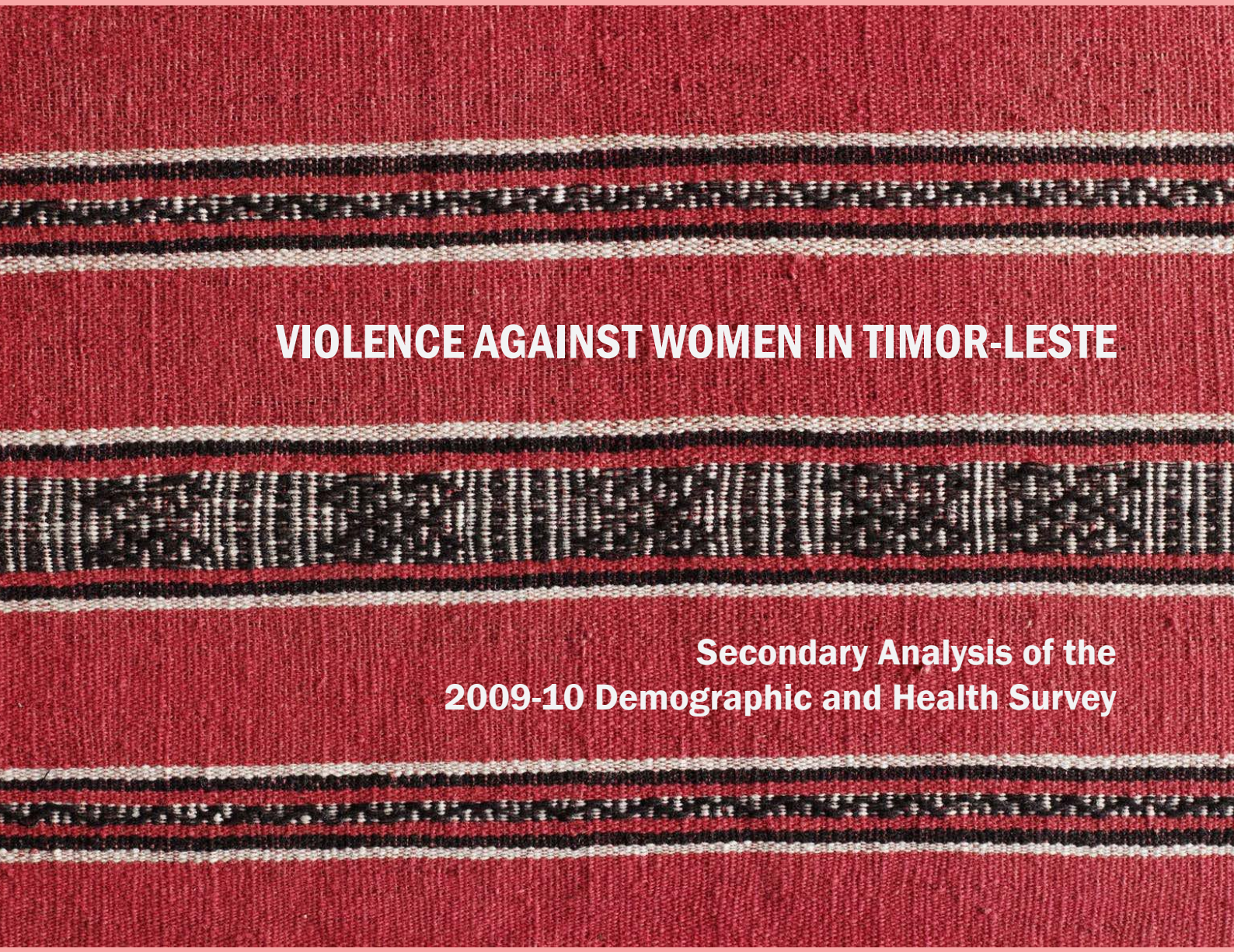

VIOLENCE AGAINST WOMEN IN TIMOR-LESTE

Secondary Analysis of the 2009-10 Demographic and Health Survey

FINAL REPORT

July 2013

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Violence against women in Timor-Leste - Secondary analysis of the 2009-10 Demographic and Health Survey - final report

Prepared for GRM International by Angela Taft and Lyndsey Watson

Funding provided by AusAID and commissioned through the Timor-Leste Justice Sector Support Facility

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GUIDE TO THE TABLES

In this document we have been analysing associations between important explanatory factors for violence against women, or the association of violence against women with subsequent factors. The data are presented as frequencies, percentages and odds ratios i.e. the size of the association between factors (odds ratios) relative to a reference level.

The odds ratios have been obtained using logistic regression analyses and those presented in the text have been adjusted for other variables that may also affect the associations, and therefore they give a more accurate estimate of the relationship. All odds ratios presented in the document have been adjusted for the sociodemographic factors of age, marital status, occupation, urban or rural residence, education level, wealth, age at first intercourse and number of children a woman has. Details of these factors are presented in the Methods section.

Below, we explain briefly the following terms you see in the tables:

Ref refers to the reference category. This is the category or factor against which the other factors are being measured. For example, Dili is the reference group against which other areas are compared for levels of violence. This demonstrates that most other areas experience less violence save for a few notable areas.

AdjOR refers to the adjusted Odds Ratio which, broadly speaking, measures the likelihood of one level of exposure to a factor (compared with a reference level of a factor) having an association with the outcome after adjustment for socio-demographic factors. An AdjOR of more than 1.0 means an increased likelihood of the outcome, and of less than 1.0, a decreased likelihood. For instance, an AdjOR=3.5 means that compared to women with the reference level of the factor, women in this group are three and a half times more likely to have the outcome, and an AdjOR of 1.60 means the group has a 60% increase in likelihood of experiencing the outcome compared with the reference group.

n refers to the number in the group being examined, adjusted for sampling weights.

P-value is an indicator of the likelihood that the odds ratio could have occurred by chance, a low p-value (<0.05) is usually considered statistically significant and means the factor is important.

95% CI stands for 95% confidence interval and covers the band within which you can be confident the odds ratio lies. For a factor level to be of interest the p-value should be 0.05 or below so that the finding offers a level of confidence between 95%-100% that these are not chance findings.

Physical only violence refers to Timorese women who said that they only experienced physical violence from a partner/husband or someone else.

Combined violence refers to Timorese women who said that they experienced combined forms of physical and/or sexual and/or emotional forms of violence from a partner/husband or someone else.

Throughout the report, we use 'women experiencing' rather than the more cumbersome 'women who say they have experienced', but this is the meaning, as some women may not have disclosed violence.

EXECUTIVE SUMMARY

The 2009 Timor-Leste Demographic and Health Survey (TLDHS) included 2951 women aged from 15 to 49 years, able to complete questions about domestic violence adapted from the revised Conflict Tactics Scale (also adapted for the World Health Organization's multi-country study) and questions about physical and sexual violence from age 15 from any perpetrator. They are representative of the full TLDHS female sample (n=13,137).

The analysis described in this report, funded by AusAID and commissioned through the Timor-Leste JSSF, aimed to:

1. estimate the impact of violence against women in Timor-Leste, specifically intimate partner/domestic and sexual violence;
2. determine the areas of Timor-Leste where women have experienced greater impact from VAW compared with those with lesser impact and whether women have sought any help from services or other family members; and
3. produce useful data about the nature and scope of violence against women that may be used to improve prevention and response strategies.

The following findings highlight the significant health burden suffered by a large minority of Timorese women, their children and the communities in which they live. Because the analysis confirms the links between violence against women, maternal poor health and infant mortality, it highlights the opportunities to prevent and reduce this health burden in Timor-Leste and improve the potential to reach UN Millennium Development Goals, especially those relating to reduction of maternal and infant mortality.

For the majority of the report we describe physical violence only and combined forms of violence (physical and/or sexual and /or emotional violence and generally more severe) among married women. The more severe effects of combined violence were confirmed in this analysis. Overwhelmingly, these are perpetrated by a husband/partner.

We caution that findings are associative and not causal and some especially sensitive issues may be under-reported.

Violence among ever compared with never married women

- Overall, 37.6% of women experienced physical violence (42.2% married, 28.7% unmarried).
- 3.4% experienced sexual violence (4.4% among married, 1.3% unmarried)
- Unmarried women are less than half as likely to experience physical violence and sexual violence

Sociodemographic characteristics and other factors associated with violence against women

- 33.8% of ever-married women experience physical violence only and 11.1% experience combined forms of violence, an overall prevalence among ever-married women of 45%
- Women aged 25 to 39 were over 60% more likely to experience combined violence than women of older or younger ages
- Rural women are a third less likely to experience physical and two thirds less likely to experience combined abuse than urban women
- Higher levels of education reduce the likelihood of ever-married women experiencing combined violence, but increase the likelihood that unmarried women will be beaten
- Women whose first experience of intercourse was before age 15 are twice as likely to experience physical violence and two and a half times as likely to experience combined forms of violence than women whose first intercourse was after age 15

Empowerment, barriers to empowerment and association with violence against women

- Compared with unemployed women, women working not for cash have a smaller likelihood of combined violence, but a greater likelihood of physical abuse
- Women working for the family have double the likelihood of physical violence, whereas women working for someone else or self-employed have a reduced likelihood of combined forms of violence compared with women not employed
- Women working seasonally are more likely to experience physical but less likely to experience combined violence than women not employed
- The greater the number of controlling behaviours a woman experiences from her husband, the higher the likelihood she will experience violence. Each additional controlling behaviour confers a 20% increased risk of physical and 72% increased risk of combined violence
- Women who consider a beating justifiable if they neglect the children or burn the food are more likely to experience physical violence, whereas if they consider beating justifiable if they argue with their husband or if they refuse sex, are more likely to experience combined forms of violence compared with women who do not consider these justifiable
- Women who have grown up with a father beating their mother are almost six times more likely to experience physical and more likely to experience combined violence than women who did not grow up witnessing violence
- If a husband alone makes decisions about: a woman's health care; their household purchases; their daily needs; if they visit family and friends; and what he does with his wages, it increases the significant likelihood ranging from twofold to over fivefold the likelihood that she experiences violence

Timor-Leste regions and violence against women

- Both forms of violence are prevalent in Dili, but in comparison with Dili, women from the Manufahi area say they are five times more likely to experience physical violence, whereas women from Aileu and Bacau (over twice as likely), Lautem (almost five times) and Manufahi (almost three times) as likely to experience combined forms of violence

Women's reproductive history and association with violence against women (compared with women who say they do not experience violence)

- women who say they experienced physical violence are more likely to use traditional methods of contraception and to have an unplanned pregnancy
- Women who say they experienced physical violence are over 40% more likely or who say they experienced combined violence almost 100% more likely to say they have had a pregnancy termination (abortion)
- There were no differences between non-abused and abused women in their number of children or median birth intervals, birthing or postnatal care, but women experiencing combined violence are two thirds more likely to have only two or three, compared with women who have had four or more antenatal visits

Infant health (compared with women who say they do not experience violence)

- Infants of abused women are more likely to have a low birth weight (below average weight)
- Women experiencing physical violence are 35% more likely to have one child who has died and women with combined violence 42% more likely to have children who have died more than five years ago
- Children of women experiencing physical violence are 74% less likely to be vaccinated at all and 35% more likely only to be partially vaccinated

Women's health and help-seeking (compared with women who say they do not experience violence)

- Women experiencing violence are three to four times as likely to have a sexually transmitted disease and women experiencing combined violence have an 84% greater likelihood of smoking; There is a borderline-significant trend for women experiencing combined violence to have a BMI less than 18.5
- Women experiencing combined violence are more than twice as likely to seek help, and to seek help from more than three sources, compared with physically abused women. Around half of each group of abused women sought help from family or friends, but whereas 85% of physically abused women asked no one, only 15% of women experiencing combined abuse sought no help at all

SUMMARY AND RECOMMENDATIONS

Over a third of Timorese women experience physical violence and three in a hundred experience sexual violence (this rate may have been under-reported due to stigma). However, this increases to almost 45% among ever-married Timorese women which has implications for the family and whole community. Among ever-married women, a third experience being physically abused only and over one in ten experience being victims of combined forms of violence, with a greater likelihood of more severe physical violence. The impact of this violence leaves women vulnerable to serious illness, poorer maternal antenatal care and maternal death and the children to below average birth weight, poorer preventive health measures and greater risk of infant mortality. As it was not measured we do not know the burden of mental illness that this imposes. These results highlight a significant health burden on women, their children, families and communities. Ultimately this impacts on the state. As a consequence, the results support a sustained effort to reduce violence against women and the health burdens this imposes on women and their families. Two recent reports by the World Health Organisation specifically address the directions that may help to achieve these goals [1, 2].

Specific recommendations arising from this report include:

- That senior government ministers, policy and program staff responsible for health services are made aware of findings of health burdens of violence in this report and its implications
- That chefes de aldea, chefes de suco and women leaders in communities be familiarised with the findings in this report and trained and supported to provide advice to women experiencing violence and others helping them especially about keeping themselves and children safe, e.g. how to discuss basic safety behaviours appropriate to their communities
- That services providing support to women and girls experiencing violence are properly trained, resourced and supported to cope with the effects of violence against women, including the mental and physical (including reproductive) health effects
- That the potential to socialise messages through mobile phones about safety behaviours (especially in pregnancy); community services; and resources tackling violence against women be investigated
- That universities be required to provide trainee midwives, sexual and reproductive and mental health care staff with knowledge of the prevalence and impact of violence against women outlined in this report and how to respond sensitively and refer women to appropriate services
- That all health services' staff who come into contact with women are trained, supported and resourced to identify and respond to abused women supportively, discuss their safety and that of their children and to which services they can refer
- That further research is conducted to explore conditions in areas of surveyed high prevalence (e.g. Manufahi and Lautem) and confirm whether conditions exist that are likely to promote violence against women, compared with areas where women say they experience less violence

SECTION ONE - INTRODUCTION

"There is one universal truth, applicable to all countries, cultures and communities: violence against women is never acceptable, never excusable, never tolerable."
United Nations Secretary-General, Ban Ki-Moon
(2008)

In the World Health Organization's 2013 report on global and regional estimates of violence against women and health effects; violence against women was recognised as a fundamental violation of women's human rights and a significant public health problem [3].

Using population data from around the world, the report found:

- overall 35% of women worldwide have experienced either physical or sexual intimate partner violence or non-partner sexual violence
- the majority of this violence is intimate partner violence
- globally as many as 38% of all murders of women are committed by intimate partners and
- women physically or sexually abused by intimate partners experience higher rates of serious health problems, including having a 16% greater likelihood of having a low birth weight baby; being twice as likely to have an abortion; one and a half times as likely to have HIV and being twice as likely to experience depression than women who are not abused
- the average prevalence of partner violence in the South East Asian region (Bangladesh, India, Myanmar, Sri Lanka, Thailand and Timor-Leste) was 38%
- the average prevalence of non-partner sexual violence in South East Asian region was 5.3%

The WHO report argues that the variation between countries highlights that violence is not inevitable and can be prevented. Economic and socio-cultural factors that foster a culture of violence against women, they argue should be changed [3]. It points to the importance of challenging social norms that condone violence against women; reducing childhood exposure to violence; reforming discriminatory family law; strengthening women's economic and legal rights; and eliminating gender inequalities, especially those relating to education and employment. This would lead to a significant reduction in such serious health problems and individuals, their families, the economy and the nation would benefit.

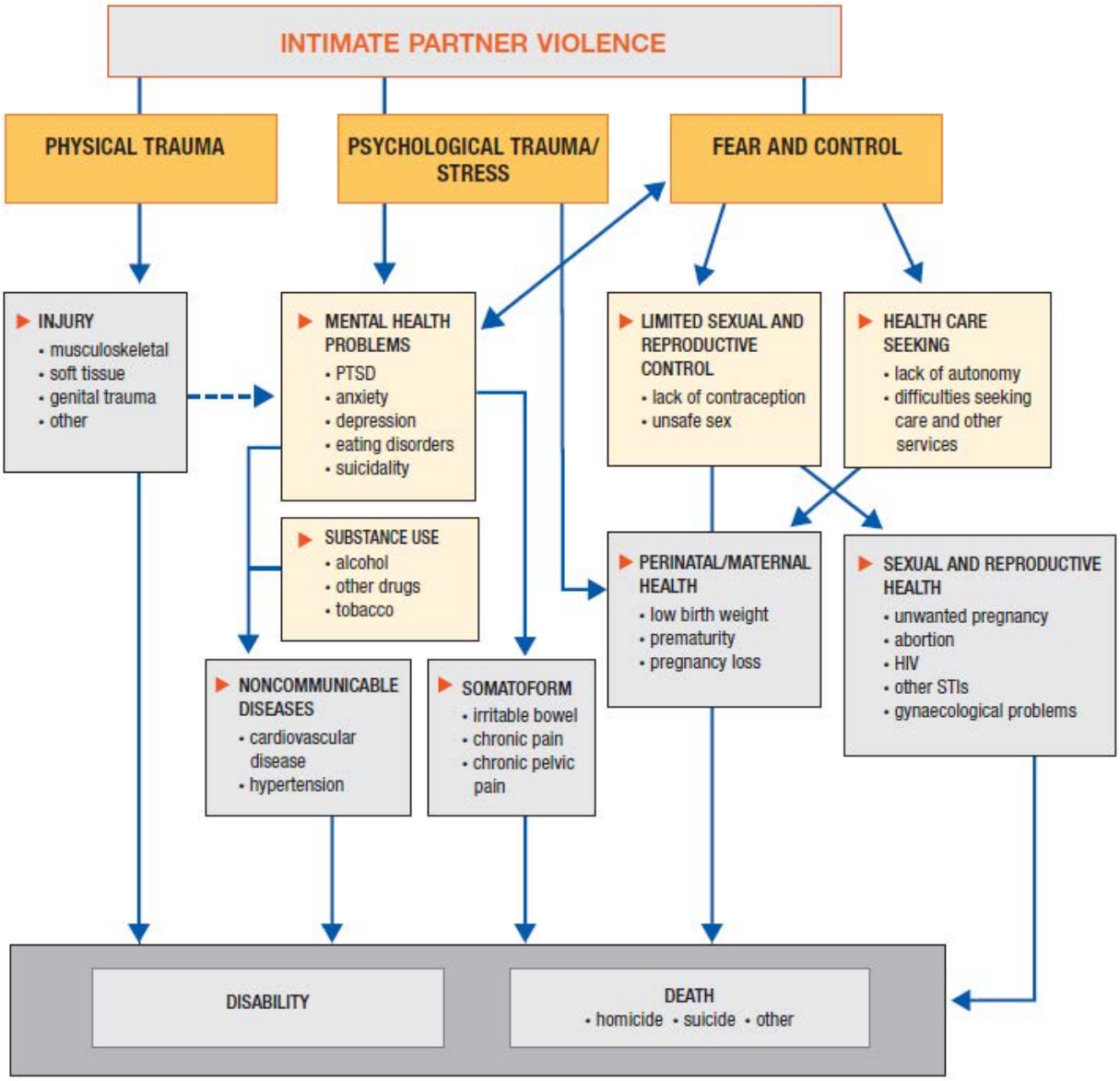
The report also calls for improved services for women experiencing violence, including important changes in health sector responses. To support such improvements, WHO have recently published clinical and policy guidelines for health sector responses to violence [1].

The WHO document summarises studies measuring physical or sexual intimate partner violence and non-partner sexual violence. The authors note the growing consensus about rigorous measurement of violence against women and welcome the increasing incorporation of measures of violence against women in national health and demographic surveys. Whilst they welcome the increasing measurement of the prevalence and magnitude of violence against women, they recognise that less

population level research on the health effects of violence (p5) has been undertaken. This gap provided the impetus for the WHO to aggregate the available literature on the health effects in their 2013 report.

The diagram reproduced below from the 2013 WHO document ([3], p8) summarises the hypothesised pathways by which intimate partner violence can lead to mortality and morbidity. Such wide-ranging and serious health effects can have a detrimental impact on the ability of low income countries to achieve the many desired Millennium Development Goals, but especially those for sexual and reproductive health and maternal (and infant) morbidity and mortality.

Figure 1. Pathways and health effects on intimate partner violence



There are multiple pathways through which intimate partner violence can lead to adverse health outcomes. This figure highlights three key mechanisms and pathways that can explain many of these outcomes. Mental health problems and substance use might result directly from any of the three mechanisms, which might, in turn, increase health risks. However, mental health problems and substance use are not necessarily a precondition for subsequent health effects, and will not always lie in the pathway to adverse health.

The 2009/10 Timor-Leste Demographic and Health Survey (TLDHS) included a series of questions about intimate partner and non-partner physical, sexual and other forms of violence against women ([4] p225). Conducted only four years ago, the TLDHS measured a range of demographic and health issues, and included a sub-study focused on domestic violence. In the TLDHS, the response rates were excellent (95%) and while 13,137 women were included in the overall national random (therefore representative and generalisable) study, 2951 women were interviewed for the sub-study.

One significant finding of the TLDHS report was that the Maternal Mortality Ratio (the ratio of the maternal mortality rate to the generalised fertility rate) is 557 per 100,000 live births or six deaths per 1000 live births. This is one of the highest in the world. In many high income countries, there is a growing understanding of the contribution violence against women makes (especially violence against pregnant women) to the maternal mortality rate.

The Timor-Leste National Action Plan (NAP) on Gender-based Violence (GBV) (2012) supports the strategic, coordinated and sustainable fight against the pervasive problem of gender-based violence, especially violence against women in Timor-Leste. The NAP seeks to provide a structure for the coordination and effective implementation of these efforts. Priority areas identified by the NAP Technical Drafting Committee included:

- Measures to address Prevention of Gender-Based Violence
- Data collection and research on Gender-Based Violence in Timor-Leste
- Protection of Victims of Gender-Based Violence and Provision of Services

As part of their proposed work plan for 2013, the Timor-Leste Justice Sector Support Facility (JSSF) was asked by AusAid to further research the nature, scope and impact of violence against women in Timor-Leste to improve prevention and response strategies.

JSSF contracted staff of La Trobe University's Mother and Child Health Research Centre - Associate Professor Angela Taft and Dr Lyndsey Watson - to conduct this research. A joint decision was made to examine the following:

1. estimate the impact of violence against women in Timor-Leste, specifically intimate partner/domestic and sexual violence;
2. determine the areas of Timor-Leste where women have experienced greater impact from VAW compared with those with lesser impact and whether women have sought any help from services or other family members; and
3. produce useful data about the nature and scope of violence against women that may be used to improve prevention and response strategies.

SECTION TWO - METHODS

Gold standard measures of violence against women are those that ask respondents using direct questions about specific acts of violence over a defined period of time, rather than questions about whether a woman has been 'abused' or is a victim of 'domestic violence' or rape ([3] p9).

Both the WHO multi-country study [5] and the violence against women module of the Demographic and Health Surveys used in the WHO global estimates study [3] adapted the revised Conflict Tactic Scale (CTS) [6] which asks direct questions about violent behaviours without using the context of relationship conflict, a widely criticised aspect of the original CTS [7].

We outline below how and why we focussed on two mutually exclusive groups -physical violence only and forms of combined abuse.

MEASURES OF VIOLENCE

INTIMATE PARTNER VIOLENCE

In the TLDHS, the following questions, adapted from the Revised CTS were asked:

Does/did your (last) husband/partner ever do any of the following things to you?

1. push you, shake you or throw something at you?
2. slap you ?
3. twist your arm or pull your hair?

4. punch you with his fist or with something that could hurt you?
5. kick you, drag you, or beat you up?
6. try to choke or burn you on purpose?
7. threaten or attack you with a knife, gun or any other weapon?

8. physically force you to have sexual intercourse with him even when you did not want to?
9. force you to perform any sexual acts you did not want to?

Answers to the first seven questions represented evidence of physical violence (answers to questions 4-7 comprised severe physical violence), and answers to questions eight or nine were evidence of sexual violence.

In addition, recognising the mental health damage from violence, the TLDHS incorporated questions about emotional abuse. Emotional abuse amongst ever married women was measured in a similarly direct way using the following set of questions:

Does/did your (last) husband/partner ever:

1. Say or do something to you to humiliate you in front of others?
2. Threaten to hurt or harm you or someone else close to you?
3. Insult you or make you feel bad about yourself?

Intimate partner violence and the violence committed by other household members was obtained from ever married women, and violence by anyone, including boyfriends and girlfriends from never married women.

NON-PARTNER VIOLENCE

All women were asked about physical violence from persons other than their current or most recent spouse with the question: from the time you were 15 years old has anyone other than your current husband slapped, kicked or done anything else to hurt you physically?

ADULT AND CHILDHOOD SEXUAL ABUSE

All women were asked: at any time in your life as a child or as an adult has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts? As childhood sexual abuse is a known risk factor for later abuses [8], we categorised age at first intercourse as <15 years, or from 15-39 years. We also analysed whether the respondent's father beat her mother (childhood witnessing) [9] as this is also a known risk factor for experiencing adult partner violence.

These further questions enabled assessment of the additional burden of childhood violence for ever married women as well as violence experienced by never married women [4] pp226-227.

For a coherent analysis, we constructed a variable for violence that had mutually exclusive categories and would portray a meaningful description of violence, dividing physical violence only from combined forms of violence (which most commonly has a more severe impact) [10]. Sexual violence was also examined separately, but because the numbers and proportions were very low, no further analysis (other than additional descriptive) was undertaken. The impact of sexual violence was therefore only able to be estimated from a variable with combined physical and/or sexual and/or emotional abuse.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

The following socio-demographic variables were used: for the comparison of never married women with ever married women, *age* in 5 year age groups was used. For all other analyses, age was categorised into 15-24 years, 25-39 years and 40-49 years.

Occupation was defined as employment in the last 12 months and was categorised as not employed, employed for cash, or employed but not for cash.

Marital status was categorised as never married, currently married and divorced, separated or widowed.

Residence was urban or rural and we also used the 13 regions measured in the TLDHS.

Education was the highest level of education reached and categorised into no education, primary schooling, secondary schooling and higher education.

The TLDHS index of ***wealth*** quintiles was used. "This was constructed using information on household ownership of various consumer items… Each asset was assigned a weight generated through Prince principal components analysis and the resulting asset scores were standardised in relation to a normal distribution with a mean zero and standard deviation of one. Each household was then assigned a score for each asset and the scores were summed for each household; individuals were ranked according to the total score of the household in which they reside. The sample was then divided into quintiles from one (lowest) to 5 (highest). A single asset index was thus developed for the whole sample; separate indices were not prepared for urban and rural populations." TLDHS [4], page 27

We also analysed ***religion*** and ***polygyny***, but as the overwhelming majority were Roman Catholic or a single spouse, we did not use these variables separately.

POPULATION COMPARISON

To ensure that data were correctly coded and weighted, the results presented in Chapter 16 of the TLDHS experience were replicated, not all shown here, see ([4] pp225-239).

The representativeness of the domestic violence (DV) sub-sample was examined by comparing socio-demographic and other background characteristics (age, region, residence, education, religion, wealth, number of living children and marital status) of the DV sample with the rest of the women interviewed and not selected for the DV sample.

COMPARISON OF NEVER MARRIED WOMEN COMPARED WITH EVER MARRIED WOMEN

Since a number of questions were not asked of (and were not relevant to) never married women and a large focus of the TLDHS and hence this analysis was reproductive health and its relation to DV, we compared never married women with ever married women for their experience of violence adjusted for age employment, residence, education, and wealth, before reproductive health analysis which only dealt with ever married women. Regions of residence for ever and never-married women were also compared.

WOMEN'S EMPOWERMENT, BARRIERS TO EMPOWERMENT AND ASSOCIATIONS WITH VIOLENCE

Barriers to women's empowerment in the TLDHS were measured in terms of (1) employment and cash earnings (see occupation above), whether or not a woman worked for her family, for someone else or for herself, whether or not she decided how to spend her earnings, who decides how her earnings are spent; (2) controlling behaviours of her husband or partner; (3) attitudes to wife-beating (justified by going out without telling him, neglecting her children, arguing with him, refusing to have sex with him, and burning his food), to marital rape and whether her father beat her mother; and (4) participation in decision-making on matters such as her own health, making purchases, on daily needs, on visiting family and friends and on deciding what to do with husband's earnings ([4] Chapter 15).

The previous variables were all considered as predisposing factors (exposure variables) with violence as the outcome in models. In the following analyses, we modelled violence as the risk factor (exposure variable) and the following sexual, reproductive and other health issues as the outcome.

N.B. Tables are all presented for economy of space with violence across the top (as an outcome) but this does not reflect the analytic model.

WOMEN'S REPRODUCTIVE HISTORY

We examined women's reproductive history including current contraception use, unplanned pregnancy, termination of pregnancy, parity (number of births) as a measure of fertility, birth intervals and age at first birth, ([4] p65). Current contraceptive use was defined as the proportion of women who used a family planning method at the time of interview and was classified into **modern** method (female sterilisation, IUD, injectables, implants, male condom, long-acting methods (LAM) and standard days method) or **traditional** method (rhythm, withdrawal, folk method). Women were asked about each pregnancy they had had (including a current pregnancy) and whether it was planned. A woman was coded as having an unwanted pregnancy if for any pregnancy she said she had wanted it later or not at all.

Pregnancy and birthing care was coded for the last birth only. Pregnancy care included time of first antenatal visit, categorised as <4 months, 4-5 months, 6-7 months, or 8+ months; number of antenatal visits (1, 2-3, 4+ visits); and whether or not the woman had had skilled antenatal care which was defined as care from a doctor, nurse/midwife or assistant nurse ([4] pp113-115).

Birthing care included assistance during delivery by a skilled provider defined as doctor, nurse/midwife or auxiliary midwife. Reason for delivery not at a health care facility (HCF) was categorised into 'too far away', 'planned CS but baby born before reaching HCF', 'too far away & baby born before reaching HCF', 'not necessary', 'not customary' or 'no female attendant', 'husband did not allow it', and 'other'. Postnatal care included time of first check-up after birth (<4 hours, 4-23 hours, 2nd day, 3-63 days); and whether or not postnatal care was provided by a skilled provider (doctor, nurse/midwife or auxiliary midwife) ([4] pp126-128).

Birth interval is the length of time between two successive live births[4] p55. Women having no birth interval include those with no births or only one birth. We used the median birth interval of all live births a woman had had. We then classified median interval into 9 to 17 months, 18 to 23 months, 24 to 35 months, 36 to 47 months, 48 to 59 months, and 60+ months.

Age (in years) when a woman's first birth occurred was categorised into 12 to 14, 15 to 19, 20 to 24, and 25 to 42.

INFANT HEALTH

Infant health included number of living children (0, 1-2, 3-4, 5+), births in the last 5 years (0, 1, 2, 3+), and child and infant mortality which included number of children who have died (0, 1, 2, 3+), children born more than 5 years ago and not alive at interview (0, 1+), children born less than 5 years ago and not alive at interview (0, 1+), and ever infant mortality at <5years of age (0, 1+).

As birth weight was available for only 24% of infants, a woman's assessment of her babies' weights as above or below average was used for estimating birth weight. The average of the recorded birth weights was 3000g, therefore 149 babies assessed by the mother as weighing average or above but recorded as weighing less than 3000g were changed to less than average, and 24 babies assessed by the mother as below average but recorded as more than 2999g were changed to average. A woman was coded as having a baby with a below average birth weight if any of her babies born in the last 5 years were coded as below average.

Children's nutritional status <age 5, included 3 indices: height for age, weight for age and height for weight. The nutritional status of children in the survey population was compared with the WHO child growth standards based on international samples. Each of the three nutritional status indicators was expressed in standard deviation units (z-scores) from the median of the reference population. Children's whose height for age, weight for age, and weight for height was below -3 standard deviations or between -2 and -3 standard deviations were classified as failure to achieve adequate nutrition. Women were classified as having a malnourished child if any of their children under 5 years had a z-score<-2sds. ([4] pp147-149)

The 2009-10 TLDHS collected information on immunisation coverage for all children born in the five years before the survey. The WHO's and UNICEF's guidelines for vaccinating children have been adopted in Timor-Leste. According to these guidelines, to be fully vaccinated a child should receive one dose of each of BCG (protects against tuberculosis) and measles, three doses of polio vaccination and three doses of DPT (diphtheria, pertussis, tetanus, and Hepatitis B- post 2-7) ([4] pp132-135). A child was considered to be fully vaccinated if all eight vaccinations were recorded. When between one and seven vaccinations were recorded, a child was considered partially vaccinated. An unvaccinated child had no recorded vaccinations. Women were classified as having a completely vaccinated child if any of her children alive and aged between 12 and 59 months at interview were fully vaccinated, as having a partially vaccinated child if any had partial vaccination and none had complete vaccination. She was classified as having no vaccinated children if all of her children between 12 and 59 months had no vaccinations.

Anaemia in children is associated with impaired mental and physical development and with increased morbidity and mortality and is defined as severe (<7.0g/dl concentration of haemoglobin in the

blood), moderate (7.0 to 9.9 g/dl) and mild (10.0 to 10.9 g/dl) ([4] pp160-161). A woman was coded as having an anaemic child if any of her children born in the last five years was anaemic.

WOMEN'S HEALTH AND HELP-SEEKING

Women's health was assessed by investigating (1) their body mass index (BMI) where from 18.5 to less than 25 is normal weight , <18.5 is considered malnourished or thin and 25 or more is overweight ([4] p165); (2) anaemia status haemoglobin of less than 12.0g/dl for non-pregnant women and <11.0g/dl for pregnant women) (p170); (3) having had a sexually transmitted infection (including HIV) or symptoms (bad smelling/abnormal genital discharge or genital ulcer or sore) (pp193-194); and (4) having smoked tobacco including cigarettes, pipe, or other tobacco products, (pp46-47).

We found some discrepancies among women who answered the help-seeking questions. 1,771 (60.1%) women were correctly excluded from these questions as they had not experienced any violence. 13 women responded that they had been physically hurt in pregnancy but did not respond to any questions about violence, and were therefore coded as not experiencing violence. Of these, six responded positively to control questions, which were not included in our violence classification. Additionally, 22 women who said they experienced emotional violence and were therefore included in our combined violence category were not asked the help-seeking questions. This left 1143 women (38.7%) who had experienced violence and were asked these questions.

SECTION THREE – RESULTS

SOCIO-DEMOGRAPHIC AND OTHER FACTORS ASSOCIATED WITH VIOLENCE AGAINST WOMEN

The 2009-10 TLDHS included interviews from 13,137 women aged between 15 and 49 years. Of these, 3022 women were eligible for the domestic violence module with 65 excluded because of lack of privacy and six women refusing to be interviewed, leaving 2951 women respondents, representing 22.5% of all women surveyed.

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE WHOLE TLDHS FEMALE SAMPLE COMPARED WITH THOSE IN THE DOMESTIC VIOLENCE (DV) SURVEY SUB-SAMPLE

We first compared the socio-demographic (background) characteristics of the women answering the domestic violence survey with the rest of the women in the survey, each group weighted by their proportion representation without the 71 women who were eligible for the DV sample, but were excluded. The results are presented in Table 1 and show that generally no differences are more than 10%. In the DV sample, there were slightly more women in the 25 to 39 year age group compared with 15 to 24 age group (OR= 1.15), in rural compared with urban residence (OR= 1.15), fewer in the richer group compared with the poorer group (OR= 0.84), more women with children (all ORs>1.17 compared with women having no children, and more married women (OR= 1.25).

Over 97% of women in both the overall and DV survey sub-sample gave their religion as Roman Catholic, with a few of other religions stated.

The highest proportion of women came from the regions of Dili (16%), Bacau (11%) and Ermera (12%).

Reflecting the population bias towards younger women in the Timorese population, the greatest numbers of women (41%) were aged from 15 to 24 and over 75% of the domestic violence survey were living in rural areas.

Of women who had children, 20% had three to four children and 25% over five children.

However, the domestic violence sample can be regarded as representative of women in Timor-Leste and the results able to be generalised to other Timorese women.

Table 1: Comparison of women in overall survey and those selected for DV sub-sample

	Not selected		Selected		Odds Ratio
	n	%	n	%	
Current age (in years)	10101		2951		
15-24	4439	43.9	1213	41.1	Ref
25-39	3702	36.7	1168	39.6	1.15
40-49	1960	19.4	570	19.3	1.06
Region					
Aileu	437	4.3	129	4.4	Ref
Ainaro	456	4.5	160	5.4	1.19
Baucau	1066	10.6	335	11.4	1.06
Bobonaro	988	9.8	281	9.5	0.96
Covalima	602	6.0	177	6.0	1.00
Dili	1904	18.9	474	16.1	0.84
Ermera	1215	12.0	357	12.1	1.00
Liquica	629	6.2	179	6.1	0.96
Lautem	647	6.4	192	6.5	1.01
Manufahi	360	3.6	114	3.9	1.07
Manatuto	469	4.6	135	4.6	0.98
Oecussi	656	6.5	201	6.8	1.04
Viqueque	672	6.7	219	7.4	1.10
Residence					
urban	2659	26.3	700	23.7	Ref
rural	7443	73.7	2251	76.3	1.15
Highest education level					
no education	2921	28.9	896	30.4	Ref
primary	2265	22.4	696	23.6	1.00
secondary	4575	45.3	1268	43.0	0.90
higher	341	3.4	91	3.1	0.87
Religion					
Roman Catholic	9871	97.7	2890	97.9	Ref
Muslim	17	0.2	2	0.1	0.40
Protestant	202	2.0	50	1.7	0.85
Hindu	11	0.1	6	0.2	1.86
Wealth index					
poor/est	3576	35.4	1139	38.6	Ref
Middle	2014	19.9	597	20.2	0.93
rich/est	4511	44.7	1214	41.1	0.84
Number of living children					
0	4269	42.3	1106	37.5	Ref
1-2	1741	17.2	527	17.9	1.17
3-4	1814	18.0	594	20.1	1.26
5+	2278	22.6	725	24.6	1.23
Marital status					
never married	3886	38.5	992	33.6	Ref
married or living together	5771	57.1	1843	62.5	1.25
divorced/separated/widowed	445	4.4	116	3.9	1.02

SOCIO-DEMOGRAPHIC AND VIOLENCE CHARACTERISTICS OF NEVER, COMPARED WITH EVER-MARRIED TIMORESE WOMEN

In Table 2, we compared the characteristics of never married with ever married women. The highest proportion of married women (37%) was aged between 30-39 years; whereas 64% of unmarried women were aged between 15-19 years. Although most unmarried women were unemployed (71%), compared with married women, they were 50% more likely to be employed both for cash and not for cash, than married women, after adjustment for age and education. Unmarried women were also more likely to have secondary or higher level education (AdjORs= 1.80 and 3.22 respectively). There were no significant differences between married and unmarried women in their residence or wealth, measured by the wealth index.

Overall 37.6% of women said they had experienced physical violence; but while 42.2% of ever married women said this, there was only 28.7% among never married women. Overall 3.4% of women said they had had sexual violence; 4.4% among ever married women and 1.3% among never married women.

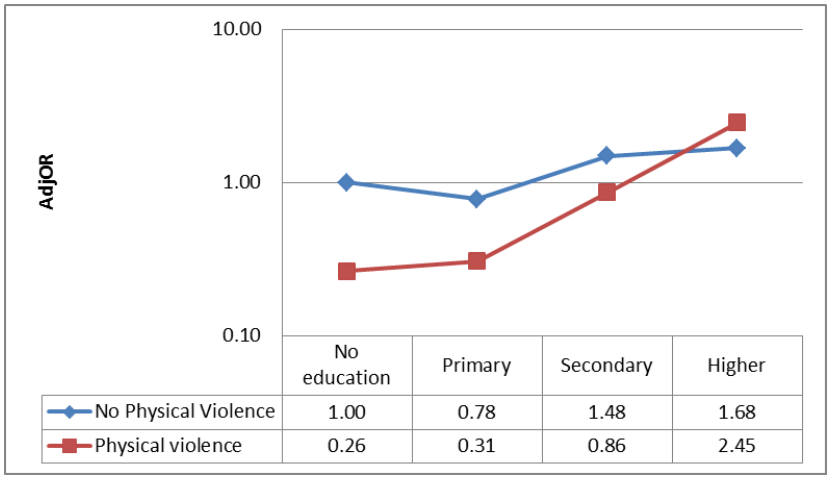
Never married and ever married women show significant differences for physical violence and sexual violence when adjusted for age, employment, education, residence and wealth index. Never-married women were half as likely to experience physical violence (AdjOR=0.48) and 60% less likely to experience sexual violence (AdjOR=0.39).

Given the results in Table 2, we investigated the inter-relationship between education and violence after adjusting for age, and we found that unmarried women were more likely to experience physical violence as they reached a higher level of education. This is demonstrated graphically in Figure 2. It shows that the when a woman's level of education rises above secondary, her likelihood of being abused becomes stronger. As the TLDHS authors surmise, this may be punishment for breaking gender norms especially when she is unmarried.

Table 2: Socio-demographic and violence characteristics of never married compared with married Timorese women

		Total	Ever Married	Never Married				
Total		2,951	1959	992				
	n	Col %	Col %	Col %	AdjOR	95% CI		P-value
Current age								
15-19	700	23.7	3.4	63.8	Ref			
20-24	513	17.4	13.8	24.4	**0.08**	**0.1 -**	**0.1**	**<0.001**
25-29	403	13.6	17.4	6.2	**0.02**	**0.0 -**	**0.0**	**<0.001**
30-39	765	25.9	37.2	3.6	**0.01**	**0.0 -**	**0.0**	**<0.001**
40-49	570	19.3	28.1	2.0	**0.01**	**0.0 -**	**0.0**	**<0.001**
Employment in last 12 months								
not employed	1795	60.8	55.8	70.8	Ref			
employed for cash	219	7.4	8.7	4.9	**1.57**	**1.0 -**	**2.6**	**0.07**
employed not for cash	937	31.8	35.5	24.4	**1.55**	**1.2 -**	**2.0**	**0.002**
Residence								
rural	2251	76.3	76.1	76.6	1.06	0.8 -	1.4	0.7
Highest education level								
no education	896	30.4	38.5	14.3	Ref			
primary	696	23.6	25.3	20.2	0.79	0.5 -	1.1	0.2
secondary	1268	43.0	33.5	61.7	**1.80**	**1.3 -**	**2.5**	**0.001**
higher	91	3.1	2.8	3.7	**3.22**	**1.6 -**	**6.7**	**0.002**
Wealth index								
poor/est	1139	38.6	39.9	36.2	1.25	0.9 -	1.7	0.18
middle	597	20.2	19.4	22.0	Ref			
rich/est	1214	41.1	40.8	41.8	0.94	0.7 -	1.3	0.69
Physical violence								
Yes	1,111	37.6	42.2	28.7	**0.47**	**0.4 -**	**0.6**	**<0.001**
Sexual violence								
Yes	99	3.4	4.4	1.3	**0.39**	**0.2 -**	**0.9**	**0.04**
Respondents father beat her mother								
no	1539	52.2	51.0	54.4	Ref			
yes	945	32.0	32.3	31.5	**0.75**	**0.6 -**	**1.0**	**0.03**
don't know	468	15.8	16.7	14.1	1.00	0.7 -	1.5	0.98

Figure 2: The association of education with experience of physical violence against Timorese women, adjusted for never married vs. married women



Although Table 2 showed that there was no difference in rural or urban residence between unmarried and married women, there are however a number of regions where there were significantly more unmarried women than married women, as shown in Table 3. Compared with Dili, unmarried women were more likely to live in Ainaro, Bobonaro, Ermera, Liquica, Manatuto and Viqueque.

Table 3: Comparison of never married women with ever married women by region

		Total	Ever Married	Never Married			
Total		2,951	1959	992			
	n	Col %	Col %	Col %	AdjOR	95% CI	P-value
Region							
Aileu	129	4.4	3.8	5.5	1.56	0.79 - 3.07	0.2
Ainaro	160	5.4	5.1	6.1	**2.33**	**1.20 - 4.54**	**0.01**
Baucau	335	11.3	11.8	10.5	1.66	0.87 - 3.18	0.13
Bobonaro	281	9.5	8.8	11.0	**2.67**	**1.38 - 5.18**	**0.004**
Covalima	177	6.0	5.8	6.3	1.17	0.61 - 2.27	0.6
Dili	474	16.1	17.1	13.9	Ref		
Ermera	357	12.1	11.5	13.3	**2.53**	**1.28 - 4.99**	**0.007**
Liquica	179	6.1	5.9	6.4	**2.30**	**1.19 - 4.43**	**0.01**
Lautem	192	6.5	7.0	5.6	1.09	0.58 - 2.07	0.8
Manufahi	114	3.9	4.3	3.0	1.15	0.56 - 2.37	0.7
Manatuto	135	4.6	4.1	5.7	**2.61**	**1.38 - 4.92**	**0.003**
Oecussi	201	6.8	7.2	6.1	1.37	0.70 - 2.68	0.4
Viqueque	219	7.4	7.8	6.6	**2.18**	**1.08 - 4.40**	**0.03**

CATEGORIES OF VIOLENCE FOR TIMORESE WOMEN

We considered separately and together three forms of violence: physical, sexual and emotional.

In the original TLDHS Report (p230), the perpetrators of physical violence for married women are overwhelmingly a partner (74%) or former partner (6%); whereas for never-married women; it is more commonly a parent or step-parent (60%).

In Table 2, we showed that 37.6% of women said they had experienced physical violence and that 3.4% of women experienced sexual violence (likely to be underreported). Table 4 shows that women who experienced sexual violence are in greater numbers in their thirties, are employed for cash, and are separated/widowed or divorced. Sexual violence was more common in Aileu (6.6%) and Lautem (6.8%).

Never-married women were not asked about emotional abuse. 8.3% of married women experienced emotional violence.

Table 4: Characteristics of women ever having experienced sexual violence

Background characteristic	Total	Women who have ever experienced sexual violence	
	n	n	%
Total	2951	99	3.4
Current age			
15-19	700	14	2.0
20-24	513	12	2.4
25-29	403	16	3.9
30-39	765	39	5.1
40-49	570	19	3.3
Employment in last 12 months			
not employed	1795	59	3.3
employed for cash	219	13	6.1
employed not for cash	937	27	2.9
Marital status			
never married	992	13	1.3
married or living toget	1843	76	4.1
div/sep/widowd	116	11	9.3
No of living children			
0	1106	16	1.5
1-2	527	20	3.9
3-4	595	30	5.1
5+	724	32	4.5
Residence			
urban	700	25	3.5
rural	2251	75	3.3
Region			
Aileu	129	8	6.6
Ainaro	160	4	2.6
Baucau	335	23	7.0
Bobonaro	281	4	1.4
Covalima	177	5	2.6
Dili	474	11	2.3
Ermera	357	12	3.4
Liquica	179	8	4.5
Lautem	192	13	6.8
Manufahi	114	2	1.4
Manatuto	135	3	2.3
Oecussi	201	6	2.9
Viqueque	219	1	0.4
Highest education level			
no education	896	35	3.9
primary	696	27	3.9
secondary	1268	37	3.0
higher	91	0	0.0
Wealth index			
poorest	567	19	3.4
poorer	572	28	4.8
middle	597	19	3.2
richer	594	18	3.0
richest	620	16	2.5

Table 5: Forms of violence and % perpetrator partner by marital status

			Marital status		
			Never married	Currently married	Divorced/ separated/ widowed
	n	% violence	% violence	% violence	% violence
Total	2951		992	1843	116
Form of violence					
Physical violence	1111	38	29	41.7	49.8
Sexual violence	99	3	1	4.1	9.3
Emotional violence	163	8	Not asked	7.2	25.5
Partner perpetrator %					
Physical violence				81.0	84.9
Sexual violence				76.3	95.4
Emotional violence				100.0	100.0

Table 5 shows that for all forms violence measured, there is increase associated with being married, and particularly for women who are divorced, separated or widowed. When we examined who the women said had perpetrated the violence, more than 75% of married women who have experienced violence said it was from a partner and for women who are divorced, separated or widowed this was 85% or more. We combined the three types of violence to form three mutually exclusive categories: those who experienced no violence (none), those who experienced physical violence only and those who experienced any combined forms of violence or sexual or emotional violence only (combined).

We show in Table 6 the distribution of forms of violence among never married, currently married and divorced, separated or widowed women. This distinguishes women who have experienced no violence (none), from those who experienced physical violence only (physical only) (n=935), and those who experienced any combined forms of abuse or sexual or emotional abuse only (n=230). Note that those experiencing sexual or emotional abuse only were included in the combined group as these small groups could not be analysed by themselves.

From the literature, we know that the outcomes are usually worse for women who experience combined forms of violence. Table 6 also shows that women experiencing combined abuse are more likely to experience it from their partner than those experiencing only physical abuse: 90% compared with 77% for currently married women and 74% for married women compared with 99% among those divorced, separated or widowed. Also although it is not tabulated, we found that women experiencing severe physical violence were 77% more likely to experience combined violence (AdjOR=1.77). This suggests that women experiencing combined forms of violence are more likely to have sought separation from abusive partners.

Table 6: Categorising forms of violence experienced by Timorese women and association with marital status and partner perpetration.

	Total	Never married		Currently married		Divorced/ separated/ widowed	
Violence categories	n	n	%	n	%	n	%
Total		1005		1843		116	
None	**1785**	**705**	**71.1**	**1032**	**56.0**	**48**	**41.6**
Physical only	**935**	**274**	**27.6**	**628**	**34.1**	**33**	**28.5**
Combined	**230**	**13**	**1.3**	**182**	**9.9**	**35**	**29.8**
sexual only		*3*	*0.3*	*23*	*1.3*	*3*	*2.2*
physical & sex only		*10*	*1.0*	*26*	*1.4*	*2*	*2.1*
emotional only				*16*	*0.9*	*7*	*5.9*
emotional & physical		*not measured*		*90*	*4.9*	*17*	*14.7*
emotional & sexual		*for never married*		*2*	*0.1*	*1*	*0.6*
physical, sexual & emotional				*24*	*1.3*	*5*	*4.4*
Partner perpetrator %							
Physical only					**77.1**		**73.6**
Combined					**90.2**		**98.6**

SOCIO-DEMOGRAPHIC AND OTHER FACTORS AMONG EVER MARRIED WOMEN AND ASSOCIATION WITH VIOLENCE

Table 7 shows that while 55% of married women say they experience no violence, 33.8% of women say they experience physical violence only and 11.1% combined physical and/or sexual and/or emotional violence. Overall, this means that 44.9% of ever-married Timorese women say they have experienced violence from an intimate partner or someone else.

We then examined their socio-demographic and other characteristics to see what factors were significantly associated with either form of violence. There were important differences between age groups in that women from 25 to 39 years were over sixty percent more likely to experience combined forms of violence compared with women who had not experienced any violence (Adj OR=1.62). Married women who were employed, but not for cash, were 25% more likely to experience physical violence only (AdjOR=1.25), and significantly less likely to experience combined forms of violence (AdjOR=0.68) than those not employed.

Compared with women still living with a spouse, women who were divorced, separated or widowed, were two and a half times more likely to experience combined forms of violence (AdjOR=2.5).

Table 7: Socio-demographic and other factors among ever married women and association with violence

	Total	None	Phys only	Combined	Phys_only			Combined		
	1959	1081	662	217	AdjOR	95% CI	P-value	AdjOR	95% CI	P-value
		Row %								
Total		55.2	33.8	11.1						
Current age										
15-24	338	57.1	32.7	10.2	Ref			Ref		
25-39	1070	51.9	36.3	11.8	1.12	0.87 - 1.45	0.4	1.62	1.05 - 2.49	0.03
40-49	551	60.3	29.5	10.2	0.78	0.57 - 1.07	0.12	0.96	0.57 - 1.62	0.9
Employment in last 12 months										
not employed	1094	53.0	34.4	12.6	Ref			Ref		
employed for cash	170	56.5	29.3	14.2	0.88	0.60 - 1.30	0.5	0.92	0.53 - 1.60	0.8
employed not for cash	695	58.3	33.8	7.9	**1.25**	**1.02 - 1.53**	**0.03**	**0.68**	**0.49 - 0.94**	**0.02**
Marital status										
married/living together	1843	56.0	34.1	9.9	Ref			Ref		
div/sep/widowd	116	41.6	28.5	29.8	1.11	0.71 - 1.75	0.6	**2.50**	**1.44 - 4.35**	**0.001**
Residence										
urban	468	42.1	41.5	16.4	Ref			Ref		
rural	1491	59.3	31.3	9.4	**0.62**	**0.48 - 0.79**	**<0.001**	**0.33**	**0.24 - 0.47**	**<0.001**
Highest education level										
no education	754	56.8	31.0	12.2	Ref			Ref		
primary	495	52.3	36.5	11.2	1.23	0.97 - 1.57	0.09	0.88	0.61 - 1.28	0.5
secondary	656	55.8	34.0	10.2	1.01	0.78 - 1.30	1.0	0.73	0.49 - 1.08	0.12
higher	54	49.9	45.1	5.1	0.84	0.42 - 1.67	0.6	0.22	0.06 - 0.81	0.02
Wealth index										
poor/est	781	56.8	32.0	11.2	0.96	0.75 - 1.25	0.8	1.07	0.71 - 1.61	0.7
middle	379	59.5	31.3	9.2	Ref			Ref		
rich/est	799	51.5	36.6	11.9	1.06	0.80 - 1.39	0.7	1.02	0.66 - 1.58	0.9
Age at first intercourse										
<15	103	3.8	6.6	8.5	**1.99**	**1.28 - 3.09**	**0.002**	**2.59**	**1.43 - 4.69**	**0.002**
15-39	1803	93.9	90.0	89.0	Ref			Ref		

Women living in rural areas were two thirds less likely to have experienced physical violence (AdjOR=0.62), or a third less likely to have experienced combined violence (AdjOR=0.33).

Women with a higher level of education are significantly less likely to experience combined forms of violence (AdjOR=0.22).

Importantly, when we examined the group of women who said their age at first intercourse was less than fifteen years of age, their age was significantly associated with both forms of violence. Women having first intercourse at an early age are twice as likely to experience physical violence (AdjOR= 1.99) and over two and a half times as likely to experience combined forms of violence (AdjOR= 2.59) than those whose first experience of intercourse was at fifteen years or older.

As 97.5% of currently married women said that their husbands had no other wives, and for only 1.8% there were two, the association with DV was not investigated for this factor (not shown).

WOMEN'S EMPOWERMENT, BARRIERS TO EMPOWERMENT AND ASSOCIATION WITH VIOLENCE AGAINST WOMEN

SOCIO-ECONOMIC CHARACTERISTICS, DECISION-MAKING ABOUT INCOME, SPENDING AND ASSOCIATION WITH VIOLENCE AGAINST WOMEN

Table 8 illustrates the association that women's employment and the decision about how her wages are to be spent with forms of violence.

When compared with women who are not working, women working but not for cash are almost two thirds less likely to experience combined forms of violence (Adj OR=0.67).

When further compared with unemployed women, women working for the family are over twice as likely to experience physical violence only (AdjOR=2.28), whereas women working for someone else (AdjOR=0.48) or self-employed (AdjOR=0.68) are less likely to experience combined forms of violence.

There are no significant differences between women working all year and women not working, but women working seasonally experience a 67% greater likelihood of physical violence only (AdjOR=1.67), but a significantly lower likelihood of combined forms of violence (AdjOR=0.52) compared with unemployed women. Compared with women who are unemployed, women working occasionally are less likely to experience physical violence only (AdjOR=0.58)

When a husband alone makes decisions about the woman's earnings, she is almost five times as likely to experience combined forms of violence compared with women working not for cash who have no wages about which to make decision (AdjOR=4.95). Women who are not working at all, compared with women who are working but unpaid, are less likely to experience physical violence (AdjOR=0.79) but more likely to experience combined violence (AdjOR=1.39).

Table 8: Socio-economic characteristics, decision-making about income and association with violence against women

			None	Phys only	Comb-ined	Phys only			Combined		
Total	2951		1781	936	230						
		Col %	Row %								
			60.5	31.7	7.8	AdjOR	95% CI	p-value	AdjOR	95% CI	p-value
Occupation											
Not working	1795	60.8	59.2	32.6	8.2	Ref			Ref		
For cash	219	7.4	55.6	32.5	11.9	0.95	0.68 - 1.33	0.8	0.87	0.52 - 1.47	0.6
Not for cash	937	31.8	64.2	29.8	6.0	1.15	0.96 - 1.37	0.13	**0.67**	**0.48 - 0.92**	**0.01**
Work for family, others/self											
Not working	1795	60.8	59.2	32.6	8.2	Ref			Ref		
For family	173	5.9	47.0	42.7	10.4	**2.28**	**1.64 - 3.17**	**<0.001**	1.29	0.71 - 2.34	0.4
For someone else	160	5.4	61.5	31.4	7.1	0.78	0.53 - 1.14	0.2	**0.48**	**0.24 - 0.94**	**0.03**
Self-employed	823	27.9	66.1	27.5	6.4	1.01	0.84 - 1.22	0.9	**0.68**	**0.49 - 0.94**	**0.02**
Employment, all year/ seasonal											
Not working	1795	60.8	59.2	32.6	8.2	Ref			Ref		
All year	475	16.1	62.0	28.2	9.8	0.86	0.68 - 1.08	0.2	0.83	0.58 - 1.18	0.3
Seasonal	517	17.5	59.2	36.3	4.5	**1.67**	**1.35 - 2.07**	**<0.001**	**0.52**	**0.33 - 0.83**	**0.006**
Occasionally	164	5.5	74.9	17.4	7.7	**0.58**	**0.39 - 0.87**	**0.008**	0.75	0.42 - 1.35	0.3
Who decides decides how to spend woman's earnings (n=1959)											
Working not for cash	695	35.5	58.3	33.8	7.9	Ref			Ref		
Woman alone	77	3.9	69.7	23.2	7.1	0.65	0.34 - 1.22	0.2	1.05	0.43 - 2.56	0.9
Both	13	0.6	56.8	35.9	7.2	0.66	0.40 - 1.09	0.11	0.67	0.27 - 1.67	0.4
Husband alone	20	1.0	49.9	2.7	47.5	0.26	0.03 - 2.26	0.2	**4.95**	**1.21 - 20.3**	**0.03**
Not working	1094	55.8	53.0	34.4	12.6	**0.79**	**0.65 - 0.96**	**0.02**	**1.39**	**1.01 - 1.92**	**0.05**
Missing	60	3.1	20.0	38.6	41.5	1.74	0.38 - 7.97	0.5	3.62	0.56 - 23.3	0.2

WOMEN'S EXPERIENCES OF PARTNER/HUSBAND'S CONTROLLING BEHAVIOURS AND ASSOCIATIONS WITH VIOLENCE

In Table 9, the following controlling behaviours are assessed for their contribution to different forms of violence against women:

- Husband jealous if the women is talking with other men
- Husband accuses her of unfaithfulness
- Husband does not permit her to meet her girlfriends
- Husband tries to limit her contact with her family
- Husband insists on knowing where she is
- Husband doesn't trust her with money

The greater the number of controlling behaviours by her partner a woman experiences, the higher the likelihood that she will experience either form of violence, but the effect is greater for combined forms. In a linear analysis, this means that for each additional control issue that a woman experiences, there is a 20% increased likelihood that she will experience physical violence and a 72% increased likelihood of combined violence.

What appears striking is that with three or more forms of controlling behaviours, a woman is ten or more times likely to experience combined forms of abuse (AdjORs of 9.77, 10.3, 14.2).

Table 9: Women's experiences of partner/husband's controlling behaviours and associations with violence

Number of control issues		**None**	**Phys only**	**Comb-ined**						
	n	Row%			Univariate			Multivariate		
					OR	95% CI	p-value	OR	95% CI	p-value
0	1042	63.2	31.4	5.3	Ref			Ref		
1	382	50.3	39.9	9.8	**1.52**	**1.20 - 1.93**	**0.001**	**2.30**	**1.53 - 3.45**	**<0.001**
2	269	48.4	35.5	16.2	**1.77**	**1.32 - 2.39**	**<0.001**	**4.68**	**3.07 - 7.11**	**<0.001**
3	154	39.0	31.9	29.1	**2.20**	**1.44 - 3.35**	**<0.001**	**10.20**	**6.25 - 16.64**	**<0.001**
4	62	37.1	33.1	29.9	**1.93**	**1.01 - 3.69**	**0.05**	**11.52**	**5.88 - 22.59**	**<0.001**
5	25	26.8	23.6	49.6	1.45	0.50 - 4.21	0.5	**12.31**	**4.61 - 32.90**	**<0.001**
6	26	38.7	41.5	19.8	1.61	0.69 - 3.76	0.3	**6.38**	**2.44 - 16.73**	**<0.001**
Linear (ie increasing odds for each control item)					**1.22**	**1.13 - 1.32**	**<0.001**	**1.75**	**1.59 - 1.92**	**<0.001**

ATTITUDES TO WIFE-BEATING, WITNESSING WIFE-BEATING AS A CHILD AND THE ASSOCIATIONS WITH FORMS OF VIOLENCE

Table 10 shows the analyses of the relationship of ever-married women's attitudes to wife-beating and women's own experience of violence. These differ for the two forms of violence against women. If a woman believes that her husband is justified in beating her if she neglects the children (AdjOR=1.50) or she burns the food (AdjOR=1.18), she is more likely to experience physical violence only. There is a borderline association with beliefs about arguing with him.

However, she is significantly more likely to experience combined abuses if she considers that it is justifiable to beat her if she argues with him (AdjOR=1.51); or refuses to have sex with him (AdjOR=1.39). Interestingly, more women who believe that marital rape is allowable (YES) experienced no violence than those who thought it not allowable (66% vs. 55%). These figures lead to the unexpected results that if a woman thinks that marital rape is allowable, she is less likely to experience either form of violence.

If a woman has grown up with her father beating her mother, she is almost six times more likely to experience physical violence (AdjOR=5.97) but only 47% more likely to experience combined abuses (AdjOR=1.47).

Table 10: Attitudes to wife-beating, witnessing wife-beating as a child and the associations with forms of violence

			None	Phys only	Combined	Phys only			Combined		
Total	2951		1781	936	230						
		Col %	Row %								
			60.5	31.7	7.8	AdjOR	95% CI	p-value	AdjOR	95% CI	p-value
Attitudes to wife beating, justified if:											
she goes out without telling him											
no	676	22.9	61.4	30.9	7.8	Ref			Ref		
yes	2096	71.0	59.8	32.2	8.0	0.93	0.77 - 1.13	0.5	1.07	0.78 - 1.47	0.7
don't know	180	6.1	65.3	29.4	5.3	1.03	0.69 - 1.54	0.9	**2.23**	**0.99 - 5.03**	**0.05**
she neglects the children											
no	538	18.2	66.0	25.1	8.9	Ref			Ref		
yes	2255	76.4	58.6	33.8	7.6	**1.50**	**1.21 - 1.87**	**<0.001**	1.10	0.79 - 1.54	0.6
don't know	157	5.3	69.8	23.7	6.6	1.02	0.63 - 1.63	0.9	1.94	0.78 - 4.84	0.16
she argues with him							-			-	
no	863	29.2	62.1	31.3	6.6	Ref			Ref		
yes	1881	63.7	59.0	32.4	8.6	1.19	0.99 - 1.43	0.07	**1.51**	**1.09 - 2.08**	**0.01**
don't know	207	7.0	67.1	27.5	5.4	0.94	0.63 - 1.39	0.7	1.57	0.65 - 3.78	0.31
refuses to have sex with him											
no	1489	50.5	60.6	31.9	7.6	Ref			Ref		
yes	904	30.6	57.7	31.9	10.5	1.04	0.87 - 1.25	0.7	**1.39**	**1.03 - 1.87**	**0.03**
don't know	558	18.9	65.0	31.0	4.1	1.17	0.91 - 1.50	0.2	0.97	0.58 - 1.63	0.9
she burns the food											
no	1486	50.4	62.9	28.7	8.5	Ref			Ref		
yes	1256	42.6	57.2	35.5	7.3	**1.18**	**1.00 - 1.39**	**0.05**	1.12	0.84 - 1.48	0.4
don't know	209	7.1	63.3	30.6	6.2	**1.47**	**1.03 - 2.10**	**0.03**	1.29	0.58 - 2.88	0.5
Woman thinks marital rape is allowable											
no	1687	57.2	55.2	35.8	8.9	Ref			Ref		
yes	848	28.7	65.6	26.4	8.0	**0.65**	**0.54 - 0.78**	**<0.001**	0.79	0.59 - 1.07	0.12
don't know	416	14.1	71.5	25.8	2.8	**0.64**	**0.49 - 0.83**	**0.001**	**0.35**	**0.18 - 0.69**	**0.002**
Respondents father beat her mother											
no	999		69.9	21.9	8.2	Ref			Ref		
yes	632		28.5	56.5	14.9	**5.97**	**4.80 - 7.43**	**<0.001**	**1.47**	**1.08 - 2.00**	**0.02**

THE FINAL SAY ABOUT HOUSEHOLD AND FAMILY DECISIONS AND ASSOCIATION WITH VIOLENCE AGAINST WOMEN

Household and family decisions and their associations with violence are shown in Table 11

Compared with a woman making her own decisions about her health care, if she and her husband make the decision, she is significantly less likely (AdjOR=0.50) to experience combined violence, but if her husband alone does, she is 84% more likely to experience it (AdjOR=1.84).

Compared with her making decisions about purchases herself, if she makes them with her partner (AdjOR=1.82) or he decides alone (AdjOR=2.05), she is twice as likely to experience physical violence or combined forms of abuses (AdjOR=2.04). A woman is three times as likely to experience combined violence (AdjOR=3.04) if he decides their daily needs, 80% more likely (AdjOR=1.80) if he decides whether they visit family and friends and five times as likely (AdjOR=5.03) if only he decides what to do with his wages without consulting her. If they both make decisions about their daily needs, she is less likely to experience physical violence (AdjOR=0.64) or combined violence (AdjOR=0.58).

She is more likely to experience being physically abused if her husband alone decides what he does with his wages (AdjOR=1.93) or if he is not working for money (AdjOR=1.53) compared with women who have the final say.

Table 11: The final say about household and family decisions and association with violence against women

			None	Phys only	Combined	Phys only			Combined		
Total	2951		1781	936	230						
			60.5	31.7	7.8	AdjOR	95% CI	p-value	AdjOR	95% CI	p-value
		col %		Row %							
Total for final say (only for currently married women	1843	100	56.0	34.1	9.9						
on own health care											
respondent alone	408	22.1	50.9	36.6	12.5	Ref			Ref		
respondent & partner	1192	64.7	58.6	34.3	7.1	0.85	0.67 - 1.07	0.2	**0.50**	**0.35 - 0.72**	**<0.001**
husband/partner alone	242	13.2	51.9	28.6	19.5	0.95	0.67 - 1.34	0.8	**1.84**	**1.20 - 2.82**	**0.005**
on making purchases											
respondent alone	408	22.1	61.7	26.5	11.8	Ref			Ref		
respondent & partner	1174	63.7	55.0	37.6	7.4	**1.82**	**1.43 - 2.32**	**<0.001**	0.73	0.51 - 1.04	0.08
husband/partner alone	256	13.9	52.1	30.8	17.1	**2.05**	**1.48 - 2.85**	**<0.001**	**2.04**	**1.34 - 3.09**	**0.001**
on daily needs											
respondent alone	1166	63.3	52.9	36.3	10.8	Ref			Ref		
respondent & partner	584	31.7	63.2	30.2	6.6	**0.64**	**0.51 - 0.80**	**<0.001**	**0.58**	**0.40 - 0.84**	**0.004**
husband/partner alone	89	4.8	51.6	29.2	19.2	0.96	0.57 - 1.64	0.9	**3.04**	**1.71 - 5.39**	**<0.001**
on visits to family & friends											
respondent alone	235	12.8	63.3	28.3	8.4	Ref			Ref		
respondent & partner	1429	77.5	55.0	35.8	9.2	1.22	0.92 - 1.62	0.2	0.90	0.59 - 1.38	0.6
husband/partner alone	178	9.6	54.5	28.0	17.6	1.07	0.70 - 1.63	0.8	**1.80**	**1.03 - 3.14**	**0.04**
on deciding to do with what husband earns											
respondent alone	396	21.5	53.1	34.5	12.5	Ref			Ref		
respondent & partner	1138	61.7	60.1	32.1	7.8	1.05	0.83 - 1.34	0.7	0.79	0.54 - 1.14	0.2
husband/partner alone	92	5.0	37.0	35.3	27.8	**1.93**	**1.17 - 3.19**	**0.01**	**5.03**	**2.85 - 8.87**	**<0.001**
husband/partner not working for money	203	11.0	48.8	43.3	7.9	**1.53**	**1.10 - 2.14**	**0.01**	1.20	0.70 - 2.04	0.5

COMPARISON OF TIMOR-LESTE REGIONS AND VIOLENCE AGAINST WOMEN

Table 12 demonstrates that compared with women in Dili, women in other areas are significantly less likely to experience either forms of violence, (when accounting for age and other socio-demographic factors). We have only highlighted areas where the risk is significantly greater than Dili.

It appears that women in Manufahi are almost five times more likely (AdjOR=4.88) than Dili women to be physically beaten. It would appear that they are also almost three times as likely to experience combined abuse (AdjOR=2.81), however this result needs to be treated with caution since only 14% of women in that region said they experienced no abuse. Additionally, women in Aileu (AdjOR=2.35), Baucau (AdjOR=2.49) and in Lautem (AdjOR=4.71) are all significantly more likely to experience combined forms of abuse than women in Dili. This would suggest that there are several rural areas, as well as Dili itself, which would most benefit from further investigations, and if confirmed, would benefit from interventions to reduce and prevent violence against women.

Table 12: Comparison of Timor-Leste regions' vulnerability to violence

	Total	None	Phys only	Combined	Phys only			Combined		
	1959	1081	662	217	AdjOR	95% CI	P-value	AdjOR	95% CI	P-value
		Row %								
Total		55.2	33.8	11.1						
Region										
Aileu	74	53.4	30.4	16.2	0.57	0.33 - 0.97	0.04	**2.35**	**1.13 - 4.88**	**0.02**
Ainaro	100	81.4	11.4	7.2	0.12	0.07 - 0.23	<0.001	0.44	0.19 - 1.03	0.06
Baucau	230	56.7	23.7	19.6	0.37	0.22 - 0.62	<0.001	**2.49**	**1.28 - 4.87**	**0.008**
Bobonaro	172	75.2	19.5	5.3	0.25	0.15 - 0.43	<0.001	0.39	0.15 - 0.98	0.04
Covalima	115	41.3	52.9	5.7	1.12	0.69 - 1.81	0.7	0.76	0.32 - 1.80	0.5
Dili	336	40.2	45.2	14.6						
Ermera	225	73.3	21.5	5.2	0.18	0.10 - 0.33	<0.001	0.53	0.23 - 1.23	0.14
Liquica	115	60.8	31.5	7.7	0.49	0.29 - 0.81	0.006	1.08	0.50 - 2.34	0.8
Lautem	136	36.3	30.9	32.9	0.70	0.42 - 1.15	0.2	**4.71**	**2.54 - 8.76**	**<0.001**
Manufahi	84	13.9	79.5	6.6	**4.88**	**2.69 - 8.88**	**<0.001**	**2.81**	**1.11 - 7.07**	**0.03**
Manatuto	79	80.3	14.7	5.0	0.17	0.10 - 0.30	<0.001	0.45	0.19 - 1.06	0.07
Oecussi	140	32.1	61.3	6.6	1.44	0.90 - 2.32	0.13	1.03	0.47 - 2.26	0.9
Viqueque	153	73.8	23.5	2.6	0.30	0.18 - 0.52	<0.001	0.32	0.11 - 0.92	0.03

ASSOCIATIONS OF VIOLENCE AGAINST WOMEN WITH WOMEN'S REPRODUCTIVE HISTORY

FERTILITY RATES AND OTHER FACTORS AFFECTING IT AND ASSOCIATION WITH VIOLENCE AGAINST WOMEN

Table 13 presents results of the associations with effects of violence against women with contraception, unplanned pregnancy, pregnancy termination, living children, age at first birth and birth intervals.

CONTRACEPTIVE PRACTICE

Compared with women experiencing no abuse, women experiencing physical violence are more likely to use a modern method (AdjOR=1.51) than no method at all, but are much more likely to use traditional methods (AdjOR=2.41).

UNPLANNED PREGNANCY AND HAVING A PREGNANCY TERMINATION

Women who have had an unplanned pregnancy are 46% more likely (AdjOR=1.46) to be experiencing physical violence. For unplanned pregnancy, women in rural areas who experienced both types of violence were more than twice as likely to have an unplanned pregnancy as women in urban areas who experienced violence (not tabulated). Compared with women who have no pregnancy terminations, women experiencing physical violence are 42% more likely to have had one (AdjOR=1.42) and women experiencing combined forms of violence are 96% more likely to had a termination (AdjOR=1.96).

NUMBER OF LIVING CHILDREN

There was no association between experiencing violence in the numbers of living children a woman has, because while she is likely to have more pregnancies than non-abused women, abused women have more pregnancies with adverse outcomes (miscarriages, terminations, infant mortality – see over page).

AGE AT FIRST BIRTH

Considering women's age at first birth, among women who have no children yet, it is less likely that there are women who experienced physical violence only, compared with the reference group of women aged between 20 – 24 (OR=0.62).

BIRTH INTERVALS

Also, there appear to be no differences in median birth intervals between women experiencing no or either form of violence.

Table 13: Fertility rates and other factors affecting it and association with violence against women

	n		None	Phys only	Combined	Phys only			Combined		
	1959		1081	662	217						
		Col%	Row %								
			55.16	33.76	11.08	AdjOR	95% CI	p-value	AdjOR	95% CI	p-value
Current contraception use											
using modern method	393	20.0	50.2	44.0	5.9	**1.51**	**1.19 - 1.91**	**0.001**	0.70	0.46 - 1.05	0.08
using traditional metho	40	2.0	47.6	37.4	15.1	**2.41**	**1.07 - 5.40**	**0.03**	1.99	0.64 - 6.12	0.2
non-user	1527	77.9	56.6	31.0	12.3	Ref			Ref		
Ever unplanned pregnancy											
no	1249	84.3	55.7	33.8	10.5	Ref			Ref		
yes	232	15.7	43.7	43.0	13.3	**1.46**	**1.04 - 2.05**	**0.03**	1.29	0.74 - 2.26	0.4
Ever had termination											
no	1785	91.1	55.87	33.59	10.54	Ref			Ref		
yes	174	8.9	47.85	35.55	16.6	**1.42**	**1.03 - 1.96**	**0.03**	**1.96**	**1.27 - 3.02**	**0.002**
No. living children			%								
0	115	5.9	67.1	26.3	8.4	0.42	0.10 - 1.72	0.2	1.18	0.06 - 23.1	0.9
1-2	527	26.9	53.1	35.4	11.5	1.11	0.61 - 2.00	0.7	0.87	0.37 - 2.04	0.7
3-4	594	30.3	52.9	36.1	11.1	Ref			Ref		
5+	724	36.9	56.4	32.4	11.2	1.20	0.82 - 1.74	0.3	0.89	0.48 - 1.63	0.7
Age at first birth											
No birth	102	5.2	65.9	25.8	8.3	**0.62**	**0.38 - 1.00**	**0.05**	0.56	0.24 - 1.28	0.2
12-14 yrs	49	2.5	44.7	36.2	19.0	1.08	0.46 - 2.57	0.9	1.39	0.43 - 4.46	0.6
15-19yrs	678	34.6	52.7	34.9	12.4	1.07	0.86 - 1.34	0.5	1.12	0.79 - 1.58	0.5
20-24 yrs	768	39.2	55.6	34.1	10.4	Ref			Ref		
25-42 yrs	362	18.5	57.4	32.8	9.8	0.90	0.69 - 1.19	0.5	1.02	0.68 - 1.53	0.9
Median birth interval											
No prior interval*	343	17.5	56.9	31.7	11.4	0.80	0.59 - 1.09	0.2	1.16	0.74 - 1.83	0.5
9-17 m	67	3.4	50.3	30.3	19.3	0.92	0.55 - 1.55	0.8	1.13	0.52 - 2.45	0.8
18-23m	363	18.5	57.4	32.4	10.1	0.86	0.66 - 1.11	0.2	0.98	0.67 - 1.45	0.9
24-35m	872	44.5	55.5	33.8	10.7	Ref			Ref		
36-47m	209	10.6	46.5	40.6	12.9	1.18	0.87 - 1.60	0.3	0.98	0.60 - 1.60	0.9
48-59m	53	2.7	61.1	35.0	3.9	0.91	0.52 - 1.59	0.7	0.47	0.16 - 1.37	0.2
60+ m	53	2.7	56.9	31.7	11.4	0.75	0.42 - 1.34	0.3	0.61	0.23 - 1.62	0.3

* 0 children or 1 child

ANTE-NATAL, BIRTHING AND POSTNATAL CARE

TIMING OF FIRST ANTENATAL VISIT, NUMBER OF VISITS AND SKILLED ANTENATAL CARE

Table 14 outlines the analysis of association between violence against Timorese women and forms of antenatal care.

The only significant difference is that women experiencing combined forms of violence are 76% more likely to have two or three ante-natal visits (AdjOR=1.76) compared with those who have four or more visits. There are no differences in the timing of the first antenatal visit or skilled antenatal care.

BIRTHING AND POSTNATAL CARE AND ASSOCIATION WITH VIOLENCE AGAINST WOMEN

Table 14 also outlines the associations with forms of health care for birthing women.

There are no significant differences between abused and non-abused women in Timor-Leste in relation to skilled birthing care.

When asked the reasons why they did not have a birth in a health care facility (HCF), the only difference between Timorese women was that women experiencing physical violence were less likely to say their husband did not allow birth in a health care facility (AdjOR=0.23).

There were also no differences between abused and non-abused women in the timing of their first postnatal visit or their postnatal care altogether.

Table 14: Timing of first antenatal visit, number of visits, skilled antenatal care, birthing and postnatal care and association with violence

	n		None	Phys only	Combined						
Total	1432		769	508	155						
		Col %	Row %			**Phys only**			**Combined**		
			53.7	35.5	10.9	AdjOR	95% CI	p-value	AdjOR	95% CI	p-value
Time of first antenatal visit											
no antenatal care	178	12.5	61.5	27.0	11.6	0.98	0.69 - 1.40	0.9	1.05	0.62 - 1.78	0.9
<4months	644	44.9	53.1	36.2	10.7	Ref			Ref		
4-5mo	428	29.9	54.0	35.9	10.1	1.10	0.85 - 1.41	0.5	0.99	0.67 - 1.46	1.0
6-7mo	157	10.9	48.6	39.3	12.1	1.05	0.73 - 1.51	0.8	1.06	0.61 - 1.84	0.8
8+mo	18	1.2	43.4	39.5	17.0	1.12	0.41 - 3.05	0.8	0.58	0.07 - 4.79	0.6
Noumber of antenatal visits											
no antenatal care	178	12.5	61.5	27.0	11.6	0.97	0.68 - 1.37	0.8	1.35	0.80 - 2.30	0.3
1 visit	49	3.4	52.2	30.6	17.1	0.84	0.47 - 1.51	0.6	1.61	0.72 - 3.59	0.2
2-3 visits	418	29.2	47.2	37.5	15.3	1.08	0.84 - 1.39	0.5	**1.76**	**1.21 - 2.55**	**0.003**
4+ visits	777	54.2	55.7	36.4	7.9	Ref			Ref		
Skilled antenatal care											
none	198	13.8	60.3	27.4	12.4	Ref			Ref		
yes	1234	86.2	52.6	36.8	10.6	0.94	0.68 - 1.29	0.7	0.97	0.60 - 1.58	0.9
Skilled birth care											
none	954	66.6	55.0	34.8	10.2	Ref			Ref		
yes	478	33.4	51.0	36.7	12.3	0.98	0.76 - 1.27	0.9	0.97	0.66 - 1.42	0.9
Skilled birth care in Health Care Facility or and reason for not having birth in HCF											
skilled birth care in HCF	354	24.7	48.7	38.1	13.2	Ref			Ref		
too far to go to HCF	511	35.6	59.6	31.9	8.5	1.11	0.80 - 1.54	0.5	1.33	0.82 - 2.18	0.2
plan caesarean section, baby born at home	275	19.2	51.1	34.4	14.5	0.87	0.63 - 1.19	0.4	1.31	0.83 - 2.08	0.2
too far& baby born before planned CS	123	8.6	49.8	41.2	9.0	1.14	0.78 - 1.66	0.5	0.74	0.37 - 1.48	0.4
not necessary/not customary/no female attendant	120	8.4	48.8	43.3	7.9	1.25	0.86 - 1.83	0.2	0.70	0.35 - 1.39	0.3
husband does not allow HCF use	23	1.6	72.3	14.4	13.2	**0.23**	**0.07 - 0.81**	**0.02**	0.29	0.04 - 2.24	0.2
other	26	1.8	55.2	38.1	6.7	1.35	0.68 - 2.68	0.4	0.71	0.20 - 2.56	0.6
Timing of first postnatal visit											
no postnatal care	974	68.0	54.1	35.3	10.6	Ref			Ref		
<4hr after birth	223	15.6	49.3	39.1	11.6	1.16	0.84 - 1.59	0.4	1.03	0.62 - 1.69	0.9
4-23hr	74	5.2	47.6	39.2	13.2	1.36	0.80 - 2.32	0.3	1.61	0.78 - 3.29	0.2
2nd day	43	3.0	44.1	31.4	24.5	0.79	0.41 - 1.54	0.5	**2.27**	**1.07 - 4.83**	**0.03**
3-63 days	115	8.1	66.2	28.2	5.5	0.80	0.53 - 1.21	0.3	0.61	0.29 - 1.26	0.2
Postnatal care											
none	1292	90.2	52.7	36.2	11.1	Ref			Ref		
skilled	140	9.7	62.8	28.8	8.4	0.86	0.61 - 1.21	0.4	0.82	0.47 - 1.43	0.5

INFANT HEALTH

Similar to the findings of birth intervals, there is no association between women experiencing no or any form of violence and the number of births a Timorese women has had in the last five years, but the births of abused women are more likely to have adverse outcomes as outlined below.

In Table 15, however, women who experienced physical violence were more likely to have children not living with them at home (AdjOR=1.39) when compared with women who had no other children than her own living at home with her.

CHILD AND INFANT MORTALITY AND ASSOCIATIONS WITH VIOLENCE AGAINST WOMEN

However, it is a different picture when turning to the number of children who have died. In Table 15, women who have one child who has died are 35% more likely to have experienced physical violence (AdjOR=1.35) compared with the reference group of women who have no children who have died. There are no other significant associations.

Among women who have children who died over five years ago, women who experience combined violence are significantly more likely (42%) to have children who have died (AdjOR=1.42) than those who have experienced no violence.

In considering overall infant mortality, women experiencing either form of violence have a 23% to 34% greater likelihood of association but these figures do not quite reach statistical significance at a traditional 95% confidence level.

Table 15 Child and infant mortality and associations with violence against women

			None	Phys only	Combined	Phys only			Combined		
Total	1959		1081	662	217						
		col %	Row %								
			55.2	33.8	11.1	AdjOR	95% CI	p-value	AdjOR	95% CI	p-valu
Number of living children											
0	115	5.9	62.2	29.3	8.5	Ref			Ref		
1-2	527	26.9	52.7	35.2	12.1	0.74	0.46 - 1.17	0.2	0.53	0.24 - 1.18	0.12
3-4	594	30.3	54.3	35.8	9.9	1.08	0.81 - 1.43	0.6	1.00	0.66 - 1.52	1.0
5+	724	36.9	56.5	31.8	11.8	1.12	0.88 - 1.42	0.3	0.84	0.58 - 1.20	0.3
Births in last 5 yrs											
0	527	26.9	59.2	29.2	11.6	Ref			Ref		
1	672	34.3	53.3	35.1	11.7	0.80	0.60 - 1.07	0.14	0.97	0.62 - 1.50	0.9
2	614	31.3	55.0	35.5	9.6	0.95	0.75 - 1.19	0.7	0.83	0.58 - 1.19	0.3
3+	146	7.5	50.2	37.0	12.8	0.95	0.64 - 1.40	0.8	1.20	0.69 - 2.08	0.5
Other children living with woman											
no other children	1305	66.6	55.7	33.9	10.5	Ref			Ref		
1 other	432	22.0	54.1	36.0	9.9	1.06	0.84 - 1.33	0.6	1.04	0.73 - 1.48	0.8
2+ others	106	5.4	58.2	18.5	23.3	0.62	0.33 - 1.15	0.13	1.22	0.57 - 2.58	0.6
own children not at home	116	5.9	50.5	38.2	11.3	1.39	0.96 - 2.00	0.08	1.06	0.59 - 1.93	0.8
Number of children died											
0	1350	68.9	55.9	33.9	10.2	Ref			Ref		
1	358	18.3	50.6	36.5	12.9	**1.35**	**1.05 - 1.72**	**0.02**	1.36	0.93 - 1.99	0.11
2	163	8.3	56.9	30.2	13.0	1.22	0.86 - 1.73	0.3	1.28	0.75 - 2.19	0.4
3	88	4.5	58.9	26.5	14.7	0.99	0.61 - 1.61	1.0	1.71	0.91 - 3.22	0.10
Children born > 5yrs ago, not alive at interview											
No	917	46.8	53.8	36.3	9.9	Ref			Ref		
Yes	533	27.2	54.7	31.2	14.1	1.14	0.90 - 1.43	0.3	**1.42**	**1.01 - 2.00**	**0.04**
Children born < 5yrs ago, not alive at interview											
No	1327	67.7	54.1	35.0	10.9				Ref		
Yes	117	6.0	49.0	41.2	9.8	1.27	0.88 - 1.84	0.2	1.05	0.57 - 1.94	0.9
Ever infant mortality at <5 years of age											
No	1374	70.1	55.7	34.1	10.2	Ref			Ref		
Yes	585	29.9	53.8	32.9	13.2	1.23	0.99 - 1.52	0.06	1.34	0.97 - 1.85	0.08

INFANT NUTRITIONAL STATUS, BIRTHWEIGHT, ANAEMIA AND VACCINATION STATUS AND ASSOCIATIONS WITH VIOLENCE AGAINST WOMEN

Table 16 outlines associations with a range of infant health issues. Women with an underweight baby are twice as likely to be experiencing physical violence and 42% more likely to be experiencing combined violence than women experiencing no violence. Those in rural areas who experienced both types of violence were more than three times as likely to have a baby of less than average weight as women in urban areas who experienced violence (not shown in tables).

Weight for height measures nutritional status of children less than 5 years of age. There are no differences between the children of Timorese women experiencing any form of violence in height or weight for age, however women experiencing combined forms of violence are less likely to have children undernourished (two or three standard deviations below the mean), compared with women whose children are adequately nourished (more than or equal to minus two standard deviations). There is no association with anaemia among children. However, the children of women experiencing physical violence are 74% less likely to vaccinated at all (AdjOR=0.74) or 35% more likely to be only partially vaccinated (AdjOR=1.35) compared with non-abused women.

Table 16 Infant health—birth weight, stunting, undernourishment, anaemia and vaccination status and association with violence against women

			None	Phys only	Combined	Phys only			Combined		
			55.2	33.8	11.1	AdjOR	95% CI	p-value	AdjOR	95% CI	p-value
	Total	Col %		Row %							
Birthweight of at least one child born in last 5 years, who is less than average weight											
no	1095	0.0	57.2	32.7	10.1	Ref			Ref		
yes	386	0.0	38.5	47.0	14.6	**2.10**	**1.66 - 2.66**	**<0.001**	1.42	0.99 - 2.05	0.1
Height for age											
normal (above 5th centile)	534	42.8	51.2	36.1	12.7	Ref			Ref		
stunted	433	34.6	58.7	32.0	9.3	0.82	0.63 - 1.06	0.1	0.83	0.56 - 1.22	0.3
severely stunted	282	22.6	53.1	38.1	8.8	1.21	0.89 - 1.63	0.2	0.77	0.47 - 1.28	0.3
Weight for age											
normal (above 5th centile)	934	74.8	55.0	33.7	11.3	Ref			Ref		
stunted	211	16.9	49.4	39.9	10.7	1.22	0.89 - 1.66	0.2	0.77	0.45 - 1.31	0.3
severely stunted	103	8.3	57.1	38.2	4.7	1.00	0.67 - 1.48	1.0	**0.45**	**0.20 - 1.01**	**0.05**
Weight for height											
normal (above 5th centile)	971	77.8	54.8	34.2	11.0	Ref			Ref		
undernourished	182	14.6	49.0	38.5	12.6	1.17	0.83 - 1.63	0.4	0.87	0.50 - 1.51	0.6
severely undernourished	95	7.6	58.7	38.1	3.3	1.00	0.67 - 1.49	1.0	**0.35**	**0.14 - 0.90**	**0.03**
Infants anaemia							-			-	
severe	12	1.0	61.5	13.8	24.6	0.58	0.15 - 2.23	0.4	1.86	0.47 - 7.34	0.4
moderate	214	17.8	50.7	36.1	13.2	1.08	0.80 - 1.46	0.6	0.99	0.62 - 1.58	1.0
mild	350	29.2	53.5	38.1	8.4	1.28	0.98 - 1.67	0.08	0.88	0.56 - 1.37	0.6
non anaemic	623	51.9	55.7	34.7	9.6	Ref			Ref		
Vaccinated											
none	286	20.3	63.5	26.6	9.9	**0.74**	**0.55 - 0.99**	**0.05**	0.70	0.45 - 1.10	0.13
partial	432	30.8	48.8	40.8	10.4	**1.35**	**1.05 - 1.73**	**0.02**	1.07	0.73 - 1.57	0.7
complete	687	48.9	53.2	35.2	11.6	Ref			Ref		

WOMEN'S OWN HEALTH AND HEALTH BEHAVIOURS

There is no significant association between women's experience of either physical only or combined forms of violence and Body Mass Index (BMI) or anaemia, although there is a borderline-significant trend for women experiencing combined abuse to have a BMI less than 18.5.

However, there is a very strong and significant trend for women experiencing physical or combined forms of violence to be three to four times more likely to have a sexually transmitted disease or their symptoms (AdjOR-4.46; and 3.47 respectively) than non-abused women.

Similarly, women with combined forms of violence are more 84% likely to be smoking tobacco or other related substances (AdjOR=1.84). Women experiencing physical violence have a non-significant trend to be smoking (Table 17) compared with non-abused women.

Table 17 Women's health or health behaviours

	n		None	Phys only	combined	Phys only				Combined			
Total	2951		1781	936	230								
		col %	Row %										
			55.2	33.8	11.1	AdjOR	95% CI		p-value	AdjOR	95% CI		p-value
BMI													
18.5-24.9	1971	68.2	61.0	31.7	7.4	Ref				Ref			
<18.5	756	26.2	60.1	32.0	7.9	**1.24**	**0.99**	**-**	**1.55**	**0.06**	1.15	0.81	- 1.62	0.4
≥ 25	162	5.6	57.0	29.5	13.5	1.06	0.71	-	1.59	0.8	1.02	0.56	- 1.86	0.9
Anaemia													
No	2213	79.1	59.8	32.3	7.9	Ref				Ref			
Yes	586	20.9	62.7	29.7	7.6	0.88	0.72	-	1.08	0.2	1.16	0.84	- 1.61	0.4
Sexually transmitted infections or indications thereof													
No	2758	93.5	62.9	29.9	7.2	Ref				Ref			
Yes	193	6.5	26.5	57.4	16.1	**4.46**	**3.27**	**-**	**6.09**	**<0.001**	**3.47**	**2.23**	**- 5.38**	**<0.001**
Smoked tobacco, or other related substances													
No	2821	95.6	61.2	31.3	7.5	Ref				Ref			
Yes	130	4.4	45.9	39.5	14.6	1.35	0.94	-	1.94	0.11	**1.84**	**1.12**	**- 3.02**	**0.02**

WOMEN'S HELP-SEEKING

Table 18 shows the proportions of the 1143 women experiencing violence who answered questions about help-seeking from someone. When the analyses were adjusted, women experiencing combined forms of violence were more than twice as likely to seek help than those experiencing physical violence only (AdjOR=2.21). 85% of women experiencing physical violence had sought no help, whereas only 15% of women experiencing combined abuses had not sought help.

Among the 223 who sought help from their own family, 62% were physically abused and 38% experienced combined abuses. Of those who sought help from neighbours (n=19) and friends (n=21), there were about half from either group of abused women. A smaller proportion of the 189 women who sought one form of help experienced combined violence (25%) compared to women experiencing physical violence (75%), while the reverse was true of the nine women who sought three forms of help. Only 19 women sought help from formal agencies (police, lawyers, social service, and religious leaders) other than family, neighbours and friends.

Table 18 Women's help-seeking

	Total Seeking help	Of those seeking help % from violence type Phys only	Combined
Total	1143	935	208
%		81.9	18.2
Sought help from:			
Own family	223	62.4	37.6
Husband/partner	72	65.1	34.9
Former husband/partner	1	100.0	0.0
Current/former boyfriend	0		
Neighbor	19	48.6	51.4
Other person	9	23.8	76.2
Social service organization	3	0.0	100.0
Friend	21	50.1	49.9
Police	11	4.2	95.8
Religious leader	4	0.0	100.0
Lawyer	1	0.0	100.0
Doctor	0		
Number of above categories ticked			
0	893	85.2	14.8
1	189	75.0	25.0
2	74	41.1	58.9
3	9	27.0	73.0
Total	1166	80.3	19.7
No help sought	893	85.2	14.8
Help sought	272	64.1	35.9
Seeking help for combined violence compared with seeking help for physical violence			
	AdjOR	95% CI	p-value
Adjusted	**2.21**	**1.60** **3.06**	**<0.001**

SECTION FOUR - DISCUSSION AND CONCLUSION

Women in Timor-Leste are experiencing rates of physical or sexual violence (39.2% TLDHS p233) at higher than the global average (35%), but lower than the average rate for the South-East Asian region (40.2%) [3]. These high rates are also found for intimate partner violence (36%, TLDHS p237), the most common form of violence against women, which has a global average of 30% and a SE Asian average of 37% [3]. The high rates are imposing a significant health burden on women and their children and on the nation, which need to be addressed.

In this study, we looked at differences between women who experience physical violence only and those who experience combined forms of violence, as these tend to be more severe [10, 11]. These findings were confirmed in this study. Women experiencing physical violence only have some similar, but also differing characteristics from those who experience combined forms of abuse to inform prevention and early intervention strategies.

What this study highlights is the seriousness of the health consequences for women, their children and families. Strong studies from low, middle and high income countries, many from the World Health Organization, find similarities in the health and other consequences across the globe [3]. The consensus of these studies is that individuals, children, families and the nation suffer when rates of violence against women are high.

We were not able to link the high Timor-Leste Maternal Mortality Ratio with the rates of violence women are experiencing and the subsequent health burdens we found, but they point to a major contributing factor. We did find however, significant associations with infant mortality and poor infant health and health care.

We outline below how the findings of this study echo and differ from those from other low and middle income countries. Where we have not replicated relevant rates from the TLDHS, we cite them to give a context to our analyses. We caution that findings are associative and not causal and some especially sensitive issues may be under-reported.

PREVALENCE AND FACTORS ASSOCIATED WITH VIOLENCE AGAINST WOMEN.

Well over one in three Timorese women experience being abused physically, particularly those who are married. Among married women who have experienced violence, over eighty per cent have been abused by a partner or ex-partner. Over three of every hundred women experience being sexually abused, with four in a hundred married women experiencing sexual abuse. However adding physical (33.8%) and combined forms of violence, including sexual or emotional abuse (11.1%) we found an overall prevalence rate of 44.9% of any form of violence against ever-married women. Because mental ill-health was not measured we could not investigate the mental health burden this confers on ever married women, but we can infer this from the WHO and other studies [3, 12]. This will impact on women, their children and the community and the burden is evident among the majority

of women who are fortunate enough to receive help from PRADET, the Dili-based mental health service.

This study finds that while there are no important age differences among the 34% of women experiencing physical abuse only, among the 11% experiencing combined violence, women aged 25-39 appear more vulnerable. Among women working but not for cash, there is a greater risk of physical violence compared with women not working; but employment in this category confers a smaller likelihood of combined violence. Similar to most countries, women who are separated, divorced or widowed are more likely to be associated with either form of violence [13]. As this is a criterion for the assistance of the Bolsa da Mae (BDM) program, BDM staff connecting recipients to formal support services and taking a detailed history may help formerly or currently abused women. A higher education was associated with protection against combined abuses among married women, but the reverse was true for unmarried women, for whom education post-secondary level increased their vulnerability to physical violence, suggesting possible inter-generational conflict and harmful punishment for breaking cultural gender norms.

Among the whole 2951 women in the DV sub-sample, we found that rates of sexual intercourse before 15 years of age were said to be around 5% overall, but that this was strongly associated with double the likelihood of both forms of violence. It is well known that intercourse at less than 15 is a serious risk factor for later forms of violence [2, 8, 14]. In Timor-Leste, given the high fertility rate and the risk of unplanned pregnancy and poor infant health associated with violence, the fate of young women who have an early birth or who are raped by family members or others is pitiable and also preventable. Services supporting such young victims are critical to their rehabilitation and potential for a healthy future for themselves and their children.

While the study found that rural women overall were less likely to experience violence, this finding had many exceptions when we investigated individual areas.

VULNERABLE REGIONS IN TIMOR-LESTE

While women in rural areas altogether when compared with urban are less likely to experience violence, this study highlights the vulnerability that women in Dili and also in Manufahi (for both forms of violence) and Aileu, Bacau and especially Lautem (for combined forms of violence) say they experience. These findings deserve further exploratory research to explain the findings in more detail.

WOMEN'S EMPOWERMENT, BARRIERS TO EMPOWERMENT AND ASSOCIATION WITH VIOLENCE AGAINST WOMEN

Controlling behaviours are risk factors for violence [15, 16] and there was clear indication in this study that the higher the number of controlling behaviours a Timorese man exercised over his partner, the greater the likelihood that she would experience violence, particularly combined forms of violence, which is the more damaging.

Attitudes among both men and women and in the country at large are important precursors to a context enabling violence against women to flourish [2]. In this study, we find differing enablers

among women's attitudes to physical violence (if she burns the food or neglects the children) compared with combined forms of violence (if she argues or refuses sex).

Witnessing wife-beating as a child is another known precursor to adult beating, common globally [8]. A greater proportion of victims of physical violence had witnessed their mother being beaten than those who experienced combined violence. Challenging these attitudes and preventing violence against women, especially intimate partner violence has the potential to break harmful inter-generational patterns.

REPRODUCTIVE HEALTH AND VIOLENCE AGAINST TIMORESE WOMEN

If Timorese women experience violence, they are more likely to be using traditional methods of contraception, rather than modern methods. This leaves them more likely to fall pregnant with unwanted pregnancies than their sisters using modern methods. Similar to abused women in other equivalent countries [17], abused Timorese women are more likely to have terminated a pregnancy. As abortion is culturally shameful and methods likely to be unsafe, it leaves women doubly disadvantaged and at risk of serious consequences. This may be one pathway to maternal mortality unable to be properly investigated among this data-set.

Another is the proportion (4%) in the TLDHS who said they have been physically abused while they were pregnant (TLDHS p234). Not only does this provide a risk to the pregnancy, but it is regarded as a marker for severe violence and a risk factor for femicide [18, 19]. Lautem and Liquica were the regions noted for over 10% of women abused during pregnancy.

As the majority of Timorese women have difficulty accessing skilled care in ante, birthing or postnatal care, there were no strong indicator of any associations with violence except that women experiencing combined forms of violence have fewer antenatal visits than other women. In high income countries, abused women are more likely to attend for ante-natal care in either the second or third trimester, rather than the first. If a woman attends late in her pregnancy, it should be a red flag to health care providers to ask about violence.

CHILD AND INFANT HEALTH

There are serious indicators for infant health associated with violence against Timorese women.

While there is no difference between abused and non-abused women in the numbers of live children, the differences are noticeable when women are asked about those who have died. Women who experience violence either physical or combined are more likely to have lost infants and children. Children of women physically abused are less likely to be living with them. The children of abused women are more likely to have a birth weight lower than average. Although there were no further associations for poor infant health found in other countries, such as anaemia [20] or stunting [21], this may be because they are so widespread anyway. However, a further explanation for the higher likelihood of infant mortality may be that children of women experiencing physical violence are more likely to have partial rather than completed vaccinations, leaving them much more vulnerable to infectious diseases leading to their premature death [22].

WOMEN'S HEALTH AND HELP-SEEKING

The most common health issues associated with violence against women are mental health problems, including suicidal ideation, depression (especially maternal depression), anxiety and post-traumatic stress disorder, but these were not investigated in the TLDHS. Alcohol use is also associated with exposure to violence [2, 3, 12] both perpetration and victimisation. The scale of violence against women in Timor suggests a significant unmet mental health burden which impacts on families, communities and services (especially when considered in light of the former conflict) which has repercussions for women's own wellbeing and their ability to parent effectively and therefore on children, families and communities.

In this study, we found a strong association between violence and especially sexually transmitted infections and smoking, also common factors found in global studies [3] and which impacts on women, their families and on health services. Reproductive and sexual health services need to be alert to women's victimisation when providing care for women of reproductive age and especially in the presence of an STI, unplanned pregnancy or women seeking terminations.

Women experiencing violence were more likely to seek help from friends and family, especially those experiencing combined forms of violence. It is notable that very few sought help from the police, religious leaders or health care professionals. Given the limited training available for health care providers or others, it is important that family and friends know how to provide non-judgmental support and help women to improve their safety in whatever circumstances they find themselves. Given the widespread availability of mobile phones, there may also be potential to disseminate key messages about safety and the availability and contact details of services women may not know about. This has implications for the level of support to these services.

REMAINING GAPS TO BE ADDRESSED

The TLDHS was an omnibus survey designed to address specific health care issues of importance to policy-makers in Timor-Leste at the time.
While it is commendable that it did address the rigorous measurement of violence against women, it did not specifically address the most common known consequences of violence against women, especially mental health issues. Neither did it examine the role of alcohol or ask women about what they believed would most help them to prevent or reduce it.

CONCLUSION AND RECOMMENDATIONS

Women in Timor-Leste are facing significant rates of violence leaving them and their families at great risk of serious morbidity and mortality. The implications of this are serious for current and future generations and their life opportunities [2]. The WHO 2010 report 'Preventing intimate partner and sexual violence against women' recommends addressing risk factors of violence against women at each level of an 'ecological' model; viz the specific factors at the societal, community, relationship and individual level of a country ([2] p19).

From the problems identified in this study, it is important to find answers to the following questions:

- At a societal level, how might gender equality and women's human rights be strengthened?
- At a community level, what do women believe might best help them prevent and reduce violence?
- How might the communities most vulnerable to violence be prepared to tackle the violence against women amongst them?
- How might health care providers, especially those in mental and reproductive health care services, be trained and resourced to fully understand the harms potentially affecting the woman they work with and how they might help?
- At an individual level, how might attitudes and beliefs about violence be altered to prevent and reduce tolerance of violence against women?

Also we recommend the following steps be taken:

- That senior government ministers, policy and program staff responsible for health services are made aware of the findings of health burdens from violence in this report and their implications
- That chefes de aldea, chefes de suco and women leaders in communities be familiarised with the findings in this report and trained and supported to provide advice to women experiencing violence and others helping them, especially about keeping themselves and children safe, e.g. how to discuss basic safety behaviours appropriate to their communities
- That services providing support to women and girls experiencing violence are properly trained, resourced and supported to cope with the effects of violence against women, including the mental and physical (including reproductive) health effects.
- That the potential to socialise messages through mobile phones about safety behaviours (especially in pregnancy); community services; and resources tackling violence against women be investigated
- That universities be required to provide trainee midwives, sexual and reproductive and mental health care staff with knowledge of the prevalence and impact of violence against women outlined in this report and how to respond sensitively and refer women to appropriate services

- That all health services' staff who come into contact with women are trained, supported and resourced to identify and respond to abused women supportively, discuss their safety and that of their children and to which services they can refer
- That further research is conducted to explore conditions in areas of surveyed high prevalence (e.g. Manufahi and Lautem) and confirm whether conditions exist that are likely to promote violence against women, compared with areas where women say they experience less violence

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