personal vulnerability, which took contextual elements which influence vulnerability into account. Ideas and structures were developed on flip charts. Both sessions required the VAMW participants to break up into focus groups, which presented their results at the end of each session. Group consensus both times allowed checking the accuracy of the information provided by each group. The Vulnerability Assessment and Mapping was carried out based on the four themes identified in the Figure 4.2 below:

Programmatic vulnerability included information and education services, health and social services, and human rights programmes. This aspect focussed on the various HIV/AIDS programs in the district.

Mobility patterns to and from the district/ sub district and the seasonal and sectoral pulls fators that impact and affect migration patterns and movements were identified.

Societal vulnerability included issues such as political structures, gender relationships, attitudes to sexuality, religious beliefs, violence, and poverty. These are contextual factors that influence personal and programmatic vulnerability

Personal vulnerability to HIV/AIDS focussed on factors in the individual's development or environment that render him or her more or less vulnerable such as physical and emotional development, socio-cultural factors and knowledge and skills.

Figure 4.2: The vulnerability mapping and assessment themes

Two local RAs were introduced to the concepts of vulnerability and mapping used in this study, and trained in facilitating workshops. At all workshops, at least two international researchers were present to conduct the VAMWs, and were aided by the local RAs.

4.6 Migration Patterns Survey

4.6.1 Development of Survey Instrument

The Migration Patterns Survey (MPS) was developed using a modified version of the survey tool published in 'Situational Assessment on Migration and HIV/AIDS'[64] together with surveys that had been administered by IOM in the Caribbean[65]. Items from BSS surveys administered in Sierra Leone and Swaziland were modified and used in the HIV KAP section of the questionnaire[66], [67].

A 106 item questionnaire was developed by the two lead researchers, pilot tested for understanding, revised and circulated among the members and key stakeholders of the UN theme group on HIV/AIDS in Timor-Leste. Feedback received was incorporated into the final version which was translated into Tetun, Portuguese, Bahasa Indonesia. A back-translation was done to minimise errors and increase understanding and clarity before final translations were printed. The final version of the questionnaire contained six sections that incorporated data on:

1. Demographics
2. Socio-economic status
3. Mobility
4. Displacement
5. General health
6. HIV/AIDS knowledge, behaviour and attitudes

4.6.2 The Research Team

A local research team was recruited. Training was provided during a two day workshop including a brief introduction to HIV/AIDS, migration and the study. Special emphasis was paid to the sensitive nature of some of the questions asked. The Research Assistants (RAs) familiarised themselves with the questionnaire and training was provided for every questionnaire item; the RAs administered the questionnaire repeatedly amongst themselves. One RA was trained as the survey supervisor and provided feedback to the research team. During the in-field administration of the survey, the local supervisor monitored progress and liaised with local authorities such as cheffe de suco or cheffe de aldeia. The team was split into two groups of four survey administrators each; each group was driven to the sampled aldeias and supervised in turn. On average, each survey team member completed seven surveys per day.

4.6.3 The Sample Size and Sampling Procedure

Data from the initial analysis of the Survey of Sucos in Timor Lorosae carried out in 2001, and from the National Census data of 2004, were used to design a random, multi-stage cluster sampling survey[68]. Using this strategy, a total of 1213 households in the

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[64] SARDI & UNDP (2004). Situational Assessment on Migration and HIV/AIDS: A generic tool. South Asia Research and development Initiative & UNDP, New Delhi, India

[65] IOM (2004) HIV/AIDS and mobile populations in the Caribbean: a baseline assesment. International Organisation for Migration, Santo Domingo.

[66] Kaiser, R., Spiegel, P., Salama, P., Brady, W., Bell, E., Bond, K., & Downer, M. (2002). *HIV/AIDS seroprevalence and behavioural risk factor survey in Sierra Leone*. CDC, Atlanta, USA.

[67] Ministry of Health and Social Welfare (2002). *Swaziland behavioral surveillance survey*. MHSW, FHI, IMPACT, FLAS, USAID, Mbabane, Swaziland

[68] NSD (2004). Census 2004. National Statistics Directorate, Dili, Timor-Leste.

six districts of Dili (Baucau, Bobonaro, Cova Lima, Liquica and Oecussi) were selected. The interview was conducted with the head of household, who was defined as the male or female person of adult age (≥18 yrs of age), who was present at the time the interviewer approached the household and who self-identified as the head of household at this particular time.

1. In the first stage, data from the Census 2004 statistics were used to obtain the total number of households in the six districts. According to the 2004 census data, 55.1% of households are found in these six districts. Percentage calculations for each of the six districts aided in obtaining the total number of surveys to be administered in each district.
2. In the second and third stages, data obtained from the 2001 Suco Survey were used to identify sucos and sub-districts based on population characteristics per 1,000 persons. The most populous sub-districts and sucos were selected. In the third stage, aldeias were randomly selected based on number of households in the aldeia.
3. In the final stage, maps of the aldeias were obtained from the Statistics Bureau of the Ministry of Planning to help in sampling the cluster of households in the respective aldeia. The maps provided an aerial image of the aldeias and the location of households in each aldeia.
4. Based on the number of surveys required for each aldeia it was decided that every second household in the aldeia would be sampled. Hence, a convenience sampling approach was used, whereby households in which no head of household was available at the time were replaced by other households where a head of household was available at the time of the interview. In order to reduce the cluster bias, clusters never exceeded 40 households per aldeia.

4.7 Data Analysis

4.7.1 Quantitative Data Analysis

The larger part of data collected in this study were quantative and were entered into and analysed using SPSS (version 12.0); 10% of data were entered twice for comparision and quality control. Basic descriptive statistical analyses were performed on all variables. Results are presented in the form of tables, graphs and pie charts in Chapter 7. For some variables, univariate and multivariate analyes were performed using ordinary and binary logistic regression to test for associations between outcomes of interest.

4.7.2 Qualitative Data Analysis

The data collected through FGDs discussions were primarily qualitative in nature. A first screening of the responses was used to identify possible categories and themes[69]. The analysis of data was done at different stages. The first stage included information obtained in session 1 of the VAM FGDs. Data were collated into maps to allow for better understanding of migration patterns and vulnerability. Available services and

[69] Thomas, D. (2003), 'A general inductive approach for qualitative data analysis', School of Population Health, University of Auckland.

'hot spots' mapped during the workshops were collated into district maps (for each of the included districts) and a country map containing all the information in regard to available services, programmes and information and locations where high risk behaviour is most likely to occur. Separate maps were produced containing the information collected on migration and mobility, on a district as well as on a national level. Data obtained from personal and societal vulnerability factors were categorised into themes that have been presented in Chapter 6.

Several different techniques were built into this research to ensure reliable results. Systematic attention throughout research design, data collection, and analysis ensured the existence of multiple safeguards that aimed to protect the validity of the research findings[70].

4.7.3 Ethical Approval and Informed Consent

Prior to commencement of the study, ethical approval was obtained from the Human Research Ethics Committee at Curtin University of Technology, Perth, Australia. The Ministry of Health, Timor-Leste, and the UN Theme Group on HIV/AIDS in East Timor were informed at each stage of the research project and gave ethical approval. Every participant, from both workshop and survey, was informed of the study objectives and the methods to be used. A participant information sheet was given to every literate participant outlining the study and its methods as well as issues of confidentiality (ie, that no personal details will be released) and the right to withdraw at any time. Informed consent was obtained from every participant. The same information was conveyed verbally when the participant was illiterate.

[70] Ritchie, J (2000). Not everything can be reduced to numbers. In C.A. Bergland (Ed.) *Health Research.* Melbourne: Oxford University Press.

Chapter 5

Programmatic Vulnerability Assessment and Mapping of Mobility Patterns

5.0 Introduction

This chapter discusses the results of the Vulnerability Assessment Mapping Workshops held in six districts of East Timor. In the focus group discussions held during the workshops, a number of questions were asked to ascertain people's understanding of programmatic, personal and societal vulnerability. This was done to identify patterns and understanding of vulnerability, both in a general sense and specifically in relation to HIV/AIDS.

In this chapter, programmatic vulnerability as discussed by the participants is presented together with district and international migration patterns. Programmatic Vulnerability is presented in the form of tables that numerate risk and support locations. Maps of district and international mobility patterns as identified by workshop participants have been presented for each of the six districts. The maps that participants worked on during the workshops were further developed using Arc Map GIS software and have also been presented in the chapter showing mobility patterns to and from each of the districts and international mobility movements

The VAM component piloted the recently developed SEA-HIV *Guide to Understanding and Responding to HIV Vulnerability* to explore programmatic vulnerability, mobility patterns, and societal vulnerability. All of the findings reported are the views, discussions and opinions of the about 150 VAMW participants and provide a glimpse of the economic, cultural and social factors that impact people's life and behaviour.

5.1 Review of Findings: Workshop 1 & 7 – Dili

5.1.1 Programmatic Vulnerability

5.1.1.1 Locations of High Risk Behaviour

As anticipated, a considerable number of high-risk locations were identified in Timor-Leste's most populated district, **Dili**. Such venues included bars, hotels, massage parlours and local meeting places (i.e. specific parks and streets). A number of participants also believed popular local eating and drinking places, as well as local beach 'hang-outs', were associated with risk taking behaviours. These venues were highly concentrated around Dili city.

Workshop participants in **Baucau** agreed on several high risk locations in Baucau, Timor Leste's second most populated city. In particular, several well known hotels and guesthouses were identified. The majority of all high risk venues were located within the subdistrict of Baucau, with only a few identified as being in the costal sub districts of Laga and Vemasse.

In **Liquica**, workshop participants stated that high-risk behaviours typically occur in three main locations – the market, local drinking places and at popular beach and lake locations. These latter coastal meeting places are especially popular amongst young

people, who tend to visit with partners of the opposite sex and drink locally produced alcohol. It was commented that the central Liquica market was often quite a violent place, where men gathered during weekends for cock fights as well as to drink alcohol.

In the district of **Bobonaro**, there was no specific location or venue considered as at risk. The illegal market at the border and the bar at the Pousada Hotel were identified as possible locations of risk. There was a lot of movement and mobility in the border town of Batugade and possible commercial sex venues across the border in West Timor.

Participants at the **Suai** workshop believe that sex workers do exist in the following sub districts: Salele/Tilomar, Fatumeta, Fohorem, Fatululik and Suai Kota and at the Dragon Restaurant and a tattoo shop. Workshop participants were aware that there was the possibility of getting infected during tattooing.

VAM participants in **Oecussi** made interesting comments about the local markets at Nun'bei and Tono in Oecussi. Men come down to the market, a night prior to the market day, and it is believed that sexual transactions take place. Table 2 provides some indication of the number of high risk venues in the selected districts above.

Table 2: High Risk Venues in Selected Districts of Timor Leste

	Districts (number of high risk venues)					
High Risk Venues	**Dili**	**Baucau**	**Liquica**	**Maliana**	**Suai**	**Oecussi**
Hotels/guesthouses	10	3	-	2	3	2
Bars	9	3	-	1	2	-
Massage parlours	2	-	-	-	-	-
Airport	-	1	-	-	-	-
Markets (district or border)	-	1	1	2	3	3
Beaches	-	-	2	-	-	-
Lake	-	-	1	-	-	-
Drinking places	-	-	1	-	-	-
Tattoo shop	2	-	-	-	1	0
CSW – private property	-	-	-	-	several	1 or 2

5.1.1.2 Locations of Support

A range of HIV/AIDS health and education services were identified as being provided in **Dili**. In addition to the national hospital, both government and non-government clinics (i.e. Bairo Pite Clinic and Café Timor Clinic) were recognised as places of HIV/AIDS education and voluntary counselling and testing (VCT) services. Specific universities and high schools were also nominated as places where young people have been given basic sex education, including information on STIs and HIV/AIDS. Participants reported that, in HIV, education has been initiated and provided through a faith based organisation or an NGO and UN agency. All discussion groups acknowledged the work being done by the Ministry of Health to address HIV/AIDS in Timor Leste. In addition, 17 different UN agencies, INGOs and NGOs were identified

by participants as providing valuable HIV/AIDS programmes. These organisations included Family Health International (FHI), Oxfam, East Timor Women against Violence and Children Care (ETWAVE), Development of Knowledge and Research Foundation (DENORE), and the Deo Gratias Foundation.

In **Baucau**, the district hospital, in addition to small clinics and health centres was reported to provide HIV/AIDS information, education and communication (IEC) materials. Baucau hospital also provides VCT services, however it was commented that confidentiality is often not maintained, thus local people are understandably reluctant to utilise this service. The work of the UNDP Baucau Civic Education program was also highlighted, especially with regards to training they had organised for staff from Baucua high schools and the university.

A limited number of HIV/AIDS health and education services were identified as being provided in **Liquica** namely some clinics, several local and international NGOs and a few churches. Interestingly, it was reported that some staff from the hospital are volunteering their time to deliver a weekly radio program on HIV/AIDS through the local radio station *Tokodede Liquica*. Workshop participants expressed a desire to attend training/education on HIV related issues.

In **Maliana**, the workshop participants reported that through the Ministry of Education and supported by UNICEF, a sex education program is being piloted in the high school curriculum. An international NGO, Christian Children's Fund, provides health education and information on HIV/AIDS. Centro Juventude, the Maliana Youth Centre works with other organisations in conducting training and workshops on HIV/AIDS by facilitating the training and workshops. CVTL has also been conducting trainings and workshops on HIV/AIDS prevention targeted at high risk groups and high school students. CVTL also provides information about HIV/AIDS prevention through pamphlets, posters, brochures and leaflets and distributes condoms to high risk group in the district.

There was general consensus among the **Suai** participants that many local and international NGOs are providing education, training and support. CVTL provides information and training on HIV/AIDS for target groups in the district, such as drivers, men at risk and FSW. The local NGO- GRACA has contact with the community and provides training and seminars on HIV/AIDS. CJC (Covalima Youth Center) Fatumeta youth group, Maucatar youth group have held seminars on HIV/AIDS at high schools and with youth. It was also felt that hospitals and clinics throughout the district provide information on HIV/AIDS. The PNTL also held workshops for high school students on HIV/AIDS health services. The church parishes of Suai, Salele and Fohorem also provided information and counselling on HIV/AIDS to Catholic high school students and the community.

According to participants at the **Oecussi** workshop, the Ministry of Health provides brochures and posters containing information about HIV/AIDS and other diseases to the community at large through health centres, private clinics and hospitals. Counselling centres are also part of hospital facilities. The church has also been conducting training/workshops on various health problems including HIV/AIDS. International NGOs like CVTL have been conducting training and workshops in the community about HIV/AIDS. FPWO, Centro Feto, Timor Aid, Caritas Australia, Oxfam Australia are other local and international NGOs that have provided some form of services in the area of HIV/AIDS. High schools had been visited by the Health department to talk about HIV/AIDS prevention.

Table 3: Support Services in Selected Districts of Timor Leste

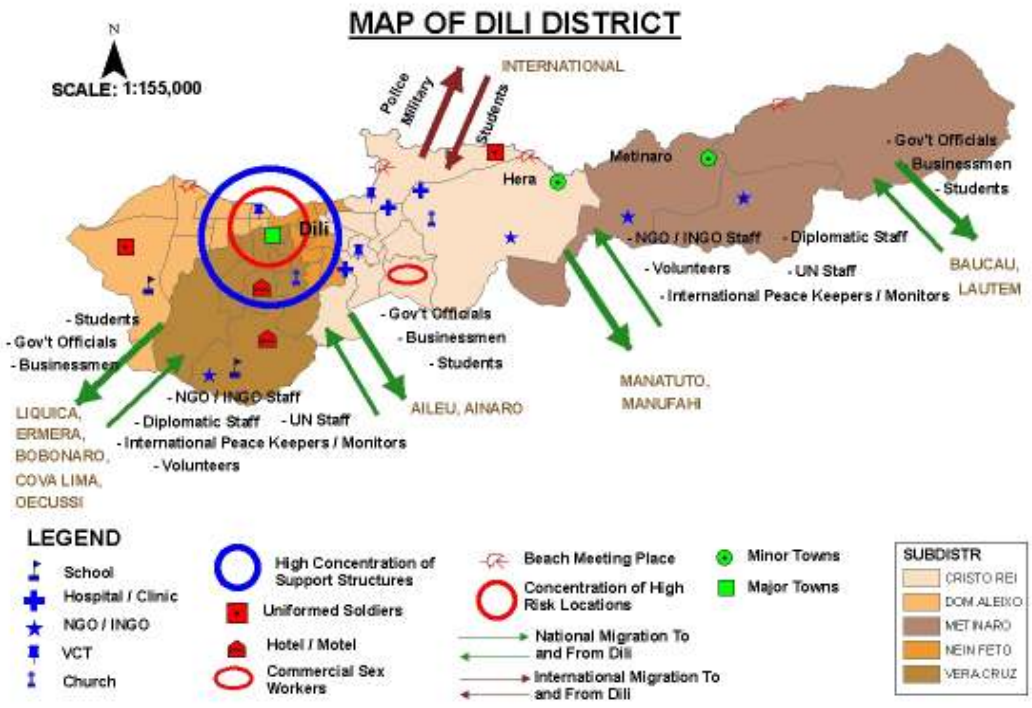
	Districts (number of high risk venues)					
Support Services	**Dili**	**Baucau**	**Liquica**	**Maliana**	**Suai**	**Oecussi**
High schools providing sex ed	5	All②	3	All②	All②	1②
Universities providing sex ed	2	1	-	1	-	-
Hospitals/clinics	6①	3①	2	3③	2④	2⑥
Faith based orgs/churches	3	1	3	1	2	2
Youth centres	1	-	-	-	3⑤	-
UN agencies	6	1	-	1	1	1
International NGOs	4	1	3	1	1	4
National NGOs	7	4	-	4	4	4
Government dpts (MOH)	1	-	-	-	-	-
Counselling centres	-	-	-	-	-	1

① Some hospitals and clinics provide VCT services. The National Hospital also has laboratory testing facilities
② It was reported that all high schools in these districts had received HIV awareness and safe sex health promotion material
③ Some of the staff at the district hospital in Maliana had received training in HIV/AIDS
④ The district hospital provides Elisa testing and VCT services
⑤ CJC and other youth groups in Suai were active in promoting sex education and education about HIV
⑥ The district hospital staff had received training in HIV/AIDS and VCT services

5.2 Workshop 1 & 7: District & National Migration Patterns in Dili

Two separate workshops were held at the Belun Conference Room in Dili, the capital of Timor-Leste. The first workshop took place on October 28, 2005 and was attended by 27 participants. Those attending included Ministry of Health officials, local and international NGO staff, and church representatives. The Chairman of the National AIDS Commission was included in those present. The majority of participants were Timorese nationals. The second workshop in Dili took place on 29 November 2006. Data gathered at both workshops was collated and is presented together.

The discussion groups identified the following populations as being highly mobile: uniformed officers, drivers, businessmen, students, UN and NGO staff, and tourists. Workshop participants mapped movement from all 13 districts towards Dili. Travel from the exclave district Oecussi to Dili is via both the ferry and overland through Indonesia. The main route via land from Oecussi to Dili travels though the Indonesian town of Atambua.

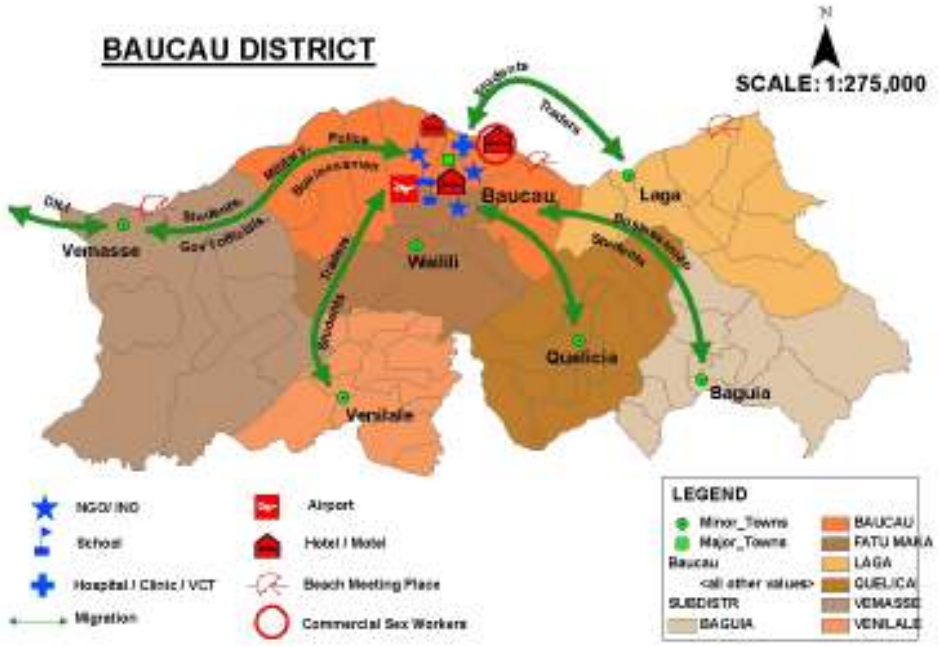


Map 1: Mobility Patterns and Locations of Risk and Support in Dili

5.3 Workshop 2 – District & National Migration Patterns in Baucau

The Vulnerability Assessment Mapping workshop was held at the Business Development Centre in Baucau on October 6, 2005. A total of 12 participants attended, including staff from UN agencies (UNDP) and local NGOs. The majority of participants were male. With the exception of one individual, all participants were Timorese.

Within Baucua young people travel across the district to study in the town centre itself. Baucau town also has a large Catholic Teacher's College training primary teachers and is attended by students from all 13 districts, thereby resulting in a significant amount of travel and migration at the beginning and end of semesters. Businessmen, job seekers, uniformed officers, and drivers travel back and forth from almost all the sub districts in Baucau to Baucau city itself. These mobile populations also travel across the country, to and from every district, to Dili.

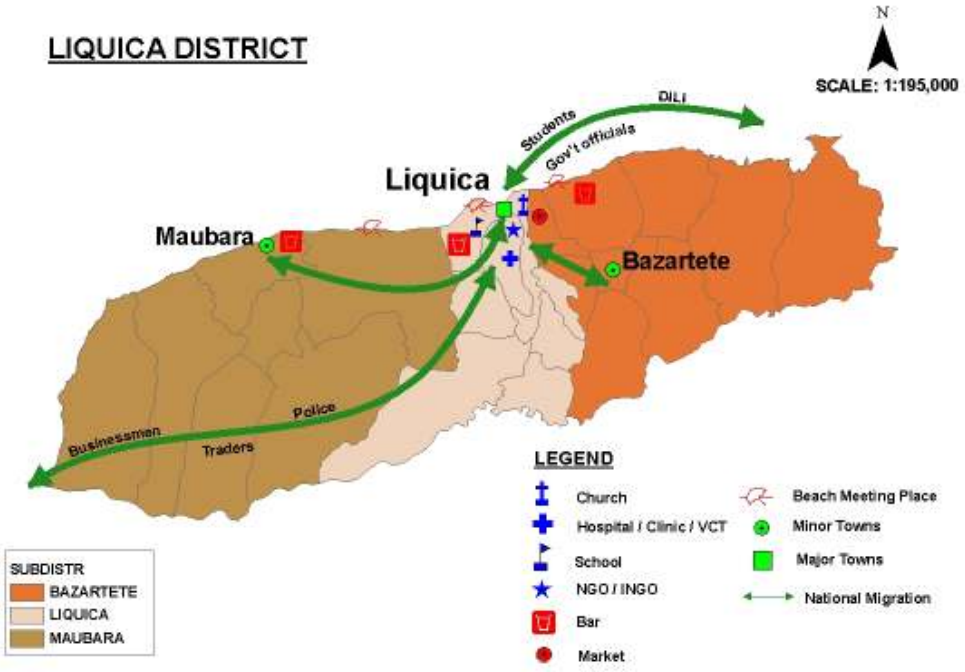


Map 2: Mobility Patterns and Locations of Risk and Support in Baucau

5.4 Workshop 3 – District & National Migration Patterns in Liquica

The VAM workshop was held in a community hall in Liquica on October 20, 2005. Eight local persons attended; five females and three males. With the exception of one individual representing the district Ministry of Education office, all other participants worked for either local or international NGOs. All participants lived and worked primarily in Liquica subdistrict itself, therefore it was acknowledged that the information shared did not accurately represent the situation in the more rural sub-districts.

Given Liquica's close location to Dili, a considerable amount of travel between both districts takes place. It was stressed that this was unavoidable given the fact most services are concentrated in the capital. Mobile populations that were identified included students, drivers, uniformed officers (i.e. police), traders (especially buying/selling market produce), job seekers, government and NGO staff, and those living on the district borders. Movement from Liquica town to the other main market centres of Maubara and BazarTete is popular. Migration between districts is also common. Those districts identified as having the most travel to and from include Dili, Suai, LosPalos, Bobonaro, Oecussi and Ermera.



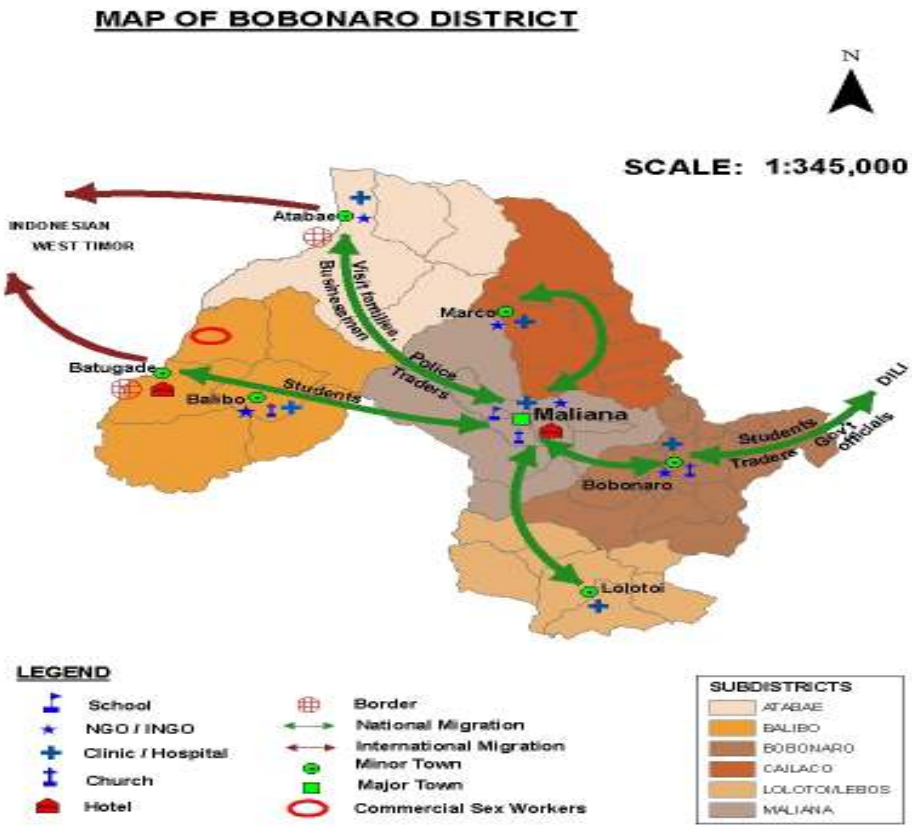
Map 3: Mobility Patterns and Locations of Risk and Support in Liquica

5.5 Workshop 4 – District & National Migration Patterns in Maliana

The business development centre in Maliana, was the venue for the VAM workshop held on November 15, 2005. Thirteen local persons attended; four females and nine males. There was representation from the district Ministry of Education office, the district Ministry of Health and the District Hospital; all other participants worked for either local or international NGOs. All participants lived and worked primarily in Maliana subdistrict but several in the group travelled to the aldeias and sucos on work related matters.

Groups of people who were highly mobile identified are students, drivers, seasonal job seekers, government and non government officers, businessmen, PNTL and FDTL and tourists. The district, national and international mobility patterns as identified by workshop participants are as shown on the map 4.

Most students in Maliana district travel to Dili, other parts of the country and overseas for tertiary education. A sizeable population in this district were displaced into West Timor during the conflict and lived there for periods between 6-12 months. Businessmen, job seekers, uniformed officers, and drivers were identified as individuals who travel back and forth from Maliana into Dili and other districts. There were a small number of marriages taking place with partners from other districts of Timor-Leste. Due to Maliana's proximity to the border at Batugade, there is the presence of police, customs and immigration officials at the border.



Map 4: Mobility Patterns and Locations of Risk and Support in Bobonaro

5.6 Workshop 5 – District & National Migration Patterns in Cova Lima

The fifth workshop was held in the outdoor youth community hall in Suai, Cova Lima district on November 17, 2005. Thirteen local persons attended; three females and ten males. There was representation from the district Ministry of Education office, the district Ministry of Health and the District Hospital, all other participants worked for either local or international NGOs. All participants lived and worked primarily in Suai sub district but several in the group travelled to the aldeias and sucos on work related matters. Groups of people identified as highly mobile are traders, businessmen, students, drivers, job seekers, policemen and labourers.

Participants at the workshop prepared a comprehensive list of mobile populations and typical travel routes. Major transit and destination/departure points in Suai, were through the border near Salele. Within Suai, young people travel across the district to study in the town centre itself and travel to Dili or overseas for tertiary and university education. There were a lot of uniformed personnel (police and military and international military observers) due to the proximity to West Timor.

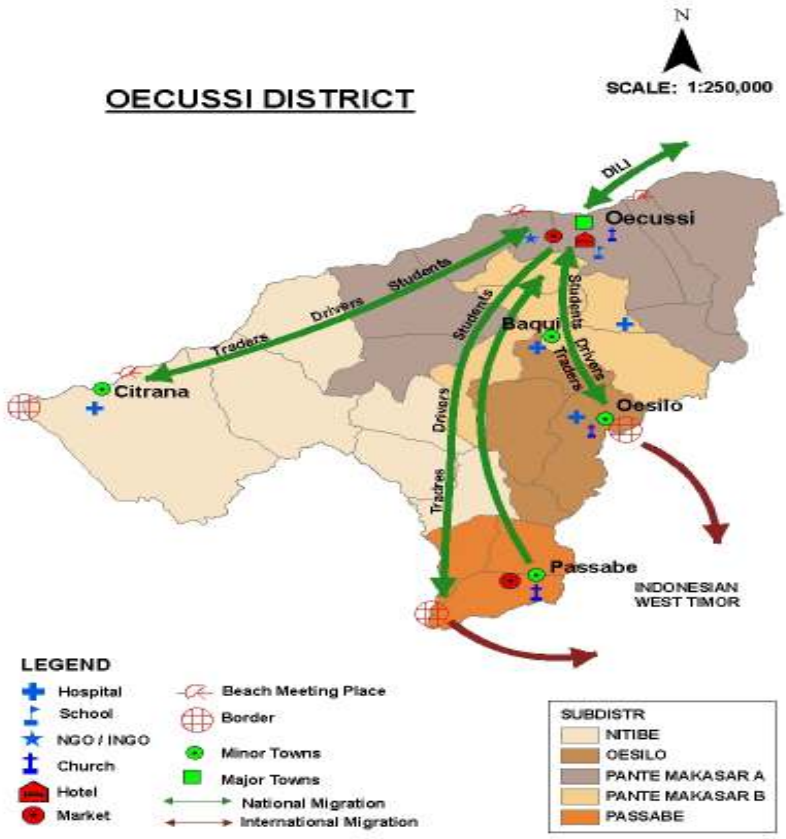
Map 5: Mobility Patterns and Locations of Risk and Support in Cova Lima

5.7 Workshop 6 – District & National Migration Patterns in Oecussi

The sixth workshop was held in the outdoor UNOPS workshop venue in Pante Makassar, Oecussi district on November 23, 2005 attended by fourteen local persons. There was representation from the district Ministry of Education office, the district Ministry of Health and the District Hospital: all other participants worked for either local or international NGOs. All participants lived and worked primarily in Pante Makasar subdistrict but several in the group travelled to the aldeias and sucos on work related matters.

Groups of people identified as highly mobile are tourists, businessmen/traders, students, international NGOs staff, UNOTIL staff, UMNO, policemen and drivers. Other groups of people identified as highly mobile are contractors from West Timor (Kefamenanu, Atambua, Kupang), tourists, passengers or visitors, students, policemen and military. The migration and mobility patterns are as shown on the map 6.

As in workshops in the other districts, participants developed a comprehensive list of mobile populations and typical travel routes to and from Oecussi. Major transit and destination/departure points in Oecussi, were through the port/harbour in Pante Makesar. In particular, the following information was provided: most young people travel from the sub-districts to study in Pante Makesar and/or travel to Dili or overseas for tertiary and university education. There were a lot of uniformed personnel (police and military and international military observers) due to the proximity to West Timor. Many people travelled to Kef in West Timor as goods were cheaper and better in Kef.



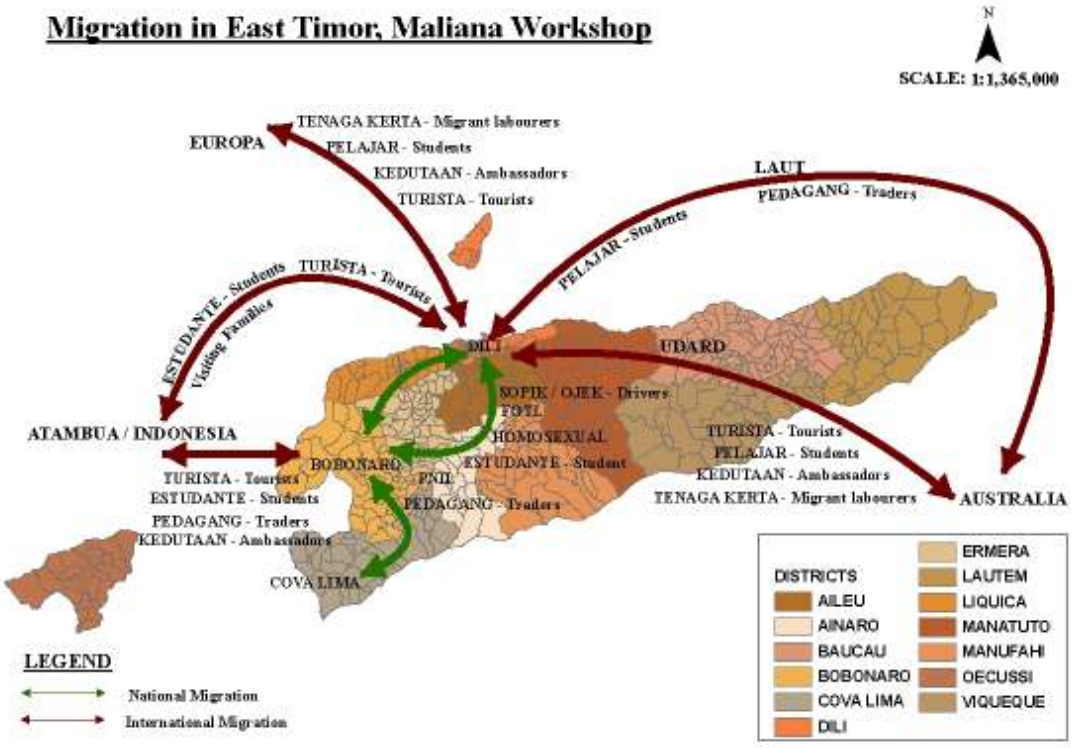
Map 6: Mobility Patterns and Locations of Risk and Support in Oecussi

5.8 International Migration Patterns

Dili airport was identified as the main exit and entry point for all international travel to and from East Timor. There was general consensus that there was international movement amongst students, government official and businessmen. Most students are travelling to Portugal, Indonesia, Australia, Brazil and Cuba to study on scholarships. Government ministers and officials undertake official travel to many countries of the world. Migration and movement from Indonesia into Timor Leste was also discussed during the workshop. Key transit locations include Kupang and Atambua through the border at Batugade. Many participants had been displaced to West Timor for several months during the conflict in 1999 and still had relatives and friends across the border in West Timor.

A comprehensive list of mobile populations and typical travel routes was prepared by participants. Major transit and destination/departure points in Timor Leste identified during the workshop included Suai, Baucau, Maliana, Ainaro and Oecussi. Participants at the Oecussi workshop felt that there is international travel to Indonesia across the border for trade and also to buy goods, meet relatives and take part in celebrations. People also travelled by the ferry to Dili and then to other parts of East Timor. Only a small proportion of people (students, businessmen, officials) travel to Australia,

Singapore, Portugal, Cuba and Brazil mainly on business, to study and on official business.



Map 7: International Migration Patterns as identified during the workshops (this map has been drawn from the Maliana workshop)

Chapter 6

Societal and Personal Vulnerability
Discussion of Emerging Themes

6.0 Societal & Personal Vulnerability

The emerging themes from personal and societal vulnerability discussions during the workshops have been organised into ten themes in this chapter. **Societal vulnerability** includes issues such as political structures, gender relationships, attitudes to sexuality, religious beliefs, violence and poverty. **Personal vulnerability** to HIV, focuses on factors in the individual's environment that render him or her more or less vulnerable, such as physical and emotional development, socio-cultural factors and knowledge and skills. The difficulty of separating or distinguishing societal vulnerability factors from personal vulnerability was acknowledged during group discussions. Workshop participants identified several diverse themes relating to personal and societal vulnerability.

6.1 Poverty

There was a general consensus among all participants that poverty is endemic in Timor-Leste. It was identified that limited financial resources negatively affected a family's ability to access education and healthcare for their children and themselves. Secondary implications of this included a reduced likelihood of securing future employment, thereby continuing the cycle of poverty. Low socioeconomic status also reduced the chances of children continuing with secondary education and young people attending tertiary education. Less knowledge and education due to poverty had an impact on people's lives.

Many people in the districts have extremely low income and in some case no income at all. There is unavailability of work, people do not have fields and often have no regular jobs. Participants expressed that people, especially women and widows, who have no income source often feel extremely vulnerable and have no options to support their families. It was felt by all participants that there is a lack of human resources and skills in the districts and this results in rural residents generally earning a very low income. Thus all participants felt that people in the districts have lower social economic status and poverty was a key determinant that increased vulnerability.

6.2 Education

Workshop participants felt that there was a distinct relationship between poverty and literacy. Consequences of high levels of poverty include high levels of illiteracy due to a lack of opportunity and ability to attend school. A lack of education results in low general knowledge amongst young people. Lack of education thus limits the ability of children and young people to acquire knowledge, thereby impairing their capacity to make wise decisions during their lives. All workshop participants mentioned that a lack of education increases the likelihood of unemployment with one potential reported

consequence of this being that unemployed individuals may be more likely to engage in commercial sex as a means of income generation.

Low levels of education, due to lack of opportunities to access secondary and tertiary education; meant that young people are disadvantaged, have less or no knowledge of health and of available services in general. Most workshop participants in Oecussi district felt that the district had lower education levels and a lower literacy rate. There were no jobs available for those with low qualifications, especially in Oecusssi and therefore the unemployment rate in the district was extremely high.

6.3 Gender Roles and Norms

The Timorese government is currently trying to improve gender equality in this new nation. Traditional Timorese culture is patriarchal. Choices about sexual initiation, frequency, and use of contraception are generally made by men. Interestingly some participants felt that gender equality led women '*to not respect'* their husbands when women begin to understand that they have the same rights as men. It was mentioned that promoting equality leads to increased rates of domestic violence as husbands feel that they are no longer respected by their wives. Gender equality was also associated with increasing rates of divorce and family breakdown but participants acknowledged that there is no evidence to support this.

It was also felt by workshop participants that widows were affected in making decisions about earning money for her family, especially her children. A widow feel that the responsibility of the entire family is all hers, and she is often unable to sustain herself and her children, this affects her ability to make decisions about earning money and makes her vulnerable to commercial sex activity. It can also lead to underage marriages for her female children. Culture and tradition play a very important role in the lives of the Timorese. Women also lack resources and property rights in society. All these factors result in extremely low participation of women in the development process.

6.4 Marriage Practices

Underage marriage and arranged marriages were proposed as societal vulnerability factors. In addition, the traditional practice of men paying a dowry to the woman's family was also discussed in relation to abuse against women and divorce. Due to dowries and bride price paid by the man, men consider themselves to be more powerful than women and there is a sense of ownership of the women they marry.

It was discussed that within Timorese culture it is relatively common for married men to have *affairs* and pursue *multiple partners*. During the Liquica debate, one male participant stated that if a husband chooses to have more than one partner it is usually the fault of his wife for failing to satisfy him. This statement was seen by the other participants as being very negative.

Bride price and dowries lead most men to think that they own their wives and can do what they wish with them. Bride price paid by the man in some cases leads to underage marriages and consecutively leads to increasing rates of divorce. Divorce, the workshop participants felt was influenced by western culture.

6.5 Stigma and Taboos regarding Sex and Homosexuality

Several discussion groups during the workshops attributed societal vulnerability to the fact that discussing sex or related matters is considered taboo amongst the population in Timor Leste. This issue directly impacts upon the availability of sex education in schools and thus the knowledge base for young people, especially in regards to safe sexual practices. Neither is this information available elsewhere, as discussions regarding personal and sexual issues do not occur at any other time, even between peer groups or parents and children.

The stigma associated with sex also impacts health service utilisation, with workshop participants claiming that many people are too embarrassed or shy to access health services when dealing with sex related problems. Likewise, individuals with sex related problems are discriminated against for their perceived shameful health situation. As the above vulnerability factors demonstrate understanding about HIV/AIDS in Timor Leste is very limited.

Workshop participants felt that there is a visible group of homosexuals in Dili. This group of people are highly vulnerable to HIV/AIDS due to their sexual habits, behaviour. Anecdotal evidence suggests that homosexuals have multiple partners and are likely to be bisexual. Participants felt that it was important for community leaders, health workers and youth workers to be sensitised and further educated about this group.

6.6 The Influence of Faith-based Organisations - the Catholic Church

Although East Timor is a strongly Catholic country, workshop participants spoke of the contradiction that exists between the government and church. The Catholic faith opposes condom use and contraception, as a child is considered a gift from God. Participants also commented that the church does not encourage openness about sex or HIV/AIDS, thus compounding the shame and taboo already attributable by cultural factors. Workshop feedback also suggested that HIV/AIDS vulnerability may be increased by the above factors. However, some workshop participants reported that there has been dialogue between the Catholic church and the Minister of Health in East Timor in planning interventions and sex education programs for communities.

6.7 Westernisation

On several occasions during the workshop ‘globalisation’ or ‘westernisation’ was blamed for the introduction and spread of HIV/AIDS in Timor-Leste. Directly linked to this issue was discussion on the inappropriate clothing worn by female foreigners which was believed to arouse men. It was stated that prior to the influx of international aid workers and peace keepers, sex workers were never observed and were not present in the country. Foreigners were also blamed for the introduction and proliferation of pornographic movies into Timor-Leste. Due to mobility and international workers there is an influence of western culture in Timor-Leste. Advanced technology means people can access information on the internet that is both good and bad.

6.8 Domestic Violence and Divorce

Workshop participants expressed their thoughts on domestic violence and divorce and revealed that a lack of power balance and gender imbalance in relationships is a major contributor to domestic violence in Timor-Leste. Reduced affection towards children, with subsequent implications regarding general wellbeing and adjustment, are perceived to be the negative long term effects of domestic violence and abuse. It was also proposed that single mothers were more likely to engage in sex work in order to make money. Participants also believed that men from violent or conflicting marriages were more likely to frequent sex workers and engage in unprotected sex.

6.9 The Environment

An additional societal vulnerability factor identified by workshop participants was that of the influence of immediate environment in which an individual lives. For example, it was proposed that if one's neighbour was a sex worker then this may increase an individual's likelihood of considering this form of income generation. It was also felt that if there were CSWs in the neighbourhood who were well-off or comfortable it may encourage their peers to also consider sex work in order to enjoy the same lifestyle.

6.10 The Political System

Workshop participants felt that the current government is unable to alleviate poverty and is not addressing the multifaceted endemic educational and health issues faced by the Timorese. In addition the system is not seen to aid social or economic development at district or sub-district levels or in rural areas. There is also a general lack of information on health and related issues in the district and sub districts.

By examining personal and societal vulnerability, the focus group discussions provided a good indication of the barriers perceived by participants that increase vulnerability and impede access to general health care services like voluntary testing, counselling and access to information.

Chapter 7

Results of the Migration Patterns and HIV/AIDS Awareness Household Survey

7.0 Introduction to the Chapter

This chapter reports the analysis of the Migration Patterns Survey administered to 1213 participants in six Districts of Timor Leste: Dili/suburbs, Baucau, Bobonoro, Liquica, Cova Lima and Oecussi. This household survey was administered from September to December, 2005 by a team of eight local survey administrators and co-ordinated by a survey supervisor. As reported in Chapter 4, the households were randomly selected using a multi-stage cluster sampling strategy with information from Census 2004 and Suco survey 2001.

7.1 Demographic Data

7.1.1 Survey Distribution in the Six Districts

The chart in Figure 7.1 indicates the number of surveys administered in each of the six districts. The number of surveys administered in the six districts was 365 in Dili, 240 in Baucau, 135 in Liquica, 188 in Bobonaro, 145 in Cova Lima, and 140 in Oecussi. The overall number of surveys administered in the six districts was 1213.

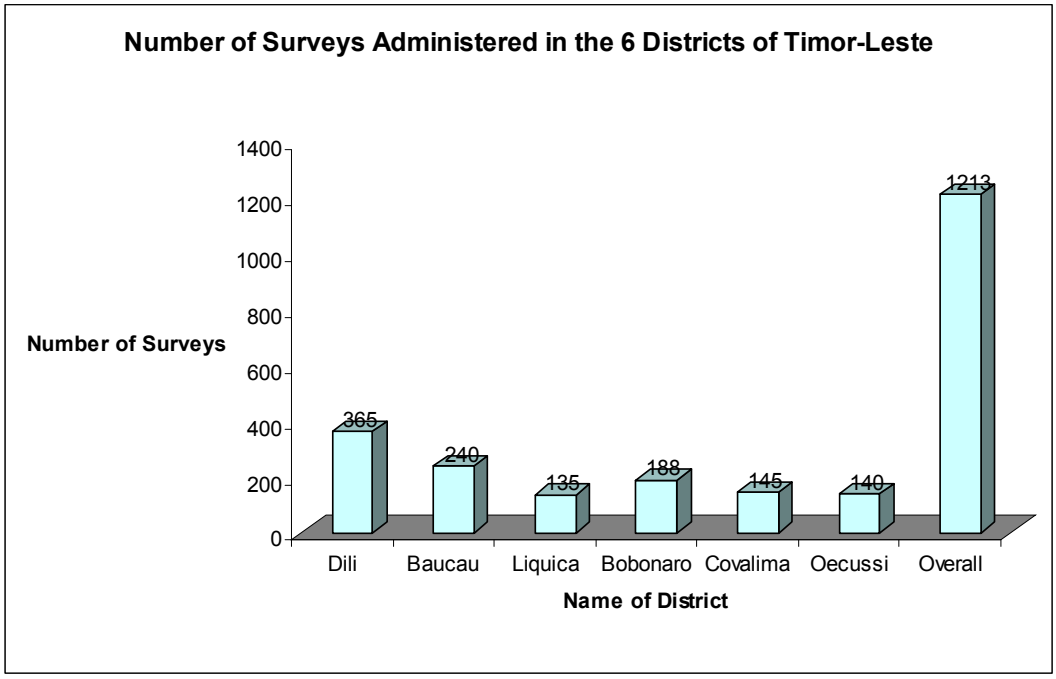


Figure 7.1: Numbers of surveys administered per district

7.1.2 Gender of survey respondents in the six districts

Overall, the gender distribution of the survey respondents (n = 1200) was 53.2% males and 46.8% females (see Figure 7.2), although this varied by district and varied significantly in the districts of Baucau and Oecussi. This variation can be explored in future research.

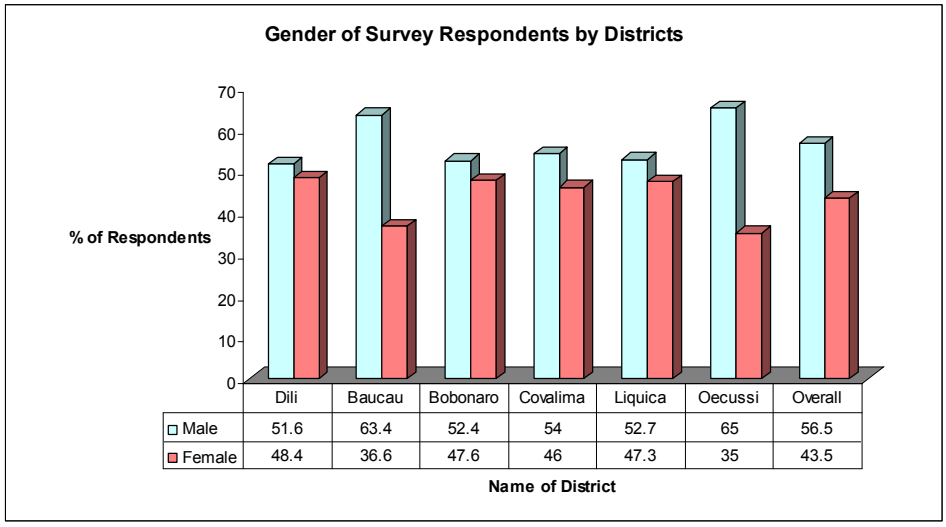


Figure 7.2: Gender of survey respondents by district

7.1.3 Population Characteristics of Respondents

7.1.3.1 Age of Survey Respondents

The mean age of survey respondents was 37.5 years (n = 1201). Although this was a survey of randomly selected households, respondents had to be aged 18 years or more to be considered 'heads' of household. However a small number of respondents, 1.3 % (n=16) were in the age group of 15-17 years. It must be noted that the age of marriage is quite low in Timor-Leste. 3.6% (n=43) of the surveyed sample were in the age group of over 67 years. The data for age has been stratified and are shown in Figure 7.3.

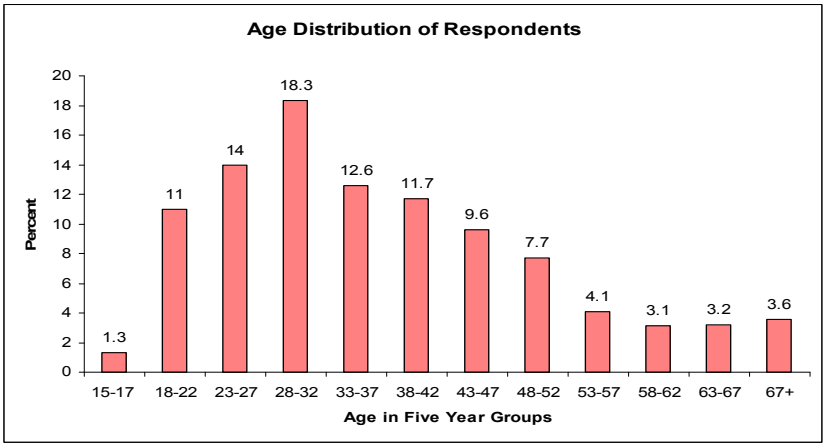


Figure 7.3: Age of respondents in 5 year groups

7.1.3.2 Average Number of Children in Households and Survey Districts

84.2% of survey respondents had children; the mean number of children was 4.1 for the overall sample (see Figure 7.4). Figure 7.5 shows the number of children per participant overall and for each of the six districts. The mean number was highest for Liquica (4.4) and lowest for Cova Lima (3.6).

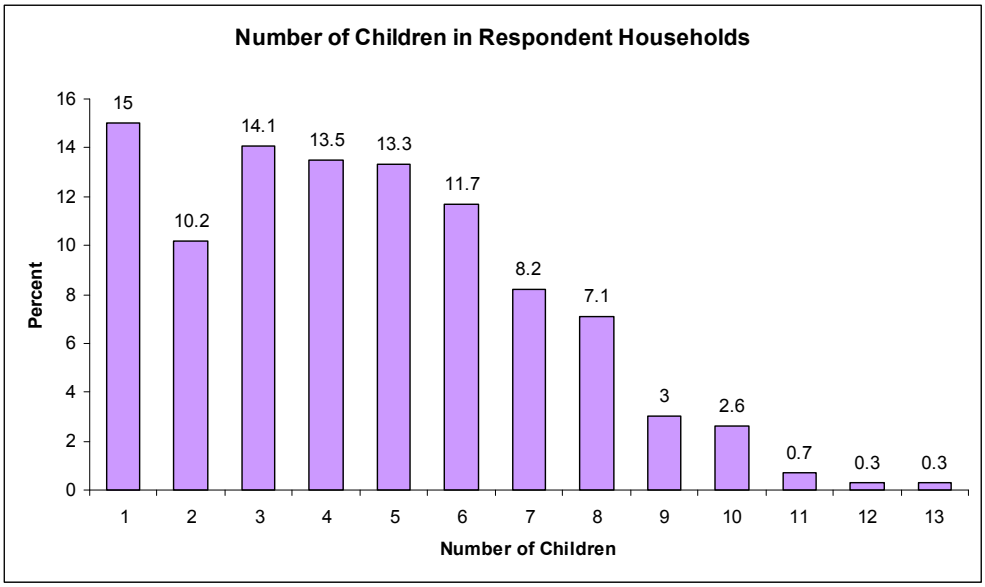


Figure 7.4: Number of children in respondent households

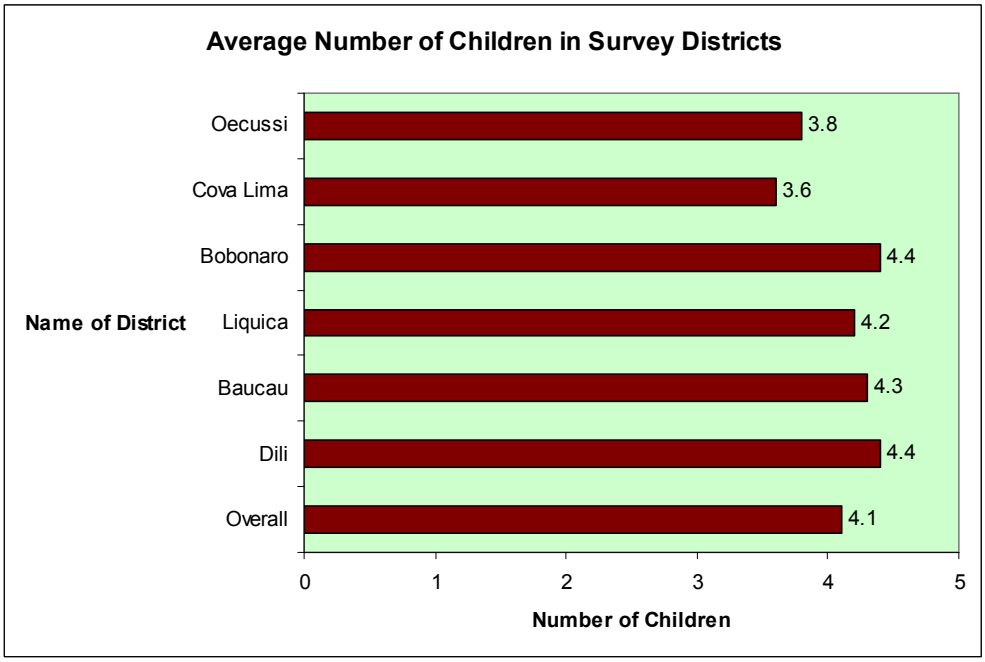


Figure 7.5: Average number of children in survey districts

7.1.3.3 Number of People per Household in the Respondent Sample

The mean number of people living with survey respondents in their homes in the complete sample was 6.5 people per household (n = 1203). The data were further examined as to the number of people living in respondent households for each of the six districts and are shown in figure 7.6.

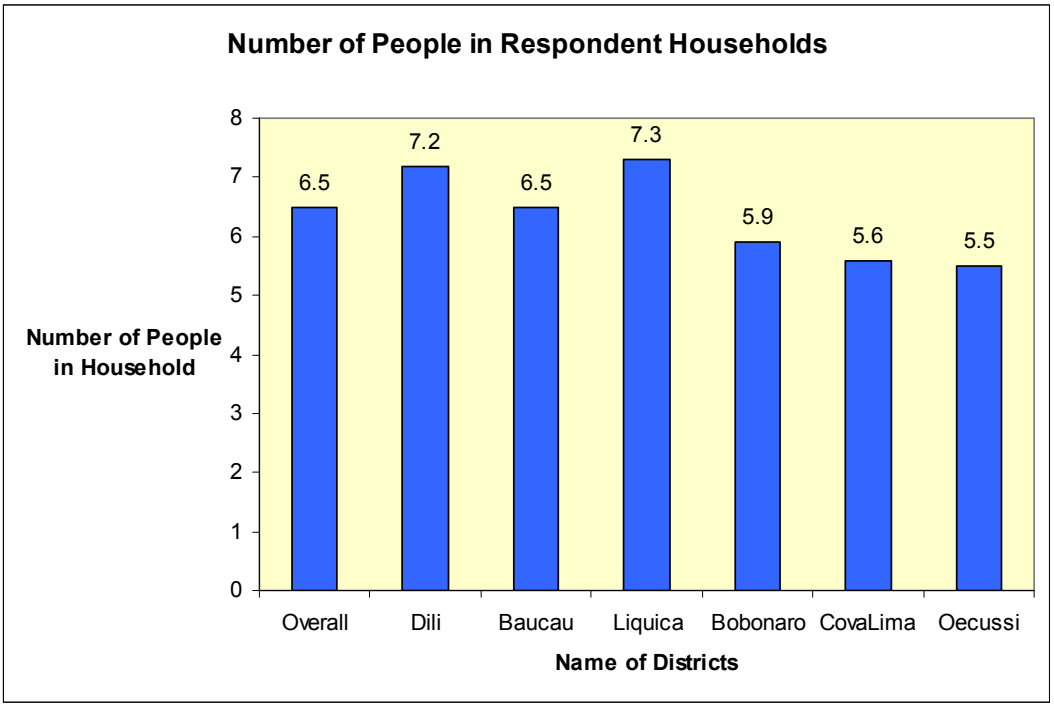


Figure 7.6: Number of people in respondent households in survey districts

7.1.2.4 Marital Status of Respondents

Nearly 80% of respondents in the survey sample (n = 1209) were married (78.1%) or living with a partner (2.6%), and only 4.8 % were widowed or separated. An interesting fact was that 26.9 % of respondents in Dili district were single or unmarried, with an overall district average of 14.2 % of single respondents. The single population of Dili can be targeted for future research, programming and interventions.

7.2 Language and Literacy of Respondents

7.2.1 Language spoken by Respondents

In the demographic section of the survey, respondents were asked what was the main language spoken at home. The main language spoken by respondents in most households (85.9%) was Tetum, with the exception of Baucau where only 57.6% of respondents spoke Tetun. Baucau displayed an interesting characteristic with nearly 42.4% of households speaking another local dialect (Figure 7.7).

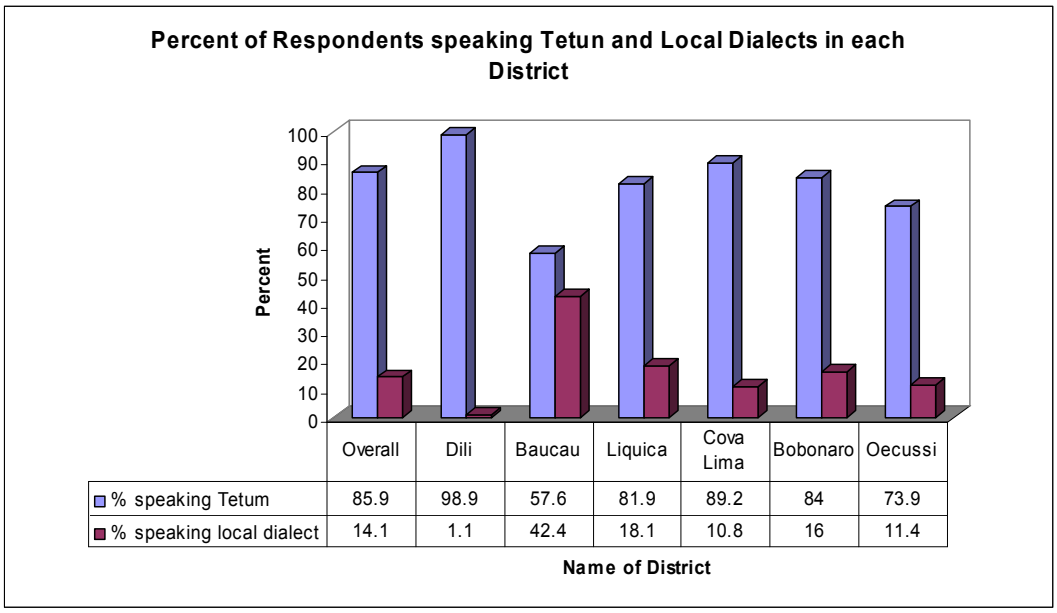


Figure 7.7: Percent of respondents speaking Tetun and local dialects in survey districts

7.2.2 Literacy Levels of Survey Respondents

The data analysis revealed that only 65 % of all respondents were literate with significant variations in literacy in each district. Dili had the most literate population with 85.5 % of respondents having had some form of schooling. Three districts – Baucau (52.3%), Bobonaro (47.8%) and Cova Lima (58.4%) had significantly low levels of literacy and this aspect will need to be taken into consideration when designing programmes and interventions (Figure 7.8).

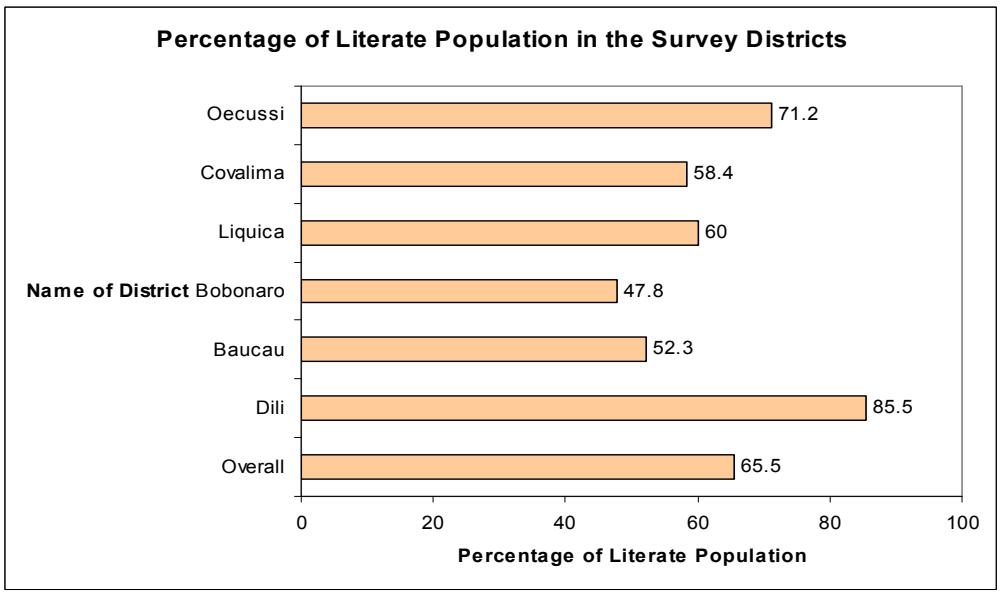


Figure 7.8: Percent of literate population

7.2.3 Educational Level of Respondents

As can be seen in figure 7.9, respondents in Dili were most likely to have gone to school (n = 1158). Nearly 86% of the sample in Dili had some schooling and 44.9 % had completed secondary school. In the other districts approximately 27.4 % only of the population had completed secondary school.

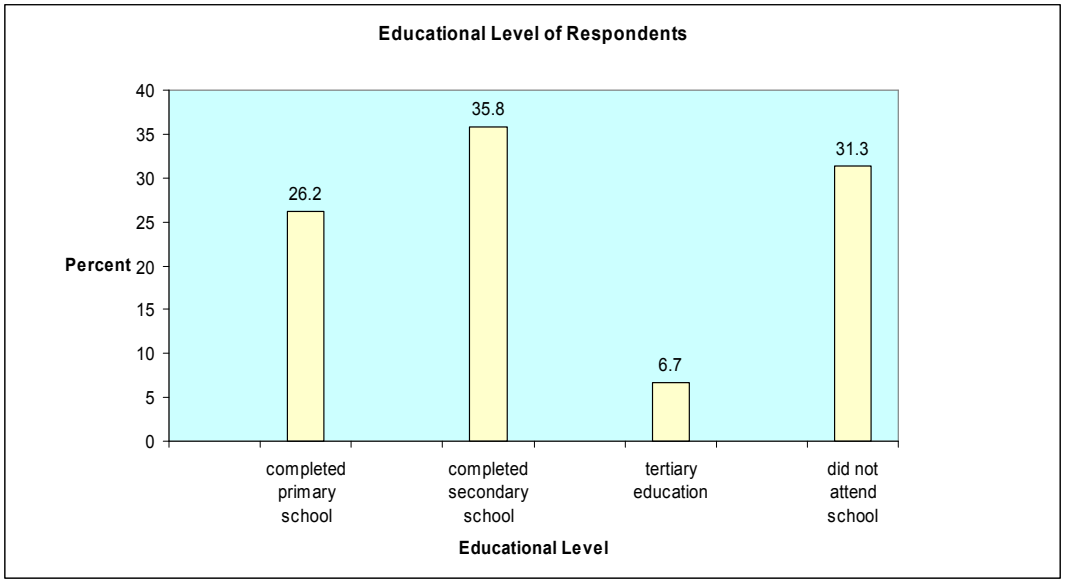


Figure 7.9: Educational level of respondents

7.3 Socio-Economic Data

7.3.1 Occupation of Survey Respondents

Survey respondents had a variety of occupations as seen from Figure 7.10 (n = 1078). The majority of respondents (37%) were employed in farming, followed by 23% self-employed in small businesses. Those employed by the government, police, army, teaching and in the health sector were less than 5%. About 4.3 % of the samples were students. In Dili a larger group reported to be working for wages or being a student as compared to the other districts.

Many respondents were unable to provide accurate figures for weekly income earned. Of those who did state numbers, the largest group had access to more than USD 90 per week. This varied widely between districts, with the largest proportion of respondents earning more than $ 90 US a week being in Dili; the smallest proportion were in Baucau and Liquica. The survey revealed that only a very small proportion of Timorese receives remittances from family members within Timor-Leste or overseas (3.9%).

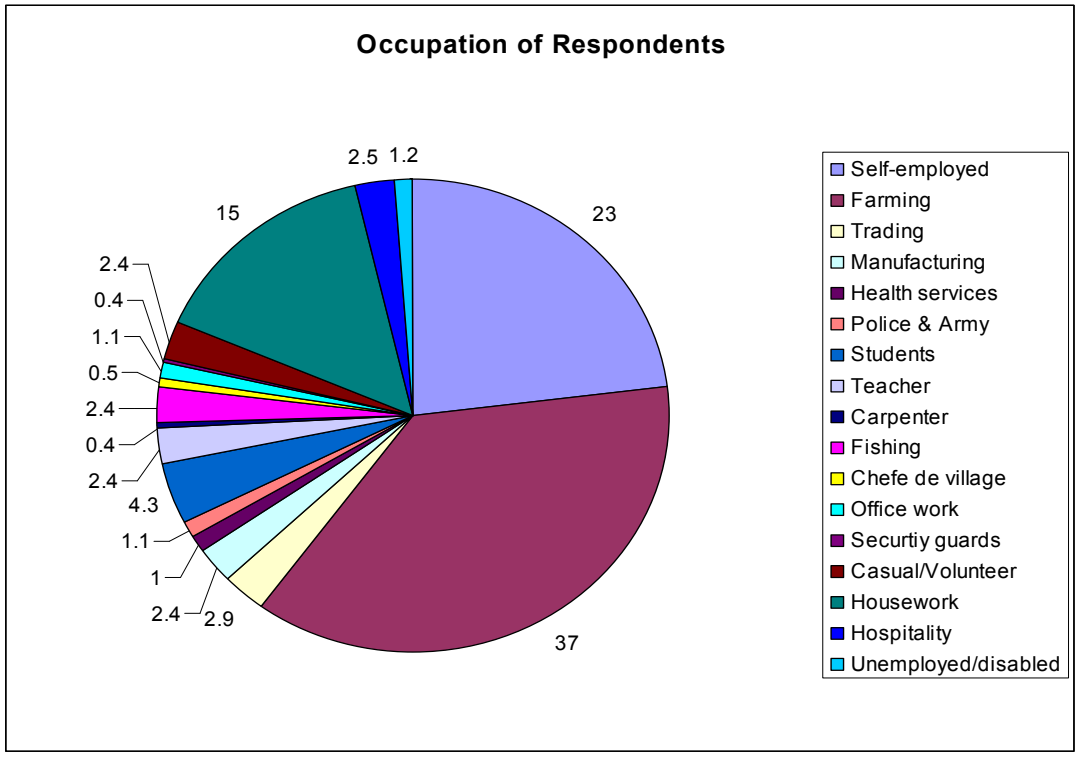


Figure 7.10: Occupation of respondents

7.3.2 Access to Infrastructure

7.3.2.1 Ownership and Type of House

The houses that survey respondent lived in were owned by the family in 89% of cases (n = 1200); 11% stated that they did not own the place they lived in but were renting. The houses were constructed of wood (52%), brick (36%), grass (7%) and mud (2%) (see figure 7.11).

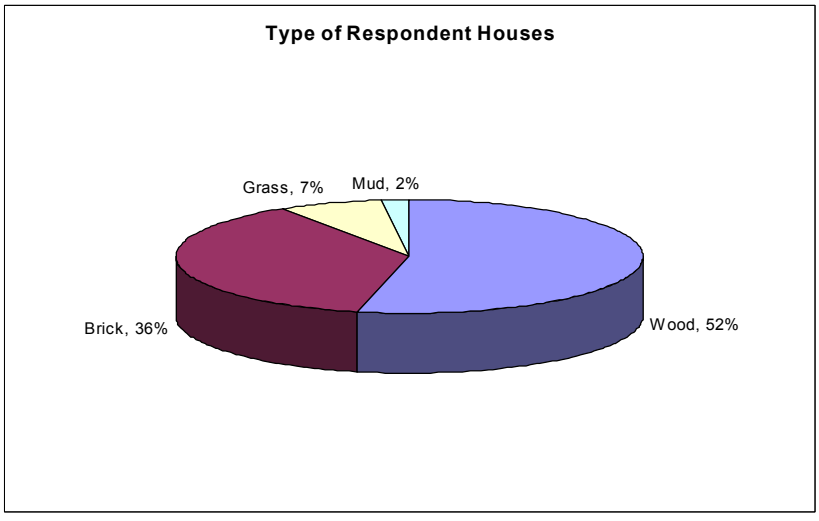


Figure 7.11: Type of respondent houses

7.3.2.2 Access to Water

For most households in the survey, the water source was from a common water well (39%), followed by piped water (29%), tube well (20 %) and a common outdoor tap (12%), (n = 1195) see figure 7.12.

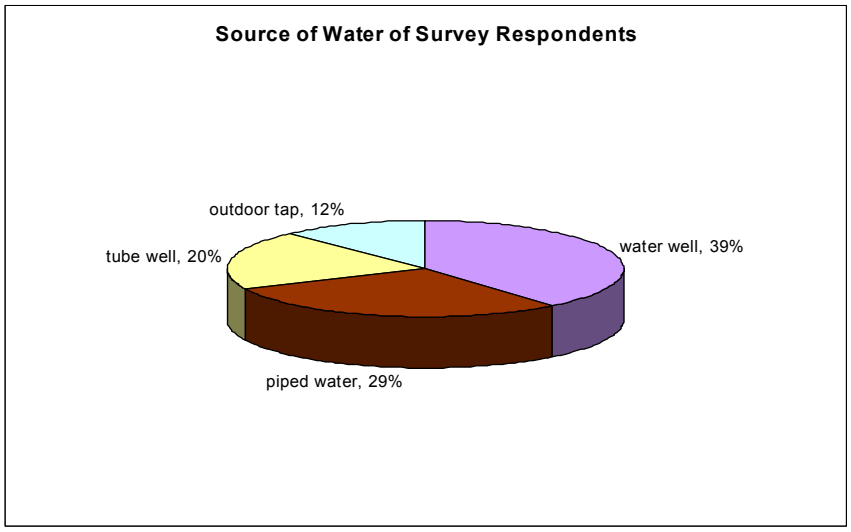


Figure 7.12: Water source of respondents

7.3.2.3 Sanitation Facilities

Only 75.6 % of households had access to a toilet and 24.4 % of households had no sanitation facilities at all (n = 1200). In many of the rural households respondents made use of fields and bush land for sanitation. In the households that had toilets, 82% were outside the house. These toilets were pit latrines in 48.9 % of the sample, flushing toilets in 30.9 % of the sample and common shared toilets in 20.2% of the sample.

7.3.2.4 Access to Electricity, Radio and TV

In the households surveyed (n= 1209), 61% of households were connected to electricity but supply of electricity from the district is limited and only 4% of sampled households had access to a generator. Access to modern means of media and communication was explored by asking about radio and television ownership and access respectively. Out of the households included, 47% owned a radio. However, only 7% of households that did not own a radio had access to a radio in the vicinity. Similarly, only 31 % of surveyed households owned a television (Figure 7.13).

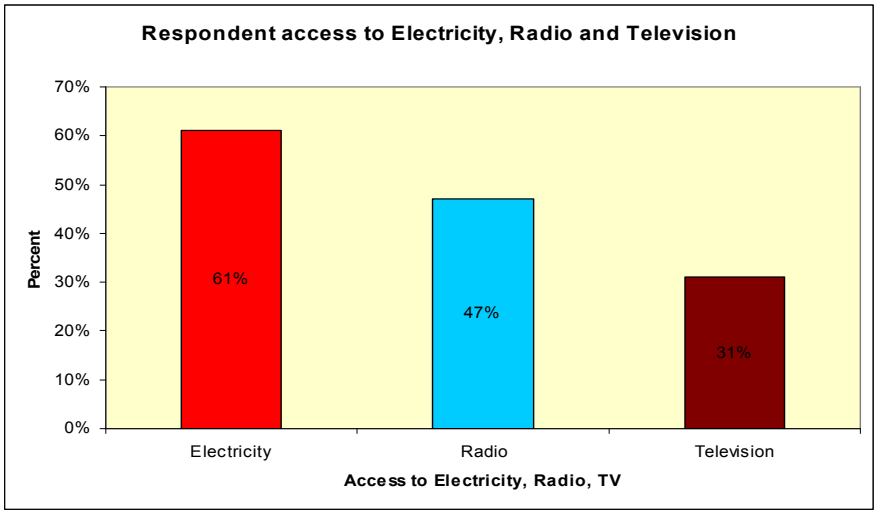


Figure 7.13: Respondent access to electricity, radio and television

7.4 General Health Characteristics of Respondents

7.4.1 Perceptions about State of Health

Respondents were asked about their state of health (n = 1201), only 7% reported their health as being excellent, 54% felt that they were in good health, 37% reported average health and had some health concern, 2% of the respondents had poor health (Figure 7.14).

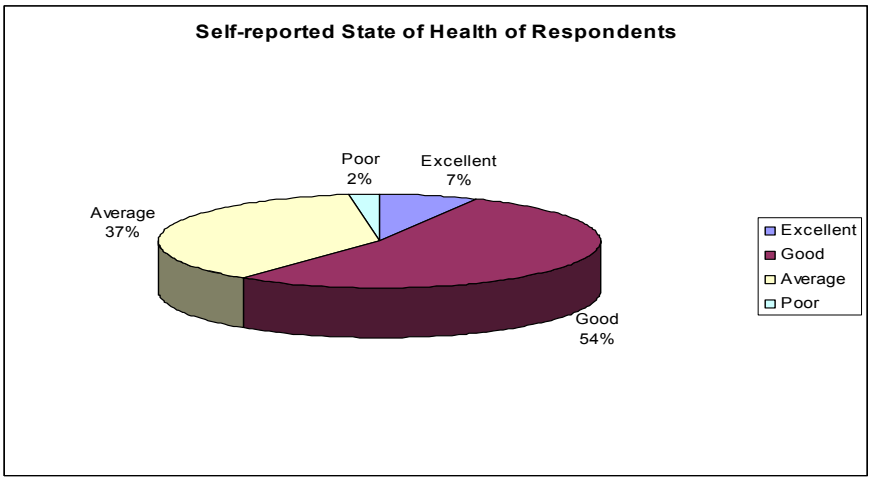


Figure 7.14: Self-reported state of health of respondents

7.4.2 Self-reported Health Concerns of Respondents

Asked about health concerns (figure 7.15), 75% of respondents were concerned about malaria followed by TB (28.5%), Dengue (28.1%), Respiratory Infections (26.8%) and Diarrhoea (17.5%). Only 14.5% of respondents were concerned about HIV/AIDS.

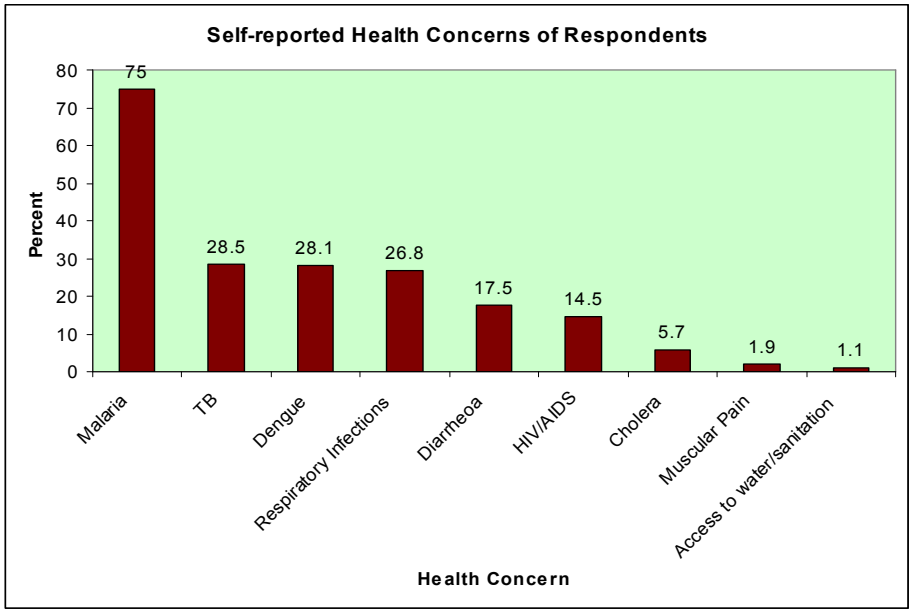


Figure 7.15: Self-reported health concerns of respondents

7.4.2 Where Respondents go for Treatment During Illness

Respondents (n = 1213) were asked where they went for treatment during illness, 45.3% reported that they went to a health centre; but a large proportion 30.2% went to a traditional healer. Only a small percent visited the government hospital (8.5%), a pharmacy (5.8%) or a private doctor (2.3%) (Figure 7.16).

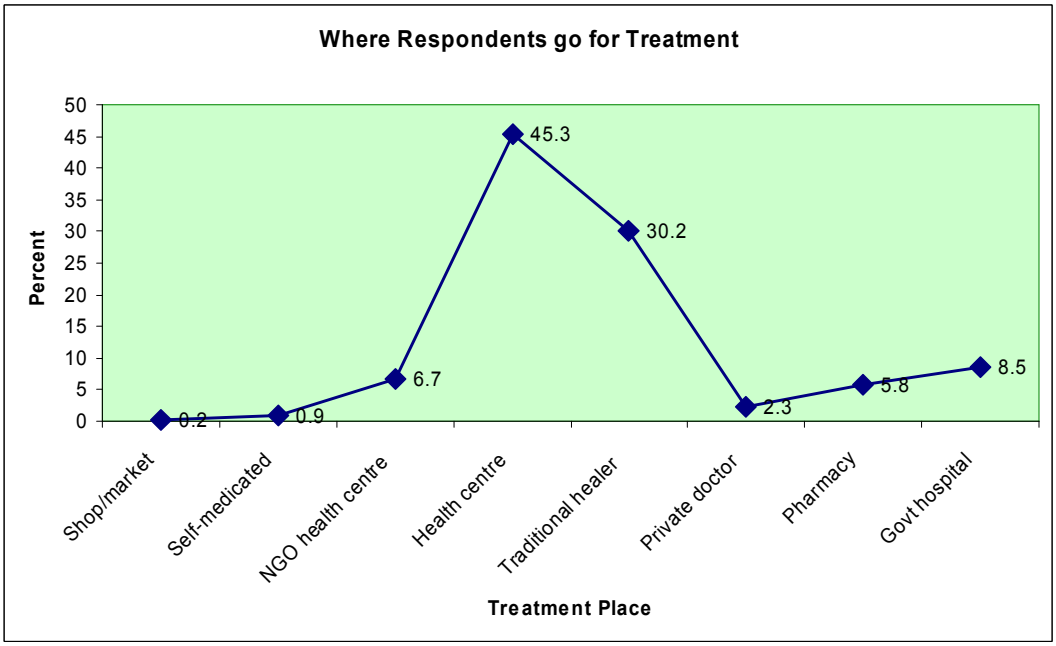


Figure 7.16: Where respondents go for treatment during illness

7.5 Migration and Mobility Patterns

7.5.1 Displacement during the 1999 Conflict

Nearly 83.9% of respondents had been displaced during the conflict in 1999 (n = 1200). Of those displaced, 49% stated they had fled to another district or the hills in East Timor and 40 % had left the country.

Of the displaced respondents, 28% returned within the first 6 months after the conflict; and equal proportions (9%) returned within 6 months to a year and after one year respectively. The proportion of respondents, who had been displaced during the conflict, varied within the 6 districts (see figure 7.14). Oecussi and Cova Lima had the largest proportions of displaced persons in this sample during the conflict. Most displaced persons returned with the help of an international NGO or the United Nations (38%) (Figure 7.17)

Five per cent of respondents stated they were injured during the conflict; the most common injury was caused by being beaten. Another 8 % reported another family member being wounded during the conflict, 7% reported a family member gone missing during the conflict and 10% of the sample reported a family member having died during the conflict, most of whom were male relatives.

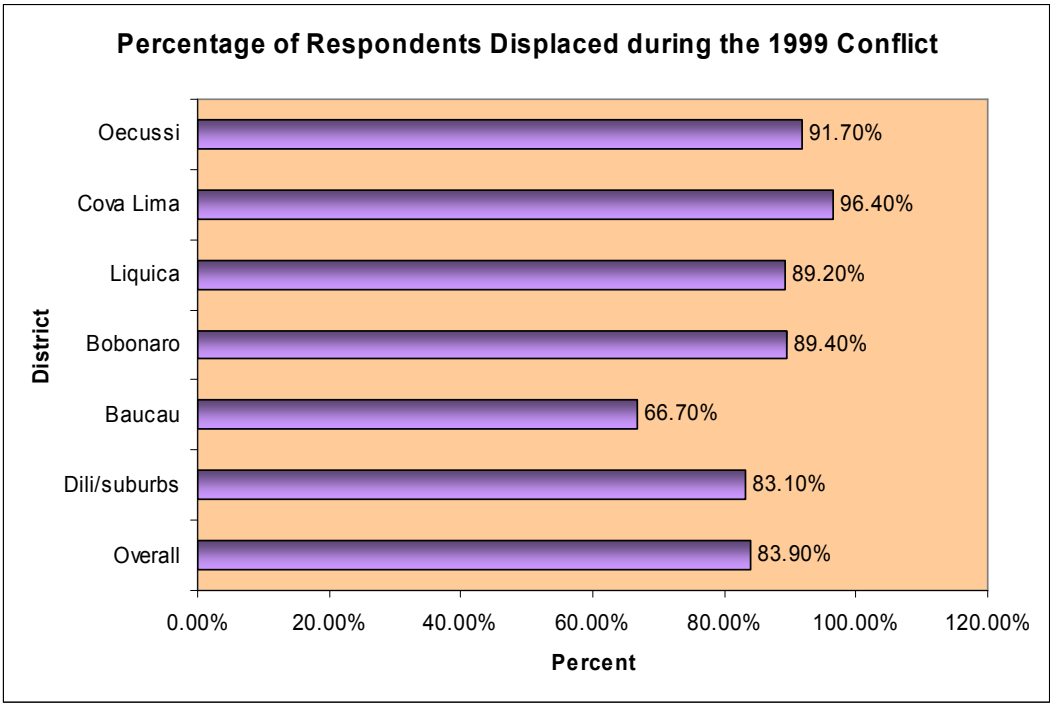


Figure 7.17: Percentage of respondents displaced during the 1999 conflict.

7.5.2 Migrant Characteristics of the Surveyed Sample

A time of less than or equal to six years of living in their place of dwelling when the survey was conducted was chosen as the definition as to whether respondents were migrants; anyone resident for ≤6 years was considered a 'migrant'. This time period was chosen as it was six years from the time of the conflict (following the referendum in August, 1999) until the commencement of the data collection for this survey in October,

2005. Analysis revealed that 24.1% of respondents were migrants (n = 292). Data analysis indicated that migrants were **more likely** to:

- Have gone to school than non-migrants [(63.8% non-migrants) vs (82.7% migrants)] said "Yes" they went to school (p=<0.001).
- Be **more** educated, ie, had some high school education, completed high school or tertiary education (p=<0.001).
- Be younger than non-migrants and to be in the 18-30 years age group. (mean age of migrants = 29.58 yrs vs mean age of non-migrants = 39.00yrs) (Independent sample T-Test , (p= <0.001).
- Be single/separated/divorced and/or away from their families than non-migrants. A univariate analysis to look at difference between migrants and non-migrants for the collapsed variable (single/separated/divorced) showed that migrants were more likely to be "single/divorced/widowed" (p=0.001).

Analysis of the data also suggests significant migration to Dili among respondents (36.3%). There was little evidence to suggest significant migration in the other survey districts.

7.6 HIV Knowledge, Attitudes and Practices of Respondents

7.6.1 HIV Knowledge of Respondents

Respondent (n =1199) HIV knowledge indicated that 60.4% of respondents had heard of and/or believes that HIV/AIDS exists, 46.9% believe that HIV exists in Timor-Leste. 21.4% of respondents feel that HIV can be treated and 6.2% that HIV is curable. Respondents were asked 18 questions on HIV knowledge, attitudes and practices; 26.7% had no knowledge of HIV KAP at all (see figure 7.18).

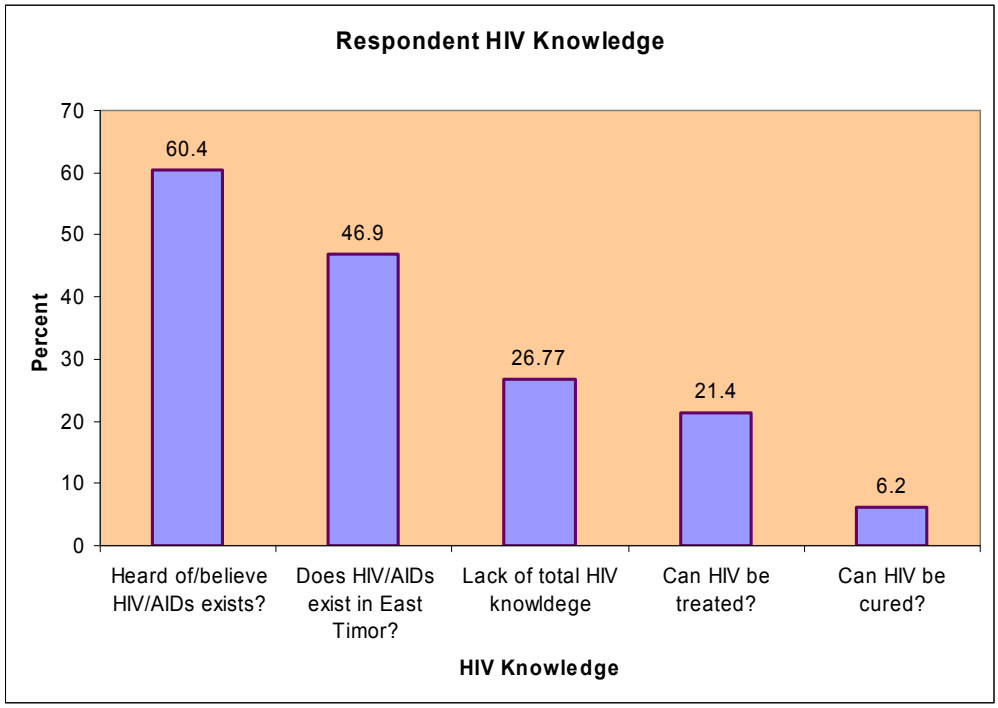


Figure 7.18: Respondent HIV Knowledge

7.6.2 HIV Transmission Knowledge of Respondents

Knowledge of mode of transmission of HIV was quite low among respondents (n=1087) as displayed by Figure 7.19 with approximately 50% of respondents unaware of transmission modes of HIV. There were also misconceptions about HIV transmission with 24.5% reporting HIV transmission by touching, 33.3% reporting HIV transmission by drinking from the same cup and 18.4% by sharing the same toilet. Respondents were aware that HIV can be transmitted by not using condoms (54.7%), through blood transfusions (55.1%) and from mother to child (54%).

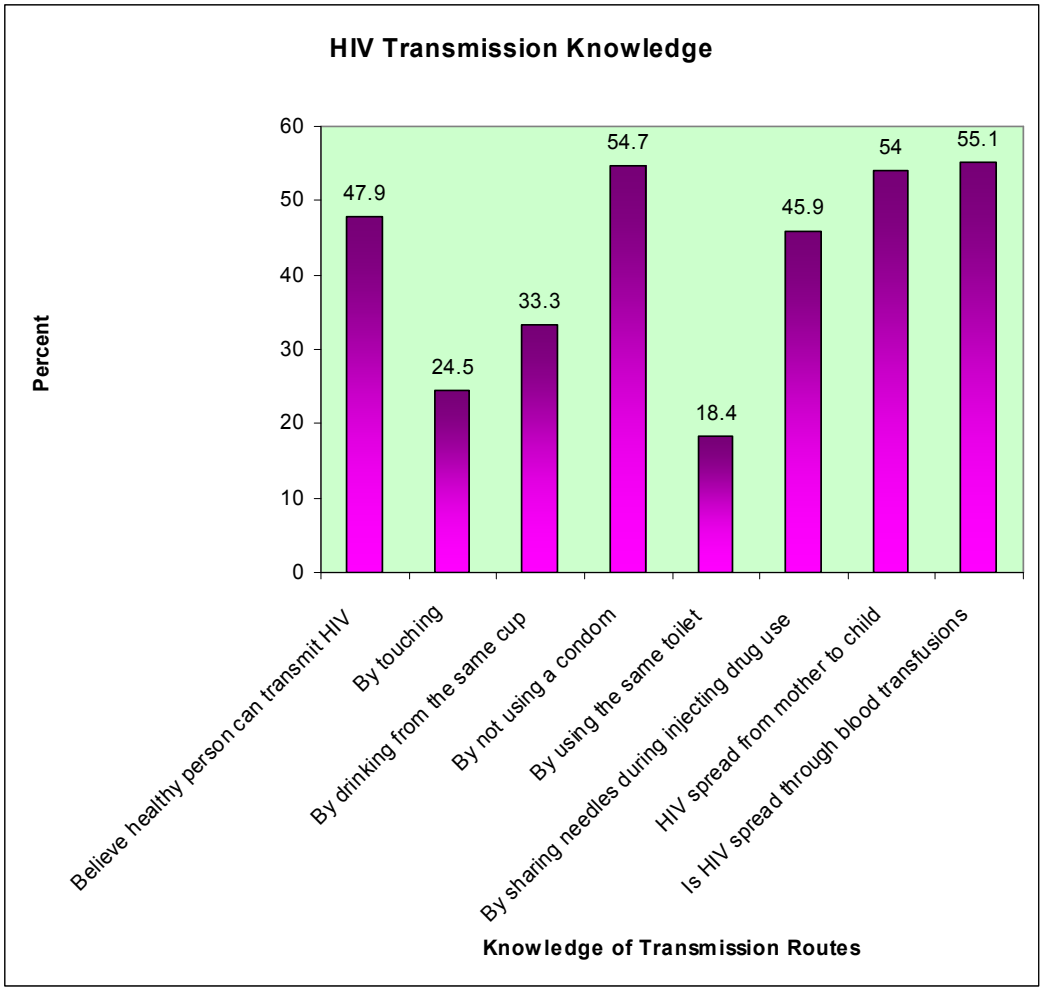


Figure 7.19: Knowledge of HIV Transmission Routes by Respondents

7.6.3 Condom Knowledge and Usage by Respondents

Only 44.3% of respondents (n = 1188) had heard about condoms. Condom usage among survey respondents was extremely low with only 7.3% of respondents having used condoms. 34.2% of respondents were unaware that condoms prevent pregnancy and 35.3 % were unaware that condoms can prevent STIs/HIV.

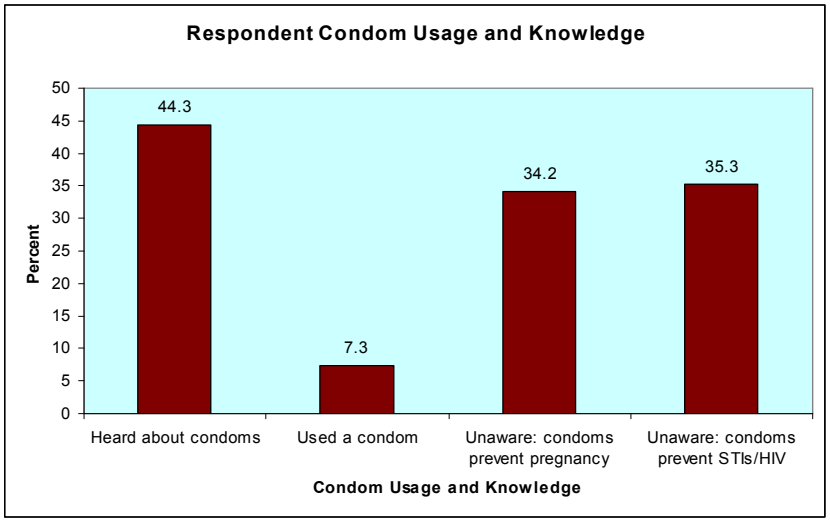


Figure 7.20: Respondent condom knowledge and usage

Only a small number (4.8%) of survey respondents felt that they were at risk of being infected by HIV, 4% had more than one sexual partner in the last 12 months and only 3.5% of respondents felt that sex workers were at risk of being infected.

7.6.4 Reasons for Condom Non-usage as Reported by Respondents

The chart in Figure 7.21 displays reasons for condom non-usage as reported by respondents (n = 1132). 56.9% respondents reported not knowing how to use condoms, 12.2 reported not liking condoms. A small percentage of respondents (1.3%) were not sure where to get condoms. The study has revealed that condom usage is extremely low in this predominantly catholic country.

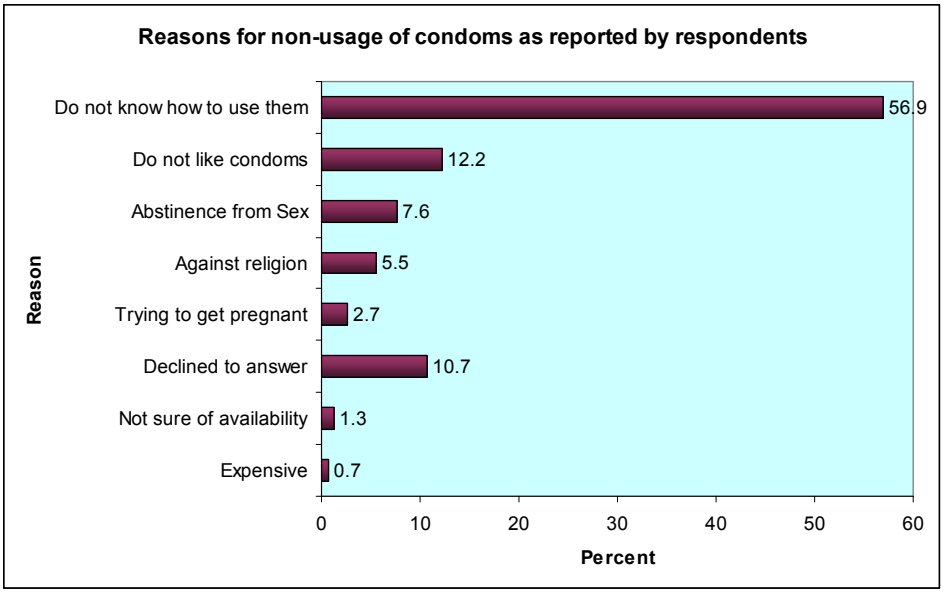


Figure 7.21: Reasons for non-usage of condoms as reported by respondents

7.6.5 Comparison of Migrant and Non-migrant HIV KAP

A comparison of migrant and non-migrant HIV knowledge, attitude and practices revealed that migrants were more likely to have heard of HIV than non-migrants. This is not surprising as migrants were likely to be more educated than non-migrants. Migrants were more likely to believe that HIV exists than non-migrants and that HIV can be passed from one person to another. Migrants were more likely to know that HIV can be transmitted by having sex without a condom with an HIV positive person, through blood transfusions and from mother to child. Analysis revealed that migrants were more likely to have had more than one sexual partner in the last 12 months, p= (<0.001).

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Chapter 8

Discussion, Recommendations and Conclusions

8.0 Introduction

Results from the workshops and the survey have been discussed individually in the preceding three chapters. Both tools – VAMWs and survey – have provided valid detailed information that is generalisable and allows for an understanding of issues related to migration, mobility and HIV/AIDS KAP in Timor-Leste. This chapter makes recommendations on possible future research, interventions and programming.

8.1 Discussion

8.1.1 HIV Knowledge, Awareness, Attitudes and Practices

The VAMWs and MPS survey documented a very low knowledge and even awareness of HIV/AIDS. Of the 1213 respondents, 60.4% had heard of HIV/AIDS, but were not sure whether there was any in Timor-Leste. Most VAMW participants and survey respondents were misinformed and had very poor knowledge regarding possible modes of transmission of HIV.

Knowledge about and usage of condoms was alarmingly low; only 44.3% of respondents had heard of condoms, and only 7.3% had ever used one. The most frequently given reasons were: not knowing how to use a condom or a dislike for using a condom. Only a third of the sample knew where condoms could be obtained, that they can be used as a contraceptive and to prevent transmission of HIV/STIs.

An issue which emerged strongly at all workshops was the traditional role of women in East Timorese society being an impediment to HIV/AIDS knowledge and sex education. The patriarchal structure of East Timorese society makes women vulnerable, as they cannot negotiate safer sex and have no say in family planning matters (i.e. the number and spacing of children).

Sex and related topics are taboo in East Timorese society. To date, there is no sexual health curriculum for high schools, although some international organisations and NGOs are currently involved in implementing some programmes. The Catholic Church, which has a considerable influence on Timorese society, discouraged open discussion of sexual matters and/or condom usage. During workshops, many respondents stated that adolescents find out about sex by experimenting amongst themselves, as neither information nor guidance is provided on sex and sexual health either within families or schools.

Illiteracy, poverty and a lack of employment and income generating opportunities increase vulnerability. Information through the media is limited and respondents on the whole did not have access to information. This applied particularly to young people who migrate in the search of employment. A low level of knowledge about sexual health, low levels of literacy, poverty and migration have been shown to significantly increase vulnerability to HIV.

8.1.2 Vulnerability Assessment in Timor-Leste

Workshops in all districts identified some high-risk locations in each district. However, commercial sex venues are uncommon, sex services may be offered from private homes and in an informal manner. Apart from Dili, where there might be some form of discreet and organised commercial sex industry, there are hardly any districts where respondents identified commercial sex venues. High-risk locations, which have been identified in most districts, were popular beach 'hang-outs' and market places. Bars and hotels were also considered to be high-risk locations in most districts as well.

Support structures were present in all districts, varying according to the size of the district, with Dili having the highest density of available services and providers against the background of the highest need for them. Overall, the mapping exercise identified a concentration of high-risk locations as well as support structures around the most populous towns of each district or close to the border in the border districts. Support services outside Dili are mostly general covering HIV/AIDS education, awareness raising, and possibly some testing and counselling. A range of other services are also provided, such as family planning and general health promotion. Only Dili provided tailored services to meet the needs of CSWs, MSMs and PLWHs at the National hospital and through local NGOs.

8.1.3 Mobility and Migration Patterns

Nearly 83.9% of respondents had been displaced during the conflict in 1999. Groups likely to be mobile or likely to migrate, and identified in all districts were jobseekers, students, businessmen, the military, the police, traders and international aid workers/volunteers/peacekeepers. Destinations were mostly to the capital Dili, or, in border districts destinations just across the border in West Timor, where goods could be sold and/or bought more profitably.

According to the Census (2004) data the proportion of migrants in Dili has risen to over 30% since the end of conflict in1999. The capital is a popular place to live, offering tertiary education and employment opportunities. The same applied to a much lesser degree to Baucau, the second largest city. Employment opportunities were sought mostly with international agencies and NGOs, as they pay higher salaries.

The survey identified migrants as being on average younger in the age group of 18-30 years, slightly more educated, unmarried Timorese, who travel in search of employment opportunities. Dili, has the highest number of migrants, casual workers, self-employed migrants, those employed for wages and young people who are students. Most common push-factors for migration were poverty at home, followed by family and social problems. There was little evidence to suggest significant migration in the other survey districts.

8.2 Recommendations from the Study's Results

8.2.1 Future Research: Data on HIV Prevalence

There is still a considerable lack of data, such as a reliable estimate of HIV prevalence in the general population in Timor-Leste, which needs to be obtained during future research activities. HIV prevalence data would greatly help in accordingly prioritising and allocating funds and resources.

8.2.2 Research on Young Migrants

Further research and interventions needs to focus on young migrants between the ages of 18-30 years migrating into the urban centres of Dili and Baucau. The survey identified young migrants as the most mobile population in Timor-Leste. Cross-border migration research on health and development is another possible focus.

8.2.3 Information on Targeting Interventions for the Community

More information is needed on how to best deliver interventions aimed at increasing knowledge and education of out-of school adolescents and adults with low literacy. Here it may be worthwhile trying to establish whether an approach aimed at only increasing health literacy should be considered. This focussed approach would be easier to implement resource-wise and have better results in the short and medium term.

8.2.4 Research on Behavioural Change

More long-term research needs to focus on possible behavioural change projects trying to improve the status of women in Timor-Leste, reduce high levels of domestic violence and create more opportunities to empower women in a culturally sensitive and acceptable way. This would ideally be combined with improved services for abused women and children, efficient reporting of abuses, prosecution of perpetrators and a broad women's and children's rights campaign.

8.3 Future Interventions and Programming

Asked about their main health concerns, most East Timorese ranked HIV to be less worrying than malaria, TB, dengue, diarrhoea, respiratory infections and food security. This is a very realistic and accurate assessment of the current health situation where basic health needs of the Timorese are not being met. A multi-sectoral, inter-agency integrated approach targeting health interventions and programmes should be considered over the long term, so that they have a sustainable impact.

8.3.1 Interventions Targeting High-risk Groups

Against this background, interventions focussing solely on HIV/AIDS may seem inappropriate if not targeted at established high-risk groups such as CSWs, MSM, police and military personnel. Focussing on migrants and mobile populations is necessary in the future, due to the large rural-urban migration observed in Timor-Leste. Existing services, such as Fundasaun Timor Hari and Bairo Pite Clinic, which already deal with some of these high-risk groups, should be encouraged to include young migrants as another high-risk group in Dili, tailoring programmes to this particular group.

8.3.2 School Health and Sex Education Programmes

A multi-sectoral, inter-agency integrated approach targeting health literacy through school health and sex education and interventions aimed at out of school adolescents and adults should also be considered. Curricula should include comprehensive health

and sexual knowledge, with the aim of reducing misconceptions, stigma and taboos. Adolescents could also be used as peer educators for health and sex education messages, providing not only peer education, but also passing health messages on to their parents, families and the wider community similar to the child-to-child concept effectively used in the 1990s in Uganda. However, this would require not only a contextually relevant health and sex education curriculum, but also trained teachers who have received skills and local resources to adequately address these issues.

8.3.3 Positioning Community Health Animators

Community based programmes can be used to reach out-of-school youth in need of health literacy and interventions. Positioning "community health animators" or "public health promoters" in villages is one possible approach. In order to guarantee success and sustainability, a local person preferably female is positioned in a village and provided with basic heath training and knowledge. Supervision and monthly reports from animators create a sense of accountability and allow for monitoring and evaluation of the programme.

The "health animator" delivers regular health programmes for the whole community. Being positioned within the community creates awareness of services and the community approaches the animator with questions, concerns and problems. Additionally, the "health animator" refers people to nearby health services, thus increasing awareness of available services, and providing feedback on urgent health needs in the community. This model has been successfully piloted in Sri Lankan refugee and IDP camps after the Tsunami, where "health animators" were successful in maintaining water and sanitary facilities, hygienic conditions and providing basic health education for mothers and children in IDP camps.

8.3.4 Use of Health Communication Radio

The survey revealed that the most common source of awareness and knowledge of HIV/AIDS was the radio. Against this background, awareness raising campaigns could be broadcast on the local radio to reach a maximum number of people. Health education via radio has been quite successful in different settings, for example in Bali and Mongolia. Through use of health communication radio diverse health topics could be targeted and presented using local commentators.

8.3.5 Implementing a Functioning Sentinel Surveillance System

A functioning sentinel surveillance system is vital in the country in order to have reliable estimates of Timor-Leste's HIV prevalence. One of the main challenges will be to agree upon a sentinel sample. Going with the commonly used antenatal sentinel surveillance, the issue that needs to be immediately addressed, is the current lack of existing antenatal services covering the entire country. Blood donors can also be used as a surrogate sentinel sample for the general population and in Timor-Leste donors are predominantly male. Efforts should be undertaken to implement a working sentinel surveillance system.

8.3.6 Introducing Pre-natal Care / PMTCT Programmes that Integrate HIV and Safe-sex Awareness Counselling

Integrating HIV and AIDS services into general healthcare services – particularly in reproductive health has been identified in recent years as an effective intervention. A priority would be establishing prenatal care/ MTCT programmes that integrate HIV and safe-sex awareness counselling. MTCT programmes should also have high-quality VCT integrated into the intervention. If implemented consistently, this would be an important sentinel population for sero-prevalence surveillance. Tuberculosis management is another potential opportunity for integrating HIV and AIDS awareness and VCT services.

8.3.6 Peer to Peer Health Promotion at Targeted High-risk Spots

All districts mapped markets and beaches as high-risk spots, it might be worth considering campaigns targeting these sites, distributing condoms and safe sex messages, as well as trying to reduce alcohol consumption at these sites. Peer to peer communication could be very successful at these sites and is an appropriate intervention in this environment. Migrants, especially young and single males with low literacy levels, who come into Dili could be specifically targeted.

8.3.7 Addressing Socio-Cultural factors in HIV/AIDS Programs

Cultural factors often impede programmes targeting such sensitive issues as sexual health and HIV/AIDS. These factors namely patriarchy, the dowry system, the role/status of women, cultural beliefs and taboos need to be addressed in a non-offensive, culturally appropriate way. A change especially in the attitude towards women (domestic violence, permissibility of a husband's extramarital affairs, husbands divorcing women easily) is crucial for the country's future not only in terms of a possible HIV epidemic, but also against the background of high maternal, infant and child mortality and women's participation and rights.

8.4 Conclusion

The present study is a first in two respects. First, it has successfully combined quantitative and qualitative multiple methods to study migration patterns and HIV vulnerability in the post-conflict, transitional society of Timor-Leste. The findings of the study focussed on household members, youth, personnel from NGOs and Ministries. The study has also included the perceptions of personnel involved in HIV programs and training. Second, this study is the first in-depth study of Migration and Mobility patterns and Vulnerability Assessment in Timor-Leste.

The study has provided data on the numerous and complex factors that account for the mobility and vulnerability of populations in a transitional society. In addition, the findings of the study provide useful and practical information to the Government of Timor-Leste, the Ministry of Health and the international community. This study has significance for policy makers and those responsible for HIV interventions and programmes. The research provides an understanding of the perceptions, and experiences, of all involved in HIV programs. The recommendations proposed might

allow those in a position to implement interventions at a systemic level to consider how all stakeholders can be involved in HIV programs and interventions in Timor-Leste.

The results identified in this research have described human vulnerabilities and migration patterns in this new democracy. Although the current estimated prevalence of HIV/AIDS is low (0.35%), the factors necessary for escalation into an epidemic are currently present in the country. Prevention of an epidemic in the current context is possible.

The context of the conflict ridden transitional society of Timor-Leste is unique as changes since 1999 have been rapid, radical and complex. To successfully take advantage of the new, emerging realities of mobile and vulnerable populations in Timor-Leste will depend on the ability of the Government, the Ministry of Health and the international community to critically understand, adapt and plan interventions to the common benefit of all Timorese.

A sustained HIV education and awareness programme in Timor-Leste is interconnected with cultural, social, political, educational and economic changes and HIV interventions will need to acknowledge and address these factors. The challenge for the Government of Timor-Leste, the Ministry of Health and the international community lies in the country's ability to respond to the recommendations proposed in the study and address the multiple social, cultural, political, economic and educational realities.

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