Monitoring the Situation of Children and Women

MICS

Vanuatu Multiple Indicator Cluster Survey 2007

FINAL REPORT

Ministry of Health
Government of Vanuatu

UNITED NATIONS CHILDREN'S FUND

unicef

Vanuatu
Multiple Indicator Cluster Survey
2007

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Government of Vanuatu

UNICEF
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Contributors to the report:
Muhammad Shuaib
Md. Mokhlesur Rahman

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The survey has been conducted as part of the third round of MICS surveys (MICS3), carried out around the world in more than 50 countries, mostly in 2005-2006, following the first two rounds of MICS surveys that were conducted in 1995 and the year 2000. Survey tools are based on the models and standards developed by the global MICS project, designed to collect information on the situation of children and women in countries around the world. Additional information on the global MICS project may be obtained from www.childinfo.org.

Ministry of Health, Government of Vanuatu, 2008. Vanuatu Multiple Indicator Cluster Survey 2007, Final Report, Port Vila, Vanuatu

SUMMARY TABLE OF FINDINGS

The Multiple Indicator Cluster Survey (MICS) and Millennium Development Goals indicators, Vanuatu, 2007

Topics	MICS Indicator Number	MDG Indicator Number	Indicator	Value
CHILD MORTALITY				
Child mortality	1	13	Under-five mortality rate	30 per thousand
	2	14	Infant mortality rate	25 per thousand
NUTRITION				
Nutritional status	6	4	Underweight prevalence	15.9 percent
	7		Stunting prevalence	20.1 percent
	8		Wasting prevalence	6.5 percent
Breastfeeding	45		Timely initiation of breastfeeding	71.9 percent
	15		Exclusive breastfeeding rate for 0-5 months	40.1 percent
	16		Continued breastfeeding rate at 12-15 months at 20-23 months	 79.1 percent 31.7 percent
	17		Timely complementary feeding rate	61.9 percent
	18		Frequency of complementary feeding	49.6 percent
	19		Adequately fed infants (0-11 months)	45.2 percent
Salt iodization	41		Iodized salt consumption	22.9 percent
Low birth weight	9		Low birth weight infants	10.2 percent
	10		Infants weighted at birth	79.3 percent
CHILD HEALTH				
Immunization	25		Tuberculosis immunization coverage	79.2 percent
	26		Polio immunization coverage	55.2 percent
	27		DPT immunization coverage	58.2 percent
	28	15	Measles immunization coverage	37.1 percent
	31		Fully immunized children	24.3 percent
	29		Hepatitis-B immunization coverage	55.1 percent
Tetanus toxoid	32		Neonatal tetanus protection	49.2 percent
Care of illness	33		Use of oral rehydration therapy (ORT)	53.7 percent
	34		Home management of diarrhoea	16.4 percent
	35		Received ORT or increased fluid and continued feeding	43.1 percent
	23		Care seeking for suspected pneumonia	63.0 percent
	22		Antibiotic treatment of suspected pneumonia	48.0 percent
Solid fuel use	24	29	Solid fuel use	85.1 percent
Malaria	36		Household availability of long-lasting nets (LLNs)	67.6 percent
	37	22	Under-fives sleeping under LLNs	55.7 percent
	38		Under-fives sleeping under mosquito net	66.1 percent
	39	22	Anti malarial treatments given to under-fives	35.8 percent
ENVIRONMENT				
Water and sanitation	11	30	Improved drinking water sources	85.1 percent
	13		Water treatment	14.5 percent
	12	31	Improved sanitation facilities	63.5 percent
	14		Disposal of childs' faeces	29.9 percent

REPRODUCTIVE HEALTH				
Uses of contraceptive method	21	19c	Women aged 15-49 years married or in union using any contraceptive method	38.4 percent
Maternal and newborn health	20		Antenatal care provided by skilled personnel	84.3 percent
	44		Content of antenatal care Blood sample taken Blood pressure measured Urine specimen taken Weight measured	98.1 percent 68.9 percent 80.2 percent 69.3 percent 84.5 percent
	4	17	Skilled attendant at delivery	74.0 percent
	5		Institutional deliveries	79.8 percent
CHILD DEVELOPMENT				
Child development	46		Family support for learning	90.6 percent
	47		Fathers' support for learning	64.6 percent
	48		Have 3 or more children's books	40.7 percent
	49		Have 3 or more non-children's books	52.9 percent
	50		Have 3 or more types of play things	18.6 percent
	51		Non-adult care	39.1 percent
EDUCATION				
Education	52		Pre-school attendance	23.4 percent
	53		School readiness	96.2 percent
	54		Primary school entry age grade-I	37.1 percent
	55	6	Net primary school attendance ratio	72.7 percent
	56		Secondary school attendance ratio Junior secondary school Senior secondary school	 37.2 percent 11.5 percent
	57	7	Child reaching Grade-5 Child reaching Grade-6	91.7 percent 88.5 percent
	61	9	Gender parity index Primary school Junior secondary school Senior secondary school	 1.02 ratio 1.14 ratio 0.91 ratio
Literacy	60	8	Adult literacy rate for females aged 15-24 years	76.6 percent
CHILD PROTECTION				
Birth registration	62		Birth registration	25.6 percent
Early marriage and polygyny	67		Marriage before age 15 Marriage before age 18	7.0 percent 23.6 percent
	68		Young women aged 15-19 currently married/in-union	12.8 percent
	69		Spousal age difference, 10 years and above Women aged 15-19 Women aged 20-24	 31.6 percent 10.2 percent
HIV/AIDS AND ORPHANED AND VULNERABLE CHILDREN				
HIV/AIDS knowledge and attitudes	82	19b	Comprehensive knowledge about HIV prevention among young people	16.3 percent
	89		Knowledge of mother-to-child transmission of HIV	62.9 percent
	86		Attitudes towards people with HIV/AIDS (no discrimination)	17.5 percent
	87		Women who know where to be tested for HIV	50.4 percent
	88		Women who have been tested for HIV	8.5 percent
	90		Counseling coverage for the prevention of transmission of HIV during ANC visit	27.8 percent
	91		Testing coverage of HIV during ANC visit	6.8 percent
Support to orphaned and vulnerable children	75 78 77	 20	Prevalence of orphans Children not living with a biological parent School attendance of double-orphans versus non-orphans	2.9 percent 9.4 percent 0.92 ratio

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ACRONYMS

ANC	Ante-Natal Care
ARI	Acute Respiratory Infection
BCG	Bacillus Calment Guerin
CBO	Community Based Organizations
CDC	Center for Disease Control
CEB	Children Ever Born
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CGS	Child Growth Standard
CPR	Contraceptive Prevalence Rate
CRC	Convention on the Rights of the Children
DESP	Department of Statistics and Planning
DOWA	Department of Women Affairs
DPT	Diphtheria, Pertusis and Tetanus
EA	Enumeration Area
ECD	Early Child Development
GAM	Global Acute Malnutrition (Z score up to <-2 SD)
GCM	Global Chronic Malnutrition (Z score up to <-2 SD)
GoV	Government of Vanuatu
GPI	Gender Parity Index
GRS	Growth Reference Standard
HAZ	Height-for-age Z score
HH	Household
HIV/AIDS	Human Immune Virus/ Acquired Immune Deficiency Syndrome
IDD	Iodine Deficiency Disorder
IUD	Intrauterine Device
LBW	Low Birth Weight
LLN	Long Lasting Net
LPG	Liquid Propane Gas
MTCT	Mother to Child Transmission
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NAR	Net Attendance Ratio
NCHS	National Center for Health Statistics
NID	National Immunization Day
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Saline
ORT	Oral Rehydration Therapy
OVC	Orphans and Vulnerable Children
PLHA	Persons Living with HIV/AIDS
PPM	Parts Per Million
PPS	Probability Proportionate to Size
PSU	Primary Sampling Unit
RHF	Recommended Home Fluid
SD	Standard Deviation

STD	Sexually Transmitted Diseases
STI	Sexually Transmitted Infections
TT	Tetanus Toxoid
U5MR	Under-five Mortality Rate
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDAF	United Nations Development Assistance Framework
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
VNPHC	Vanuatu National Population and Housing Census (1999)
WAZ	Weight-for-age Z score
WFFC	World Fit for Children
WHO	World Health Organization
WHZ	Weight-for-height Z score

FOREWORD/ PREFACE

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Ministry of Health, Government of Vanuatu

Len Tarivonda, Project Director
Jean Jacques Rory, Project Coordinator
Yoan Bororoa, Assistant Project Coordinator
Edgell Tari

National Statistics office

Simil Johnson
Bannuel Lengue

Consultant Statisticians

Anthony G. Turner	(Sampling specialist & MICS advisor, USA)
Muhammad Shuaib	(Survey Manager, Bangladesh)
Md. Mokhlesur Rahman	(Data Manager, Bangladesh)

UNICEF

Will Parks
Asenaca Vakacegu
Laura Warner
May Pauscal
Elham Monsef

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MAP OF VANUATU

EXECUTIVE SUMMARY

This report is based on the Vanuatu Multiple Indicator Cluster Survey (MICS) conducted in 2007 by the Ministry of Health, Government of the Republic of Vanuatu (GoV) with financial and technical support from United Nations Children's Fund (UNICEF) – Pacific. The major objectives of the survey are to provide up-to-date information for assessing the situation of children and women in Vanuatu and furnish data needed for monitoring progress towards goals established by the Millennium Development Goals (MDGs) and the goals of A World Fit for Children (WFFC) as a basis for future action and development of a monitoring and evaluation system for Vanuatu's Poverty Reduction Strategy and United Nations Development Assistance Framework (UNDAF). The survey covered a nationally representative sample of 2,632 households; 2,692 women respondents aged 15-49 years and 1634 under-five children. Data were collected through three questionnaires: 1) the Household Questionnaire, 2) the Individual Questionnaire for Women aged 15-49, and 3) the Questionnaire for Children under-five years of age. Independent samples for each domain (6 provinces and 2 cities) made it equivalent to 8 separate surveys to produce valid estimates for each domain simultaneously. National, and urban and rural estimates are obtained by combining these provincial data. The fieldwork began in 01 November, 2007 and concluded in 20 December, 2007.

Characteristics of the Household Population

A larger proportion of the population is in the younger age groups than in the older age groups indicating a young age structure of the population. About 41 percent of the population is below 15 years of age and only 3 percent is aged 65 and above. The average household size is 5 persons per household. The dependency ratio is 0.83 or 83 dependent population per 100 working population. Children aged 0-17 years composed of 47 percent of the total population and 53 percent is adult population aged 18 and above. Overwhelming majority (91.9%) of the households are male-headed households, while 8 percent are female-headed households. Most of the households (84.4%) comprised of at least one child below 18 years of age, while 50 percent households have at least one child below five years. More than 85 percent households comprised of at least one woman of reproductive age of 15-49 years.

Characteristics of the Respondents

The respondents were mostly young women within their thirties, with an average age of 39 years. Around 16 percent of the women were aged 40 and above, while 18 percent were adolescent girl of age 15-19 years. About 39 percent of the women were aged 20-29 years, and 74 percent of the women have given birth to at least one child. Only 6 percent respondents were illiterate; while 63 percent completed primary and 30 percent secondary level of education.

Child mortality

The infant mortality rate is the probability of dying before the first birthday. The under-five mortality rate is the probability of dying before the fifth birthday. The infant mortality rate is estimated at 25 per thousand, while the under-5 mortality rate (U5MR) is around 30 per thousand. These estimates have been calculated by averaging mortality estimates obtained from women age 25-29 and 30-34, and refer to mid 2001. Infant and under-5 mortality rates are lower in urban areas. There are also visible differences in mortality in terms of educational levels and wealth status.

Child Malnutrition

Nationally 16 percent children are moderately or severely underweight, 20 percent are moderately or severely stunted and 7 percent are moderately or severely wasted. The prevalence of malnutrition is higher among boys than girls. Mother's education and household wealth status show a negative effect on child malnutrition.

Breastfeeding

About 72 percent women initiated breastfeeding to their babies within one hour of birth, while 82 percent within one day of birth. About 40 percent of children aged less than 6 months are exclusively breastfed. At age 6-9 months, 62 percent of children are receiving breast milk and semisolid or solid food and the rate is higher in the rural area (65%) than the national average. By age of 12-15 months, 79 percent children are still being breastfed, and by age of 20-23 months about 32 percent of them are still being breastfed. Female children are more likely to receive continued breastfeeding till 12-15 months and 20-23 months of age than their male counterparts.

Salt Iodization

In the interviewed households, salt used for cooking was tested for iodine content using an iodine testing solution. About 11 percent households were reported to have no salt available at the time of survey. Nearly a quarter (22.9%) of the households consumes salt containing 15 Parts per Million (PPM) or more iodine in salt. It is higher in the urban area (43.8%) compared with the rural area (16.4%). The data also show that, households in the richest quintiles is more likely to consume iodized salt compared to the households in the poorest quintiles (49.4% vs. 7.5%).

Low Birth Weight

Among the weighed children, one in ten (10.2%) appeared as low birth weight (<2500 grams) children. No major difference visible between residential areas (urban: 9.2% and rural: 10.3%). Mother's education and household wealth status show some overall negative effect on low birth weight.

Child immunization

Over 79 percent of children aged 12-23 months received a BCG vaccine by the age of 12 months. 74 percent of them received the first dose of DTP. The proportion declines for subsequent doses of DPT, to 65 percent for the second dose and 58 percent for the third dose. Similarly, 75 percent of children received the first dose of polio vaccination by age 12 months but this declined to 55 percent by the third dose. The coverage for measles vaccination by 12 months was lower than for the other immunizations, at 37 percent.

Overall, 42 percent children 12-23 months of age (urban 48.7% and rural 39.9%) are fully immunized, far below the target of universal immunization. The proportion is slightly higher for girls (43.7%) than boys (39.5%). Provincial variations are visible, ranging from 31 to 57 percent across the provinces; highest in Shefa and the lowest in Sanma.

Tetanus Toxoid

Nearly half (49.2%) of the mothers with a birth in the 24 months preceding the survey are protected against neonatal tetanus. There is a little urban-rural variation in neonatal tetanus coverage (50.7% vs. 49.0%). Among the mothers being protected, 39 percent received at least two doses of tetanus toxoid (TT) during last pregnancy. Mother's education shows a strong positive effect on receiving at least two

doses of TT during last pregnancy. Wealth status shows no consistent pattern on receiving at least two doses of TT during last pregnancy.

Diarrhoea

One in every 7 (13.8%) under-five children had diarrhoea in two weeks before the survey, with little urban-rural differentials (12.8% vs. 14.1%). Male children had slightly higher prevalence of diarrhoea than female children (14.4% vs. 13.3%). The prevalence of diarrhoea is the lowest among the children aged less than 6 months (6.2%), reaches at its peak of 23 percent at the age of 6-11 months and then starts declining. Mother's education and wealth quintiles show no consistent pattern of relationship with diarrhoea prevalence. More than half (53.7%) of the children with diarrhoea received Oral Rehydration Therapy (ORT), while 46 percent of the children with diarrhoea received no treatment. Overall, 16 percent of the diarrhoeal cases are managed at home during the episode and 43 percent children received increased fluids and continued food.

Acute Respiratory Infection (ARI)

Nearly 3 percent children reportedly had some symptoms of ARI in two weeks preceding the survey. Most of them sought treatment from government health facilities. About 48 percent of children under-five with suspected pneumonia got antibiotic treatment; 63 percent received the treatment from an appropriate provider. Only 8 percent mothers could correctly identify the two danger signs of pneumonia.

Malaria

More than 90 percent (93.0%) of the respondents correctly identified mosquito bite as the main cause of malaria, and 83 percent of them were able to correctly mention three preventive measures. Among the three measures, the most prominent are 'using mosquito net' (68.2%), 'destroying mosquito breeding sites' (39.3%) and 'taking medicine' (16.1%). Health workers (85.0%) appeared as the most prominent source of knowledge about prevention of malaria. Overwhelming majority of the households (overall: 86.5%, urban: 89.0%, rural: 85.7%) were reportedly taking some measure to prevent malaria, among them 68 percent household have at least one long-lasting net. About 66 percent of under-five year children slept under a bed-net during the previous night while 56 percent slept under an insecticide treated long lasting bed-net, and the proportion is quite high in rural areas.

Water and Sanitation

Overall, 85 percent of the population had access to improved drinking water sources - 98 percent in urban and 81 percent in rural areas. Still, 15 percent of the population uses drinking water from unimproved sources namely unprotected well (3.5%), unprotected spring (4.4%), and surface water (7.0%). Use of unsafe surface water is higher in Tafea (22.1%). Only 15 percent household treats water for drinking. About half of the households (48.7%) have drinking water on their premises (urban 70.5%, rural 42.1%). It takes less than 15 minutes to get to the water source and bring water in 36 percent households; while only 4 percent and 2 percent of the households spend 30 minutes to less than one hour, and one hour or more time for this purpose respectively.

More than 60 percent (63.5%) of the surveyed population lives in the households that use improved sanitation facilities (urban 91.2% and rural 55.1%). Unimproved sanitation facilities include pit latrine without slab (32.8%) and open field (3.2%).

Use of Contraception

Overall, 38 percent of the women aged 15-49 years, married or in-union, are currently using any contraceptive method, of which 37 percent are using modern methods and nearly 2 percent are using traditional methods. Pill is by far the most popular modern contraceptive method used by 16 percent eligible women followed by injectables used by 11 percent and female sterilization by 6 percent women.

Urban women are more likely to use family planning methods than that of rural women and the rate varies widely across the provinces. Contraceptive prevalence rate increased to a peak of 48 percent for the women aged 30-34 years and then decreased to a rate of 24 percent for the women aged 45-49 years. Women's educational level and household wealth status are strongly associated with contraceptive prevalence.

Antenatal Care (ANC)

One or more ANC visit during pregnancy is almost universal in Vanuatu, as, 98 percent of the pregnant women had one or more ANC visits during pregnancy, and 84 percent pregnant women received ANC from a skilled provider (i.e., doctor, nurse, or midwife) at least once during their last pregnancies. An additional 14 percent received ANC from an unskilled provider. Only 2 percent of them did not receive any ANC.

Assistance during Delivery

About 80 percent women aged 15-49 years had their child birth in health facilities and 74 percent child births were attended by skilled personnel; low in Sanma rural. The proportion of deliveries attended by skilled personnel is lower than the deliveries in the health facilities, because people bring the pregnant to the nearest health facility for delivery though there might not be any trained personnel there. Delivery attended by skilled personnel is positively associated with education **of pregnant** and wealth status.

Child Development

For most of the under-five children (90.6%), an adult household member engaged in four or more activities that promote children's learning and school readiness. Adult engagement in activities with children varies little with gender of the children (91.9% for male and 89.2% for female). Mothers' and fathers' education show a positive relationship with the engagement of the activities promoting child development. Adults engaged with children on an average in 5.2 activities, while the mean number of activities that father engaged in with the child is 2.6. About 16 percent children are living in the households without their natural fathers. The proportion is higher in the rural area than in urban area (16.1% vs. 13.7%).

Pre-school Participation, Primary and Secondary School Participation

Nearly one-fourth (23.4%) of the children aged 36-59 months are attending pre-school. There is no gender and urban-rural differentials in pre-school attendance. Overall, 96 percent of the children who attended pre-school in the previous year are currently attending the first grade of primary school. Girls are almost universally (98.5%) attending in the first grade of primary school, while the rate is 94 percent for their boy counterparts. More than one-third (37.1%) of the children of primary school-entry age were attending Grade-I at the time of the survey. Overall, 73 percent of the primary school

age children attend primary or secondary school. The rate is higher in the urban area than in the rural (78.6% vs. 71.2%) and among the richest than poorer.

Adult Literacy

About 77 percent women aged 15-24 are literate. The literacy rate is the highest in Port Vila (83.7%) and the lowest in Tafea (67.8%). It is higher in the urban area (85.6%) than the rural area (73.3%). Similar to other educational indicators, adult literacy rate is positively associated with the wealth status of the households.

Birth Registration

Birth registration still remain very low with only one-fourth (25.6%) of under-five births have been registered. Children from the richest households were more likely to be registered than the children from the poorest family. Mother's education also shows a strong positive effect on birth registration. The most common reasons for non-registration include "did not think it an urgent matter" (40.1%), "did not know that child should be registered" (28.3%), "did not know where to register" (9.7%), "must travel too far" (7.6%) and "costs too much" (4.3%).

Early Marriage

About 7 percent of the married women aged 15-49 were married before the age of 15; while 24 percent before reaching 18 years of age. Literacy and wealth status does not show any consistent trend on early marriage.

Knowledge of HIV/AIDS

Overall, 83 percent of the women aged 15-49 have heard of AIDS; 75 percent of them know at least one way of preventing human immune virus (HIV) transmission, while 42 percent know all three ways of prevention. Overall, 47 and 61 percent of the women aged 15-49 years know that, HIV cannot be transmitted by mosquito bites and by sharing food respectively. Only 16 percent respondents have comprehensive correct knowledge of HIV. About 81 percent of women know that AIDS can be transmitted from mother to child. Half of them know where they can get the HIV testing facilities; while only 8.5 percent reported that they actually were tested.

Orphans and Vulnerable Children

Around 9 percent of the children are not living with a biological parent, while 3 percent of the children aged 0-17 years have one or both parents as dead.

1. INTRODUCTION

Background

This report is based on the Vanuatu Multiple Indicator Cluster Survey conducted in 2007 by the Ministry of Health, Government of the Republic of Vanuatu with financial and technical support from United Nations Children's Fund (UNICEF) – Pacific. The survey provides valuable information on the situation of children and women in Vanuatu, and was based on the need to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration that was adopted by all 191 United Nations Member States (including Vanuatu) in September 2008 and the Plan of Action of A World Fit for Children (WFFC) that was adopted by 189 Member States (including Vanuatu) at the United Nations Special Session on Children in May 2002. Both of these commitments are built upon the promises made by the international community of the 1990 World Summit for Children.

By signing these international agreements, governments (including the Government of Vanuatu) committed themselves to realize the rights of children enshrined in them, improve conditions for children and to monitor progress towards these ends. UNICEF was assigned a supporting role in this task (see box below).

A Commitment to Action: National and International Reporting Responsibilities

The governments that signed the Millennium Declaration and the World Fit for Children Declaration and Plan of Action also committed themselves to monitoring progress towards the goals and objectives they contained:

"*We will monitor regularly at the national level and, where appropriate, at the regional level and assess progress towards the goals and targets of the present Plan of Action at the national, regional and global levels. Accordingly, we will strengthen our national statistical capacity to collect, analyse and disaggregate data, including by sex, age and other relevant factors that may lead to disparities, and support a wide range of child focused research. We will enhance international cooperation to support statistical capacity-building efforts and build community capacity for monitoring, assessment and planning.*" (**A World Fit for Children**, paragraph 60).

"…*We will conduct periodic reviews at the national and sub-national levels of progress in order to address obstacles more effectively and accelerate actions.*…." (**A World Fit for Children**, paragraph 61).

The Plan of Action (paragraph 61) also calls for the specific involvement of UNICEF in the preparation of periodic progress reports:

"… *As the world's lead agency for children, the United Nations Children's Fund is requested to continue to prepare and disseminate, in close collaboration with Governments, relevant funds, programmes and the specialized agencies of the United Nations system, and all other relevant actors, as appropriate, information on the progress made in the implementation of the Declaration and the Plan of Action*".

Similarly, the **Millennium Declaration** (paragraph 31) calls for periodic reporting on progress:

"…*We request the General Assembly to review on a regular basis the progress made in implementing the provisions of this Declaration, and ask the Secretary-General to issue periodic reports for consideration by the General Assembly and as a basis for further action*".

The Government of Vanuatu in collaboration with its development partners is implementing several policies and programs aimed at achieving national and international goals which are in line with the Millennium Development Goals (MDGs) and the Plan of Action of A World Fit for Children (WFFC).

The government has been keen to create a more comprehensive monitoring system to capture the results for children and women, and get an idea about the quality of investment. A strong database is needed for this. Monitoring progress will ensure greater realization of the rights of children and women. More systematic data collection on selected indicators and impact results will be institutionalized. Surveys like the MICS-3 has been identified as a major effort to generate valid and reliable data and information that will be used to monitor key indicators that are being tracked by the Government of Vanuatu (GoV) to ensure the realization of major international commitments that include MDGs, WFFC goals, United Nations General Assembly Special Session (UNGASS) on HIV/AIDS and the Convention on the Rights of the Children (CRC). The MICS-3 effort will also contribute to the development of a monitoring and evaluation system for Vanuatu's Poverty Reduction Strategy and United Nations Development Assistance Framework (UNDAF).

This final report presents indicator, estimates for different aspects covered in the survey.

Survey Objectives

The Vanuatu Multiple Indicator Cluster Survey - 2007 has the following primary objectives:

1. To provide up-to-date information for assessing the situation of children and women both at national and sub-national (provincial and urban/rural) levels.
2. To furnish data needed for monitoring progress towards goals established by the Millennium Development Goals (MDGs) and the goals of A World Fit for Children (WFFC) as a basis for future action.
3. To contribute to the improvement of data and monitoring systems, and to strengthen technical expertise in the design, implementation and analysis of such systems.

2. SAMPLE AND SURVEY METHODOLOGY

Sample Design

The sample for MICS Vanuatu - 2007 is a probability-based, stratified cluster sample of 3000 households. They were selected in 120 clusters, each of size 25 households. The sample was designed with the intention of providing reliable estimates for the key MICS indicators at the national level and also for urban and rural areas separately, as well as for the 6 Provinces of Malampa, Penama, Sanma, Shefa, Tafea and Torba. Port Vila under Shefa Province and Luganville under Sanma province are the two major cities considered as two domains under the urban stratum. The Shefa and Sanma provinces mentioned here exclude these two cities of corresponding provinces and bear rural character. The entire areas of all other provinces are considered as rural. The sample was allocated to the provinces/cities and by urban-rural in an optimum fashion to secure enough sample cases in each domain for reliable estimates to be obtained. That is, independent samples for each domain (6 provinces and 2 cities) made it equivalent to 8 separate surveys to produce valid estimates for each domain simultaneously. National, and urban and rural estimates are obtained by combining these provincial data.

The sample frame was the enumeration areas (EA) that made up the 1999 Population Census of Vanuatu, which had been updated in the 2006 Agricultural Census. Primary sampling units, or PSUs, were defined as either single EA or combinations of EAs. Combining EA was necessary whenever an EA contained fewer than 25 households, because the cluster size to be interviewed was set at 25 households as mentioned above.

The sample was selected in two stages. The first stage consisted of first stratifying the PSUs by province and within-province by urban/rural in two provinces namely Shefa and Sanma and then selecting 120 PSUs with probability proportionate to size or *pps*. At the second-stage, a fixed sample size of exactly 25 households was selected from each PSU, using systematic, equal-probability sampling or *epsem*. Thus a total of 3000 households were selected (120 clusters times 25 households). A household was defined as "a group of people those are eating from the same pot". Sample sizes for six rural provinces are 300 households each, while 500 and 700 households for Luganville and Port Vila cities respectively. It is to be noted here that the cities of Port Vila and Luganville are the urban part of the Shefa and Sanma provinces respectively. Total areas of other provinces are considered as rural. The resulting sample was not theoretically self-weighing; and sample weights have been used to adjust for major variations among the provinces and urban/rural EA with regard to different estimates. Detail sampling plan and sample allocation is shown in Appendix–A.

It can be also mentioned here that, every fourth households in each cluster were selected for a nutrition component of the survey, which was additional to MICS nutrition modules. Thus the sample size for the additional nutrition component was exactly one-fourth of the MICS sample size in each domain and at national level.

Questionnaires

Three questionnaires were used in the survey: These were: 1) the Household Questionnaire, 2) the Questionnaire for Individual Women aged 15-49, and 3) the Questionnaire for Children under-five.

- **Household Questionnaire:** The Household Questionnaire was used to collect information about all *de-jure* household members, the household and the dwelling of each interviewed household. The respondent for this questionnaire was the head of household or other adult member who lives in the household and was capable of providing information as required in the questionnaire. The household questionnaire included modules for the household information panel, household listing form, education, water and sanitation, household characteristics, malaria prevention, salt iodization and nutrition information for household.

- **Questionnaire for Individual Women:** The Questionnaire for Individual Women was administered to all women aged 15-49 living in each surveyed household. This questionnaire included the modules for the women's information panel, child mortality, tetanus toxoid, maternal and newborn health, marriage/union, security of tenure, contraceptive, HIV/AIDS and nutrition information for women.

- **Questionnaire for Children Under-five:** The Questionnaire for Children Under-five was administered to mothers or caretakers of children under-5 years of age[1] living in each surveyed household. Normally, the questionnaire was administered to mothers of under-5 children; in case, when the mother was not listed in the household roster, a primary caretaker for the child was identified and interviewed. This questionnaire included the modules for under-five child information panel, child development, birth registration and early learning, breastfeeding, care of illness, malaria and it's prevention, immunization, anthropometry and nutrition information for children.

The last modules of all three MICS questionnaires were related to the additional nutrition component of the survey. The questionnaires were developed on the basis of the MICS-3 model questionnaires in English language and were translated into Vanuatu national language, Bislama, and back translation was done to ensure the accuracy of the translation. The questionnaires were pre-tested. Based on the results of the pre-test, modifications were made to the wording of the questions, the response categories, and the key words. The Vanuatu questionnaires thus adapted as per Vanuatu situations are given in Appendix–F.

In addition to administration of questionnaires, the survey teams tested the salt used for cooking in the households for iodine content by UNICEF recommended salt testing kit (manufacturer's name) and measured the weights (by Uniscale with 100 grams graduation, SECA) and heights (by SHORR board, Maryland, USA) of children of age under 5 years. Details and findings of these measurements are provided in the respective sections of the report.

Training and Fieldwork

Ten master trainers were identified by the MoH those had some previous experience of fieldwork in health related programmes. These trainers were trained by the external consultant for three weeks including field-testing and field practice of the questionnaires for five successive times each followed

[1] The term "Children under 5", "Children age 0-4 years", and "children aged 0-59 months" are used interchangeably in this report.

by extensive discussion. A total of 55 enumerators were trained by the trainers in local language, Bislama, for another 3 weeks with field practice for 4 times in September, 2007. Training included lectures on interviewing techniques, contents of the questionnaires and mock interviews between trainees Bislama, to gain practice in asking questions. During the training period, trainees spent 8–10 days conducting practice interviews in and around Port Vila in both urban and rural settings. The data were collected by 6 teams comprising of one male/female supervisor, 5 female enumerators and a laboratory technician who is assigned to collect nutritional (biochemical) sample. The fieldwork began in November 01, 2007 and concluded in December 20, 2007. Revisits were carried out during 01-10 April, 2008 for the missing cases mainly in urban areas.

Data Processing

Completed questionnaires were checked in the field by supervisors and were sent to Port Vila for processing. In Port Vila, data entry personnel checked each questionnaire again to make sure that it had been correctly completed and all parts are consistently filled-in.

Data were entered on 6 microcomputers by 6 data entry operators and 2 data entry supervisors using CSPro software under direct supervision of data manager. In order to ensure quality, all the questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed using CSPro software under the global MICS-3 project that was adapted to Vanuatu questionnaires and was reviewed by the NYHQ before data entry.

Data entry and processing began in November 10, 2007 and was completed in January 31, 2008, while revisit data were processed during 08-15 April, 2008. Data was analyzed using the Statistical Package for Social Science (SPSS) software, version 14 and the model syntax and tabulation plan developed by UNICEF for this purpose.

Non-response rate for the women age group 15-19 was quite high and, hence, a post survey adjustment was carried out for non-response by weighting through post-stratification.

Data that were available for the additional nutrition component of the survey during the processing of MICS data were processed with the MICS data. But after getting the laboratory results, all data are processed and analysed separately. The results will be produced in a separate report as per the decision of the MICS Task Force.

Facts from the Field

Six teams were formed to cover the field works in six provinces and two cities. A total of 2,632 households from 120 clusters were covered in systematic random sampling to represent the whole country. In covering the areas, the team members faced some difficulties which they have successfully overcome either by themselves or with the help of local health officials or by discussing with the MICS coordination team in Port Vila.

It was found that, some teams faced resistance from the local communities as the locals were not aware of the survey. Awareness before the actual survey by the local health officials, sticking posters in this regard in the important places, instruction through local church authority and convincing local chiefs were found to be effective to conduct the field work smoothly. Company of local MoH filed staffs/ nurses were also found to be fruitful in this regard. Publication through media (Radio/TV/news papers) was also found effective in the urban areas.

In a few places, the community people were not satisfied with the local health office and refused to be interviewed; that was mitigated by the local health coordinator/manager and the team has finally completed the survey. Sometimes, the respondents thought the team members as health professionals and asked for medication. They also enquired about the result of bio-chemic samples and asked if the blood samples were taken for HIV test. Some people were thankful to have hemoglobin test result and enquired about the natural foods that contain high level of iron.

One of the teams was comprised of all female and the locals did not cooperate with the team initially. But after explaining their objective to the local elders, the community people extended their full support to complete the job smoothly.

Sometimes the team members needed to explain the objective of the survey, its implication at the policy level of the country to convince the people. So the team members needed to be conceptually clear about the survey objective. The teams were trained in this regard before sending to the field.

Some of the households did not cooperate due to the death of family member or festivals. Moreover, mothers were reluctant to give stool samples fearing of magic activities as per the local belief of the community. The community was expecting that the team would visit all households in the community. But covering of only 25 households was a question to them. Most of the Ni-Vanuatu community and the English-spoken people extended cooperation to the team. Women of Chinese-spoken households do not know either Bislama/English or French and it was very difficult to handle them until working people of the households came back to the household, while the French spoken community were unwilling to respond to the survey. The people were reluctant to cooperate in the re-visits, especially, the households wherefrom the biochemical samples has already been collected. The people are not well convinced about the health benefits of using iodized salt.

Some people were also interested in having the result of the survey and enquired about the way of utilization of the result in the national level planning. They also wanted the report or its excerpt in the television or radio.

It can be recommended from the experiences that, such nation-wide survey should be carried out in the middle of the year to avoid major festivals (Christmas/New year) as most of the people visit other islands or their home during the festivals. The team members needed to be well dressed and follow the codes and behaviors of the community to get their cooperation. It was also found that the communication/awareness drive beforehand was an effective measure to cover the survey with less hindrance.

3. SAMPLE COVERAGE AND THE CHARACTERISTICS OF HOUSEHOLDS AND RESPONDENTS

Sample Coverage

Of the 2,963 households selected for the sample, 2,959 were found to be occupied. Among the occupied households, 2,632 were successfully interviewed with a household response rate of 89 percent. In the interviewed households, 3,261 eligible women (aged 15-49) were identified for interview and 2,692 were successfully interviewed, giving women response rate of 83 percent. Among the interviewed households, 1,741 under-five children were identified. Of them, mothers/caretakers of 1,634 children were successfully interviewed, yielding children response rate of 94 percent. The overall response rates of women and children were found to be 73 percent and 84 percent respectively (Table HH.1).

The sample response rates vary to some extent by urban-rural areas and by provinces. Urban area shows higher response rate for household and children than those of rural area. However, there is little variation in women response rate between rural and urban area. The response rate varied widely among the provinces/urban domains. The household response rate ranges from 71 percent in Sanma to as high as 99 percent in Port Vila. Women's response rate varies from 76 percent in Malampa to 89 percent in Penama and Sanma. Children's response rate vary in a narrow range among the provinces/domains, with 90 percent in Luganville to 97 percent in Sanma and Torba (Table HH.1)

Table HH.1: Results of household and individual interviews
Numbers of households, women and children under 5 by results of the household, women's and under-five's interviews, and household, women's and under-five's response rates, Vanuatu, 2007

Indicators	Area		Province								Total
	Urban	Rural	Tafea	Shefa	Malampa	Penama	Sanma	Torba	Port Vila	Luganville	
Sampled households	1192	1771	300	300	300	296	275	300	692	500	2963
Occupied households	1191	1768	300	300	298	296	275	299	691	500	2959
Interviewed households	1143	1489	272	263	228	250	195	281	683	460	2632
Household response rate (%)	96.0	84.2	90.7	87.7	76.5	84.5	70.9	94.0	98.8	92.0	88.9
Eligible women	1536	1725	330	327	275	216	217	360	928	608	3261
Interviewed women	1271	1421	268	279	209	192	194	279	764	507	2692
Women response rate (%)	82.7	82.4	81.2	85.3	76.0	88.9	89.4	77.5	82.3	83.4	82.6
Women's overall response rate (%)	79.4	69.4	73.6	74.8	58.1	75.1	63.4	72.8	81.4	76.7	73.4
Eligible children under 5	648	1093	253	191	158	156	125	210	366	282	1741
Mother/Caretaker Interviewed	596	1038	240	179	146	149	121	203	342	254	1634
Child response rate (%)	92.0	95.0	94.9	93.7	92.4	95.5	96.8	96.7	93.4	90.1	93.9
Children's overall response rate (%)	88.3	80.0	86.0	82.2	70.7	80.7	68.6	90.8	92.4	82.9	83.5

Characteristics of Household Population

Table HH.2 shows the distribution of the *de-jure* (usual residence) household population by five-year age groups according to sex. Overall, age of the household members could not be established for nearly five percent cases (4.7 percent) and, therefore, shown as missing or don't know. Age did not know or missing was found to be higher for male than female (6.5% Vs 2.9%). They are mostly illiterate and could not recollect their own age or that their spouse after repeated request and trial. Special attention will be needed in any future surveys to overcome such problem of non-response of age.

The total enumerated population in the 2,632 interviewed households were 13,370 persons, of whom, 6,890 (51.5%) were male and 6,480 (48.5%) female. The overall sex ratio, the number of males per female, is 1.06, which indicates that there are more males than females in the country (i.e. there are 106 male per 100 female).

The survey experienced a high non-response rate especially due to the local festivals and death occasions, while during second half of December people traveled to their home or other island on the eve of Christmas. Inaccessibility was reason for one cluster in Pentecost of Sanma province. A higher proportion of the young women aged 15-19 were found to be living away due to work or study and absent from the households.

The survey provides an estimate of the average household size of 5 persons per household, which is in a complete agreement with the average household size observed in the 1999 census.

There is a larger proportion of population in the younger age groups than in the older age groups indicating a young age structure. About 41 percent of the population is below 15 years of age and only 3 percent is aged 65 and above. This is a typical situation of a community in an early stage of demographic development with high birth rates and death rates.

The population of the age groups below age 15 and above age 64 are considered as the "dependent" population and the population of age group 15-64 as the working population. Thus the dependency ratio, defined as the ratio of dependent population to population of working ages 15-64, is 0.83 or 83 dependent population per 100 working population. The corresponding estimate in the 1999 census was 0.85.

The age-sex structure of the population is shown by a population pyramid in Figure HH.1. The pyramid is broad based and slightly narrower at the lowest base, a pattern that typically describes a high fertility regime that has recently declined slightly.

The proportions of males and females are more or less same in the age groups below age 20 (Table HH.2, Figure HH.1). However, the male-female ratio markedly changed in the prime reproductive age group 20-34, with more females than males in these ages. This may be due in part to international migration of young men for work or study and/or high mortality among men in those ages. However, some combination of over reporting of ages of men and/or underreporting of ages of women may account for the excess of men over women at ages 40 and above. The ratio returns to balance for the older age groups.

Table HH.2: Household age distribution by sex
Percent distribution of the household population by five-year age groups and dependency age groups, and number of children aged 0-17 years, by sex, Vanuatu, 2007

Background Characteristics		Sex				Total	
		Male		Female		Number	Percent
		Number	Percent	Number	Percent		
Age	0-4	925	13.4	868	13.4	1793	13.4
	5-9	1081	15.7	875	13.5	1956	14.6
	10-14	852	12.4	833	12.9	1685	12.6
	15-19	684	9.9	626	9.7	1310	9.8
	20-24	531	7.7	633	9.8	1163	8.7
	25-29	446	6.5	517	8.0	964	7.2
	30-34	363	5.3	434	6.7	797	6.0
	35-39	418	6.1	419	6.5	837	6.3
	40-44	281	4.1	260	4.0	541	4.0
	45-49	267	3.9	241	3.7	508	3.8
	50-54	190	2.8	240	3.7	430	3.2
	55-59	130	1.9	116	1.8	246	1.8
	60-64	85	1.2	76	1.2	161	1.2
	65-69	64	0.9	70	1.1	134	1.0
	70 or above	129	1.9	85	1.3	214	1.6
	Missing/DK	446	6.5	185	2.9	631	4.7
Dependency age groups	<15	2857	41.5	2577	39.8	5434	40.6
	15-64	3394	49.3	3563	55.0	6958	52.0
	65+	193	2.8	155	2.4	348	2.6
	Missing/DK	446	6.5	185	2.9	631	4.7
Age	Children aged 0-17	3281	47.6	2950	45.5	6231	46.6
	Adults 18+/Missing/DK	3609	52.4	3531	54.5	7139	53.4
Total		**6890**	**100.0**	**6480**	**100.0**	**13370**	**100.0**

Children aged 0-17 years composed of 47 percent of the total population and 53 percent is adult population aged 18 and above.

Child women ratio, defined as the ratio of children under age five and the women of reproductive age 15-49, a measure of fertility performance during the five years preceding the survey, indicates that there are 573 births or children per 1,000 women in Vanuatu, which is an indication of high fertility in the country. It may be concluded that the prevailing age-sex composition in Vanuatu undoubtedly favors high fertility in the absence of a high level of fertility regulation programme.

Figure HH.1: Age and Sex Distribution of Household Population, Vanuatu, 2007

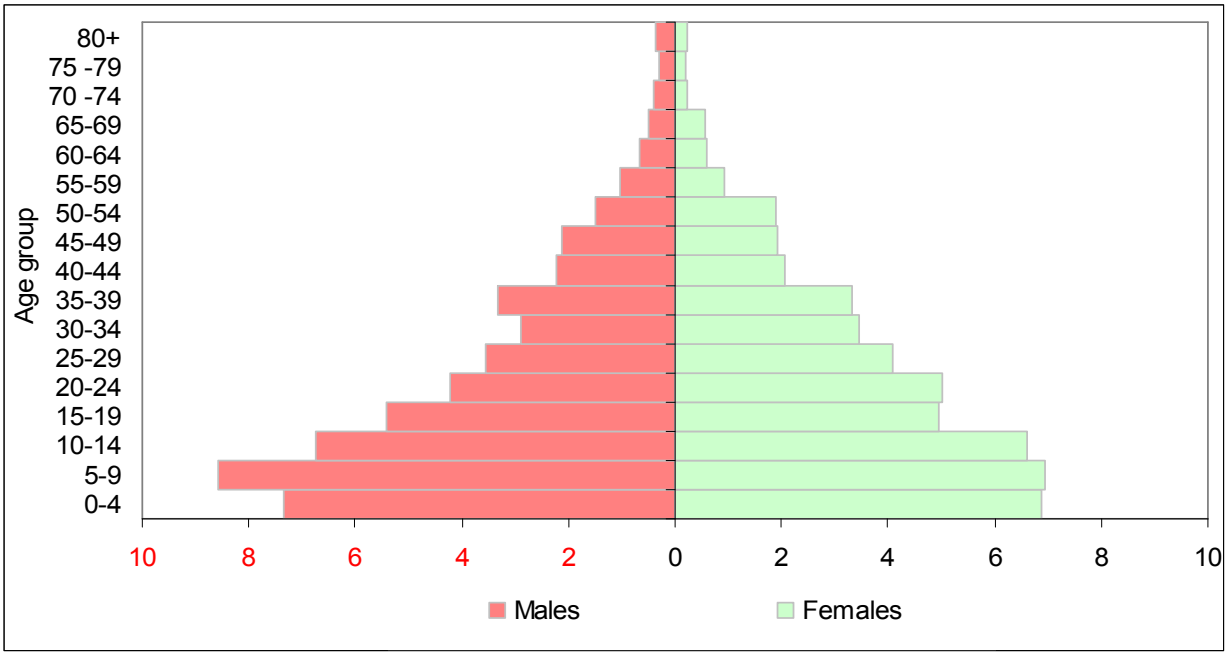


Table HH.2a compares the age and gender distribution of the MICS-3 survey population with that of 1999 Vanuatu National Population and Housing Census (National Statistics, 2000). Similarities in the population age distribution between the two sources suggest that the MICS-3 survey presents a valid sample of the country population.

Table HH.2a: Population age distribution of MICS-3 survey and 1999 Census

Age group	MICS-3 (Percent)			1999 Census (Percent)		
	Male	Female	Total	Male	Female	Total
0-14	41.5	39.8	40.6	41.9	41.0	41.5
15-64	49.3	55.0	52.1	51.5	53.2	52.3
65+	2.8	2.4	2.6	3.7	3.0	3.3
Missing/don't know	6.5	2.9	4.7	3.0	2.8	2.9
Total	**100.0**	**100.1**	**100.0**	**100.0**	**100.0**	**100.0**

Table HH.3 provides basic background information of the households having at least one child aged <18 years, at least one child <5 years, at least one woman aged 15-49 years, sex of household head, province, urban-rural status, number of household members, and mother tongue of household head. These background characteristics are also used in subsequent analysis. The data in the table are also intended to show the number of observations by major categories of analysis in the report.

Table HH.3: Household composition

Percent distribution of households by selected characteristics, Vanuatu, 2007

Background Characteristics		Weighted percent	Number of HH weighted	Number of HH unweighted
Sex of household head	Male	91.9	2418	2429
	Female	8.1	214	203
Region	Tafea	12.9	339	272
	Shefa	13.9	367	263
	Malampa	18.0	475	228
	Penama	13.3	350	250
	Sanma	14.6	385	195
	Torba	3.8	100	281
	Port Vila	17.6	464	683
	Luganville	5.8	153	460
Area	Urban	23.4	617	1143
	Rural	76.6	2015	1489
Number of household members	1	3.0	79	95
	2-3	23.0	604	589
	4-5	36.1	951	924
	6-7	24.1	635	645
	8-9	9.5	249	254
	10+	4.3	113	125
Mother tongue of head	Bislama	13.8	364	550
	Other Language	85.9	2261	2073
	Missing	(*)	7	9
National		**100.0**	**2632**	**2632**
At least one child aged < 18 years		84.4	2632	2632
At least one child aged < 5 years		50.1	2632	2632
At least one woman aged 15-49 years		85.2	2632	2632

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

The weighted and unweighted numbers of households are equal since sample weights were normalized (See Appendix – A).

Most of the households (84.4%) comprised of at least one child below 18 years of age, while 50 percent households have at least one child below five years. Around 85 percent households comprised of at least one woman of reproductive age 15-49 years.

Overwhelming majority (91.9%) of the households are headed by males; while the rest 8 percent are female headed households.

According to the MICS-2007 survey, 23 percent households are located in urban and 77 percent in rural areas. The households are located in all the provinces of Vanuatu. Comparatively lower proportions of households are there in the province of Torba (3.8%) and Luganville city (5.8%). The proportion of households from other provinces varies from 13 percent to 18 percent.

Majority sample households are of medium to large size and are comprised of 4-5 members (36.1%) and 6-7 members (24.1%). Overall there are 3 percent households with only one member. The country has over 100 languages with Bislama as the official language. It was found that Bislama is the mother tongue of only 14 percent heads of household; the remaining 86 percent household heads speak in their own local languages.

Characteristics of Respondents

This section provides information on the background characteristics of female respondents of reproductive age. In addition to providing useful information on the background characteristics of women, the data in the tables are also intended to show the number of observations in each background category. These categories are used in the subsequent analysis.

Table HH.4 presents background characteristics of female respondents aged 15-49 years. The table shows the percent distribution of women aged 15-49 according to province, urban-rural areas, age groups, marital status, motherhood status, education[2], wealth index quintiles[3] and mother tongue of household heads.

[2] Unless otherwise stated, "education" refers to educational level attended by the respondent throughout this report when it is used as a background variable.

[3] Principal components analysis was performed by using information on the ownership of household goods and amenities (assets) to assign weights to each household asset, and obtain wealth scores for each household in the sample (the assets or variables used in these calculations were as follows: [number of persons per sleeping room; type of floor; type of roof; type of wall; type of cooking fuel; presence of household assets including electricity supply, radio, TV, mobile phone, static phone, refrigerator, watch, bicycle, motorcycle, cart, car, motorized boat and canoe; source of drinking water; and, type of sanitary facility]). Each household was then weighted by the number of household members, and the household population was divided into five groups of equal size, from the poorest quintile to the richest quintile, based on the wealth scores of households they were living in. The wealth index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels, and the wealth scores calculated are applicable for only the particular data set they are based on.

Table HH.4: Women's background characteristics

Percent distribution of women aged 15-49 years by background characteristics, Vanuatu, 2007

Background Characteristics		Weighted percent	Number of women	
			weighted	unweighted
Region	Tafea	13.1	353	268
	Shefa	14.6	392	279
	Malampa	18.3	492	209
	Penama	9.7	260	192
	Sanma	13.7	368	194
	Torba	4.1	110	279
	Port Vila	20.1	542	764
	Luganville	6.5	174	507
Area	Urban	26.6	716	1271
	Rural	73.4	1976	1421
Age	15-19	17.9	481	457
	20-24	22.4	602	522
	25-29	16.2	437	470
	30-34	14.4	387	405
	35-39	13.3	358	393
	40-44	8.4	227	241
	45-49	7.5	201	204
Marital/Union status	Currently married/in union	72.4	1949	1921
	Formerly married/in union	3.5	94	91
	Never married/in union	24.1	649	680
Motherhood status	Ever gave birth	73.8	1986	1969
	Never gave birth	26.2	706	723
Education	None	6.3	171	171
	Primary	62.8	1689	1552
	Secondary +	30.1	810	955
	Non-standard curriculum	(*)	22	14
Wealth index quintiles	Poorest	17.7	476	358
	Second	20.9	564	411
	Middle	19.4	522	426
	Fourth	19.1	515	549
	Richest	22.8	615	948
Mother tongue of head	Bislama	14.6	393	592
	Other Language	85.1	2291	2090
	Missing	(*)	8	10
National		**100.0**	**2692**	**2692**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

The women respondents include both married and never-married women. Among the women aged 15-49, about one-fourth (24.1%) were never married, while nearly three-fourth (72.4%) were currently married and 4 percent were either widowed, divorced or separated.

The respondents were mostly young women within their thirties, with an average age of 39 years. About 16 percent of the women were aged 40 and above, while 18 percent were adolescent girl of age 15-19 years, and 39 percent of the women were aged 20-29 years.

About 74 percent of the women have given birth to at least one child. Only 6 percent respondents were uneducated; while 63 percent completed primary and 30 percent secondary level of education. The proportion of respondents belonging to different wealth index quintiles varies slightly within the range of 18 percent in the poorest quintile to 23 percent in the richest quintile.

Table HH.5 presents some selected background characteristics of under-5 children identified from collected information. The background characteristics of children include: sex, province, area of residence, age in months, mother's or caretaker's education, wealth and mother tongue of household heads.

The household listing identified 1634 under-5 children, of which more than half (51.9%) were male and the remaining 48 percent were female. The percentage of children in different age groups varies to some extent between the ranges of 10 percent in the age group of less than 6 months to 22 percent in the age group of 12-23 months.

About 9 percent mothers or caretakers of the children under-5 are non-educated; while 63 percent and 28 percent have completed primary and secondary level education respectively. The proportion of children belonging to the households of different wealth index quintiles varies slightly between the ranges of 16 percent in the richest quintile to 24 percent in the second quintiles.

Table HH.5: Children's background characteristics
Percent distribution of children under five years of age by background characteristics, Vanuatu, 2007

Background Characteristics		Weighted percent	Number of under-5 children	
			weighted	unweighted
Sex	Male	51.9	849	844
	Female	48.1	785	790
Region	Tafea	17.6	287	240
	Shefa	14.9	243	179
	Malampa	18.3	300	146
	Penama	12.2	199	149
	Sanma	13.7	225	121
	Torba	4.2	68	203
	Port Vila	13.9	227	342
	Luganville	5.2	86	254
Area	Urban	19.1	312	596
	Rural	80.9	1322	1038
Age	< 6 months	9.9	161	155
	6-11 months	11.1	182	192
	12-23 months	22.0	359	342
	24-35 months	21.0	342	337
	36-47 months	19.8	324	339
	48-59 months	16.2	265	269
Mother's education	None	8.5	140	139
	Primary	63.1	1031	960
	Secondary	28.1	459	532
	Non-standard	(*)	3	2
	Missing/DK	(*)	1	1
Wealth index quintiles	Poorest	22.4	367	311
	Second	23.5	383	295
	Middle	20.1	328	278
	Fourth	18.5	302	332
	Richest	15.5	254	418
Mother tongue of head	Bislama	10.9	179	280
	Other Language	88.9	1452	1350
	Missing	(*)	3	4
National		**100.0**	**1634**	**1634**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases.

4. INFANT AND UNDER-FIVE MORTALITY

Infant and Under-Five Mortality

One of the overarching goals of the Millennium Development Goals (MDGs) and the World Fit for Children (WFFC) is to reduce infant and under-five mortality. Specifically, the MDGs call for the reduction in under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but difficult objective. Measuring childhood mortality may seem easy, but attempts using direct questions, such as "Has anyone in this household died in the last year?" give inaccurate results. Using direct measures of child mortality from birth histories is time consuming, more expensive, and requires greater attention to training and supervision. Alternatively, indirect methods developed to measure child mortality produce robust estimates that are comparable with the ones obtained from other sources. Indirect methods minimize the pitfalls of memory lapses, inexact or misinterpreted definitions, and poor interviewing technique.

The infant mortality rate is the probability of dying before the first birthday. The under-five mortality rate is the probability of dying before the fifth birthday. In MICS surveys, infant and under-five mortality rates are calculated based on an indirect estimation technique known as the Brass method (United Nations, 1983; 1990a; 1990b). The data used in the estimation are: the mean number of children ever born for five year age groups of women from age 15 to 49, and the proportion of these children who are dead, also for five-year age groups of women. The technique converts these data into probabilities of dying by taking into account both the mortality risks to which children are exposed and their length of exposure to the risk of dying, assuming a particular model age pattern of mortality. Based on previous information on mortality in Vanuatu, the West model life table was selected as most appropriate.

Table CM.1: Child mortality

Infant and under-five mortality rates, Vanuatu, 2007

Background Characteristics		Infant Mortality Rate*	Under-five Mortality Rate**
Sex	Male	25	29
	Female	25	31
Area	Urban	23	27
	Rural	26	32
Mother's education	None/Primary	28	34
	Secondary+	12	14
Wealth index quintiles	Poorest 60%	27	33
	Richest 40%	22	26
National		**25**	**30**

* MICS indicator 2; MDG indicator 14

** MICS indicator 1; MDG indicator 13

Table CM.1 provides estimates of child mortality by various background characteristics, while Table CM.2 provides the basic data used in the calculation of the mortality rates for the national total. The infant mortality rate is estimated at 25 per thousand, while the under-5 mortality rate (U5MR) is around

30 per thousand. These estimates have been calculated by averaging mortality estimates obtained from women aged 25-29 and 30-34, and refer to mid 2001. The estimate from the 1999 census for the under-5 mortality was 33 per 1000 live births which is very close to this estimate. There is slight difference between the probabilities of dying among males and females. Infant and under-5 mortality rates are lower in urban areas. There are also significant differences in mortality in terms of educational levels and wealth. In particular, the probabilities of dying among children of secondary or above education of mothers are significantly lower than the national average. However, the estimates for secondary or higher education, and wealth quintiles of richest 40 percent are based on small sample and require caution to interpret.

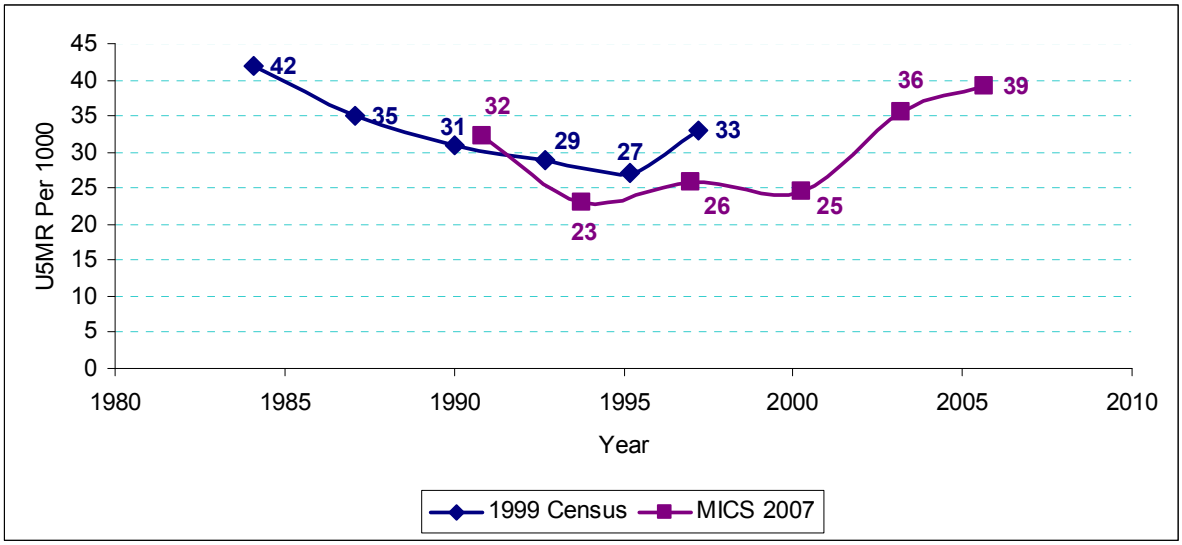
Table CM.2. Children ever born and proportion dead

Mean number of children ever born (CEB) and proportion dead by age of mother, Vanuatu, 2007

Age (in years)	Mean number of children ever born	Mean number of children surviving	Proportion died	Number of women
15-19	0.163	0.155	0.048	481
20-24	1.240	1.197	0.034	602
25-29	2.178	2.101	0.035	437
30-34	3.158	3.077	0.026	387
35-39	3.979	3.864	0.029	358
40-44	4.322	4.202	0.028	227
45-49	4.709	4.505	0.043	201
Total	**2.358**	**2.283**	**0.032**	**2692**

Figure CM.1 shows the series of U5MR estimates of the survey, based on responses of women in different age groups, and referring to various points in time, thus showing the estimated trend in U5MR based on the survey. The MICS estimates indicate a decline in mortality during the last 15 years. The U5MR estimate of 30 per thousand live births for 2001 from MICS3 is about 10 percent lower than the estimate from Population Census (33 per thousand live births) for the year 1999. There is no other survey to see the trend and the mortality trend depicted by the Census 1999 is also a declining one; however, MICS results are considerably lower than those indicated by Census 1999.

Figure CM.1: Trend in Under-5 Mortality Rates, Vanuatu, 2007



5. NUTRITION

Nutritional status

Nutritional status of children is a reflection of the overall health and welfare status of a community. It is an outcome of complex interactions between food consumption and the overall status of health and care practices. If children have access to a regular and adequate food supply, they are not exposed to repeated illness, and hence are well cared for and attain their growth potential. Thus they reach their growth potential and are considered well nourished. Growth patterns of such healthy and well-fed children reflect the positive changes in their height and weight outcome.

Different study findings reveal that, undernourishment or malnutrition is linked with more than half of all child deaths across the world. Undernourished children are more likely to die from common childhood ailments. Again, undernourished children who survive these illnesses often suffer from chronic diseases and faltering growth. Furthermore, three-quarters of the children worldwide who die from causes related to malnutrition are only mildly or moderately malnourished. Thus, this indicates a complex situation that being these children malnourished it does not show outward signs of their vulnerability.

A key Millennium Development Goal (MDG), adopted by GoV, is to reduce the percentage of people suffering from hunger by half between 1990 and 2015. On the other hand, the WFFC goal, also adopted by GoV, is to reduce the prevalence of malnutrition among children below five years of age by at least one-third between 2000 and 2010, giving special attention to children below two years of age. The prevalence of malnutrition among children is associated with the child mortality. Hence a reduction in the prevalence of malnutrition contributes to the attainment of the MDG of reducing child mortality. Policies and plans have been articulated by successive Vanuatu governments of the past decades for the development of her children and women in this regard.

The extent of undernourishment in a given population of children can be estimated by comparing their nutritional status to that of a well-nourished reference population. Conveniently, there is a reference distribution of height and weight for children under five years in a well-nourished population. The reference population used in this MICS-3 analysis is the WHO/CDC/NCHS reference, which is a UNICEF and the WHO, recommended reference. Internationally accepted indicators for measuring the prevalence of undernourishment or malnutrition of children are the following three anthropometric indices:

(i) Underweight measured by Weight-for-Age Z score (WAZ),

(ii) Stunting measured by Height-for-Age Z score (HAZ), and

(iii) Wasting measured by Weight-for-Height Z scores (WHZ).

Each of these three nutritional status indices is expressed in standard deviation (SD) units (i.e. Z-scores) from the median of this reference population. In the reference population, only 2.3 percent of children fall below minus two standard deviations for each of these three indices.

Weight-for-age is a composite index of height-for-age and weight-for-height and thus takes into account both acute malnutrition (wasting) and chronic malnutrition (stunting). A child can be

underweight for his/her age because he/she is stunted, wasted, or both. Weight-for-age is a useful tool in clinical settings for continuous assessment of nutritional progress and growth. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are classified as *underweight*.

Height-for-age is a measure of linear growth. Children who are below minus two standard deviations (-2SD) from the median of the NCHS reference population in terms of height-for-age are considered short for their age, or *stunted*, a condition reflecting the cumulative effect of chronic malnutrition. Children below minus three standard deviations (-3SD) from the reference median are considered as severely stunted. A child between -2SD and -3SD is considered as moderately stunted. Stunting reflects failure to receive adequate nutrition over a long period and may also be caused by recurrent and chronic illness. Height-for-age, therefore, represents a measure of the long-term effects of malnutrition in a population and does not vary appreciably according to the season of data collection. Stunted children are not immediately obvious in a population; a stunted three-year-old child could look like a well-fed two-year-old.

Weight-for-height indicates wasting as reflecting recent acute nutritional deficit in a child. A child whose weight-for-height Z score is below -2SD from the median value of the reference population is considered to be too thin for his/her height or moderately or severely *wasted*. The children whose weight-for-height is more than three SD below the median are classified as severely wasted. Severe wasting is closely linked to an elevated risk of mortality. The indicator may show evidence of significant seasonal variations associated with changes in the accessibility of food or disease prevalence.

In the MICS-3 in Vanuatu, weights and heights of all children below five years of age were measured using anthropometric equipments recommended by UNICEF. The findings in this section are based on the results of these measurements.

The MICS-3 in Vanuatu identified 1,741 under-five children eligible to be weighed and measured. The survey, however, was not able to measure the height and weight of all eligible children for various reasons including the child was not at home at the time of the health investigator's visit or because the mother/caretaker refused to allow the child to be weighed and measured. The analysis also excluded the children whose month or year of birth was not known and those with grossly improbable height or weight measurements. In addition, two of the three indices (weight for-age and height-for-age) are sensitive to misreporting of children's age, including heaping on preferred digits.

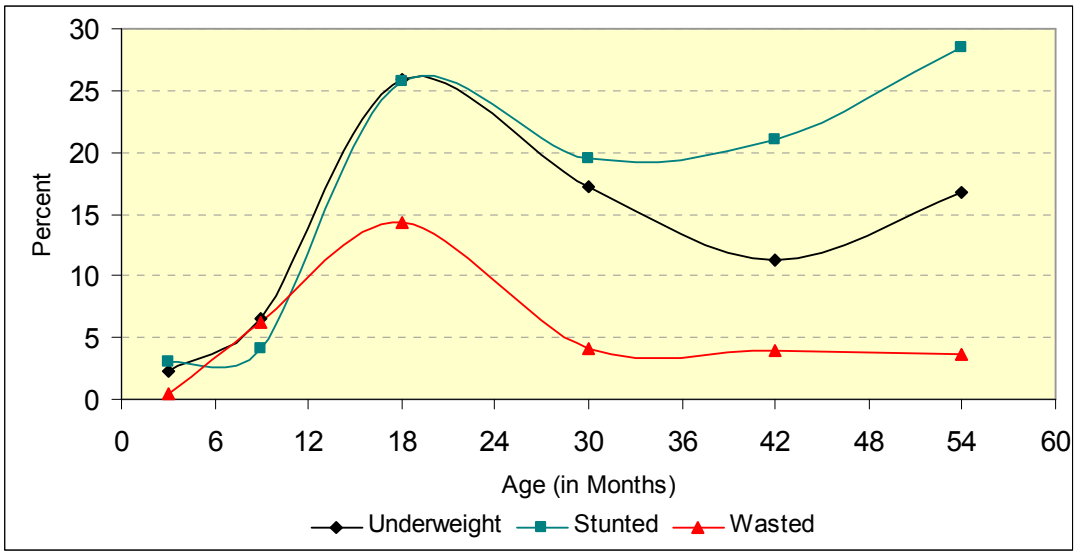
Of the 1,741 children eligible for measurement (aged 0-59 months at the time of the survey), 73 percent or 1,281 were weighed and measured. The survey, thus, failed to measure the height or weight of 27 percent of children under-five. The following analysis focuses on the 1,281 children age 0-59 months for whom complete and plausible anthropometric data were collected.

Table NU.1 shows the percentage of children those are classified as malnourished according to height-for-age, weight-for-height, and weight-for-age indices, by the child's age and selected demographic background characteristics.

Nearly 1 out of 6 (15.9%) children are considered underweight (low weight-for-age), and only few (2.2%) are classified as severely underweight. Boys are more likely to be underweight (<-2SD) than the girls (18.3% vs. 13.4%). But, the prevalence of severely underweight (<-3SD) is higher among girls than boys (2.5% vs. 1.9%). The prevalence of underweight is almost equal among urban and rural children (15.2% and 16.1% respectively). Children under six months are least likely to be underweight,

probably due to the positive effects of breastfeeding and birth weight. After six months of age, the proportion of underweight children rises substantially to 26 percent among the children aged 12-23 months and then drops steadily to 17 percent among 48-59 months age. There is some regional variation in the underweight of children. Children in Luganville (23.4%), Penama (21.8%), Sanma (19.6%) and Torba (19.0%) are more likely to be underweight (<-2SD) than the children from other provinces. Severe malnourishment (<-3 SD) is slightly higher in Sanma, Torba and Port Vila (3.2-4.0%) than those in other provinces. As expected, underweight decreases with the mother's education and wealth quintiles.

Figure NU.1: Percentage of children under-5 who are undernourished, Vanuatu, 2007



About one-fifth (20.1%) of the under-five children are stunted (Global Chronic Malnutrition; <-2SD), of whom 7 percent are severely stunted or too short for their age. Boys are more likely to be stunted than girls (23.4% vs. 16.6%), while similar pattern is observed in case of severely stunted children (boys: 7.0%, girls: 6.6%). Children under six months are least likely to be stunted (3.0%). After six months of age, the proportion of children those are stunted rises substantially to 26 percent among those of 12-23 months and then drops steadily to 21 percent among children aged 36-47 months and then increased to 29 percent among the children aged 48-59 months. Proportion of stunted children (<-2 SD) varies within the range of 15 percent to 23 percent across the provinces. The highest proportion is found in Malampa, Penama, Sanma, and Port Vila (21.0-23.1%), compared with other provinces (15.1-17.7%). Also, severely stunted children is more prevalent in Port Vila (10.4%), Sanma (8.9%), Tafea (6.9%), Malampa (6.5%) and Luganville city (7.3%) compared with those in the remaining provinces (3.2-5.1%). Stunting decreases with the mother's education. The prevalence of stunting is highest (23.2%) among the children of the poorest group.

Around 7 percent children are wasted (Global Acute Malnutrition, <-2SD) or too thin for their height. Only nominal (1.3%) are severely wasted. Boys are more likely to be wasted than girls (7.0% vs. 5.9%). Urban children are more likely to be wasted than the rural children (7.9% and 6.1% respectively). Children under six months are least likely to be wasted. After six months of age, the proportion of wasted children rises substantially to 14 percent among those 12-23 months and then drops steadily to 4 percent among children aged 48-59 months. Children with acute malnutrition are the highest in

Sanma (11.6%), followed by Luganville (9.7%), Torba (8.7%), Port Vila (7.6%) and Penama (7.6%), and is the lowest in Tafea (1.1%). Province wise the severe wasted children are quite marginal; slightly high is in Port Vila (3.2%), while it is nil in Shefa and Torba. Acute malnutrition decreases with mother's education. However, wealth quintile does not show any consistent pattern.

Table NU.1: Child malnourishment

Percentage of children aged 0-59 months who are severely or moderately undernourished, Vanuatu, 2007

Background Characteristics		Weight for age: % below -2 SD*	Weight for age: % below -3 SD	Height for age: % below -2 SD**	Height for age: % below -3 SD*	Weight for height: % below -2 SD***	Weight for height: % below -3 SD	Weight for height: % above +2 SD	Number of children
Sex	Male	18.3	1.9	23.4	7.0	7.0	1.1	2.4	665
	Female	13.4	2.5	16.6	6.6	5.9	1.6	2.3	615
Region	Tafea	11.4	1.7	17.7	6.9	1.1	0.6	2.9	209
	Shefa	12.7	0.6	16.5	5.1	5.7	0.0	1.9	214
	Malampa	15.7	2.8	23.1	6.5	4.6	0.9	1.9	222
	Penama	21.8	0.8	21.0	3.4	7.6	2.5	3.4	159
	Sanma	19.6	3.6	22.3	8.9	11.6	1.8	0.9	208
	Torba	(19.0)	(4.0)	(15.1)	(3.2)	(8.7)	(0.0)	(0.8)	42
	Port Vila	13.3	3.2	22.3	10.4	7.6	3.2	3.6	184
	Luganville	(23.4)	(1.6)	(16.9)	(7.3)	(9.7)	(0.8)	(3.2)	42
Area	Urban	15.2	2.9	21.3	9.8	7.9	2.8	3.5	226
	Rural	16.1	2.0	19.9	6.1	6.1	1.0	2.1	1055
Age	< 6 months	2.2	0.0	3.0	0.0	0.4	0.0	3.0	89
	6-11 months	6.4	0.9	4.1	1.8	6.3	1.8	4.5	147
	12-23 months	26.0	3.4	25.9	7.3	14.3	2.4	1.9	308
	24-35 months	17.9	2.4	20.5	7.9	4.1	0.5	2.2	265
	36-47 months	11.3	1.4	20.9	7.4	3.9	1.3	0.0	258
	48-59 months	16.8	2.9	28.7	10.2	3.7	1.2	4.2	213
Mother's education	None	21.0	3.1	26.9	12.1	7.9	1.9	5.8	100
	Primary	17.3	2.5	20.1	7.0	6.5	1.5	1.9	817
	Secondary	11.6	1.3	18.1	4.9	5.9	0.9	2.2	360
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Wealth index quintiles	Poorest	18.1	4.6	23.2	9.9	6.1	1.0	2.3	278
	Second	20.5	2.0	18.4	5.0	9.0	0.8	0.9	316
	Middle	13.5	0.3	20.9	5.0	5.0	1.5	4.2	267
	Fourth	12.3	0.8	18.9	5.3	4.7	1.1	1.5	228
	Richest	13.0	3.4	19.2	9.5	6.9	2.9	3.1	193
Mother tongue of head	Bislama	16.3	1.9	23.1	14.1	6.5	1.8	4.6	136
	Other Language	15.9	2.2	19.8	5.9	6.5	1.3	2.0	1142
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
National		**15.9**	**2.2**	**20.1**	**6.8**	**6.5**	**1.3**	**2.3**	**1281**

* MICS indicator 6; MDG indicator 4
** MICS indicator 7
*** MICS indicator 8
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

The age pattern of the children shows a noticeable similar trend in nutritional status i.e. a higher proportion of them aged 12-23 months are undernourished according to all the three indices in comparison to those who are younger and older than this age range (Figure NU.1). This pattern might

be because this is related to the child age at which many children cease to be breastfed and are exposed to contamination in water, food and the environment or inadequate complementary feeding.

16% underweight (<-2 SD), 20% stunted and 7% wasted nationally

In brief, nationally 16 percent children are moderately or severely underweight, 20 percent are moderately or severely stunted and 7 percent are moderately or severely wasted. This situation is more or less similar to that of the East Asia and the Pacific region with 15 percent underweight and 19 percent stunted there (UNICEF, 2007). However, the situation is better than the world average, as 25 percent children are underweight and 30 percent stunted worldwide (G. Haberkorn and A. Jopari, 2007).

The MICS-3 data shows slightly higher prevalence than that was found in National Nutrition Survey, 1996 (15.9% vs. 12.1% for underweight and 6.5% vs. 5.5% for wasted; while stunting remained unchanged at 20.1%) (DoH and AusAid 1996). However, child nutrition status of Vanuatu seems to be slightly improved in recent years compared to UN estimates for 2005, as the prevalence of underweight decreased from 20 percent to 16 percent and prevalence of stunting slightly increased from 19 percent to 20 percent (GoV and UNICEF, 2005).

In fact, Vanuatu has enough food grown out of subsistence agriculture and gardening, and fishing, and raring poultry and livestock to feed her people; although many families do not get protein regularly. Thus some children suffer from malnutrition not due to want of food but due to lack of awareness of people to have balanced diet with sufficient quantities of vitamins, proteins and micro-nutrients. Therefore, efforts should be there to make people aware and conscious about child and mother's health and nutrition.

Breastfeeding

Inadequate or inappropriate child feeding practices is the foremost reason that leads to malnutrition of children. It plays an important role for optimal growth of children. Contrary to this, inadequate and inappropriate breastfeeding and complementary feeding practices lead to poor health and malnutrition of children, which again hinders their proper physical growth and mental development.

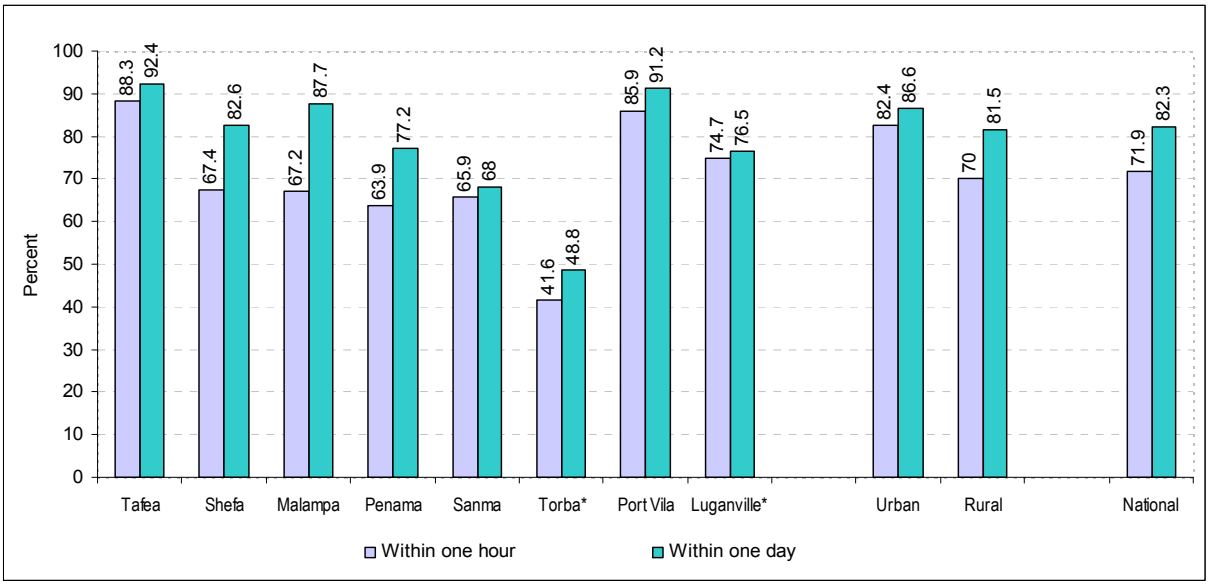
Early initiation of breastfeeding creates bondage between the mother and the newborn and it helps maintaining baby's body temperature and increases body resistance for protection against diseases. UNICEF and WHO recommended for feeding colostrums (the first breast milk) to the newborn immediately after birth and continuous exclusive breastfeeding for the first five months of life. They also recommended that breastfeeding be initiated within one hour of birth, continue breastfeeding for two years or more; safe, appropriate and adequate complementary foods be started at six months onward, and this food be given at least twice per day for 6-8 month-olds; at least three times for 9-11 months children.

The indicators for recommended child feeding practices are:

- Exclusive breastfeeding rate (<6 months and <4 months),
- Timely complementary feeding rate (6-9 months),
- Continuous breastfeeding rate (12-15 months and 20-23 months),
- Timely initiation of breastfeeding (within one hour of birth),

- Frequency of complementary feeding (6-11 months),
- Adequately fed infants (10-11 months).

Figure NU.2: Percentage of mothers who started breastfeeding (within one hour and within one day of birth), Vanuatu, 2007



** Figure is based on 25-49 unweighted cases*

Initial breastfeeding

Table NU.2 presents the proportion of sample women in Vanuatu who initiated breastfeeding to infants within one hour of birth and women who initiated within one day of birth. About 72 percent women, who gave birth in two years preceding the survey, breastfed their babies within one hour of birth, while 82 percent within one day of birth. Urban women are more likely to initiate breastfeeding within one hour or within one day of birth than the rural women.

72% initiated within 1 hour (higher in urban), 82% within 1 day; urban: 86%, rural: 81%

Comparatively higher proportion of women in Tafea (88.3%), Port Vila (85.9%), Luganville (74.7%), Shefa, Malampa and Sanma (65.9-67.4%) than those in Torba (41.6%) breastfed their babies within one hour of birth. Women in Tafea (92.4%), Port Vila (91.2%) and Malampa (87.7%) are more likely to have initiated breastfeeding within one day of birth than those in Shefa, Penama, Luganville and Sanma (68.0% to 82.6%) and Torba (48.8%). Mother's education and wealth status show positive association with the early initiation of breastfeeding. Mothers with primary or secondary level of education and those from the higher wealth quintiles (except middle class) reported higher practice of both types of behavior than those who have no education or from lower wealth quintiles.

Table NU.2: Initial breastfeeding

Percentage of women aged 15-49 years with a birth in the 2 years preceding the survey who breastfed their baby within one hour of birth and within one day of birth, Vanuatu, 2007

Background Characteristics		Percentage who started breastfeeding within one hour of birth*	Percentage who started breastfeeding within one day of birth	Number of women with live birth in the two years preceding the survey
Region	Tafea	88.3	92.4	149
	Shefa	67.4	82.6	116
	Malampa	67.2	87.7	162
	Penama	63.9	77.2	90
	Sanma	65.9	68.0	84
	Torba	(41.6)	(48.8)	37
	Port Vila	85.9	91.2	80
	Luganville	(74.7)	(76.5)	36
Area	Urban	82.4	86.6	116
	Rural	70.0	81.5	639
Months since last birth	< 6 months	69.5	78.8	199
	6-11 months	66.8	80.4	193
	12-23 months	76.0	85.2	363
Education	None	61.3	73.3	59
	Primary	70.5	81.2	488
	Secondary +	78.5	87.6	207
	Non-standard curriculum	(*)	(*)	0
Wealth index quintiles	Poorest	68.4	80.4	191
	Second	69.2	83.8	202
	Middle	71.6	78.8	148
	Fourth	75.1	84.3	135
	Richest	82.6	86.5	78
Mother tongue of head	Bislama	75.6	75.6	68
	Other Language	71.5	83.0	686
	Missing	(*)	(*)	0
National		**71.9**	**82.3**	**755**

* MICS indicator 45

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Exclusive and continued breastfeeding

Table NU.3 provides the assessment of breastfeeding status based on the mothers' or caregivers' reports regarding children's consumptions of food and fluid within 24-hours prior to the interview. Here *exclusively breastfed* refers to infants who received only breastmilk (with or without vitamins, mineral supplements and/or medicine) during this time. The Table shows the rates of exclusive breastfeeding of infants during the first six months of life (separately for 0-3 months and for 0-5 months), complementary feeding to the children aged 6-9 months and continued breastfeeding to the children at 12-15 months and 20-23 months of age.

Slightly less than half (47.6%) of children aged less than 4 months and 40 percent children aged less than 6 months are exclusively breastfed. The results indicate that majority of the children were given substitute food along with breast milk before 4 months or 6 months of age. Female babies are more likely to receive exclusive breastfeeding than males. Provincial and urban-rural variation can not be depicted due to smaller number of samples in most of the provinces. However, the rates of exclusive breastfeeding among 0-6 months children are 65 percent in Tafea and 24 percent in Malampa.

40% children (<6 month) exclusively breastfed; No variations in areas

Continued breastfeeding for the first two years of age is an ideal source of nutrients to children and it protects them from infection; it is also safe and economical. But many mothers unknowingly stop breastfeeding too early and begin giving formula food to their children, which often, instead of providing balanced nutrition, may contribute to micronutrient deficiencies and imbalanced growth. Following is the description of complementary feeding status of the children below two years of age.

Complementary feeding

At age 6-9 months, 62 percent of children are receiving breast milk along with semisolid or solid food (Table NU.3). Higher proportion of children aged 6-9 months from rural areas (65.1%) and with primary level of education (64.8%) is receiving complementary food than that of national average.

62% children (6-9 months) given complementary food; higher in rural area

By age 12-15 months, 79 percent children are still being breastfed and by age 20-23 months about 32 percent of them are still being breastfed. Female children are more likely to receive continued breastfeeding till 12-23 months of age than their male counterparts. The differentials by mothers' education, wealth categories and by province cannot be produced due to smaller number of observation.

Table NU.3: Breastfeeding

Percentage of living children according to breastfeeding status at each age group, Vanuatu, 2007

		Children 0-3 months		Children 0-5 months		Children 6-9 months		Children 12-15 months		Children 20-23 months	
Background Characteristics		Percent exclusively breastfed	Number of children	Percent exclusively breastfed *	Number of children	Percent receiving breastmilk and solid/mushy food **	Number of children	Percent breastfed***	Number of children	Percent breastfed ***	Number of children
Sex	Male	42.8	53	36.9	73	58.9	54	77.4	74	28.8	49
	Female	52.5	52	42.8	86	64.3	68	81.3	57	34.6	49
Region	Tafea	(*)	19	(65.4)	31	(33.3)	25	(83.3)	29	(*)	13
	Shefa	(*)	15	(*)	23	(*)	24	(*)	19	(*)	14
	Malampa	(25.0)	25	(23.5)	35	(*)	16	(87.5)	33	(*)	16
	Penama	(*)	11	(*)	16	(*)	13	(*)	13	(*)	19
	Sanma	(*)	17	(*)	24	(*)	13	(*)	13	(*)	15
	Torba	(*)	4	(*)	7	(*)	7	(*)	2	(*)	4
	Port Vila	(*)	10	(*)	15	(*)	16	(*)	17	(*)	12
	Luganville	(*)	4	(*)	8	(*)	6	(*)	4	(*)	6
Area	Urban	(*)	14	(*)	23	(*)	22	(*)	22	(*)	18
	Rural	46.3	90	40.0	137	65.1	99	81.4	109	30.8	80
Mother's education	None	(*)	9	(*)	16	(*)	4	(*)	16	(*)	6
	Primary	48.2	64	43.7	95	64.8	84	75.3	70	32.3	70
	Secondary	(46.6)	32	(35.4)	48	(57.8)	33	(83.5)	45	(*)	22
Wealth index quintiles	Poorest	(41.1)	32	(39.9)	44	(73.3)	26	75.9	34	(*)	23
	Second	(64.8)	29	(53.8)	40	(61.1)	28	82.0	38	(*)	17
	Middle	(*)	16	(41.1)	28	(*)	17	(89.6)	26	(19.9)	25
	Fourth	(*)	15	(20.2)	30	(74.2)	35	(*)	21	(*)	24
	Richest	(*)	12	(*)	17	(*)	16	(*)	12	(*)	11
Mother tongue of head	Bislama	(*)	6	(*)	14	(*)	15	(*)	9	(*)	12
	Other Language	47.5	98	41.3	145	61.8	107	80.3	122	32.8	86
National		**47.6**	**104**	**40.1**	**160**	**61.9**	**122**	**79.1**	**131**	**31.7**	**98**

* MICS indicator 15

** MICS indicator 17

*** MICS indicator 16

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Adequacy of feeding

Table NU.4 and Figure NU.3 shows the adequacy of infant feeding to children below 12 months. Different criteria of adequate feeding are used depending on the age of the child. For infants age 0-5 months, exclusively breastfeeding represents adequate feeding. On the other hand, infants aged 6-8 months are considered to be adequately fed if they receive breastmilk and complementary food at least two times per day, while infants aged 9-11 months are considered to be adequately fed if they receive breastmilk and complementary food at least three times a day.

The data indicate that 40 percent of the children aged 0-5 months are receiving adequate feeding of exclusive breastfeeding. However, over half (52.4%) of the children aged 6-8 months are receiving breastmilk and complementary foods at least for the minimum recommended number of times (i.e. 2 times) in 24 hours prior to the survey (Table NU.4). It is the highest in Shefa (76.9%) and the lowest in Tafea (33.3%). Girls (57.2%) are more likely to receive such foods for 2 times in past 24 hours than their boy counterparts (46.9%). Children from rural areas are more likely to receive adequate feeding than the children from urban areas (54.5% vs. 42.8%). Mother's education shows positive effect on adequate feeding, while household wealth status does not show any consistent effect on adequate feeding.

For the children aged 9-11 months, 47 percent received breastmilk and complementary foods at least three times in 24 hours leading up to the interview. It is higher in rural area (50.1%) compared with urban area (32.0%); highest in Malampa (71.4%) and lowest in Sanma (20.0%). Again, the children aged 6-11 months received breastmilk and complementary foods for the minimum recommended number of times in past 24 hours are 50 percent (urban: 37.3% and rural: 52.3%).

As an outcome of these feeding patterns, 45 percent children aged 0-11 months are adequately and appropriately fed. Children from rural areas are more likely to receive adequate feeding than that of urban area (46.2% vs. 38.4%). The proportion is found comparatively high in Penama, Tafea and Shefa (50.0%-55.0%) than in other provinces/cities (29.2%-44.6%). Higher education of mother have no explicit impact, while the wealth quintiles show negative trend on such feeding practices, as indicated by background characteristics.

Figure NU.3: Infant feeding pattern by Age

Percent distribution of children aged under 3 years by feeding pattern by age, Vanuatu, 2007

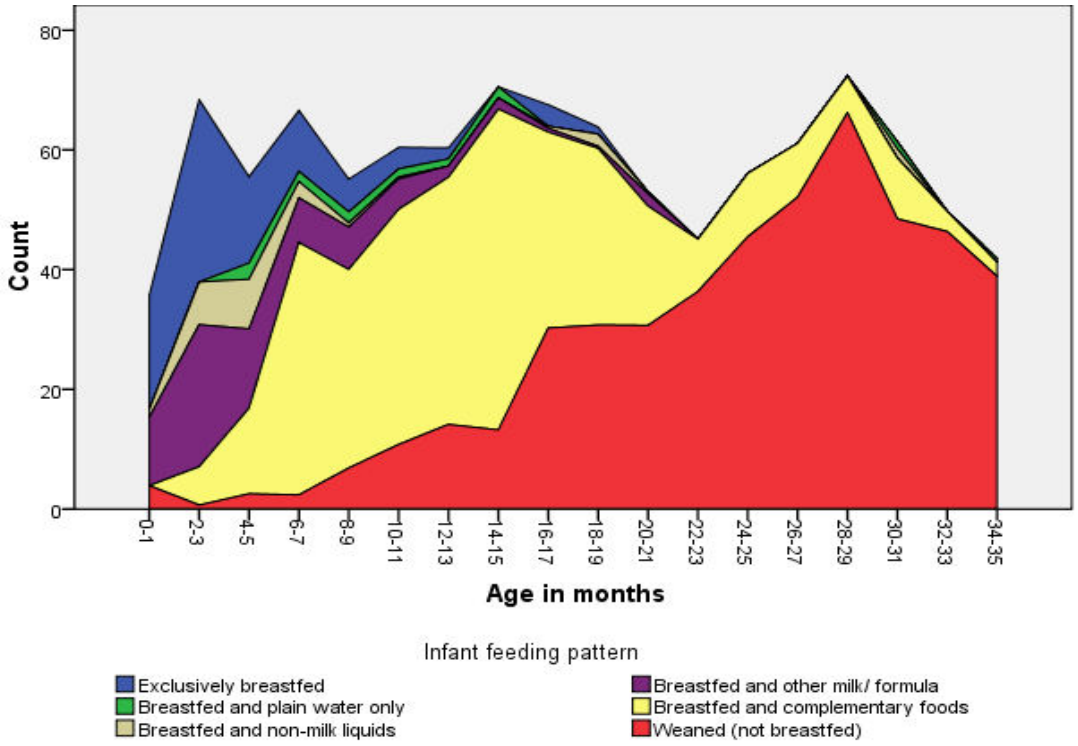


Table NU.4: Adequately fed infants

Percentage of infants under 6 months of age exclusively breastfed, percentage of infants 6-11 months who are breastfed and who ate solid/semi-solid food at least the minimum recommended number of times yesterday and percentage of infants adequately fed, Vanuatu, 2007

Background Characteristics		0-5 months exclusively breastfed	6-8 months who received breastmilk and complementary food at least 2 times in prior 24 hours	9-11 months who received breastmilk and complementary food at least 3 times in prior 24 hours	6-11 months who received breastmilk and complementary food at least the minimum recommended number of times per day*	0-11 months who were appropriately fed**	Number of infants aged 0-11 months
Sex	Male	36.7	46.9	57.1	52.0	45.0	159
	Female	42.1	57.2	37.3	47.5	45.3	185
Region	Tafea	65.4	33.3	57.9	47.1	55.0	72
	Shefa	41.2	76.9	30.0	56.5	50.0	54
	Malampa	23.5	50.0	71.4	61.5	40.0	62
	Penama	(46.2)	(62.5)	(57.1)	(60.0)	(53.6)	37
	Sanma	(23.1)	(50.0)	(20.0)	(36.4)	(29.2)	45
	Torba	(*)	(*)	(*)	(*)	(*)	17
	Port Vila	(47.8)	(50.0)	(33.3)	(42.4)	(44.6)	37
	Luganville	(*)	(*)	(*)	(*)	(*)	19
Area	Urban	39.9	42.8	32.0	37.3	38.4	56
	Rural	39.6	54.5	50.1	52.3	46.2	287
Mother's education	None	(32.4)	(21.9)	(70.1)	(64.4)	(46.5)	29
	Primary	43.0	51.4	46.0	48.9	46.3	222
	Secondary	35.4	57.0	34.7	47.4	41.1	92
Wealth index quintiles	Poorest	38.7	62.8	86.6	71.7	53.6	83
	Second	53.8	47.0	73.1	59.2	56.6	84
	Middle	40.7	30.0	20.8	22.9	30.7	66
	Fourth	20.2	63.7	35.3	52.8	39.1	71
	Richest	(41.1)	(34.0)	(32.3)	(33.2)	(36.5)	40
Mother tongue of head	Bislama	(27.7)	(60.9)	(25.1)	(47.8)	(38.9)	33
	Other language	40.8	51.2	48.5	49.8	45.6	311
National		**39.7**	**52.4**	**46.7**	**49.6**	**44.9**	**343**

* MICS indicator 18

** MICS indicator 19

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Salt iodization

Iodine Deficiency Disorder (IDD) is the world's foremost cause of preventable mental retardation and impaired psychomotor development in young children. When it is in its extreme form, iodine deficiency causes cretinism. Iodine deficiency also increases the risks of stillbirth and miscarriage in pregnant women. It is most commonly associated and visible with goiter.

IDD takes its maximum toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability and impaired work performance. The indicator in this regard is the proportion of households consuming adequately iodized salt (≥15 Parts per Million: PPM).

The findings of the survey related to the household consumption of iodized salt are given in table NU.5 and Figure NU.4. In 82 percent of the sample households, salt used for cooking was tested for iodine contents by using salt test kits, testing for the presence of potassium iodate and the test result was recorded accordingly. The findings show that, no salt is available in a very small proportion of the households (10.9% nationally, urban: 4.8% rural: 12.8%). Nearly a quarter (22.9%) of the households consumes salt containing 15 PPM or more iodine and is higher in urban area (43.8%) than rural area (16.4%). Provincial differentials are also there in this regard, as it varies from 5 percent in Penama to 28 percent in Shefa province among rural areas; the highest is in Luganville city, where nearly three-fourth of the households (72.5%) have adequately iodized salt. The data also show that, households in the richest quintiles consume more iodized salt compared to households in the poorest quintiles (49.4% vs. 7.5%).

Figure NU.4 Percentage of households consuming adequately iodized salt, Vanuatu, 2007

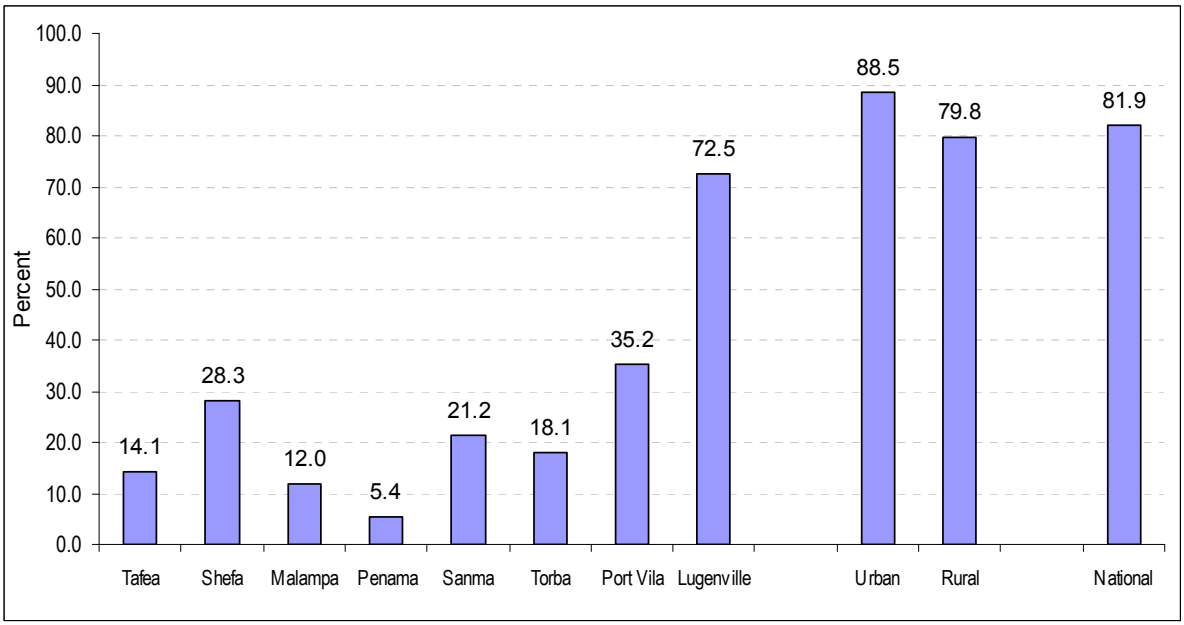


Table NU.5: Iodized salt consumption
Percentage of households consuming adequately iodized salt, Vanuatu, 2007

		Percent of households in which salt was tested	Number of households interviewed	Percent of households with salt test result			Total	Number of households in which salt was tested or with no salt
				Households with no salt	< 15 PPM	15+ PPM*		
Region	Tafea	77.6	339	15.3	70.7	14.1	100.0	310
	Shefa	87.5	367	6.9	64.8	28.3	100.0	345
	Malampa	81.1	475	11.1	76.9	12.0	100.0	433
	Penama	75.6	350	15.2	79.4	5.4	100.0	312
	Sanma	86.2	385	6.1	72.6	21.2	100.0	353
	Torba	43.4	100	52.0	29.9	18.1	100.0	91
	Port Vila	90.2	464	5.4	59.4	35.2	100.0	442
	Luganville	83.5	153	3.0	24.5	72.5	100.0	132
Area	Urban	88.5	617	4.8	51.4	43.8	100.0	574
	Rural	79.8	2015	12.8	70.9	16.4	100.0	1843
Wealth index quintiles	Poorest	72.1	525	21.0	71.5	7.5	100.0	479
	Second	80.4	547	11.3	78.6	10.1	100.0	496
	Middle	81.5	512	10.7	69.4	19.9	100.0	468
	Fourth	84.2	533	8.0	64.7	27.3	100.0	488
	Richest	91.3	514	3.6	47.0	49.4	100.0	486
National		**81.9**	**2632**	**10.9**	**66.3**	**22.9**	**100.0**	**2417**

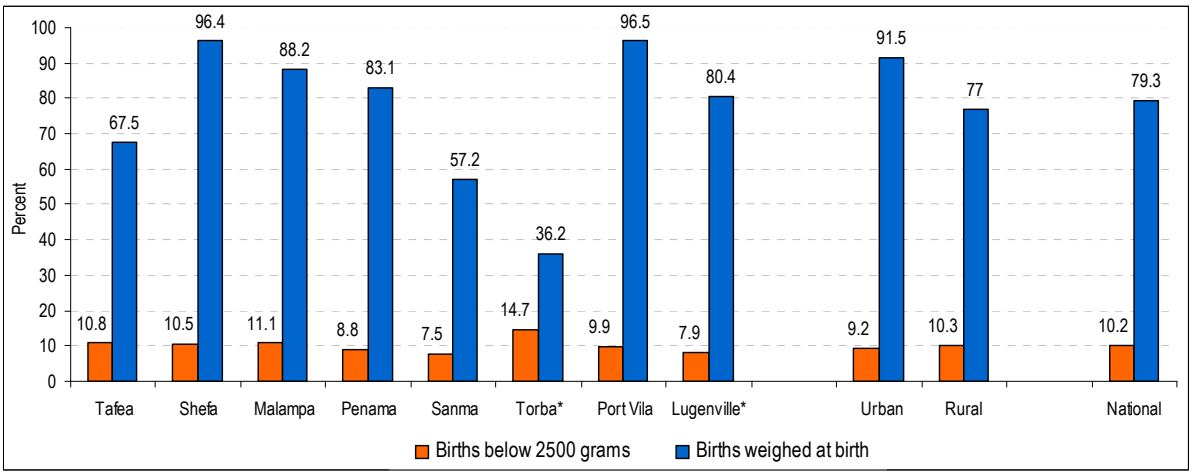
*MICS indicator 41

Low birth weight

Weight at birth is a good indicator not only for mother's health and nutritional status but also for newborn's chances of survival, growth, long-term health and psychosocial development. Because, weight at birth interprets the health and nutritional condition of the newborn and it indicates the future trend. Low birth weight (i.e. birth weight less than 2,500 grams) holds a range of grave health risks for children.

Babies who are undernourished in the mothers' womb usually face a greatly increased risk of dying during the early months and years of their lives. Those who survive are not also out of risk. They often have impaired immune function and increased risk of diseases. LBW infants are more likely to remain undernourished, with reduced muscle strength throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have a lower IQ and cognitive disabilities. It affects their performance in school or learning and in their job opportunities as adults.

Figure NU.5: Live births in the 2 years preceding the survey that weighed below 2500 grams at birth, Vanuatu, 2007



** Figure is based on 25-49 unweighted cases*

In the developing world, LBW stems primarily from the mother's poor health and nutrition. Three factors have been found to influence a newborn to be born with LBW: 1) the mother's poor nutritional status before conception, 2) her short stature (due mostly to poor nutrition and infections during her childhood), and 3) poor nutrition during the pregnancy.

Inadequate weight gain during pregnancy is particularly important since it accounts for a large percentage of foetal growth retardation. Moreover, diseases such as diarrhoea and malaria, which are common in many developing countries, can significantly impair foetal growth if the mother becomes infected while pregnant.

In the industrialized world, smoking during pregnancy is the major cause of LBW. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing run a higher risk of bearing LBW babies than do fully-developed individuals.

One of the major challenges in measuring the incidence of LBW is the fact that more than half of infants in the developing world are not weighed at birth. In the past, most estimates of LBW for developing countries were based on data compiled from health facilities. However, these estimates are

biased in most developing countries because the majority of newborns are not delivered in facilities; those who are born in facilities represent a selected sample of all births that is not representative of the overall population.

Upon this backdrop, the GoV has introduced birth registration system and all children are to be weighed at birth there.

Note that the percentage of births weighing below 2,500 grams is estimated from two items in the questionnaire: the mother's assessment of the child's size at birth (i.e. very small, smaller than average, average, larger than average, very large) and the mother's recall of the child's weight as recorded on a health card if the child was weighed at birth.

Table NU.8 presents the percentage of live births in 2 years preceding the survey that has been weighted as low birth (<2500 mg) according to some selected background characteristics. Nearly 79 percent of the children born in two years preceding the survey were weighed at birth; the proportion is more in urban area (91.5%) than in rural area (77.0%). Substantial provincial variations are noticed in this regard. Slightly over 67 percent to 97 percent children in Tafea, Shefa, Malampa, Penama, Luganville and Port Vila were weighed; while it was 36 to 57 percent in the remaining 2 provinces. Mother's education and household's wealth status show strong positive effect on weighting children at birth. For example, 90 percent of the children having mother with secondary or above level of education were weighted at birth compared to 53 percent with mother having no education.

Among the weighed children, one in ten (10.2%) appeared as low birth weight (<2500 grams) children. No major difference is visible between residential areas (urban: 9.2% and rural: 10.3%). However, slight provincial differences are observed in this regard: 11-15 percent is in Tafea, Shefa, Malampa and below 10 percent is in Penama, Sanma, Port Vila city and Luganville city. Mother's education shows negative effect on low birth weight. Household wealth status (except poorest group) also shows an overall negative effect on low birth weight.

Table NU.8: Low birth weight infants

Percentage of live births in the 2 years preceding the survey that weighed below 2500 grams at birth, Vanuatu, 2007

Background Characteristics		Percent of live births below 2500 grams *	Percent of live births weighed at birth **	Number of live births
Region	Tafea	10.8	67.5	149
	Shefa	10.5	96.4	116
	Malampa	11.1	88.2	162
	Penama	8.8	83.1	90
	Sanma	7.5	57.2	84
	Torba	(14.7)	(36.2)	37
	Port Vila	9.9	96.5	80
	Luganville	(7.9)	(80.4)	36
Area	Urban	9.2	91.5	116
	Rural	10.3	77.0	639
Education	None	11.3	53.2	59
	Primary	10.3	78.0	488
	Secondary +	9.5	89.8	207
	Non-standard curriculum	(*)	(*)	0
Wealth index quintiles	Poorest	9.4	66.1	191
	Second	10.4	80.3	202
	Middle	12.9	77.6	148
	Fourth	8.8	91.2	135
	Richest	8.6	91.2	78
Mother tongue of head	Bislama	9.9	82.9	68
	Other Language	10.2	78.9	686
	Missing	(*)	(*)	0
National		**10.2**	**79.3**	**755**

* MICS Indicator 9

** MICS Indicator 10

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

6. CHILD HEALTH

Immunization

MDG number 4 seeks to reduce child mortality by two thirds from 1990 till 2015. Immunization plays a pivotal role and is a key part of this goal. Immunization has saved lives of millions of children in the past three decades since the launch of the Extended Programme on Immunization (NID) in 1979. Nonetheless, 27 million children worldwide are currently overlooked by routine immunization and consequently vaccine preventable diseases cause more than two million child-deaths every year[4].

The WFFC on immunization expects countries to reach 90 percent coverage nationally in full immunization of children below one year of age against childhood diseases like diphtheria, pertusis, tetanus, polio and measles. Vaccination coverage by age one year is generally assessed by examining children aged 12-23 months.

According to the UNICEF and WHO guidelines, children should receive a BCG vaccination to protect them against tuberculosis, three doses of DPT to protect them against diphtheria, pertusis and tetanus, three doses of polio vaccine, and a measles vaccination by the age of 12 months. Mothers were asked to provide vaccination cards for their under-2 children. Interviewers recorded vaccination information from the cards on to the MICS questionnaire. Where cards were not available, vaccination status was assessed through a structured oral history taken from the mother or caretaker of the child.

The data indicates that only 68 percent of the surveyed under-2 children had vaccination cards. If the child did not have a card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and polio number of times the child received the vaccine. Table CH.1 shows the proportion of children aged 12-23 months who received each of the vaccinations. Only children within that age group - old enough to be fully vaccinated - were counted. In the top panel, the numerator includes all children who were vaccinated at any time before the survey, according to the vaccination card or the mother's recall. In the bottom panel, only those who were vaccinated before their first birthday are included.

BCG vaccination coverage is one key MICS indicator (25). Over 79 percent of children aged 12-23 months received BCG vaccine by the age of 12 months and 74 percent of them received the first dose of DTP (Table CH.1). The proportion declines for subsequent doses of DPT, to 65 percent for the second dose and 58 percent for the third dose. Similarly, 76 percent of children received the first dose of polio vaccination by age 12 months but this declined to 55 percent by the third dose. The coverage for measles vaccination at 12 months was lower than for the other immunizations, at 37 percent.

[4] The Gambia Multiple Indicator Cluster Survey 2005-2006 Report

Figure CH.1: Percentage of Children aged 12-23 months who received the recommended vaccinations by 12 months, Vanuatu, 2007

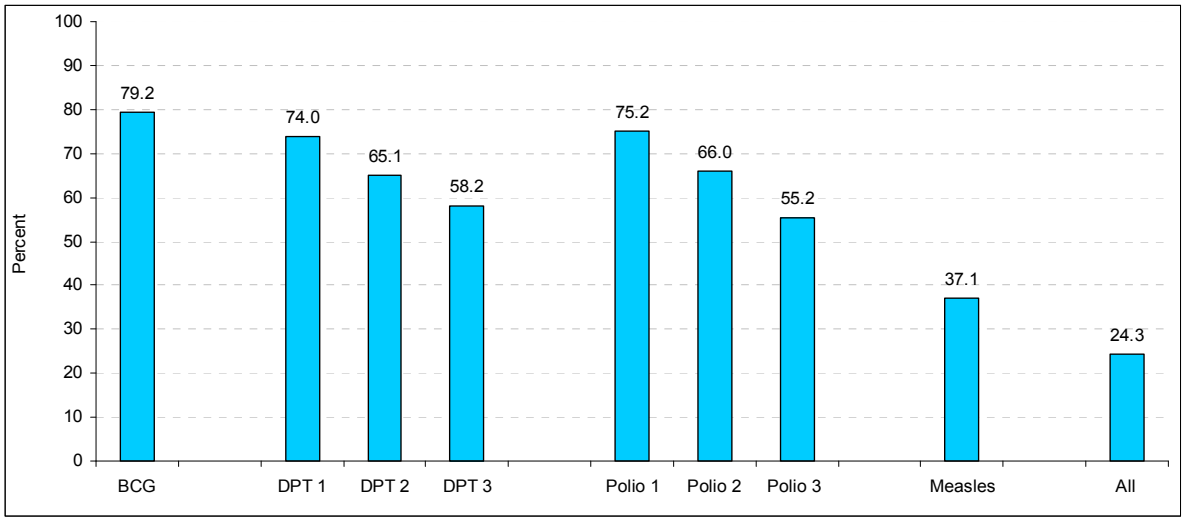


Table CH.1: Vaccinations in first year of life
Percentage of children aged 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Vanuatu, 2007

Background Characteristics	BCG *	DPT 1	DPT 2	DPT 3 **	Polio 1	Polio 2	Polio 3 ***	Measles ****	All *****	None	Number of children aged 12-23 months
Vaccination card	68.0	67.1	60.8	58.1	65.9	62.3	56.7	43.6	38.0	0.0	359
Mother's report	12.6	11.4	9.4	5.3	12.4	9.1	4.4	8.9	3.6	18.0	359
Either	80.6	78.5	70.3	63.4	78.3	71.4	61.1	52.5	41.6	18.0	359
Vaccinated by 12 months of age	79.1	74.3	65.4	58.3	75.5	66.2	55.4	37.2	24.2	18.0	359

* MICS Indicator 25
** MICS Indicator 26
*** MICS Indicator 27
**** MICS Indicator 28 ; MDG Indicator 15
***** MICS Indicator 31

Table CH.1c Vaccinations in first year of life (continued)
Percentage of children aged 12-23 months immunized against childhood diseases at any time before the survey and before the first birthday, Vanuatu, 2007

Background Characteristics	HepB1	HepB2	HepB3*	Number of children aged 12-23 months
Vaccination card	65.8	63.7	59.2	359
Mother's report	0.0	0.0	0.0	359
Either	65.8	63.7	59.2	359
Vaccinated by 12 months of age	65.3	61.0	55.3	359

* MICS Indicator 29

The coverage of DPT3, another MICS indicator, is 58 percent by the age of 12 months. Other two MICS indicators i.e. coverage of polio3 and vaccine for measles to the children by 12 months of age is 55 percent and 37 percent respectively. On the other hand, hepatitis-B3 vaccination coverage is 55 percent (Table CH.1c).

Table CH.2 presents the vaccination coverage rates among children 12-23 months by background characteristics.

42 percent children fully immunized; urban 48%, rural 40%

Overall, 42 percent children 12-23 months of age (urban 48.7% and rural 40.1%) are fully immunized, far below the target of universal immunization. The proportion is slightly higher for girls (44.1%) than boys (39.5%). Provincial variations are visible, ranging from 31 to 57 percent across the provinces; highest in Shefa and the lowest in Sanma.

Table CH.2: Vaccinations by background characteristics
Percentage of children aged 12-23 months currently vaccinated against childhood diseases, Vanuatu, 2007

		BCG	DPT1	DPT2	DPT3	Polio 1	Polio 2	Polio 3	MMR	HepB1	HepB2	HepB3	All	None	Percent with health card	Number of children aged 12-23 months
Sex	Male	79.4	77.5	69.3	63.9	75.5	67.2	56.4	53.1	64.5	61.2	57.2	39.5	19.1	66.9	194
	Female	82.0	79.6	71.5	62.8	81.6	76.3	66.6	51.9	67.3	66.6	61.5	44.1	16.6	71.1	165
Region	Tafea	74.0	74.0	72.0	54.0	74.0	72.0	56.0	48.0	64.0	60.0	52.0	40.0	24.0	66.0	60
	Shefa	83.3	83.3	83.3	83.3	83.3	81.0	81.0	59.5	83.3	83.3	78.6	57.1	16.7	83.3	57
	Malampa	97.1	91.2	79.4	73.5	91.2	82.4	70.6	64.7	70.6	67.6	70.6	41.2	2.9	79.4	70
	Penama	81.1	75.7	62.2	51.4	75.7	64.9	48.6	48.6	40.5	37.8	29.7	35.1	18.9	43.2	49
	Sanma	(76.9)	(73.1)	(53.8)	(50.0)	(73.1)	(57.7)	(42.3)	(42.3)	(69.2)	(65.4)	(57.7)	(30.8)	(19.2)	(69.2)	48
	Torba	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
	Port Vila	(73.2)	(73.2)	(71.8)	(70.4)	(71.8)	(70.4)	(67.6)	(50.7)	(64.8)	(64.8)	(62.0)	(49.3)	(26.8)	(64.8)	47
	Luganville	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16
Area	Urban	73.0	73.0	71.4	69.3	70.9	69.3	66.7	50.3	65.6	66.2	63.5	48.7	27.0	66.2	63
	Rural	82.2	79.6	70.1	62.1	79.9	71.8	59.9	53.0	65.8	63.1	58.2	40.1	16.1	69.4	296
Mother's education	None	(67.5)	(56.4)	(41.4)	(36.6)	(67.5)	(52.6)	(40.8)	(27.9)	(49.4)	(42.5)	(32.8)	(26.8)	(32.5)	(57.4)	32
	Primary	81.1	79.8	70.1	63.6	77.0	68.6	58.5	57.9	64.1	62.2	58.5	43.1	17.2	68.0	223
	Secondary	83.5	82.4	79.8	71.2	84.3	83.0	72.8	48.6	74.2	73.1	68.6	42.9	15.4	74.2	105
Wealth index quintiles	Poorest	82.8	78.8	59.4	46.0	80.5	69.1	49.2	40.9	55.8	53.9	45.0	25.6	15.9	65.3	80
	Second	84.4	81.4	76.7	70.6	83.3	76.7	67.4	63.5	70.3	66.3	66.3	50.5	12.7	71.4	97
	Middle	76.5	77.7	66.3	63.6	72.6	65.9	55.6	52.3	62.8	61.0	56.7	41.2	21.9	65.7	73
	Fourth	83.8	80.2	79.7	71.3	81.0	75.3	69.1	51.9	75.3	73.5	65.5	43.0	16.2	75.3	66
	Richest	(70.0)	(70.0)	(68.5)	(66.9)	(68.4)	(66.9)	(66.1)	(50.7)	(64.6)	(65.4)	(63.9)	(49.9)	(30.0)	(65.4)	43
Mother tongue of head	Bislama	(71.1)	(71.1)	(70.1)	(70.1)	(69.1)	(69.1)	(66.0)	(46.9)	(68.1)	(68.1)	(68.1)	(44.9)	(28.9)	(68.1)	33
	Other Language	81.6	79.2	70.3	62.7	79.2	71.6	60.6	53.1	65.6	63.2	58.3	41.3	16.9	68.9	326
National		**80.6**	**78.5**	**70.3**	**63.4**	**78.3**	**71.4**	**61.1**	**52.5**	**65.8**	**63.7**	**59.2**	**41.6**	**18.0**	**68.9**	**359**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Tetanus Toxoid

The MDG expects countries to reduce their maternal mortality ratio by three quarters between 1990 and 2015. One of the strategies to achieve this goal is to eliminate the incidence of maternal tetanus. The WFFC also set to eliminate both maternal and neonatal tetanus by 2005. Prevention of maternal and neonatal tetanus requires that all pregnant women receive at least two doses of tetanus toxoid vaccines. However, if women have not received two doses of the vaccine during their pregnancy, they (and their newborn) are still considered protected under the following conditions:

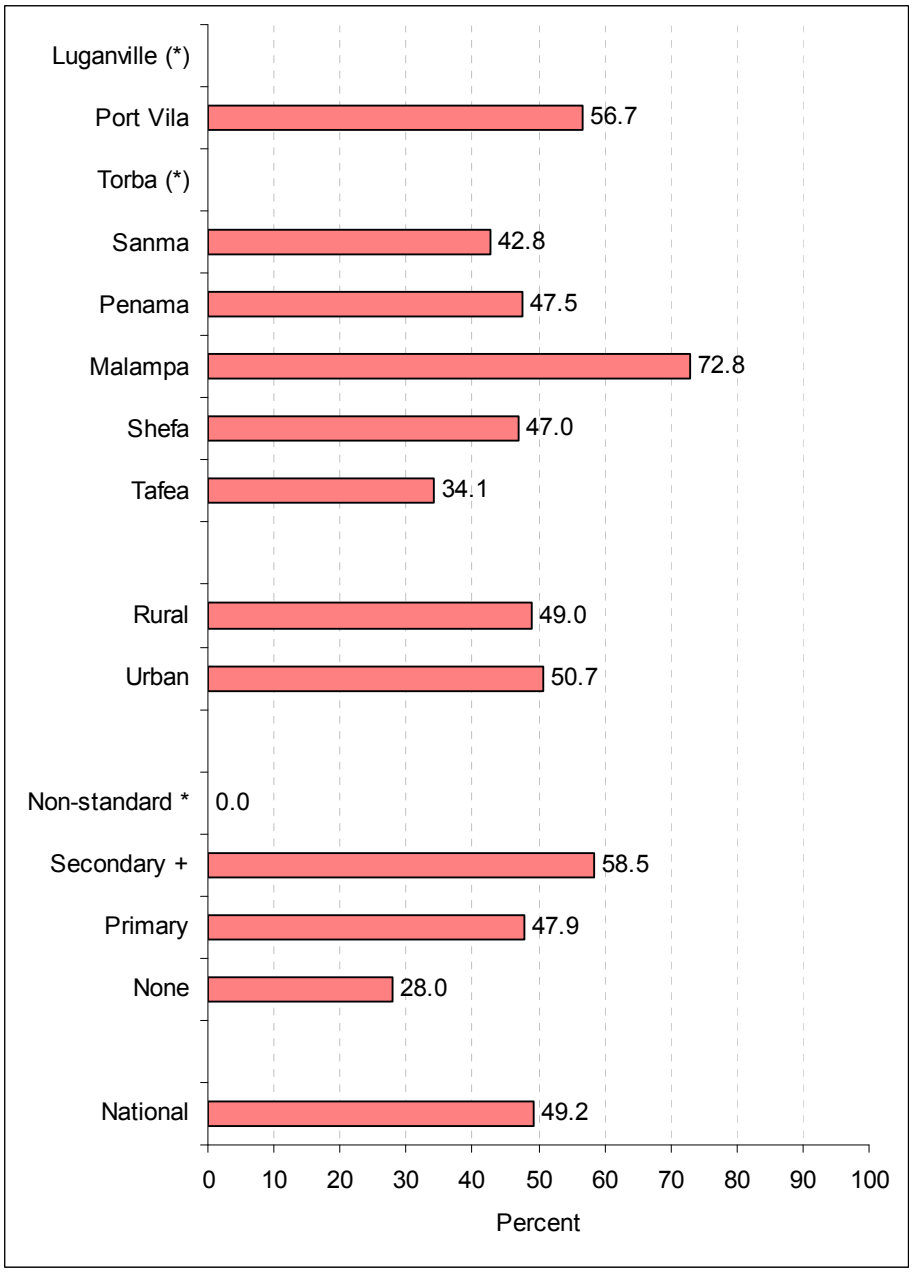
- Received at least two doses of tetanus toxoid vaccine, the last within three years prior to the interview;
- Received at least three doses, the last within the prior five years;
- Received at least four doses, the last within ten years;
- Received at least five doses up to the present.

Table CH.3 shows the proportion of mothers those are protected against neonatal tetanus. It is observed that nearly half (49.2%) of the mothers with a birth in 24 months preceding the survey are protected against neonatal tetanus. There is little urban-rural variation in neonatal tetanus coverage (50.7% vs. 49.0%). Mothers in Malampa, Port Vila, Shefa and Penama are more likely to be protected than mothers in other provinces. The rate of being protected is more among the mothers with primary to secondary education than those with no education. However, no specific trend exists among wealth quintiles. Mother's age also do not show any consistent pattern of variation.

49% protected; urban: 51%, rural: 49%

Among the mothers being protected, about 39 percent received at least two doses of tetanus toxoid during last pregnancy. The rate is higher for urban mothers than that of rural (41.7% vs. 38.5%). The rate also varies across the provinces: lowest in Torba (18.7%) and the highest in Malampa (56.2%). Only 10 percent mothers (urban: 8.9%, rural: 10.0%) received two doses within three years prior to the survey. This is over 18 percent in Penama, the highest and only 3 percent in Shefa, the lowest, across the provinces. Mothers' education shows strong positive effect on receiving at least two doses of TT during last pregnancy. Richest women are more likely to receive at least two does of TT during last pregnancy than the poorest women (42.6% vs. 35.1%).

Figure CH.2: Percentage of women with a live birth in the last 24 months who are protected against neonatal tetanus, Vanuatu, 2007



(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
** Figure is based on 25-49 unweighted cases*

Table CH.3: Neonatal tetanus protection
Percentage of mothers with a birth in the last 24 months protected against neonatal tetanus, Vanuatu, 2007

Background Characteristics		Received at least 2 doses during last pregnancy	Received at least 2 doses, the last within prior 3 years	Received at least 3 doses, the last within 5 years	Received at least 4 doses, the last within 10 years	Received at least 5 doses during lifetime	Protected against tetanus *	Number of mothers
Region	Tafea	28.4	5.7	0.0	0.0	0.0	34.1	149
	Shefa	43.6	3.4	0.0	0.0	0.0	47.0	116
	Malampa	56.2	14.9	1.8	0.0	0.0	72.8	162
	Penama	29.5	18.1	0.0	0.0	0.0	47.5	90
	Sanma	33.7	9.1	0.0	0.0	0.0	42.8	84
	Torba	(18.7)	(8.6)	(0.0)	(0.0)	(1.2)	(28.6)	37
	Port Vila	46.1	10.6	0.0	0.0	0.0	56.7	80
	Luganville	(32.0)	(5.1)	(0.0)	(0.0)	(0.0)	(37.2)	36
Area	Urban	41.7	8.9	0.0	0.0	0.0	50.7	116
	Rural	38.5	10.0	0.5	0.0	0.1	49.0	639
Age	15-19	30.2	8.5	0.0	0.0	0.8	39.5	58
	20-24	42.6	8.6	1.0	0.0	0.0	52.1	291
	25-29	44.6	6.8	0.0	0.0	0.0	51.4	166
	30-34	34.1	14.1	0.0	0.0	0.0	48.1	119
	35-39	34.4	13.4	0.0	0.0	0.0	47.8	85
	40-44	(*)	(*)	(*)	(*)	(*)	(*)	24
	45-49	(*)	(*)	(*)	(*)	(*)	(*)	11
Education	None	22.5	4.7	0.0	0.0	0.8	28.0	59
	Primary	37.7	10.2	0.0	0.0	0.0	47.9	488
	Secondary +	46.8	10.4	1.4	0.0	0.0	58.5	207
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	0
Wealth index quintiles	Poorest	35.1	7.4	0.0	0.0	0.0	42.5	191
	Second	44.3	12.0	1.4	0.0	0.2	58.0	202
	Middle	35.5	11.8	0.0	0.0	0.0	47.3	148
	Fourth	38.2	7.7	0.0	0.0	0.0	45.9	135
	Richest	42.6	10.0	0.0	0.0	0.0	52.5	78
Mother tongue of head	Bislama	30.9	6.5	4.2	0.0	0.0	41.7	68
	Other Language	39.8	10.1	0.0	0.0	0.1	50.0	686
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	0
National		**39.0**	**9.8**	**0.4**	**0.0**	**0.1**	**49.2**	**755**

* MICS Indicator 32
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Diarrhoea

Worldwide, diarrhoea is one of the leading causes of death among under-five children. The MICS-3 in Vanuatu collected information on diarrhoea among under-five children from the mothers or caretakers of the children. Mothers or caretakers were asked to report whether their children had had diarrhoea in two weeks prior to the survey. If affected, the mothers or caretakers were asked some more questions about the treatment that was given to the attacked children, drinks and food taken during the episode and it's volume in comparison to that the children has taken usually.

Diarrhoea 13.8%; urban: 13%, rural: 14%, for 6-11 month children: 22.7%

Table CH.4 shows the prevalence of diarrhoea among children below five years of age and use rate of oral rehydration therapy (ORT). The data indicate quite high prevalence of diarrhoea among the under-five children, as one in every 7 (13.8%) under-five children had diarrhoea in the two weeks before the survey, with little urban-rural differentials (12.8% vs. 14.1%). Male children have slightly higher prevalence of diarrhoea than female children (14.4% vs. 13.3%). The prevalence of childhood diarrhoea varies widely across the provinces. The rate is comparatively high in Shefa (20.1%) and Sanma (18.2%) compared to other provinces (7.1%-14.2%). The prevalence of diarrhoea is the lowest among the children aged less than 6 months (6.1%), reaches at its peak of 23 percent at the age of 6-11 months – a period of initiation of complementary feeding and the weaning – and then start declining. The higher prevalence of diarrhoea among the children aged 6-11 months and 12-35 months is mainly due to the fact that at these ages children receive breastmilk along with complementary foods with the risks of contamination in it. Education of mother and wealth quintiles shows no consistent pattern of relationship with diarrhoea prevalence.

Oral Rehydration Treatment

Diarrhoea causes death mainly because it leads to dehydration from loss of large quantities of fluids and electrolytes from the body in watery stool. Home management of diarrhoea, through oral rehydration salt (ORS) or recommended home fluid (RHF) can prevent such deaths to a great extent. Also, prevention of dehydration and malnutrition by increasing fluid intake and continuing to feed the attacked child are important strategies for managing diarrhoea.

One of the WFFC goals is to reduce by half the deaths due to diarrhoea among under-five children by 2010 compared to 2000. Similarly, one MDG is to reduce by two-thirds the mortality rate among same aged children by 2015 compared to 1990. Besides, WFFC seeks to reduce the incidence of diarrhoea by 25 percent.

In this regard, the indicators are:

- Prevalence of diarrhoea,
- Oral rehydration therapy,
- Home management of diarrhoea,
- ORT or increased fluids and continued feeding.

Received ORT: 54%, ORS: 23%, Homemade fluid: 38%; No treatment: 46%

The Table CH.4 provides the ORT use rate among under-five children who had diarrhoea in two weeks preceding the survey. Over half (53.7%) of the children with diarrhoea received ORT, while 46 percent of the children with diarrhoea received no treatment. Male children are more likely to receive ORT than female children (55.2% vs. 52.0%). No major variations are visible between urban and rural areas (54.9% vs. 53.4%). However, differentials regarding ORT rate are observed across the provinces; lowest in Shefa (44.4%) and the highest in Malampa (75.0%), though proportion cannot be calculated due to small sample in some of the provinces and cities. However, wealth quintiles show no consistent patterns of variation of ORT use rate.

Table CH.4: Oral rehydration treatment

Percentage of aged 0-59 months with diarrhoea in the last two weeks and treatment with oral rehydration solution (ORS) or other oral rehydration treatment (ORT), Vanuatu, 2007

Background Characteristics		Had diarrhoea in last two weeks	Number of children aged 0-59 months	Fluid from ORS packet	Recommended homemade fluid	No treatment	ORT use rate *	Number of children aged 0-59 months with diarrhoea
Sex	Male	14.4	849	25.9	38.1	44.8	55.2	122
	Female	13.3	785	20.1	37.1	48.0	52.0	104
Region	Tafea	7.1	287	(*)	(*)	(*)	(*)	20
	Shefa	20.1	243	(13.9)	(38.9)	(55.6)	(44.4)	49
	Malampa	13.7	300	(25.0)	(60.0)	(25.0)	(75.0)	41
	Penama	13.4	199	(25.0)	(40.0)	(40.0)	(60.0)	27
	Sanma	18.2	225	(36.4)	(13.6)	(54.5)	(45.5)	41
	Torba	12.3	68	(*)	(*)	(*)	(*)	8
	Port Vila	12.3	227	(19.0)	(50.0)	(40.5)	(59.5)	28
	Luganville	14.2	86	(*)	(*)	(*)	(*)	12
Area	Urban	12.8	312	(22.5)	(41.6)	(45.1)	(54.9)	40
	Rural	14.1	1322	23.4	36.8	46.6	53.4	186
Age	< 6 months	6.1	161	(*)	(*)	(*)	(*)	10
	6-11 months	22.7	182	(30.8)	(30.4)	(51.6)	(48.4)	41
	12-23 months	18.5	359	27.2	39.3	41.9	58.1	66
	24-35 months	12.5	342	(15.0)	(43.4)	(47.1)	(52.9)	43
	36-47 months	12.1	324	(20.6)	(40.6)	(41.3)	(58.7)	39
	48-59 months	10.2	265	(11.3)	(33.0)	(58.1)	(41.9)	27
Mother's education	None	6.9	140	(*)	(*)	(*)	(*)	10
	Primary	14.9	1031	24.1	41.2	42.7	57.3	153
	Secondary	13.8	459	21.8	32.2	52.3	47.7	63
	Non-standard curriculum	(*)	3	.	.	.	.	0
	Missing/DK	(*)	1	.	.	.	.	0
Wealth index quintiles	Poorest	11.4	367	(22.0)	(35.8)	(50.3)	(49.7)	42
	Second	15.9	383	23.1	36.3	45.0	55.0	61
	Middle	10.7	328	(18.9)	(41.6)	(51.6)	(48.4)	35
	Fourth	18.8	302	28.7	32.5	44.4	55.6	57
	Richest	12.5	254	(20.0)	(47.4)	(41.0)	(59.0)	32
Mother tongue of head	Bislama	13.7	179	(15.0)	(39.7)	(48.1)	(51.9)	25
	Other Language	13.8	1452	23.5	37.8	46.5	53.5	200
	Missing	(*)	3	(*)	(*)	(*)	(*)	2
National		**13.8**	**1634**	**23.2**	**37.7**	**46.3**	**53.7**	**226**

* MICS Indicator 33

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Table CH.5 presents the information about home management of diarrhoea by selected background characteristics. Overall, 16 percent of the diarrhoeal cases are managed at home during the episode (urban: 19.2%, rural: 15.8%). On the other hand, 43 percent children received ORT or increased fluids and continued food (urban 44.9% and rural 42.7%). Province wise, 60 percent of them received such treatment and continued normal food in Malampa and Penama, followed by Shefa (38.9%) and Sanma (27.3%). Higher ORT or increased fluid use rate was found by mothers with secondary or higher level of education. But wealth quintiles show no specific patterns in this regard.

Children given ORT or increased fluid; urban 44.9%, rural 42.7%

More fluid should be given to children during diarrhoeal episode. But only a quarter (26.1%) children were given more fluids than usual (urban 29.2% and rural 25.4%) during diarrhoeal episode (Table CH.5). Over two-thirds (70.8%) children took the same or less amount of fluid (urban 65.8% and rural 71.9%). In over two-third (69.1%) cases, no change during this time is reported regarding children's dietary and fluid intake, while in 31 percent cases (urban: 32.5%, rural: 30.4%) they did eat much less or nothing during this episode.

Table CH.5: Home management of diarrhoea

Percentage of children aged 0-59 months with diarrhoea in the last two weeks who took increased fluids and continued to feed during the episode, Vanuatu, 2007

Background Characteristics		Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who drank more	Children with diarrhoea who drank the same or less	Children with diarrhoea who ate somewhat less, same or more	Children with diarrhoea who ate much less or none	Home management of diarrhoea *	Received ORT or increased fluids and continued feeding **	Number of children aged 0-59 months with diarrhoea
Sex	Male	14.4	849	27.7	67.6	71.1	28.7	18.5	49.9	122
	Female	13.3	785	24.1	74.6	66.8	33.2	14.1	35.1	104
Region	Tafea	7.1	287	(*)	(*)	(*)	(*)	(*)	(*)	20
	Shefa	20.1	243	(8.3)	(91.7)	(91.7)	(8.3)	(8.3)	(38.9)	49
	Malampa	13.7	300	(35.0)	(65.0)	(80.0)	(20.0)	(25.0)	(60.0)	41
	Penama	13.4	199	(25.0)	(70.0)	(80.0)	(20.0)	(20.0)	(60.0)	27
	Sanma	18.2	225	(45.5)	(50.0)	(31.8)	(68.2)	(18.2)	(27.3)	41
	Torba	12.3	68	(*)	(*)	(*)	(*)	(*)	(*)	8
	Port Vila	12.3	227	(28.6)	(66.7)	(66.7)	(33.3)	(16.7)	(50.0)	28
	Luganville	14.2	86	(*)	(*)	(*)	(*)	(*)	(*)	12
Area	Urban	12.8	312	(29.2)	(65.8)	(66.7)	(32.5)	(19.2)	(44.9)	40
	Rural	14.1	1322	25.4	71.9	69.6	30.4	15.8	42.7	186
Age	0-11 months	14.9	343	16.9	79.4	62.0	38.0	9.6	36.4	51
	12-23 months	18.5	359	24.0	72.7	64.8	35.2	12.8	40.8	66
	24-35 months	12.5	342	(28.8)	(65.7)	(87.3)	(11.9)	(27.3)	(67.1)	43
	36-47 months	12.1	324	(29.7)	(70.3)	(68.1)	(31.9)	(17.2)	(38.4)	39
	48-59 months	10.2	265	(37.9)	(59.6)	(65.3)	(34.7)	(19.0)	(29.2)	27
Mother's education	None	6.9	140	(*)	(*)	(*)	(*)	(*)	(*)	10
	Primary	14.9	1031	24.1	71.6	66.4	33.4	17	41.5	153
	Secondary	13.8	459	31.9	68.1	77.9	22.1	17.6	50.9	63
	Non-standard curriculum	(*)	3	.	.	.	.	.	.	0
	Missing/DK	(*)	1	.	.	.	.	.	.	0
Wealth index quintiles	Poorest	11.4	367	(26.9)	(67.0)	(65.0)	(35.0)	(17.5)	(38.2)	42
	Second	15.9	383	25.3	74.7	67.5	32.5	11.2	50.5	61
	Middle	10.7	328	(30.9)	(67.2)	(64.1)	(35.9)	(19.8)	(31.3)	35
	Fourth	18.8	302	23.7	73.0	74.9	25.1	19.6	40.6	57
	Richest	12.5	254	(25.2)	(68.5)	(72.7)	(26.2)	(15.7)	(52.7)	32
Mother tongue of head	Bislama	13.7	179	(32.8)	(61.7)	(70.7)	(28.0)	(15.8)	(42.4)	25
	Other Language	13.8	1452	24.5	72.6	68.6	31.4	15.7	42.6	200
	Missing	(*)	3	(*)	(*)	(*)	(*)	(*)	(*)	2
National		**13.8**	**1634**	**26.1**	**70.8**	**69.1**	**30.7**	**16.4**	**43.1**	**226**

* MICS indicator 34 ** MICS indicator 35

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Care Seeking and Antibiotic Treatment of Pneumonia

Pneumonia is another leading cause of death of children below 5 years of age. Use of antibiotic for children with suspected pneumonia is a key intervention against such child death. Children with suspected pneumonia are those who have an illness with a cough, accompanied by rapid or difficult breathing and whose symptoms are not due to a problem in the chest or a blocked nose.

One of the WFFC goals is to reduce the deaths due to acute respiratory infection (ARI) by one third. In this regard, the indicators are:

- Prevalence of suspected pneumonia,
- Care seeking for suspected pneumonia,
- Antibiotic treatment for suspected pneumonia,
- Knowledge of the danger signs of the pneumonia.

About 3 percent children reportedly had some symptoms of ARI in two weeks preceding the survey (Table CH.6). The data indicate that only 48 percent children with suspected pneumonia got antibiotic treatment (table not shown); of them 63 percent received the treatment from an appropriate provider (Govt. hospital, Govt. health center or health post), which is little lower among children of mothers with primary school education (52.8%). However, the figures to be considered cautiously because of small number of cases of suspected pneumonia (only 47 cases).

Mother's knowledge of the danger signs of pneumonia is an important factor to decide when to take the child to appropriate health care facility or to a health provider. The data reveal that, only 8 percent of them correctly identified and mentioned two danger signs in this regard e.g. fast and difficult breathing (higher for urban mothers: 10.2%, compared with rural mothers: 7.0%). Also, there was a wide variation among the provinces ranging from zero percent in Malampa to 21 percent in Shefa (Table CH.7A). Mother's education and wealth status have strong positive correlation with knowledge of the danger signs of pneumonia.

Only 8% mothers know 2 signs; urban 10%, rural 7%

Majority mothers (nationally 72.3%, urban: 66.6% and rural: 73.6%) reported that, fever is a symptom of pneumonia and is a sign of seeking treatment in an appropriate health care facility. However, 23 percent mothers (urban: 26.7%, rural: 22.2%) identified fast breathing and 16 percent (urban: 18.1%, rural: 15.1%) identified difficult breathing as the symptoms of pneumonia (Table CH.7A).

Table CH.6: Care seeking for suspected pneumonia
Percentage of children aged 0-59 months in the last two weeks taken to a health provider, Vanuatu, 2007

Background Characteristics		Had acute respiratory infection	Number of children aged 0-59 months
Sex	Male	2.7	849
	Female	3.1	785
Region	Tafea	0.8	287
	Shefa	3.4	243
	Malampa	4.1	300
	Penama	2.0	199
	Sanma	5.0	225
	Torba	3.0	68
	Port Vila	2.3	227
	Luganville	2.0	86
Area	Urban	2.2	312
	Rural	3.0	1322
Age	0-11 months	2.4	343
	12-23 months	3.1	359
	24-35 months	2.7	342
	36-47 months	4.2	324
	48-59 months	1.8	265
Mother's education	None	0.0	140
	Primary	3.0	1031
	Secondary	3.4	459
	Non-standard curriculum	(*)	3
	Missing/DK	(*)	1
Wealth index quintiles	Poorest	2.9	367
	Second	2.8	383
	Middle	2.4	328
	Fourth	4.2	302
	Richest	1.9	254
Mother tongue of head	Bislama	2.0	179
	Other Language	3.0	1452
	Missing	(*)	3
National		2.9	1634

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Table CH.7A: Knowledge of the two danger signs of pneumonia
Percentage of mothers/caretakers of children aged 0-59 months by knowledge of types of symptoms for taking a child immediately to a health facility, and percentage of mothers/caretakers who recognize fast and difficult breathing as signs for seeking care immediately, Vanuatu, 2007

Background Characteristics		Percentage of mother/caretakers of children aged 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/caretakers who recognize the two danger signs of pneumonia	Number of mothers/caretakers of children aged 0-59 months
		Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficulty breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Region	Tafea	13.3	53.8	70.4	11.7	11.7	2.1	15.0	10.4	2.9	287
	Shefa	6.1	14.5	54.7	71.5	32.4	2.2	5.0	9.5	21.2	243
	Malampa	2.1	25.3	69.2	0.7	2.1	0.7	0.7	43.2	0.0	300
	Penama	19.5	53.7	85.2	13.4	16.1	1.3	12.8	42.3	4.7	199
	Sanma	13.2	19.8	89.3	16.5	13.2	1.7	17.4	19.8	5.0	225
	Torba	13.3	37.4	88.2	30.5	28.1	10.3	6.9	27.1	17.7	68
	Port Vila	8.2	48.0	62.3	30.4	19.9	3.5	9.4	19.9	11.7	227
	Luganville	20.1	28.7	78.0	16.9	13.4	5.1	13.4	28.0	6.3	86
Area	Urban	11.4	42.7	66.6	26.7	18.1	4.0	10.5	22.1	10.2	312
	Rural	10.4	33.5	73.6	22.2	15.1	2.0	9.6	24.9	7.0	1322
Mother's education	None	13.5	45.9	78	18.9	10.9	3.4	12.6	12.2	3.6	140
	Primary	9.6	31.5	72.2	23.1	16.6	1.6	10.9	24.5	7.7	1031
	Secondary	12.0	40.0	70.3	24.2	14.7	4.0	6.3	28.0	8.5	459
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
	Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index quintiles	Poorest	9.6	35.1	72.5	14.1	12.3	2.1	8.8	18.9	3.5	367
	Second	12.1	38.4	75.7	18.2	12.8	2.2	11.8	29.4	6.0	383
	Middle	9.2	31.0	76.6	26.0	16.4	1.9	9.9	25.2	8.0	328
	Fourth	11.1	31.0	65.4	32.3	18.1	2.6	6.1	25.4	11.0	302
	Richest	10.8	41.3	69.3	28.8	21.0	3.4	12.1	22.5	11.5	254
Mother tongue of head	Bislama	9.9	40.0	73.4	22.5	14.7	5.3	11.8	24.1	6.0	179
	Other Language	10.7	34.7	72.1	23.2	15.8	2.1	9.5	24.3	7.8	1452
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
National		**10.6**	**35.2**	**72.3**	**23.1**	**15.7**	**2.4**	**9.7**	**24.4**	**7.6**	**1634**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Solid Fuel Use

Over three billion people around the world rely on solid fuel i.e. biomass and coal to address their basic energy need including cooking and heating. But cooking or heating with solid fuel creates high level of indoor smoke, a complex mix of health hazardous pollutants.

The major problem with the use of solid fuel is products of incomplete combustion; carbon mono-oxide (CO), poly-aromatic hydrocarbons, sulfur dioxide (SO_2) and other toxic elements. Use of such fuel increases the risks of acute respiratory illness, pneumonia, chronic obstructive lung diseases, cancer and tuberculosis, low birth weight, cataracts and asthma. Here the indicator is the proportion of the population using solid fuel as the primary source of domestic energy for cooking.

The data in Table CH.8 shows an overwhelming reliance on solid fuel by the people in Vanuatu, as the majority (85.1%) of the sample households use solid fuel for cooking, mostly wood (64.5%) followed by straw/shrub/grass (20.0%). The rate of solid fuel use is much higher in the rural area (95.2%) compared to the urban area (52.2%). The rate is also very high across the provinces (88.6-99.3%); though comparatively low in Port Vila city (47.4%) and Luganville city (66.7%). By background characteristics the rate is higher in the households with less educated household heads and in the poorer section of the population.

Overall, 12 percent of the households use LPG as fuel. About 44 percent of the urban households compared to only 3 percent of the rural households are using LPG as fuel. This proportion is higher in Port Vila (48.2%), followed by Luganville (30.7%) and very low (less than one percent) in Torba, Tafea and Penama. As expected, the richest households are more likely to use LPG than the poorer households (Table CH.8).

Solid fuel use caused indoor air pollution. However, the concentration of the pollutants depends on where it is burned - in a fire or in different types of stoves. A closed stove with a chimney minimizes the indoor pollution, while an open stove or fire with no chimney or hood means that there is no protection from the harmful effects of solid fuels. Table CH.9 shows a very high proportion of households (93.8%) were using an open stove or fire with no chimney or hood for their cooking purposes. Only 6 percent of the surveyed households used a open stove with a chimney. Use of closed stove with a chimney was found almost nil in Vanuatu.

Table CH.8: Solid fuel use

Percent distribution of households according to type of cooking fuel, and percentage of households using solid fuels for cooking, Vanuatu, 2007

Background Characteristics		Type of fuel using for cooking							Total	Solid fuels for cooking *	Number of households
		Electricity	LPG	Kerosene	Charcoal	Wood	Straw / shrubs /grass	Missing			
Region	Tafea	1.8	0.7	8.8	0.0	67.3	21.3	0.0	100.0	88.6	339
	Shefa	0.4	7.6	0.0	0.0	92.0	0.0	0.0	100.0	92.0	367
	Malampa	0.0	1.3	0.0	0.0	39.5	58.3	0.9	100.0	97.8	475
	Penama	0.0	0.8	0.0	0.4	93.2	5.6	0.0	100.0	99.2	350
	Sanma	0.5	3.1	0.0	0.5	74.9	20.5	0.5	100.0	95.9	385
	Torba	0.0	0.4	0.4	0.7	80.8	17.8	0.0	100.0	99.3	100
	Port Vila	2.3	48.2	1.5	1.9	37.9	7.6	0.6	100.0	47.4	464
	Luganville	1.3	30.7	0.0	0.9	48.9	17.0	1.3	100.0	66.7	153
Area	Urban	2.1	43.8	1.1	1.6	40.7	9.9	0.8	100.0	52.2	617
	Rural	0.5	2.6	1.5	0.2	71.9	23.1	0.3	100.0	95.2	2015
Education of household head	None	0.4	2.0	2.8	0.5	67.8	25.7	0.7	100.0	94.0	332
	Primary	0.4	5.6	1.5	0.5	70.3	21.3	0.3	100.0	92.1	1470
	Secondary +	2.1	30.6	0.8	0.7	50.6	14.7	0.5	100.0	66.1	723
	Non-standard	(0.0)	(12.8)	(0.0)	(0.0)	(58.7)	(28.5)	(0.0)	(100.0)	(87.2)	35
	Missing/DK	0.0	9.8	0.0	0.0	74.5	15.7	0.0	100.0	90.2	73
Wealth index quintiles	Poorest	0.0	0.0	1.7	0.0	74.3	24.0	0.0	100.0	98.3	525
	Second	0.0	0.0	2.3	0.4	70.6	26.7	0.0	100.0	97.7	547
	Middle	0.2	0.5	2.0	0.4	72.3	23.8	0.8	100.0	96.5	512
	Fourth	0.8	4.5	0.7	0.3	75.0	17.9	0.7	100.0	93.3	533
	Richest	3.3	57.5	0.4	1.6	29.4	7.2	0.6	100.0	38.2	514
Mother tongue of head	Bislama	3.6	31.2	1.8	1.5	48.4	13.5	0.1	100.0	63.4	364
	Other Language	0.4	9.2	1.4	0.4	67.3	21.1	0.2	100.0	88.8	2261
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	7
National		**0.9**	**12.2**	**1.4**	**0.5**	**64.5**	**20.0**	**0.4**	**100.0**	**85.1**	**2632**

* MICS indicator 24; MDG indicator 29

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Table CH.9: Solid fuel use by type of stove or fire

Percentage of households using solid fuels for cooking by type of stove or fire, Vanuatu, 2007

Background Characteristics		Percentage of households using solid fuels for cooking:				Total	Number of households using solid fuels for cooking
		Closed stove with chimney	Open stove or fire with chimney or hood	Open stove or fire with no chimney or hood	DK stove type/ missing		
Region	Tafea	0.0	0.4	99.6	0.0	100.0	300
	Shefa	0.0	2.9	97.1	0.0	100.0	338
	Malampa	0.0	16.1	83.9	0.0	100.0	464
	Penama	0.0	2.0	97.6	0.4	100.0	347
	Sanma	0.0	2.1	97.9	0.0	100.0	369
	Torba	0.4	14.3	85.3	0.0	100.0	99
	Port Vila	0.0	6.2	93.5	0.3	100.0	220
	Luganville	0.3	6.8	92.2	0.7	100.0	102
Area	Urban	0.1	6.4	93.1	0.4	100.0	322
	Rural	0.0	6.0	93.9	0.1	100.0	1917
Education of household head	None	0.0	3.0	97.0	0.0	100.0	312
	Primary	0.0	5.6	94.2	0.1	100.0	1354
	Secondary +	0.1	8.8	90.9	0.2	100.0	478
	Non-standard	(0.0)	(6.9)	(93.1)	(0.0)	(100.0)	30
	Missing/DK	0.0	9.5	90.5	0.0	100.0	65
Wealth index quintiles	Poorest	0.0	6.2	93.5	0.3	100.0	517
	Second	0.0	7.3	92.7	0.0	100.0	535
	Middle	0.1	3.9	96.0	0.0	100.0	494
	Fourth	0.0	6.5	93.4	0.1	100.0	497
	Richest	0.2	6.6	92.9	0.3	100.0	196
Mother tongue of head	Bislama	0.1	4.3	95.2	0.3	100.0	230
	Other Language	0.0	6.3	93.6	0.1	100.0	2009
	Missing	(*)	(*)	(*)	(*)	(100.0)	0
National		**0.0**	**6.1**	**93.8**	**0.1**	**100.0**	**2240**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Malaria

93% correctly identified main cause of malaria (i.e. mosquito bite); (urban: 98% and rural: 91.5%)

Malaria is a health hazard and one of the main causes of death of under-five children in Vanuatu. Malaria causes anaemia in children and it is a common cause of school absenteeism. Preventive measures like use of mosquito net treated with insecticide can reduce malaria mortality rate to great extent among young children. International recommendations suggest that in an area where malaria is common, any fever in children should be treated as if it were malaria and a full course of recommended anti-malarial tablets should be given to the affected child without delay. Children with symptoms of severe malaria like fever or convulsion etc. should be taken to a health facility. Such children should be provided with additional liquids and foods and continuous breastfeeding for younger children.

The survey provides information on the respondents' knowledge and source of knowledge about malaria, questions on availability and use of bed-net, both at household level and among children (<5 years). Besides, it includes questions related to anti-malarial treatment of the affected.

Overwhelming majority of the households (overall: 86.5%, urban: 89.0%, rural: 85.7%) were reportedly using mosquito net for safety from mosquito bites. There are little variations in the proportions in different provinces in this regard (Table CH.10). Richest households are more likely to use mosquito net than the poorest households.

Overall 81 percent households (urban: 55.8% and rural: 88.8%) have at least one mosquito net, while 68 percent of them have at least one long lasting mosquito net (LLN). This is also higher for the rural households (74.3%) compared with the urban households (45.6%) as WHO distributed LLN in the malaria prone rural communities only to reduce the morbidity caused by malaria (Table CH.10).

Table CH.10: Availability of insecticide-treated long-lasting nets
Percent of households with at least one long-lasting net (LLN), Vanuatu, 2007

		Percentage of households with at least one mosquito net	Percentage of households with at least one long-lasting net (LLN)*	Number of long-lasting nets in the household							Any measure taken to prevent malaria	Number of households
				1	2	3	4	5	6	7+		
Region	Tafea	73.2	47.4	2.2	2.3	1.2	1.1	1.1	0.6	0.5	75.0	339
	Shefa	85.6	75.7	2.0	4.0	2.8	2.9	1.8	1.1	0.9	79.8	367
	Malampa	93.4	76.8	3.3	6.3	4.2	3.7	1.5	0.7	0.7	87.7	475
	Penama	94.0	86.0	3.5	4.1	3.2	2.6	1.7	1.0	0.8	91.6	350
	Sanma	93.3	79.5	3.5	5.2	3.4	1.9	1.0	1.4	0.7	90.8	385
	Torba	96.1	87.2	0.4	1.1	0.9	1.1	0.6	0.4	0.4	92.9	100
	Port Vila	53.3	43.0	3.1	3.7	2.4	0.8	0.5	0.4	0.3	88.9	464
	Luganville	63.5	53.5	1.0	1.3	1.0	0.5	0.4	0.3	0.1	89.6	153
Area	Urban	55.8	45.6	4.1	5.0	3.4	1.3	0.9	0.7	0.4	89.0	617
	Rural	88.8	74.3	15.0	23.0	15.8	13.3	7.8	5.3	4.0	85.7	2015
Education of household head	None	79.8	64.7	3.4	3.4	2.2	1.3	0.7	0.4	0.6	73.2	332
	Primary	86.5	73.0	10.8	16.0	11.8	9.4	5.2	4.3	2.8	88.7	1470
	Secondary +	70.3	58.2	4.3	6.8	4.5	3.4	2.3	1.4	0.9	87.9	723
	Non-standard curriculum	(80.5)	(52.8)	(0.2)	(0.4)	(0.4)	(0.0)	(0.1)	(0.0)	(0.0)	(78.3)	35
	Missing/DK	85.3	69.9	0.4	1.4	0.3	0.4	0.4	0.0	0.0	91.4	73
Wealth index quintiles	Poorest	85.2	71.1	5.2	5.9	3.3	3.0	1.7	1.2	0.7	78.5	525
	Second	93.6	82.2	4.8	7.3	4.3	4.4	1.7	1.5	1.3	89.3	547
	Middle	92.2	76.7	2.8	6.6	5.1	2.9	2.1	1.4	1.2	87.8	512
	Fourth	80.6	66.3	3.8	4.7	3.8	3.3	2.0	1.5	0.8	87.9	533
	Richest	52.8	40.6	2.4	3.5	2.7	1.1	1.1	0.5	0.4	88.7	514
Mother tongue of head	Bislama	68.1	54.5	2.1	2.8	2.3	1.6	0.8	0.9	0.6	89.9	364
	Other Language	83.2	69.8	17.0	25.2	16.9	12.9	7.8	5.1	3.8	86.0	2261
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
National		**81.1**	**67.6**	**19.1**	**28.0**	**19.3**	**14.6**	**8.7**	**6.0**	**4.4**	**86.5**	**2632**

* MICS Indicator 36
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Table CH.10A shows the knowledge of respondent about the causes of malaria. More than ninety percent (93.0%) of the respondents correctly identified mosquito bite as the main cause of malaria. The knowledge is rather universal. This proportion of knowledge is higher among the urban respondents than that of rural (97.9% vs.91.5%). Variations in knowledge with respect to provinces are found to be marginal (82.7% to 98.9%). As expected, respondent's education and wealth status are positively associated with the knowledge of causes of malaria.

Table CH.10A: Causes of malaria
Percentage of respondents by causes of malaria, Vanuatu, 2007

Background Characteristics		Mosquito	Mosquito and others	Others	Don't know	At least one correct response	Total
Region	Tafea	82.7	0.7	1.1	16.2	82.7	339
	Shefa	98.9	0.0	0.0	1.1	98.9	367
	Malampa	92.1	5.7	3.5	7.0	93.0	475
	Penama	86.8	2.0	1.2	12.4	86.8	350
	Sanma	94.9	5.6	4.6	3.6	94.9	385
	Torba	94.0	0.4	0.0	5.3	94.0	100
	Port Vila	98.2	6.9	0.1	0.9	98.2	464
	Luganville	97.0	9.6	4.3	2.4	97.0	153
Area	Urban	97.9	7.5	1.2	1.3	97.9	617
	Rural	91.5	2.9	2.1	7.7	91.7	2015
Education of household head	None	80.8	0.7	1.3	18.6	80.8	332
	Primary	94.1	3.5	2.6	5.3	94.1	1470
	Secondary +	96.9	5.9	1.0	2.2	96.9	723
	Non-standard	(76.0)	(16.0)	(0.0)	(12.0)	(88.0)	35
	Missing/DK	95.2	4.7	0.0	4.8	95.2	73
Wealth index quintiles	Poorest	82.5	1.8	2.2	16.8	82.9	525
	Second	92.6	3.4	1.8	7.2	92.6	547
	Middle	95.8	3.7	1.7	3.4	96.3	512
	Fourth	95.3	3.3	2.9	2.6	95.3	533
	Richest	98.8	7.9	0.9	0.7	98.8	514
Mother tongue of head	Bislama	97.5	7.3	1.5	1.6	97.5	364
	Other Language	92.3	3.4	1.9	6.9	92.5	2261
	Missing	(*)	(*)	(*)	(*)	(*)	7
National		**93.0**	**4.0**	**1.9**	**6.2**	**93.1**	**2632**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Table CH.10B presents the knowledge of prevention of malaria by selected background characteristics. The results indicate that, a very high proportion of respondents had adequate knowledge about the preventive measures to be taken against malaria. Overall, 83 percent of them could correctly mention three preventive measures. Among the three measures, the most prominent are using mosquito net (68.2%), destroying mosquito breeding sites (39.3%) and take medicine (16.1%). There is no urban-rural difference regarding the knowledge of prevention of malaria. By provinces/cities the proportion ranges from 74 percent (Tafea) to 92 percent (Torba). Knowledge of prevention of malaria increases with the education of household head. However, respondent's wealth status does not show any consistent pattern of variation in the knowledge of prevention of malaria.

Table CH.10B: Knowledge of prevention of malaria
Percentage of respondents by prevention of malaria, Vanuatu, 2007

		Using mosquito net	Destroy mosquito breeding sites	Take medicine	Spray insecticide at home	Using mosquito coil	Using traditional repelents	Take other measures	Could mention 3 preventive measures correctly	Total
Region	Tafea	62.1	49.6	14.7	0.0	0.0	0.0	1.5	74.3	339
	Shefa	66.5	16.0	2.3	5.3	18.3	0.4	4.9	78.3	367
	Malampa	70.2	40.8	15.4	3.1	12.7	0.9	3.9	82.5	475
	Penama	84.4	48.4	24.0	4.8	5.6	5.2	1.6	88.8	350
	Sanma	84.1	36.9	22.1	14.4	13.3	0.5	4.6	88.2	385
	Torba	90.7	65.8	23.5	1.8	3.6	0.4	4.3	91.5	100
	Port Vila	43.2	39.2	16.1	28.7	22.7	0.0	7.5	82.9	464
	Luganville	64.3	36.5	16.3	21.3	22.8	0.0	16.5	83.5	153
Area	Urban	48.4	38.6	16.2	26.9	22.7	0.0	9.7	83.0	617
	Rural	74.3	39.6	16.0	5.4	10.0	1.3	3.4	83.0	2015
Education of household head	None	64.1	32.7	14.6	3.8	3.6	1.0	1.3	72.3	332
	Primary	73.4	40.9	16.5	7.1	12.1	1.1	4.1	85.3	1470
	Secondary +	60.2	41.3	16.1	20.7	18.3	1.0	8.0	83.1	723
	Non-standard	(56.5)	(31.6)	(23.6)	(2.9)	(9.9)	(0.0)	(17.9)	(66.4)	35
	Missing/DK	69.2	22.0	9.5	9.0	21.8	0.0	0.5	91.4	73
Wealth index quintiles	Poorest	69.0	34.1	13.7	1.0	2.9	2.0	2.0	76.0	525
	Second	79.8	42.6	18.9	3.4	7.7	0.8	4.2	86.4	547
	Middle	78.8	41.6	17.8	6.3	11.1	1.0	1.8	86.1	512
	Fourth	68.4	41.9	13.5	11.1	17.8	0.8	6.2	84.8	533
	Richest	44.5	36.4	16.4	30.9	25.8	0.4	10.4	81.5	514
Mother tongue of head	Bislama	64.9	43.6	19.1	23.8	13.6	0.0	8.4	85.9	364
	Other Language	68.8	38.7	15.6	8.3	12.9	1.2	4.4	82.6	2261
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
National		**68.2**	**39.3**	**16.1**	**10.4**	**13.0**	**1.0**	**4.9**	**83.0**	**2632**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Regarding source of knowledge of malaria prevention, the most prominent one was the health workers (85.0%) followed by school (23.5%), radio (18.7%), book/poster (11.1%) and family members or friends or neighbour (10.7%). On the other hand, about 44 percent respondents (urban: 57.7%, rural: 39.3%) heard about the preventive measures from at least two different sources simultaneously (highest in Luganville and the lowest in Malampa) (Table CH.10C). Education level of household head and wealth quintile show positive relationship with the source of knowledge of prevention of malaria.

Source: health worker (85%) and school, radio, booklet and friends, family and

Table CH.10C: Source of knowledge on prevention of malaria
Percentage of respondents by source of preventive knowledge on malaria, Vanuatu, 2007

		Heard from at least 2 different sources	Source of preventive knowledge on malaria:								Total
			Radio	Television	Booklet / poster	Health worker	Chief of church	Family/ friend/ neighbor	School	Other sources	
Region	Tafea	46.6	10.8	0.5	9.8	83.8	25.5	16.7	18.1	2.0	339
	Shefa	42.9	18.1	6.2	13.8	86.7	1.4	11.0	17.1	6.2	367
	Malampa	18.5	1.0	1.0	6.0	93.0	2.5	6.5	9.0	4.5	475
	Penama	44.5	25.3	0.0	6.6	92.1	5.7	11.8	9.6	1.7	350
	Sanma	49.7	22.6	5.1	9.6	86.4	3.4	8.5	37.3	5.1	385
	Torba	44.8	6.9	1.5	31.8	96.2	4.2	2.3	12.3	4.6	100
	Port Vila	57.7	30.8	21.4	14.8	69.9	8.4	15.0	43.3	8.4	464
	Luganville	57.8	34.7	11.7	12.6	76.7	1.5	7.5	36.9	18.4	153
Area	Urban	57.7	31.8	19.0	14.3	71.6	6.7	13.1	41.7	10.9	617
	Rural	39.3	14.5	2.5	10.1	89.3	6.6	9.9	17.7	4.0	2015
Education of household head	None	29.8	11.6	1.9	10.3	87.6	8.1	9.5	9.2	1.8	332
	Primary	41.6	17.5	4.2	9.7	87.7	6.7	11.1	17.5	4.6	1470
	Secondary +	55.8	25.5	12.8	14.8	77.7	6.6	10.9	42.9	9.1	723
	Non-standard	(11.4)	(2.5)	(2.5)	(3.8)	(88.0)	(0.0)	(3.7)	(6.4)	(22.9)	35
	Missing/DK	36.0	10.3	8.3	9.4	89.7	1.0	6.8	16.1	0.5	73
Wealth index quintiles	Poorest	29.2	7.6	0.0	10.6	90.5	6.1	9.0	9.9	2.5	525
	Second	35.0	10.7	0.5	9.8	92.6	7.7	10.0	11.4	4.7	547
	Middle	41.9	16.4	1.9	10.2	90.5	5.7	10.9	19.8	2.0	512
	Fourth	51.4	24.4	7.9	9.6	83.7	7.1	11.3	28.3	7.1	533
	Richest	60.3	33.8	21.7	15.4	67.8	6.2	12.0	47.5	11.8	514
Mother tongue of head	Bislama	58.5	35.0	13.0	13.4	72.5	8.0	9.5	45.4	9.3	364
	Other Language	41.3	15.9	5.4	10.8	87.1	6.4	10.8	19.9	5.1	2261
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
National		**43.8**	**18.7**	**6.5**	**11.1**	**85.0**	**6.6**	**10.7**	**23.5**	**5.7**	**2632**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

66% children slept under bed-net; urban: 39.4% and rural: 72.4%

Table CH.11 shows the percentage of children sleep under a bed net. As a regular safety practice, majority of under-5 year children (66.1%) slept under bed net during the previous night of the survey day. The proportion is higher in rural area (72.4%) than the urban area (39.4%). More than half (55.7%) of them slept under long-lasting bed nets at the same night (higher in the rural area: 61.0%, lower in urban area: 33.2%). Preserving and using mosquito net in the urban area is less prevalent compared to the rural area, because the urban area is less malaria prone compared to rural areas and the people of urban areas prefer other preventive measures as mosquito coils, net in the windows, spraying insecticides, etc. (Table CH.11).

Figure CH.5: Children sleeping under bed nets (Under-5 children slept under an insecticide treated net during the previous night), Vanuatu, 2007

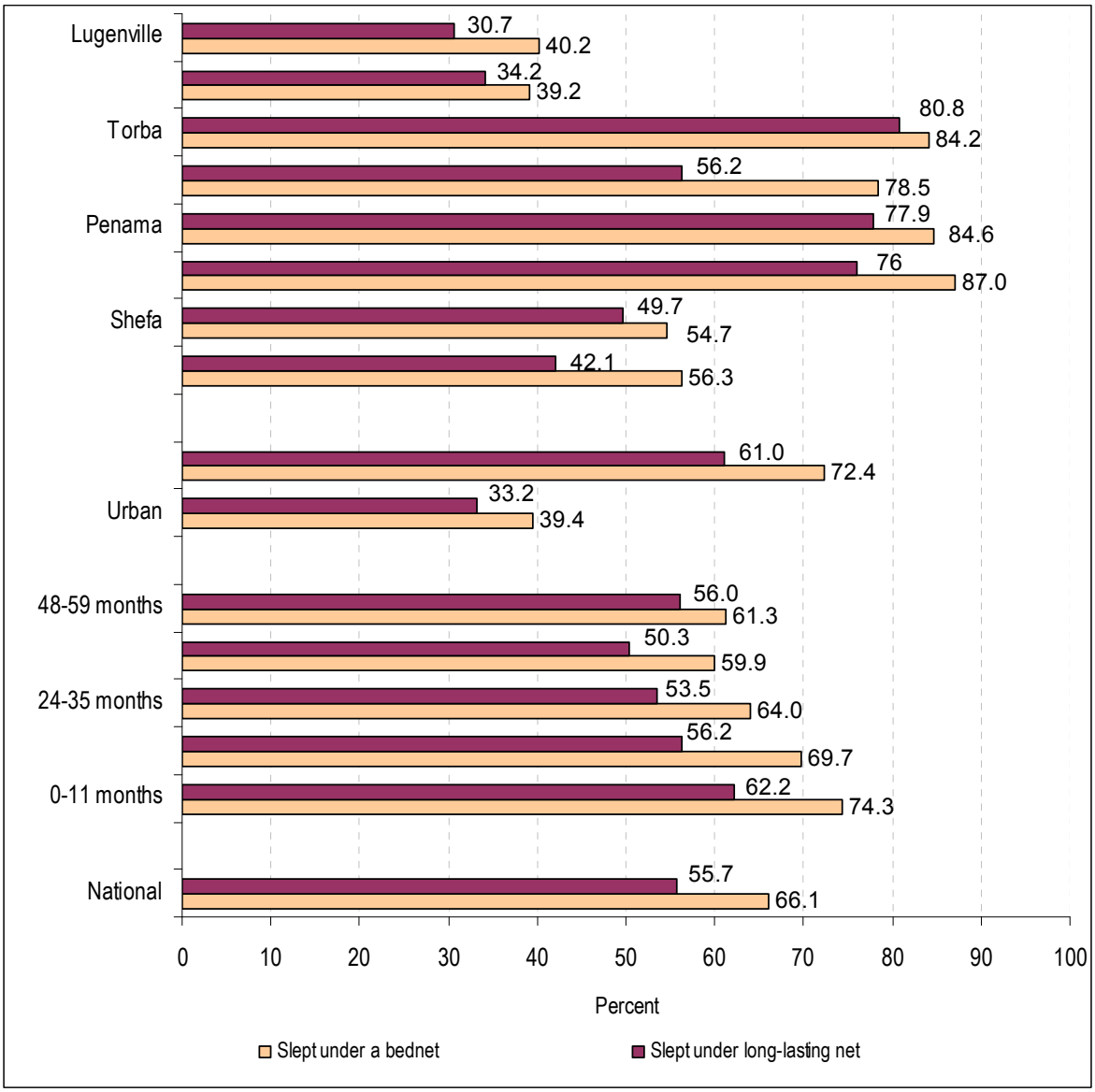


Table CH.11: Children sleeping under bednets
Percentage of children aged 0-59 months who slept under an insecticide treated net during the previous night, Vanuatu, 2007

Background Characteristics		Slept under a bednet *	Sleep under long-lasting net **	Slept under an untreated net	Don't know if slept under a net	Did not sleep under a bednet	Number of children aged 0-59 months
Sex	Male	65.9	55.6	10.3	0.4	33.7	849
	Female	66.4	55.8	10.6	0.3	33.3	785
Region	Tafea	56.3	42.1	14.2	0.0	43.8	287
	Shefa	54.7	49.7	5.0	0.6	44.7	243
	Malampa	87.0	76.0	11.0	0.0	13.0	300
	Penama	84.6	77.9	6.7	0.7	14.8	199
	Sanma	78.5	56.2	22.3	0.0	21.5	225
	Torba	84.2	80.8	3.4	1.0	14.8	68
	Port Vila	39.2	34.2	5.0	0.6	60.2	227
	Luganville	40.2	30.7	9.4	1.2	58.7	86
Area	Urban	39.4	33.2	6.2	0.7	59.8	312
	Rural	72.4	61.0	11.5	0.3	27.3	1322
Age	0-11 months	74.4	62.2	12.1	0.1	25.5	343
	12-23 months	69.6	56.0	13.6	0.5	30.0	359
	24-35 months	64.0	53.5	10.4	0.1	35.9	342
	36-47 months	59.5	50.0	9.4	0.6	39.9	324
	48-59 months	61.8	56.4	5.3	0.5	37.7	265
Wealth index quintiles	Poorest	72.8	59.3	13.5	0.5	26.7	367
	Second	84.0	72.9	11.1	0.0	16.0	383
	Middle	70.4	62.6	7.8	0.1	29.5	328
	Fourth	59.8	47.3	12.4	0.3	39.9	302
	Richest	31.5	25.3	6.2	1.1	67.4	254
Mother tongue of head	Bislama	50.3	42.2	8.1	0.6	49.2	179
	Other Language	68.1	57.3	10.8	0.3	31.6	1452
	Missing	(*)	(*)	(*)	(*)	(*)	3
National		**66.1**	**55.7**	**10.5**	**0.3**	**33.5**	**1634**

* MICS indicator 38
** MICS indicator 37; MDG indicator 22
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Over one-third treated with anti-malarial drugs within 24 hours of onset of symptoms; rural: 37.7%, urban: 22.4%

Only 9 percent (urban: 6.2% and rural: 10.1%) under 5-year children were ill with fever in two weeks preceding the survey. Of them, 36 percent got treatment with appropriate anti-malarial drugs within twenty-four hours of onset of malarial symptoms. Provincial variation cannot be assessed due to smaller sample. But, over half of them (53.1%) are treated with such appropriate anti-malarial drugs at any time after having fallen sick and the proportion is slightly higher in the rural area (56.1%) than that of the national average. It may be due to the fact that malaria prevalence is higher in the rural areas and the health service providers promote to use anti-malarial drugs whenever a person got fever as recommended by WHO. No consistent trend was observed in the treatment of fever by wealth quintiles and the age of children (Table CH.12).

Table CH.12: Treatment of children with anti-malarial drugs

Percentage of children age 0-59 months who were ill with fever in the last two weeks who received anti-malarial drugs, Vanuatu, 2007

Background Characteristics		Had a fever in last two weeks	Number of children aged 0-59 months	Children with a fever in the last two weeks who were treated with:								Any appropriate anti-malarial drug within 24 hours of onset of symptoms *	Number of children with fever in last two weeks
				Anti-malarials: SP/Fansidar	Anti-malarials: Chloroquine	Anti-malarials: Quinine	Anti-malarials: Other Anti-malarial	Any appropriate anti-malarial drug	Other medications Paracetamol/ Panadol/ Acetaminophan	Other medications : Aspirin	Other medications : Other		
Sex	Male	9.6	849	36.1	41.8	2.3	0.0	53.8	45.6	2.9	22.4	39.7	81
	Female	9.1	785	28.3	36.2	5.5	5.9	52.3	47.9	0.0	21.2	31.3	72
Region	Tafea	3.3	287	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
	Shefa	11.7	243	(23.8)	(23.8)	(0.0)	(0.0)	(33.3)	(52.4)	(0.0)	(4.8)	(14.3)	28
	Malampa	15.1	300	(59.1)	(54.5)	(4.5)	(4.5)	(72.7)	(31.8)	(4.5)	(22.7)	(68.2)	45
	Penama	10.7	199	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	21
	Sanma	10.7	225	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
	Torba	6.9	68	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	5
	Port Vila	5.3	227	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	12
	Luganville	8.7	86	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	7
Area	Urban	6.2	312	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	19
	Rural	10.1	1322	35.2	41.1	4.3	2.9	56.1	44.7	1.8	21.5	37.7	133
Age	0-11 months	8.0	343	(14.8)	(34.4)	(7.5)	(1.2)	(45.6)	(63.8)	(0.0)	(18.2)	(24.0)	28
	12-23 months	11.7	359	(31.1)	(40.3)	(0.0)	(4.4)	(55.5)	(46.1)	(0.8)	(17.5)	(37.5)	42
	24-35 months	8.8	342	(33.1)	(18.0)	(6.1)	(0.0)	(39.9)	(47.1)	(0.0)	(33.8)	(27.0)	30
	36-47 months	11.6	324	(46.1)	(59.0)	(4.9)	(5.5)	(67.6)	(44.2)	(5.5)	(22.5)	(45.2)	38
	48-59 months	5.8	265	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	15
Mother's education	None	1.9	140	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
	Primary	10.6	1031	32.8	44.4	1.9	3.6	53.6	43.6	0.0	19.7	36.5	109
	Secondary	8.7	459	(31.5)	(24.6)	(9.3)	(0.8)	(53.1)	(58.9)	(5.2)	(29.1)	(34.0)	40
	Non-standard	(*)	3	-	-	-	-	-	-	-	-	-	-
	Missing/DK	(*)	1	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index quintiles	Poorest	11.2	367	(41.1)	(54.4)	(0.0)	(9.5)	(62.2)	(31.9)	(5.0)	(17.3)	(47.0)	41
	Second	9.4	383	(54.1)	(48.8)	(10.3)	(0.0)	(86.0)	(52.6)	(0.9)	(14.4)	(51.3)	36
	Middle	11.9	328	(23.5)	(28.7)	(5.3)	(0.0)	(37.4)	(52.6)	(0.0)	(29.7)	(28.8)	39
	Fourth	7.0	302	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	21
	Richest	6.2	254	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16
Mother tongue of head	Bislama	4.3	179	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
	Other Language	10.0	1452	33.5	39.6	4.0	2.9	54.1	45.9	1.6	21.9	36.8	145
National		**9.4**	**1634**	**32.4**	**39.1**	**3.8**	**2.8**	**53.1**	**46.7**	**1.6**	**21.9**	**35.8**	**153**

* MICS indicator 39; MDG indicator 22

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

7. ENVIRONMENT

Water and Sanitation

Safe drinking water is a basic need for good health. Unsafe drinking water can be a significant carrier of diseases, such as trachoma, cholera, typhoid, and schistosomiasis. Drinking water can also be tainted with chemical, physical and radiological contaminants that harmfully affect human health. In addition to its association with diseases, access to safe drinking water may be particularly important for woman and children especially in rural areas, where they often bear primary responsibility for carrying water from long distances.

The 7th MDG with regard to water and sanitation is to reduce the percentage of people not having sustainable access to safe drinking water and basic sanitation by half between 1990 and 2015. The WFFC goal calls for a reduction in the percentage of households that do not have access to hygienic sanitation facilities, and affordable and safe drinking water by at least one-third.

The MICS-3 indicators that are related to water and sanitation are as follows:

Indicators Related to Water:

- Use of improved drinking water sources,
- Use of adequate water treatment method,
- Time to source of drinking water,
- Persons collecting drinking water.

Indicators Related to Sanitation:

- Use of improved sanitation facilities,
- Sanitary disposal of child's faeces.

Indicators Related to Water

In the MICS-3, water obtained from any of the following sources is considered as improved water: piped water (into dwelling, yard or plot), public tap/standpipe, tube well/bore whole, protected well, protected spring, or rainwater collection. Table EN.1 presents the distribution of the surveyed population by source of improved drinking water according to some selected background characteristics.

It is evident from Table EN.1, 85 percent of the population have access to improved drinking water sources - 98 percent in urban and 81 percent in rural areas. Only in two provinces the situation is worse than the overall situation; in Sanma and Tafea the proportion of population having access to improved sources are 67 percent and 74 percent respectively. In all other provinces/cities this proportion varies between the range of 84 percent in Panama and 98 percent in Luganville city.

Table EN.1: Use of improved water sources

Percent distribution of household members according to main source of drinking water and percentage of household members using improved drinking water sources, Vanuatu, 2007

Background Characteristics		Main source of drinking water														Total	Improved source of drinking water*	Number of household members
		Improved sources								Unimproved sources								
		Piped into dwelling	Piped into yard or plot	Public tap /standpipe	Tubewell/ borehole	Protected well	Protected spring	Rainwater collection	Bottled water	Unprotected well	Unprotected spring	Surface water	Bottled water[1]	Other	Missing			
Region	Tafea	3.2	21.3	30.5	1.9	1.7	0.0	15.7	0.0	0.2	3.4	22.1	0.0	0.0	0.0	100.0	74.3	1881
	Shefa	1.5	13.8	2.5	0.8	16.1	1.4	55.7	0.0	1.6	2.1	4.5	0.0	0.0	0.0	100.0	91.8	1983
	Malampa	0.5	10.4	10.4	6.6	22.4	1.8	32.4	0.0	7.2	4.3	3.9	0.0	0.0	0.0	100.0	84.6	2377
	Penama	0.4	27.4	15.8	0.0	19.4	0.0	20.6	0.0	10.0	1.6	4.8	0.0	0.0	0.0	100.0	83.6	1533
	Sanma	0.4	4.5	8.0	3.5	11.2	8.1	31.2	0.0	3.3	17.4	11.5	0.0	0.0	0.7	100.0	67.0	1915
	Torba	0.9	5.5	7.0	0.0	1.9	0.6	78.9	0.0	0.0	0.5	4.9	0.0	0.0	0.0	100.0	94.7	573
	Port Vila	33.9	19.5	17.7	0.2	2.7	0.0	22.2	1.3	1.5	0.4	0.4	0.1	0.0	0.0	100.0	97.6	2341
	Luganville	14.3	19.5	5.3	0.0	0.7	0.2	58.4	0.0	0.7	0.6	0.0	0.0	0.3	0.0	100.0	98.4	769
Area	Urban	29.1	19.5	14.7	0.2	2.2	0.0	31.1	1.0	1.3	0.5	0.3	0.1	0.1	0.0	100.0	97.8	3110
	Rural	1.2	14.2	12.7	2.7	13.7	2.2	34.4	0.0	4.1	5.5	9.0	0.0	0.0	0.1	100.0	81.2	10260
Education of household head	None	2.8	10.1	22.5	3.4	9.5	1.8	25.3	0.0	1.0	9.2	13.6	0.0	0.0	0.9	100.0	75.3	1525
	Primary	4.0	16.1	12.8	2.3	12.5	1.4	34.1	0.0	3.8	5.0	7.9	0.0	0.0	0.0	100.0	83.3	7645
	Secondary +	17.8	16.8	11.4	1.0	8.2	2.0	35.1	0.8	3.3	1.6	1.8	0.0	0.1	0.0	100.0	93.2	3633
	Non-standard	3.0	10.6	0.0	4.1	30.1	0.0	34.9	0.0	5.5	0.0	11.8	0.0	0.0	0.0	100.0	82.7	203
	Missing/DK	7.0	12.7	7.0	2.3	4.6	6.1	44.9	0.0	7.5	0.0	8.0	0.0	0.0	0.0	100.0	84.6	364
Wealth index quintiles	Poorest	0.1	11.9	17.1	4.7	9.3	1.6	24.6	0.0	3.2	8.1	19.5	0.0	0.0	0.0	100.0	69.2	2676
	Second	0.5	12.7	15.9	3.9	14.1	3.3	28.2	0.0	4.4	8.3	8.8	0.0	0.0	0.0	100.0	78.5	2671
	Middle	1.2	13.7	12.0	1.1	17.8	2.5	37.2	0.0	6.1	3.0	5.3	0.0	0.0	0.0	100.0	85.5	2674
	Fourth	2.2	23.6	11.0	0.5	11.4	1.1	42.5	0.0	3.6	2.4	1.0	0.1	0.1	0.5	100.0	92.3	2668
	Richest	34.3	15.4	10.0	0.2	2.6	0.3	35.8	1.1	0.0	0.0	0.2	0.1	0.0	0.0	100.0	99.8	2680
Mother tongue of head	Bislama	18.8	12.7	14.3	1.1	7.1	2.7	40.2	1.1	0.5	0.6	0.8	0.0	0.1	0.0	100.0	97.9	1794
	Other Language	6.0	15.9	13.1	2.3	11.7	1.6	32.6	0.1	4.0	4.9	7.9	0.0	0.0	0.0	100.0	83.1	11539
	Missing	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(62.7)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(37.3)	(100.0)	(62.7)	37
National		**7.7**	**15.5**	**13.2**	**2.1**	**11.0**	**1.7**	**33.7**	**0.2**	**3.5**	**4.4**	**7.0**	**0.0**	**0.0**	**0.1**	**100.0**	**85.1**	**13370**

* MICS indicator 11; MDG indicator 30

[1] Households using bottled water only for drinking, for other purposes as cooking and hand washing; the sources are unimproved

( ) Figure is based on 25-49 unweighted cases

The proportion of population having access to improved drinking water source varies to some extent according to wealth status of households, between the ranges of 69 percent in the poorest to almost 100 percent in the richest households. Educational level of household head also shows positive association with the use of improved drinking water.

Still, 15 percent population uses drinking water from unimproved sources namely unprotected well (3.5%), unprotected spring (4.4%) and surface water (7%). Use of unsafe surface water is higher in Tafea and Sanma, as 26 percent and 33 percent of the population of these two provinces are using water from unimproved sources mainly unprotected spring and surface water for drinking respectively. Nearly, one-fifth (19.5%) of the population of the poorest households are using unsafe surface water for drinking.

Table EN.1A shows a comparative situation of the use of drinking water in 1999 Vanuatu census and this study. The data indicate that the proportion of population using tapped water has slightly increased in MICS-2007 over 1999 Census (44.0% vs. 47.0%). This is due to the fact that, the proportion of population using Village standpipe has become doubled (from 6.0% to 13.0%) over this period of time. Besides, tube well or borehole, protected well, protected spring and rainwater collection have been segregated as improved source of water in MICS-2007, resulting the overall percentage of population using improved water source to 85 percent.

Table EN.1A. Percentage of households by source of drinking water use in 1999 census and MICS-2007

1999 Vanuatu Census	**%**	**MICS-2007**	**%**
1. Piped water, private	17	1. Piped into dwelling	18
2. Piped water, shared	21	Piped into yard/plot	16
3. Village standpipe	6	3. Public tap/standpipe	13
		Subtotal	47
		4. Tube well/borehole	2
		5. Protected well	11
		6. Protected spring	2
		7.Rainwater collection	34
Sub total improved	44	Sub total: improved	85
4. Household tank	14	8. Unprotected well	4
5. Community tank	15	9. Unprotected spring	4
6. Well	8	10. Surface water	7
7. Spring	6		
8. River	8		
9. Other	4		
10. Not stated	1		
Sub total unimproved	56	Sub total: Unimproved	15
Total	**100**	**Total**	**100**

Note: All wells and springs were considered as unprotected and hence unimproved in Census 1999.

Table EN.2 presents the distribution of the household population by the practice of in-house water treatment. The respondents were asked if they treat water at home to make it safer to drink and the methods they usually apply to do so. The data show that, overall only about 15 percent household treats water for drinking (improved 14.9% and unimproved 12.2%). The practice of water treatment is more prevalent in urban area (19.2%) than rural area (13.0%). The practice level varies considerably across the provinces. It is the lowest in Sanma (3.9%) and the highest in Shefa (25.0%). Some variation is also observed in the practice of water treatment by households of different wealth status ranging from 10 percent in the poorest quintile to 23 percent in the richest quintile. Level of education of the household head also shows positive association with the practice of water treatment.

Figure EN.1: Percentage distribution of household members by source of drinking water, Vanuatu, 2007

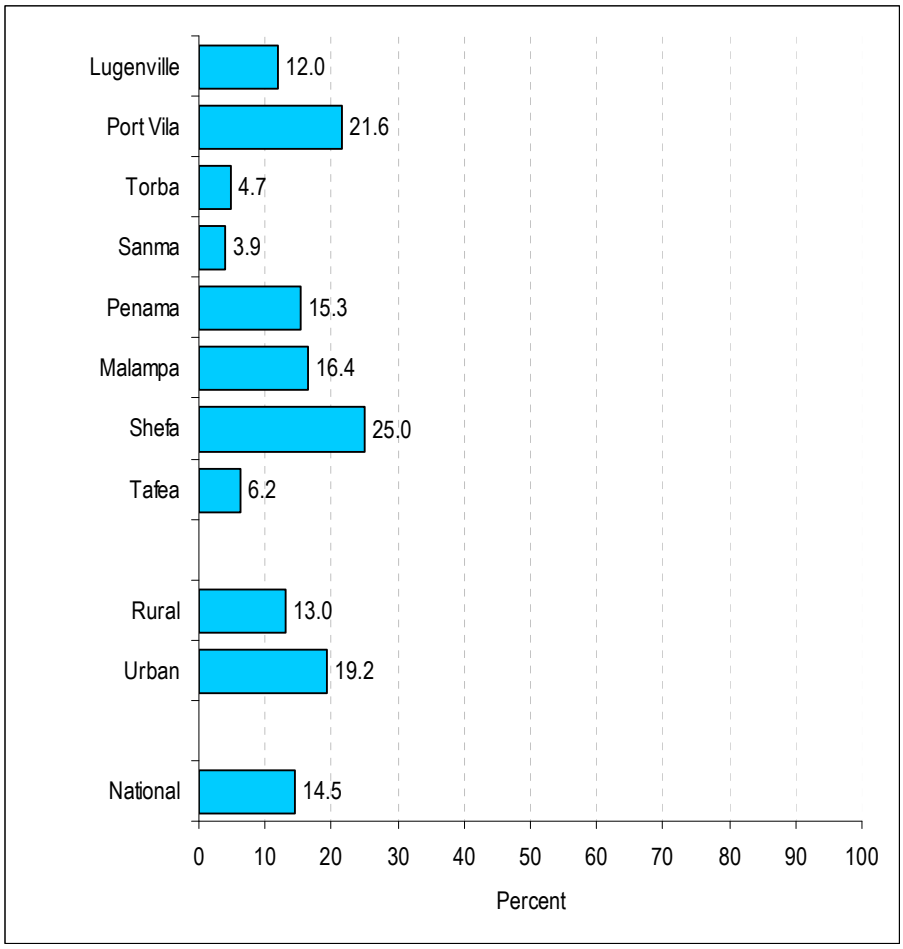


Table EN.2: Household water treatment

Percent distribution of household population according to drinking water treatment method used in the household and percentage of household population that applied an appropriate water treatment method, Vanuatu, 2007

Background Characteristics		Water treatment method used in the household									All drinking water sources: Appropriate water treatment method *	Number of household members	Improved drinking water sources: Appropriate water treatment method	Number of household members	Unimproved drinking water sources: Appropriate water treatment method	Number of household members
		None	Boil	Add bleach/chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other	Don't know						
Region	Tafea	90.8	5.3	0.0	0.3	0.0	1.1	3.6	0.0	0.0	6.2	1881	6.1	1397	6.2	483
	Shefa	66.9	25.0	0.0	4.9	0.0	0.2	13.1	0.0	0.4	25.0	1983	24.9	1819	25.6	163
	Malampa	74.1	15.8	0.0	3.7	0.5	0.0	5.3	4.2	0.0	16.4	2377	14.3	2011	27.8	366
	Penama	80.9	13.3	0.5	0.5	2.0	0.5	6.9	1.9	0.0	15.3	1533	16.9	1281	7.2	252
	Sanma	92.8	3.9	0.0	2.3	0.0	0.0	0.0	1.4	0.0	3.9	1915	3.7	1284	4.4	631
	Torba	86.8	4.0	0.6	1.6	0.0	0.0	8.0	0.9	0.0	4.7	573	4.7	542	(4.7)	31
	Port Vila	70.2	20.9	0.0	3.8	0.2	0.4	7.0	5.2	0.0	21.6	2341	21.4	2287	28.8	54
	Luganville	82.3	12.0	0.4	8.9	0.0	0.0	2.3	0.3	0.0	12.0	769	11.3	756	(*)	12
Area	Urban	73.2	18.7	0.1	5.1	0.2	0.3	5.9	4.0	0.0	19.2	3110	18.9	3043	33.4	67
	Rural	81.0	12.4	0.1	2.4	0.4	0.3	5.9	1.6	0.1	13.0	10260	13.4	8334	11.5	1926
Education of household head	None	87.4	8.3	0.0	2.0	0.2	0.0	4.3	0.7	0.0	8.5	1525	10.2	1149	3.3	376
	Primary	80.4	13.2	0.2	2.3	0.2	0.3	6.4	1.4	0.1	13.5	7645	14.2	6367	10.2	1278
	Secondary +	74.9	16.6	0.1	3.8	0.5	0.7	5.6	4.4	0.0	17.6	3633	16.6	3385	31.1	247
	Non-standard curriculum	68.9	12.6	0.0	14.5	6.1	0.0	5.1	0.0	0.0	18.7	203	22.6	168	(0.0)	35
	Missing/DK	66.6	26.3	0.0	8.9	0.0	0.0	4.6	1.3	0.0	26.3	364	23.7	308	40.8	56
Wealth index quintiles	Poorest	86.4	9.8	0.0	2.0	0.6	0.0	5.1	1.8	0.0	10.4	2676	9.8	1853	11.6	824
	Second	83.4	10.4	0.3	2.5	0.2	0.5	6.5	0.1	0.0	10.6	2671	12.3	2096	4.4	576
	Middle	79.1	12.6	0.1	3.1	0.0	0.0	6.5	2.5	0.0	12.8	2674	12.0	2288	17.6	387
	Fourth	77.1	14.2	0.0	2.9	0.9	0.8	5.3	1.5	0.3	15.7	2668	14.8	2465	26.7	203
	Richest	69.8	22.4	0.1	4.8	0.2	0.4	6.1	4.8	0.0	22.9	2680	23.0	2676	(*)	4
Mother tongue of head	Bislama	78.6	12.8	0.0	3.7	0.7	0.4	5.8	1.8	0.0	13.9	1794	13.8	1757	(17.4)	37
	Other Language	79.2	14.0	0.1	2.9	0.3	0.3	5.9	2.2	0.1	14.6	11539	15.0	9597	12.2	1942
	Missing	(82.2)	(17.8)	(0.0)	(0.9)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(17.8)	37	(*)	23	(*)	14
National		**79.2**	**13.9**	**0.1**	**3.0**	**0.4**	**0.3**	**5.9**	**2.1**	**0.1**	**14.5**	**13370**	**14.9**	**11377**	**12.2**	**1993**

* MICS indicator 13

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Boiling, adding bleach or chlorine, using a water filter, solar disinfection, strain through a cloth, let it stand and settle, and others are the methods usually applied to treat water in the households; boiling is predominant among them.

Information on amount of time required to collect water from the source is placed in Table EN.3. The data refer to the time needed to go to the water source and comeback home in one trip of water collection.

Results in Table EN.3 show that, about half of the households (48.7%) have drinking water on their premises (urban 70.5%, rural 42.1%) and 51 percent households collect water from outside of their premises (urban 29.5%, rural 57.9%). Having drinking water in the premises varies from 30 percent among the poorest households to 75 percent among the richest households. Drinking water in the premises varies widely across the provinces, ranging from as low as 11 percent in Sanma to as high as 67 percent in Penama and 76 percent in Port Vila city.

It takes less than 30 minutes to get to the water source and bring water in 45 percent households; while only 4 and 2 percent of the households spend 30 minutes to less than one hour, and one hour or more time respectively for this purpose. For the households having outside drinking water source the average time taken to collect drinking water in one round is 14 minutes (Table EN.3).

On the overage more time is spent in collecting water in rural area (14 minutes) than urban area (9 minutes). The average time spent is less than 10 minutes in Luganville city (6 minutes), Torba (6 minutes), Penama (9 minutes); and in all other provinces except Tafea it varies from 11 to 14 minutes, while in Tafea it takes 28 minutes to collect water.

Table EN.3: Time to source of water

Percent distribution of households according to time to go to source of drinking water, get water and return, and mean time to source of drinking water, Vanuatu, 2007

Background Characteristics		Time to source of drinking water							Total	Mean time to source of drinking water (excluding those on premises)	Number of household
		Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	30 minutes to less than 1 hour	1 hour or more	DK	Missing			
Region	Tafea	32.7	23.5	24.3	10.7	7.4	0.0	1.5	100.0	27.7	339
	Shefa	54.0	28.9	8.7	3.4	1.5	2.3	1.1	100.0	14.3	367
	Malampa	50.9	36.8	7.5	1.8	2.6	0.0	0.4	100.0	10.8	475
	Penama	66.8	28.0	2.8	1.6	0.4	0.4	0.0	100.0	9.3	350
	Sanma	10.8	72.8	6.7	6.2	2.1	0.0	1.5	100.0	11.1	385
	Torba	22.1	73.3	3.2	0.7	0.7	0.0	0.0	100.0	6.2	100
	Port Vila	76.1	15.7	7.0	0.4	0.0	0.1	0.6	100.0	11.1	464
	Luganville	53.9	40.0	1.7	1.3	0.4	2.6	0.0	100.0	6.2	153
Area	Urban	70.5	21.8	5.7	0.7	0.1	0.8	0.4	100.0	9.2	617
	Rural	42.1	40.3	9.3	4.3	2.6	0.5	0.9	100.0	14.2	2015
Education of household head	None	36.1	39.8	10.1	6.8	5.5	0.1	1.6	100.0	20.0	332
	Primary	45.7	38.4	9.6	3.9	1.4	0.5	0.4	100.0	12.4	1470
	Secondary +	59.3	30.5	5.8	1.5	0.9	0.9	1.2	100.0	11.5	723
	Non-standard	(48.4)	(39.9)	(5.7)	(0.0)	(6.0)	(0.0)	(0.0)	100.0	(12.5)	35
	Missing/DK	62.5	22.7	7.2	0.0	7.7	0.0	0.0	100.0	19.4	73
Wealth index quintiles	Poorest	30.0	43.6	13.2	6.3	6.0	0.0	0.9	100.0	18.1	525
	Second	36.6	44.5	9.7	5.4	2.6	0.8	0.4	100.0	14.6	547
	Middle	44.4	41.4	9.5	2.7	0.7	0.8	0.4	100.0	10.7	512
	Fourth	58.3	31.7	5.9	1.6	0.6	0.7	1.3	100.0	9.8	533
	Richest	75.4	17.9	4.1	1.1	0.1	0.5	0.9	100.0	10.2	514
Mother tongue of head	Bislama	54.7	36.2	6.6	1.2	0.3	0.8	0.2	100.0	9.1	364
	Other Language	47.7	36.0	8.8	3.8	2.3	0.5	0.8	100.0	14.2	2261
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	7
National		**48.7**	**36.0**	**8.5**	**3.5**	**2.0**	**0.6**	**0.8**	**100.0**	**13.6**	**2632**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Table EN.4 shows the distribution of the households according to the person collecting water used in the households where the source is not in the premises. The data reveals that, adult women collect water in 59 percent households (urban 65.6%, rural 58.4%); while in 30 percent household adult men collect water (urban 21.8%, rural 31.2%). Female and male child under 15 years, of course, collect water in 5 and 3 percent households respectively. The proportions are greater in the rural area than the urban area. Adult women and men play a greater role in collecting water in all the provinces.

Table EN.4: Person collecting water

Percent distribution of households according to the person collecting water used in the household, Vanuatu, 2007

Background Characteristics		Person collecting drinking water						Total	Number of households
		Adult woman	Adult man	Female child (under 15)	Male child (under 15)	DK	Missing		
Region	Tafea	43.2	44.3	5.5	3.8	0.0	3.3	100.0	228
	Shefa	52.9	39.7	1.7	4.1	0.0	1.7	100.0	169
	Malampa	49.1	42.0	4.5	2.7	0.0	1.8	100.0	233
	Penama	61.4	26.5	7.2	1.2	0.0	3.6	100.0	116
	Sanma	73.6	14.4	8.0	2.3	0.0	1.7	100.0	343
	Torba	70.8	23.7	2.7	2.3	0.0	0.5	100.0	78
	Port Vila	57.8	29.2	3.1	2.5	0.0	7.5	100.0	109
	Luganville	77.8	10.4	4.7	0.0	1.4	5.7	100.0	71
Area	Urban	65.6	21.8	3.7	1.5	0.6	6.7	100.0	180
	Rural	58.4	31.2	5.5	2.8	0.0	2.1	100.0	1167
Education of household head	None	58.4	30.0	3.5	2.9	0.2	5.0	100.0	212
	Primary	58.5	31.0	5.5	3.0	0.0	2.0	100.0	798
	Secondary +	63.7	27.0	5.3	0.9	0.1	3.0	100.0	292
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	18
	Missing/DK	(64.9)	(17.8)	(5.1)	(9.7)	(0.0)	(2.5)	(100.0)	27
Wealth index quintiles	Poorest	58.4	32.3	4.3	2.4	0.0	2.6	100.0	368
	Second	55.7	34.3	6.2	2.0	0.0	1.9	100.0	347
	Middle	58.8	28.3	6.9	4.4	0.1	1.4	100.0	285
	Fourth	61.1	29.1	3.6	2.1	0.0	4.1	100.0	223
	Richest	70.3	16.2	4.5	2.2	0.5	6.2	100.0	125
Mother tongue of head	Bislama	64.6	27.3	2.8	1.2	0.2	3.9	100.0	164
	Other Language	58.7	30.4	5.6	2.9	0.1	2.4	100.0	1179
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	4
National		**59.3**	**30.0**	**5.2**	**2.7**	**0.1**	**2.7**	**100.0**	**1347**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Indicators Related to Sanitation

Inadequate disposal of human excreta and poor personal hygiene is associated with different diseases such as diarrhoea, polio, worm infestation, etc. Improved sanitation facilities for excreta disposal provide improved personal hygiene. Improved sanitation facilities include: flush to piped sewerage system, septic tank or pit latrine, ventilated improved pit latrine, pit latrine with slab. However, flush to piped sewerage system does not exist in Vanuatu.

The survey data indicate that, more than 60 percent (63.5%) of the surveyed population live in the households that use improved sanitation facilities. The proportion is 91 percent in the urban area and 55 percent in the rural area (Table EN.5). Across the provinces this proportion ranges from 38 percent in Malampa to 72 percent in Shefa province and to 94 percent in Port Vila city. Improved sanitation facilities have strong positive correlation with household wealth status and education level. Use of improved sanitation facility varies from 38 percent among the poorest households to 97 percent among the richest households.

It is evident from the survey that, still 36 percent of the population uses unimproved sanitation facilities including pit latrine without slab (32.8%) and open field (3.2%). Pit latrine without slab is used in majority households of Malampa (61.6%) and Penama (60.4%).

In the MICS-3, a child's faeces are considered to be safely disposed off if child's last stool/most recent stool (at the time of interview) was rinsed into a toilet or latrine or if the child used a toilet to defecate. Data that describe the disposal of faeces of children 0-2 years of age are presented in Table EN.6.

The data reveal that, the stools of 30 percent of the surveyed children are disposed off safely. The rate varies from 26 percent in the urban area to 31 percent in the rural area. The practice of safe disposal was the lowest in Port Vila and Shefa (20.4% and 20.8% respectively) and the highest in Luganville (39.4%). Education of the mothers shows positive association with the practice of safe disposal of child faeces, ranging from 19 percent with no education to 31 percent with secondary or above level of education. However, household wealth status shows no consistent pattern of variation with the practice of safe disposal of child faeces.

Table EN.5: Use of sanitary means of excreta disposal
Percent distribution of household members according to type of toilet used by the household and the percentage of household members using sanitary means of excreta disposal, Vanuatu, 2007

Background Characteristics		Type of toilet facility used by household								Total	Percentage of population using sanitary means of excreta disposal *	Number of households members
		Improved sanitation facility				Unimproved sanitation facility						
		Flush to septic tank	Flush to pit (latrine)	Ventilated Improved Pit latrine (VIP)	Pit latrine with slab	Pit latrine without slab/open pit	No facilities or bush or field	Other	Missing			
Region	Tafea	0.0	14.7	15.9	23.4	37.5	8.2	0.0	0.3	100.0	54.0	1881
	Shefa	10.2	5.2	23.2	33.0	28.0	0.4	0.0	0.0	100.0	71.6	1983
	Malampa	3.6	8.9	20.2	5.4	61.6	0.2	0.0	0.0	100.0	38.2	2377
	Penama	0.1	1.6	4.7	32.6	60.4	0.0	0.0	0.6	100.0	39.0	1533
	Sanma	2.6	2.9	29.5	33.8	18.6	11.3	0.6	0.7	100.0	68.7	1915
	Torba	1.3	1.2	48.9	18.0	24.1	4.7	1.0	0.7	100.0	69.4	573
	Port Vila	73.4	3.2	10.2	7.5	5.1	0.3	0.2	0.2	100.0	94.3	2341
	Luganville	61.3	4.9	9.8	5.9	14.9	2.2	0.9	0.3	100.0	81.8	769
Area	Urban	70.4	3.6	10.1	7.1	7.5	0.8	0.3	0.2	100.0	91.2	3110
	Rural	3.4	6.6	21.0	24.1	40.4	4.0	0.2	0.3	100.0	55.1	10260
Education of household head	None	6.1	4.4	16.7	17.8	43.2	10.2	0.7	0.9	100.0	45.0	1525
	Primary	10.8	6.5	20.2	23.6	35.7	2.7	0.2	0.3	100.0	61.1	7645
	Secondary +	42.0	6.2	13.3	14.2	22.4	1.7	0.2	0.1	100.0	75.7	3633
	Non-standard	17.8	0.0	43.0	5.2	34.0	0.0	0.0	0.0	100.0	66.0	203
	Missing/DK	13.7	1.2	28.4	24.5	29.3	3.0	0.0	0.0	100.0	67.7	364
Wealth index quintiles	Poorest	0.0	2.8	11.9	22.8	57.9	4.4	0.1	0.0	100.0	37.6	2676
	Second	0.0	5.0	23.0	23.8	43.8	3.7	0.4	0.4	100.0	51.7	2671
	Middle	0.7	7.9	22.5	25.7	39.4	3.3	0.2	0.3	100.0	56.8	2674
	Fourth	13.9	10.6	25.7	23.9	20.4	4.5	0.3	0.6	100.0	74.2	2668
	Richest	80.0	3.2	9.3	4.6	2.4	0.3	0.0	0.2	100.0	97.1	2680
Mother tongue of head	Bislama	47.8	3.9	18.5	9.2	10.8	9.0	0.5	0.2	100.0	79.5	1794
	Other Language	14.4	6.2	18.5	21.9	36.3	2.3	0.2	0.2	100.0	61.0	11539
	Missing	(41.0)	(0.0)	(16.9)	(4.8)	(0.0)	(0.0)	(0.0)	(37.3)	100.0	(62.7)	37
National		**19.0**	**5.9**	**18.5**	**20.1**	**32.8**	**3.2**	**0.2**	**0.3**	**100.0**	**63.5**	**13370**

* MICS Indicator 12; MDG Indicator 31
( ) Figure is based on 25-49 unweighted cases

Table EN.6: Disposal of child's faeces
Percent distribution of children aged 0-2 years according to place of disposal of child's faeces, and the percentage of children aged 0-2 years whose stools are disposed of safely, Vanuatu, 2007

Background Characteristics		What was done to dispose of the stools									Total	children whose stools are disposed off safely *	Number of children aged 0-2 years
		Child used toilet/ latrine	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage (solid waste)	Buried	Left in the open	Other	DK	Missing			
Region	Tafea	4.3	27.8	17.9	2.5	26.5	10.5	3.1	1.2	6.2	100.0	32.1	194
	Shefa	0.8	20.0	49.6	8.8	17.6	0.0	1.6	0.0	1.6	100.0	20.8	170
	Malampa	2.1	36.5	15.6	4.2	24.0	2.1	13.5	0.0	2.1	100.0	38.5	197
	Penama	0.0	35.4	12.5	0.0	26.0	0.0	20.8	0.0	5.2	100.0	35.4	128
	Sanma	5.4	18.9	5.4	6.8	36.5	1.4	20.3	2.7	2.7	100.0	24.3	137
	Torba	(10.2)	(24.4)	(20.5)	(2.4)	(17.3)	(3.1)	(5.5)	(2.4)	(14.2)	(100.0)	(34.6)	43
	Port Vila	5.5	14.9	19.9	42.8	7.0	0.0	2.0	1.0	7.0	100.0	20.4	133
	Luganville	12.5	26.9	7.5	21.9	8.7	0.6	13.7	1.2	6.9	100.0	39.4	54
Area	Urban	7.5	18.4	16.3	36.8	7.5	0.2	5.4	1.1	6.9	100.0	25.9	187
	Rural	3.0	27.8	20.9	4.4	25.3	3.2	10.6	0.8	4.1	100.0	30.7	869
Mother's education	None	4.7	14.2	9.6	3.3	28.2	17.8	10.4	0.0	11.8	100.0	18.8	87
	Primary	3.4	27.2	22.2	8.0	22.7	1.7	10.1	1.3	3.5	100.0	30.6	665
	Secondary	4.3	26.7	18.8	16.9	19.1	0.4	8.7	0.1	4.8	100.0	31.1	302
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	(*)	2
Wealth index quintiles	Poorest	1.9	22.0	19.3	2.1	29.1	9.3	9.6	0.0	6.6	100.0	23.9	229
	Second	3.9	30.0	18.1	4.3	26.5	1.2	13.2	0.9	2.0	100.0	33.8	282
	Middle	2.9	31.3	21.3	1.8	24.4	1.7	10.7	0.9	4.9	100.0	34.2	199
	Fourth	2.3	28.2	25.3	13.7	16.0	0.0	8.2	2.3	4.0	100.0	30.5	195
	Richest	9.3	15.8	16.8	39.3	8.0	0.0	4.0	0.2	6.6	100.0	25.1	151
Mother tongue of head	Bislama	7.5	20.4	20.3	18.3	20.7	0.3	5.2	0.3	7.0	100.0	27.9	107
	Other Language	3.3	26.6	20.1	9.2	22.3	2.9	10.2	0.9	4.3	100.0	30.0	946
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	(*)	2
National		**3.8**	**26.1**	**20.1**	**10.1**	**22.1**	**2.7**	**9.7**	**0.9**	**4.6**	**100.0**	**29.9**	**1056**

* MICS indicator 14
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

An overview of the percentage of households with improved sources of drinking water and improved sanitary facilities of excreta disposal is given in table EN.7. A combined indicator has been formed that measures the percentage of household population that are using both of 'improved source of drinking water' and 'improved sanitary facilities of excreta disposal'. About 57 percent of the surveyed household population meet this standard (urban 90.1%, rural 46.5%), ranging from 34 percent in Malampa to 93 percent in Port Vila. The data show that, the higher values of this indicator are associated with urban residence, increasing wealth status of the households and increasing level of education of the household heads.

Access of the people to safe drinking water is found to be 85 percent in the MICS-3. Comparison with last census is not possible because the census data did not consider the protected well and spring, and rainwater as safe source. Proportion of households having improved sanitation facilities has also increased during this period from 42 percent to 62 percent. Now 57 percent of the household population are using both improved source of drinking water and improved sanitation facilities of

excreta disposal. The government should enhance its water and sanitation policies and programs to provide the people those have no access to safe drinking water and improved sanitation facilities.

Table EN.7: Use of improved water sources and improved sanitation
Percentage of household population using both improved drinking water sources and sanitary means of excreta disposal, Vanuatu, 2007

Background Characteristics		Percentage of household population using improved sources of drinking water *	Percentage of household population using sanitary means of excreta disposal **	Percentage of household population using improved sources of drinking water and using sanitary means of excreta disposal	Number of household members
Region	Tafea	74.3	54.0	41.2	1881
	Shefa	91.8	71.6	67.5	1983
	Malampa	84.6	38.2	34.0	2377
	Penama	83.6	39.0	36.3	1533
	Sanma	67.0	68.7	47.4	1915
	Torba	94.7	69.4	68.2	573
	Port Vila	97.6	94.3	93.0	2341
	Luganville	98.4	81.8	81.4	769
Area	Urban	97.8	91.2	90.1	3110
	Rural	81.2	55.1	46.5	10260
Education of household head	None	75.3	45.0	34.4	1525
	Primary	83.3	61.1	52.9	7645
	Secondary +	93.2	75.7	73.4	3633
	Non-standard	82.7	66.0	63.9	203
	Missing/DK	84.6	67.7	58.3	364
Wealth index quintiles	Poorest	69.2	37.6	26.8	2676
	Second	78.5	51.7	39.7	2671
	Middle	85.5	56.8	49.2	2674
	Fourth	92.3	74.2	70.6	2668
	Richest	99.8	97.1	96.9	2680
Mother tongue of head	Bislama	97.9	79.5	78.1	1794
	Other Language	83.1	61.0	53.3	11539
	Missing	(62.7)	(62.7)	(62.7)	37
National		**85.1**	**63.5**	**56.7**	**13370**

* MICS indicator 11; MDG indicator 30
** MICS indicator 12; MDG indicator 31
( ) Figure is based on 25-49 unweighted cases

Security of Tenure

One of the targets of the MDGs is the achievement of significant improvements in the lives of the dwellers. A household is considered to be at risk of eviction when the household members do not have formal documentation for residence (such as deeds or tenants contracts), or if household members feel at risk of eviction from the dwelling. The Millennium declaration targets for the slum dwellers in urban area and accordingly MICS-3 in other countries assess the status of them. But in Vanuatu, slums are not defined and the MICS-3 attempted to assess the situation for the households in both urban and rural areas.

The study revealed that, 18 percent women aged 15-49 years fear eviction from their households, the proportion is slightly higher in the urban area (19.7%) than the rural area (16.8%) and the provincial differentials are observed in this regard (Table OT.1). The proportion of women fearing eviction is the highest in Torba (50.1%) and the lowest in Malampa (12.3%), and in all other provinces it ranges from 13 to 22 percent; while it is 18 percent and 25 percent in Port Vila city and Luganville city respectively. Some differences in this proportion are also observed in respect of wealth status of households but do not show any consistent pattern. It is also observed that the women in the younger age groups are more likely to be afraid of eviction than those in the older age groups.

Table OT.1: Women aged 15-49 years fearing of eviction
Percentage of women aged 15-49 years fearing of eviction from their dwelling, Vanuatu, 2007

		Fearing of eviction from the household	Number of women
Region	Tafea	13.9	353
	Shefa	21.6	392
	Malampa	12.3	492
	Penama	12.6	260
	Sanma	13.3	368
	Torba	50.1	110
	Port Vila	17.9	542
	Luganville	25.4	174
Area	Urban	19.7	716
	Rural	16.8	1976
Age	15-19	28.7	481
	20-24	20.5	602
	25-29	14.9	437
	30-34	14.4	387
	35-39	12.0	358
	40-44	9.3	227
	45-49	13.1	201
Education	None	18.8	171
	Primary	17.8	1689
	Secondary +	16.8	810
	Non-standard curriculum	(*)	22
Wealth index quintiles	Poorest	15.8	476
	Second	13.8	564
	Middle	21.7	522
	Fourth	19.0	515
	Richest	17.7	615
Mother tongue of head	Bislama	22.9	393
	Other Language	16.5	2291
	Missing	(*)	8
National		**17.6**	**2692**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

8. REPRODUCTIVE HEALTH

Contraception

Use of family planning methods is important not only for fertility control, but also for the health of mothers and children by: 1) preventing pregnancies that are too early or too late, 2) extending the period between births, and 3) limiting the number of children. A world Fit for Children goal is 'access by all couples to information and services to prevent pregnancies that are too early, too closely placed, too late or too many'. In Vanuatu, the commonly used modern methods of contraception are: 1) female sterilization, 2) male sterilization, 3) pill, 4) IUD, 5) injections, 6) implants, 7) condom, and 9) diaphragm/foam/jelly.

38% use some method (urban: 42% and rural: 38%); highest in Torba

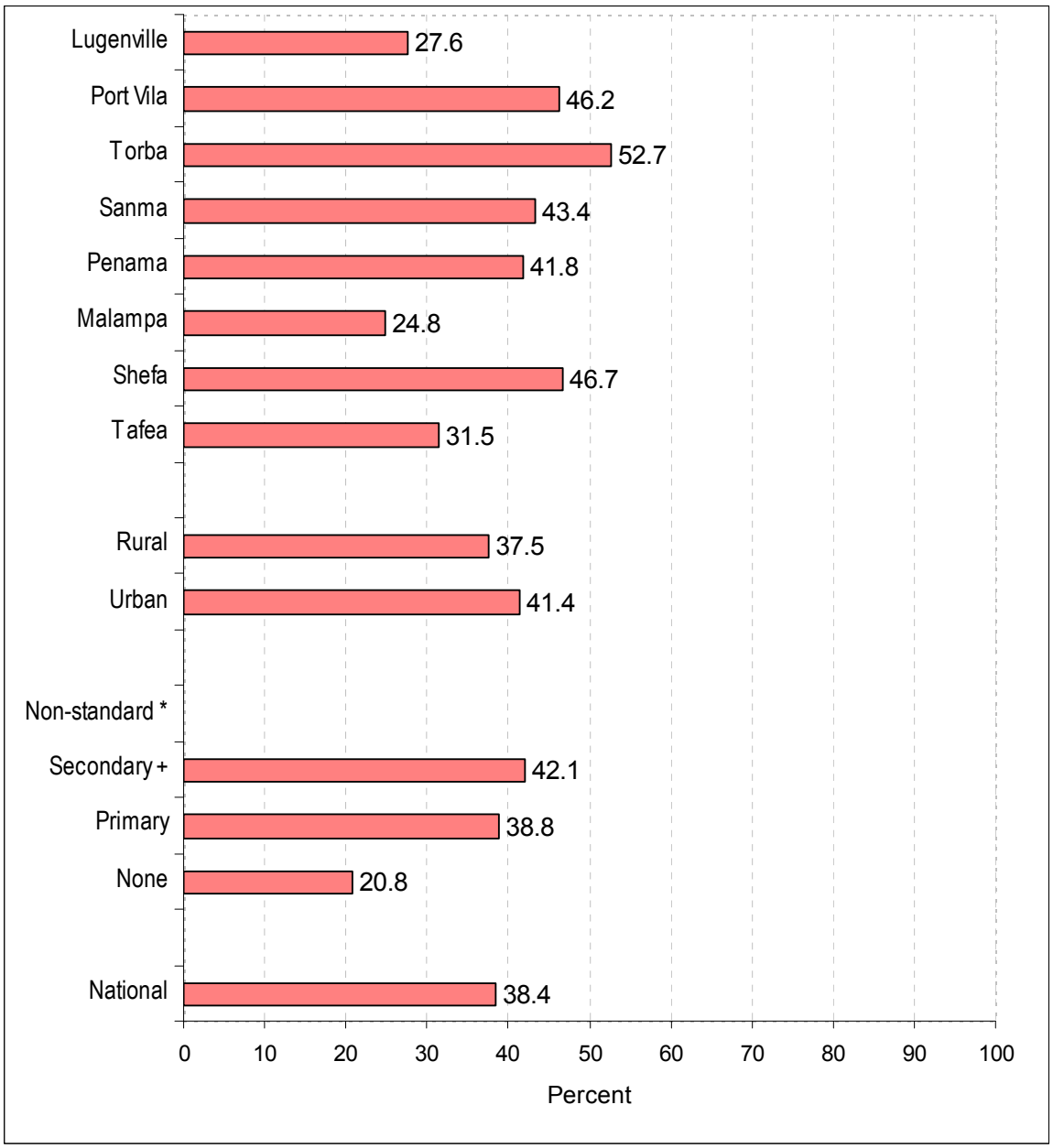
Table RH.1 shows the percentage of currently married women of reproductive age those are currently using family planning methods by selected background characteristics. Overall, 38 percent of the women aged 15-49 years, married or in-union, are currently using any contraceptive method, of which 37 percent are using modern methods and nearly 2 percent are using traditional methods. Pill is by far the most popular modern contraceptive method used by 16 percent married women in Vanuatu (urban: 18.7%, rural: 14.7%). The next most popular method is injectables that are used by 11 percent married women (urban: 9.9%, rural: 10.8%) and female sterilization used by 6 percent women. IUD is used by only 3 percent women. Other methods are used by less than one percent women.

Urban women are more likely to use family planning methods than that of rural women (41.4% vs. 37.5%). Contraceptive prevalence rate varies widely across the provinces, ranging from 25 percent in Malampa to 53 percent in Torba. Considerable proportion (34.5%) of the adolescent girls aged 15-19 years is using some methods of contraception. Contraceptive prevalence rate increased to a peak of 48 percent for the women aged 30-34 years and then decreased to a rate of 24 percent for the women aged 45-49 years indicating a curvilinear pattern of relationship between age and contraceptive use.

Women's educational level and household wealth status are strongly associated with contraceptive prevalence. Proportion of women using any method of contraception steadily rises from 21 percent among those with no education to 39 percent with primary education, and 42 percent with secondary education.

Contraceptive prevalence rate (CPR) in Vanuatu has increased by about 10 percent over the Ministry of Health's estimated value of 1999 (28.0%), still it is lower than most other neighbouring Pacific countries. The contraceptive method mix that has been developed in Vanuatu is pill dominated, as 41 percent of the total users are using pills, whose effectiveness is less than any other modern methods. Concerted efforts are needed to improve the contraceptive prevalence situation. Promotion of long acting method would bring more positive effect on fertility reduction.

Figure RH.1: Percentage of women aged 15-49 who are married or in union and using (or whose partner is using) a contraceptive method, Vanuatu, 2007



** Bar could not be produced due to less than 25 unweighted cases*

Table RH.1: Use of contraception

Percentage of married or in union women aged 15-49 years who are using (or whose partner is using) a contraceptive method, Vanuatu, 2007

Background Characteristics		Percent of women (currently married or inunion) who are using:														Total	Any modern method	Any traditional method	Any method *	Number of women currently married or in union
		Not using any method	Female sterilization	Male sterilization	Pill	IUD	Injections	Implants	Condom	Female condom	Diaphragm /foam/jelly	LAM	Periodic abstinence	Withdrawal	Other					
Region	Tafea	68.5	4.8	0.0	9.6	1.8	11.6	0.6	0.4	0.4	1.4	0.0	1.0	0.0	0.0	100.0	30.5	1.0	31.5	283
	Shefa	53.3	19.4	0.9	11.2	2.5	5.3	0.0	2.1	0.0	0.0	1.1	3.2	0.5	0.6	100.0	41.4	5.3	46.7	280
	Malampa	75.2	1.2	0.0	9.8	0.0	9.7	0.0	0.6	0.8	1.2	0.0	0.6	0.0	1.2	100.0	23.1	1.7	24.8	361
	Penama	58.2	4.2	0.0	20.7	2.4	12.2	0.6	1.3	0.0	0.0	0.0	0.6	0.0	0.0	100.0	41.3	0.6	41.8	222
	Sanma	56.6	1.3	0.0	23.4	2.0	14.7	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.7	100.0	42.1	1.3	43.4	280
	Torba	47.3	6.3	4.4	21.7	2.7	16.2	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0	100.0	51.3	1.5	52.7	74
	Port Vila	53.8	5.9	0.2	20.9	6.1	10.6	0.0	2.3	0.0	0.0	0.0	0.2	0.0	0.0	100.0	46.0	0.2	46.2	333
	Luganville	72.4	3.1	0.0	12.6	2.3	7.9	0.3	0.6	0.0	0.0	0.0	0.0	0.8	0.0	100.0	26.8	0.8	27.6	115
Area	Urban	58.6	5.2	0.2	18.7	5.1	9.9	0.1	1.9	0.0	0.0	0.0	0.2	0.2	0.0	100.0	41.0	0.4	41.4	448
	Rural	62.5	6.0	0.4	14.7	1.7	10.8	0.2	0.9	0.3	0.5	0.2	1.0	0.2	0.6	100.0	35.5	2.0	37.5	1500
Age	15-19	65.5	0.0	0.0	21.2	3.3	7.4	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	100.0	34.5	0.0	34.5	62
	20-24	66.0	1.3	0.0	13.0	2.9	11.1	0.5	1.1	0.7	0.4	0.7	1.9	0.0	0.4	100.0	30.9	3.0	34.0	416
	25-29	55.0	1.9	0.0	22.1	2.5	15.7	0.0	1.1	0.0	0.3	0.0	0.3	0.9	0.1	100.0	43.6	1.4	45.0	376
	30-34	51.9	6.4	0.7	20.6	3.2	12.7	0.4	2.6	0.0	0.9	0.0	0.5	0.2	0.0	100.0	47.4	0.7	48.1	355
	35-39	60.1	9.2	0.6	14.6	3.4	8.7	0.0	0.3	0.3	0.6	0.0	1.0	0.0	1.1	100.0	37.8	2.1	39.9	341
	40-44	69.6	13.0	1.0	7.8	0.5	7.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.0	100.0	29.2	1.2	30.4	211
	45-49	75.6	10.0	0.0	8.4	0.4	4.1	0.0	0.7	0.0	0.0	0.0	0.7	0.0	0.2	100.0	23.5	0.9	24.4	188
Number of living children	0	80.9	0.2	0.0	8.5	0.5	3.2	0.0	2.3	0.0	1.3	0.0	0.8	0.0	2.3	100.0	16.0	3.1	19.1	159
	1	63.6	1.3	0.0	12.1	4.0	15.7	0.1	1.3	0.0	0.9	0.0	1.0	0.0	0.0	100.0	35.5	1.0	36.4	325
	2	58.7	3.4	0.0	23.4	2.5	7.5	0.3	0.8	0.7	0.0	0.4	1.5	0.6	0.0	100.0	38.8	2.5	41.3	387
	3	56.0	5.7	0.1	19.3	4.1	11.0	0.4	1.2	0.0	0.8	0.4	0.0	0.3	0.6	100.0	42.6	1.3	44.0	395
	4 or more	60.9	10.6	0.9	12.5	1.3	11.4	0.0	0.9	0.2	0.0	0.0	0.9	0.0	0.3	100.0	37.8	1.2	39.1	682
Education	None	79.2	2.6	1.0	5.7	0.3	10.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	100.0	19.7	1.1	20.8	139
	Primary	61.2	6.8	0.1	15.5	1.6	10.7	0.3	1.0	0.3	0.5	0.2	0.9	0.2	0.5	100.0	36.8	2.0	38.8	1272
	Secondary +	57.9	4.1	0.6	18.9	4.9	10.5	0.0	1.7	0.0	0.4	0.0	0.5	0.2	0.3	100.0	41.1	1.0	42.1	525
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	13
Wealth index quintiles	Poorest	69.5	2.6	0.4	12.7	0.9	10.1	0.5	0.4	0.3	0.5	0.0	1.7	0.0	0.5	100.0	28.3	2.1	30.5	377
	Second	59.7	3.1	0.3	18.5	1.3	14.6	0.0	0.7	0.0	1.0	0.3	0.3	0.0	0.2	100.0	39.5	0.8	40.3	448
	Middle	65.2	8.0	0.3	14.0	1.1	8.0	0.0	0.9	0.7	0.5	0.0	0.4	0.9	0.0	100.0	33.5	1.3	34.8	394
	Fourth	57.9	8.1	0.5	12.5	3.4	12.0	0.5	1.7	0.0	0.0	0.4	1.8	0.0	1.2	100.0	38.7	3.4	42.1	355
	Richest	55.4	7.7	0.2	20.0	6.0	7.8	0.0	2.0	0.0	0.0	0.0	0.2	0.2	0.4	100.0	43.8	0.8	44.6	374
Mother tongue of head	Bislama	66.3	4.7	0.4	14.2	4.0	8.1	0.0	1.4	0.0	0.0	0.0	0.0	0.9	0.0	100.0	32.8	0.9	33.7	275
	Other Language	60.7	6.0	0.3	16.0	2.2	11.1	0.2	1.1	0.2	0.5	0.2	1.0	0.1	0.5	100.0	37.6	1.7	39.3	1667
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	6
National		**61.6**	**5.8**	**0.3**	**15.7**	**2.5**	**10.6**	**0.2**	**1.1**	**0.2**	**0.4**	**0.2**	**0.8**	**0.2**	**0.4**	**100.0**	**36.8**	**1.6**	**38.4**	**1949**

* MICS indicator 21; MDG indicator 19C

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Antenatal Care

Antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. A better understanding of foetal growth and development and its relationship to the mothers' health has resulted in increased attention to the potential antenatal care as an intervention to improve both maternal and newborn health. For example, if the antenatal period is used to inform women and families about the danger signs, symptoms and the risks of labour and delivery, during the antenatal period, this may in turn help to ensure that pregnant women seek the assistance of a skilled health care provider during delivery. The antenatal period also represents an important opportunity to supply pregnant women and their family members with information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both mother and her infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy, and prevention and treatment of sexually transmitted infections (STIs) can significantly improve foetal outcomes and maternal health.

Adverse outcomes such as low birth weight can be reduced through a combination of interventions to improve women's nutritional status and prevent infections, e.g., malaria and STI during pregnancy. More recently, the potential of the antenatal period as an entry point for HIV prevention and care, in particular for the prevention of HIV transmission from mother-to-child, has led to renewed interest in access to, and use of antenatal services.

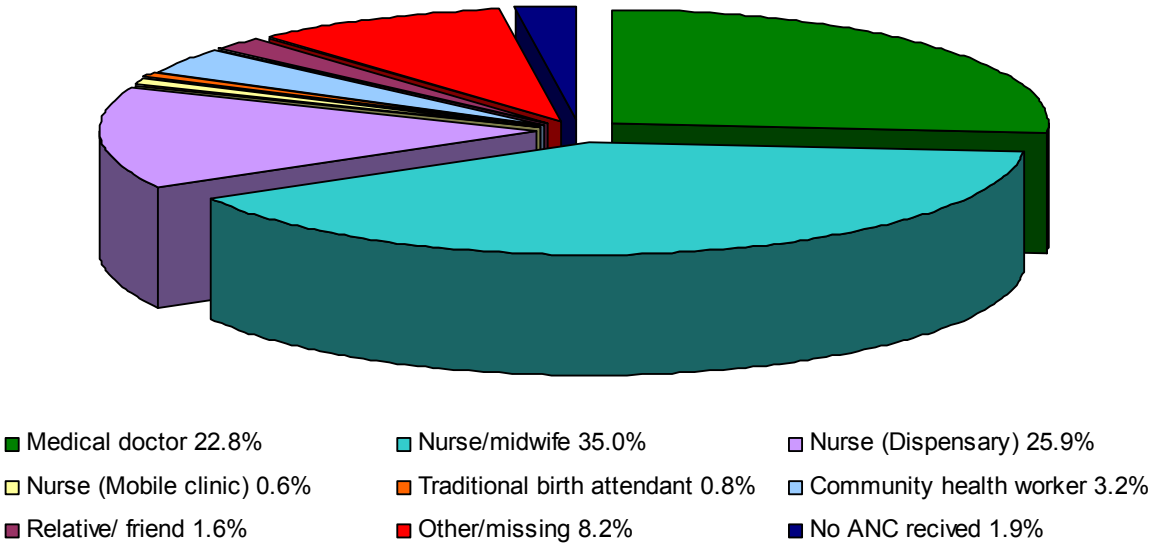
Based on a review of the effectiveness of different models of ANC, it is recommended by WHO that each pregnant woman make a minimum of four antenatal visits. WHO recommends that the following services be included in the ANC visits:

- Urine testing for bacteriuria and proteinuria,
- Blood testing to detect syphilis and severe anaemia,
- Weight and height measurement (optional).

ANC 1-2 times: overall 98%, but ANC from skilled person: 84%, No difference between two areas; Midwife, nurse were most common ANC providers

ANC coverage by a skilled provider is relatively high as 84 percent pregnant women receive ANC from a skilled provider (i.e., doctor, nurse or midwife) at least once during their last pregnancy (Table RH.3). An additional 14 percent receive ANC from an unskilled provider. Only 2 percent of the pregnant women did not receive any ANC. The percentage of women received ANC from a skilled provider is the lowest in Torba (43.3%), and in all other provinces it ranges from 73 percent in Sanma rural to 95 percent in Shefa rural. Urban women are more likely to receive ANC than the rural women (87.4% vs. 83.7%). ANC coverage is relatively high across different age groups of young women (15-39 years) ranging from 83 percent in the age group of 35-39 years to 90 percent in 30-34 years age group. The use of antenatal services is positively associated with increasing levels of education of the pregnant woemn and increasing household wealth status.

Figure RH.2: Type of personnel assisting with delivery among women aged 15-49 who gave birth in the two years preceding the survey, Vanuatu, 2007



The type of personnel providing ANC to women aged 15-49 years, those gave birth in two years preceding the MICS-3 survey, is also presented in Table RH.3. The majority of services that are given by the skilled personnel are provided by nurses or midwives (nationally 35.0%, urban 27.8%, rural 36.3%); followed by nurse (dispensary) (overall 25.9%, urban 4.0%, rural 29.9%), and medical doctor (overall 22.8%, urban 55.3%, rural 16.9%). The proportion of women received ANC from a medical doctor is much lower in Penama (1.4%) and Malampa, Sanma rural and Torba (8.4% to 9.2%); and in all other provinces it ranges from 26 percent in Tafea to 60 percent in Port Vila city. Women of wealthier urban families with more educated pregnant women have a greater tendency to receive ANC from medical doctors as well.

Table RH.4 shows the percentage of pregnant women receive specific care during ANC visits. One or more ANC visit during pregnancy is almost universal in Vanuatu, as 98 percent of the pregnant women had one or more ANC visits during last pregnancy. There are very little variations in ANC visits across the provinces, and socio-economic and demographic factors of the mothers. The data indicate that, more than two-third of the pregnant women had a blood sample taken (68.9%) and a urine specimen taken (69.3%) respectively. Blood pressure and weight of over 80 and 85 percent of all pregnant women respectively were measured. The proportions of pregnant women who had these tests and measure taken during their ANC visits are slightly higher in the urban area than the rural area. Women, receiving various tests as mentioned above, vary widely across the provinces. Women's education shows a positive relationship with the tests taken. Poorest group of women are less likely to take the tests compared to the richest women.

About 84 percent pregnant women receive ANC services from skilled providers, while it is 78 percent in Papua New Guinea and the regional average of the East Asia and the Pacific is 88 percent. The ANC coverage by skilled provider in Vanuatu is as high as the regional average and higher than the world average of 71 percent. The GoV should make efforts for further improvement of the quality of ANC and the extent of coverage among the poor and illiterate population particularly in rural areas.

Table RH.3: Antenatal care provider

Percent distribution of women aged 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care, Vanuaty, 2007

Background Characteristics		Person providing antenatal care									Total	Any skilled personnel *	# of women who gave birth in the preceding two years
		Medical doctor	Nurse/ midwife	Nurse (Dispensary)	Nurse (Mobile clinic)	Traditional birth attendant	Community health worker	Relative/ Friend	Other/ missing	No ANC received			
Region	Tafea	25.8	34.5	22.7	0.0	0.8	5.3	4.5	3.4	3.0	100.0	83.0	149
	Shefa	36.6	38.0	17.1	3.6	1.1	1.3	0.0	1.1	1.1	100.0	95.3	116
	Malampa	9.2	38.7	44.6	0.0	1.3	0.0	1.3	3.6	1.3	100.0	92.6	162
	Penama	1.4	37.3	42.5	0.0	1.7	3.3	0.0	10.7	3.1	100.0	81.2	90
	Sanma	9.1	38.2	25.2	0.0	0.0	11.3	0.0	13.9	2.2	100.0	72.6	84
	Torba	(8.4)	(20.9)	(14.0)	(0.0)	(0.0)	(5.4)	(2.5)	(47.8)	(1.0)	100.0	(43.3)	37
	Port Vila	60.2	28.3	5.3	0.0	0.0	0.0	1.7	3.5	0.9	100.0	93.8	80
	Luganville	(44.4)	(26.7)	(1.1)	(0.9)	(0.9)	(0.9)	(1.9)	(22.1)	(1.1)	100.0	(73.1)	36
Area	Urban	55.3	27.8	4.0	0.3	0.3	0.3	1.8	9.3	1.0	100.0	87.4	116
	Rural	16.9	36.3	29.9	0.7	0.9	3.8	1.5	8.0	2.0	100.0	83.7	639
Age	15-19	11.1	36.7	37.1	0.0	0.0	3.5	1.4	9.6	0.7	100.0	84.9	58
	20-24	23.0	37.6	23.7	0.5	0.5	3.7	0.2	10.0	0.8	100.0	84.8	291
	25-29	30.4	26.0	26.2	1.0	1.0	3.1	3.5	7.0	1.9	100.0	83.5	166
	30-34	22.3	44.4	22.2	1.1	0.0	1.8	0.9	4.4	2.8	100.0	90.0	119
	35-39	17.7	36.5	28.8	0.0	0.0	4.8	3.0	7.9	1.3	100.0	82.9	85
	40-44	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	24
	45-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	11
Education	None	21.8	31.1	19.6	0.0	5.4	3.1	8.4	6.8	3.8	100.0	72.5	59
	Primary	19.1	32.8	30.1	0.9	0.6	4.0	1.0	10.1	1.5	100.0	82.8	488
	Secondary +	32.0	41.4	17.9	0.2	0.2	1.5	0.9	3.9	2.1	100.0	91.4	207
	Non-standard	-	-	-	-	-	-	-	-	-	-	-	0
Wealth index quintiles	Poorest	10.7	35.4	31.8	0.0	2.5	3.0	3.2	10.5	3.0	100.0	77.8	191
	Second	16.2	40.5	30.9	0.0	0.7	3.8	0.0	6.3	1.8	100.0	87.5	202
	Middle	19.8	33.1	26.1	1.9	0.0	5.2	0.6	11.7	1.5	100.0	81.0	148
	Fourth	35.4	30.9	22.7	1.0	0.0	2.1	2.9	3.6	1.5	100.0	90.0	135
	Richest	53.7	30.7	3.7	0.4	0.4	0.4	1.3	8.9	0.5	100.0	88.5	78
Mother tongue of head	Bislama	39.3	35.2	3.3	0.5	0.0	3.0	1.6	16.6	0.6	100.0	78.3	68
	Other Language	21.1	35.0	28.1	0.6	0.9	3.2	1.6	7.4	2.0	100.0	84.9	686
National		**22.8**	**35.0**	**25.9**	**0.6**	**0.8**	**3.2**	**1.6**	**8.2**	**1.9**	**100.0**	**84.3**	**755**

* MICS indicator 20

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Table RH.4: Antenatal care
Percentage of pregnant women receiving antenal care among women aged 15-49 years who gave birth in two years preceding the survey and percentage of pregnant women receiving specific care as part of the antenatal care received, Vanuatu, 2007

Background Characteristics		Percent of pregnant women receiving ANC one or more times during pregnancy*	Percent of pregnant women who had:				Number of women who gave birth in two years preceding survey
			Blood sample taken	Blood pressure measured	Urine specimen taken	Weight measured	
Region	Tafea	97.0	63.3	73.9	55.7	83.4	149
	Shefa	98.9	91.7	96.6	95.3	96.4	116
	Malampa	98.7	59.5	86.7	81.3	90.8	162
	Penama	96.9	64.4	72.4	47.7	80.0	90
	Sanma	97.8	62.8	67.3	49.8	70.0	84
	Torba	(99.0)	(21.9)	(37.4)	(17.7)	(45.6)	37
	Port Vila	99.1	92.9	94.7	94.7	94.7	80
	Luganville	(98.9)	(81.8)	(84.6)	(83.7)	(84.6)	36
Area	Urban	99.0	89.5	91.6	91.3	91.6	116
	Rural	98.0	65.2	78.1	65.3	83.2	639
Age	15-19	99.3	61.2	62.0	61.4	70.5	58
	20-24	99.2	64.6	78.6	71.8	86.1	291
	25-29	98.1	71.2	85.9	74.4	86.6	166
	30-34	97.2	81.5	87.8	68.0	90.6	119
	35-39	98.7	70.9	83.1	64.8	83.3	85
	40-44	(*)	(*)	(*)	(*)	(*)	24
	45-49	(*)	(*)	(*)	(*)	(*)	11
Education	None	96.2	65.0	70.7	54.7	74.1	59
	Primary	98.5	67.9	78.4	68.6	83.2	488
	Secondary +	97.9	72.6	87.1	75.2	90.7	207
	Non-standard	-	-	-	-	-	0
Wealth index quintiles	Poorest	97.0	56.9	69.2	54.2	77.9	191
	Second	98.2	73.4	84.7	70.6	87.6	202
	Middle	98.5	59.6	76.6	64.4	81.6	148
	Fourth	98.5	77.5	86.1	81.3	88.3	135
	Richest	99.5	89.7	91.4	91.0	91.4	78
Mother tongue of head	Bislama	99.4	77.1	78.6	77.5	80.8	68
	Other Language	98.0	68.1	80.3	68.5	84.8	686
National		**98.1**	**68.9**	**80.2**	**69.3**	**84.5**	**755**

* MICS indicator 44
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Assistance During Delivery

Globally, three quarters of all maternal deaths occur during delivery and the immediate postpartum period. The single most critical intervention for safe motherhood is to ensure that a competent health worker with midwifery skills is present at every birth and that transport is available to a referral facility for obstetric care in case of emergency. The relevant goal from 'A World Fit for Children' is to ensure that women have ready and affordable access to skilled attendance at delivery. The MICS-3 indicators related to assistance at delivery are (i) the percentage of births that occur with a skilled attendant present, and (ii) percentage of deliveries that take place in health facilities. The indicator regarding skilled attendant at delivery is also used to track progress toward the Millennium Development Goal of

reducing the maternal mortality ratio by three quarters during 1990 to 2015. The MICS-3 questionnaire included a number of questions to assess the percentage of births attended by skilled attendant. A skilled attendant is defined as doctor, nurse, midwife or auxiliary midwife. However, Vanuatu does not have auxiliary midwife.

Nearly three-fourth (74.0%) of women aged 15-49 years, who gave birth in two years preceding the survey, had their delivery attended by any skilled personnel (Table RH.5). This percentage is the highest in Port Vila (94.7%) and the lowest in Torba (32.0%). The proportion increases with the increasing level of education of women and increasing wealth status of the families. Urban women (86.8%) are more likely to receive delivery assistance from skilled personnel than the rural women (71.6%).

About 40 percent of births (with no urban-rural differential) were delivered with assistance of a nurse or midwife during two years preceding the survey. Medical doctors attended 22 percent of births (urban 45.6% and rural 17.3%) while 13 percent of births (urban 1.2% and rural 14.5%) were assisted by nurse (dispensary). The delivery assisted by nurse at dispensary is predominant in rural area. The proportion of delivery assisted by medical doctors is almost nil in Penama, very low in Torba (2.2%) and Malampa (6.4%) and in all other provinces it ranges from 21 percent to 49 percent. The provincial differential in case of proportion of deliveries assisted by a nurse or midwife ranges between 21 to 52 percent.

About 80 percent women aged 15-49 years had their childbirth in health facilities and 74 percent child births were attended by skilled personnel. The proportion of deliveries attended by skilled personnel is lower than the deliveries in the health facilities due to the fact that, for any delivery people bring the pregnant women to the nearest health facility, though there might be no trained personnel in that facility. UNICEF reported that the proportion of child births attended by skilled personnel in Vanuatu is close to the regional average of East Asia and the Pacific region at 88 percent which is greater than the world average of 63 percent (UNICEF, 2007). For further improvement of reproductive health facilities GoV should develop and implement policies and programs for mother friendly health facilities particularly in rural areas.

Figure RH.3: Health facility deliveries among women aged 15-49 years who gave birth in the two years preceding the survey, Vanuatu, 2007

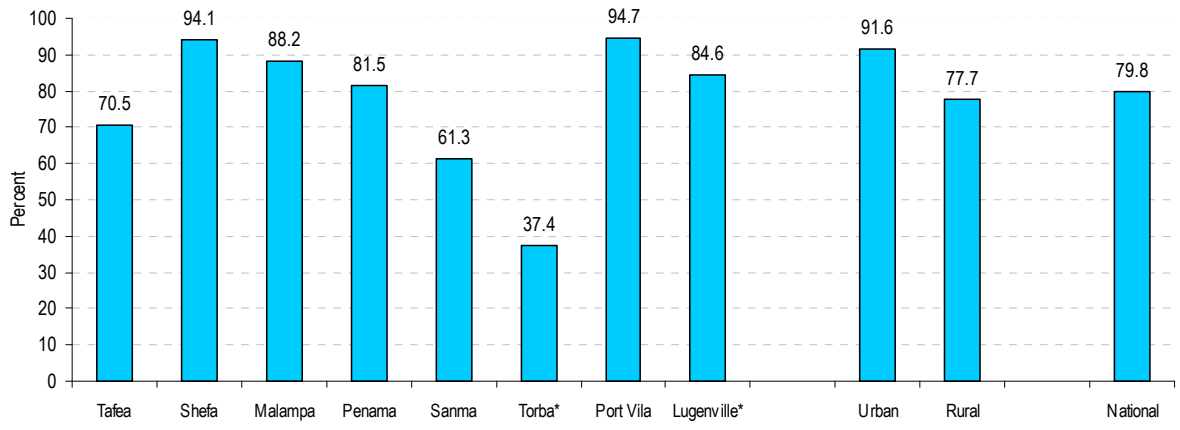


*Figure is based on 25-49 unweighted cases

Table RH.5: Assistance during delivery

Percent distribution of women aged 15-49 with a birth in two years preceding the survey by type of personnel assisting at delivery, Vanuatu, 2007

Background Characteristics		Person assisting at delivery								Total	Delivered by any skilled personnel *	Delivered in health facility **	Number of women who gave birth in preceding two years
		Medical doctor	Nurse/midwife	Nurse (Dispensary)	Traditional birth attendant	Community health worker	Relative/ friend	Other/ missing	No attendant				
Region	Tafea	25.8	33.7	6.8	4.5	4.9	18.2	5.3	0.8	100.0	66.3	70.5	149
	Shefa	37.3	48.5	8.3	0.0	1.3	2.3	2.3	0.0	100.0	94.1	94.1	116
	Malampa	6.4	43.3	22.0	1.3	0.0	22.0	4.9	0.0	100.0	71.8	88.2	162
	Penama	0.0	51.5	27.3	3.1	0.0	7.4	10.7	0.0	100.0	78.9	81.5	90
	Sanma	20.7	26.9	11.5	2.4	2.4	20.0	16.1	0.0	100.0	59.1	61.3	84
	Torba	(2.2)	(21.9)	(7.9)	(0.0)	(6.2)	(14)	(47.8)	(0.0)	(100.0)	(32.0)	(37.4)	37
	Port Vila	44.2	48.7	1.7	0.0	0.0	1.8	3.5	0.0	100.0	94.7	94.7	80
	Luganville	(48.5)	(20.7)	(0.0)	(0.0)	(1.8)	(5.0)	(24.1)	(0.0)	(100.0)	(69.2)	(84.6)	36
Area	Urban	45.6	40.0	1.2	0.0	0.6	2.8	9.9	0.0	100.0	86.8	91.6	116
	Rural	17.3	39.8	14.5	2.1	2.1	14.7	9.3	0.2	100.0	71.6	77.7	639
Age	15-19	11.3	40.5	21.0	2.9	3.5	11.2	9.6	0.0	100.0	72.9	72.8	58
	20-24	20.4	42.1	12.3	1.8	1.3	11.4	10.7	0.0	100.0	74.8	83.1	291
	25-29	27.3	37.3	9.2	0.7	1.1	17.6	6.8	0.0	100.0	73.8	81.9	166
	30-34	20.7	44.7	12.8	0.0	3.4	11.4	6.1	0.9	100.0	78.2	84.1	119
	35-39	20.2	35.8	14.4	1.5	1.3	13.1	13.7	0.0	100.0	70.4	69.1	85
	40-44	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	(*)	(*)	24
	45-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	(*)	(*)	11
Education	None	22.9	21.9	6.6	8.3	5.0	27.9	7.3	0.0	100.0	51.4	59.0	59
	Primary	18.5	37.6	15.4	1.5	1.6	13.6	11.7	0.0	100.0	71.5	78.8	488
	Secondary +	28.7	50.2	7.2	0.6	1.4	7.0	4.3	0.5	100.0	86.2	88.5	207
Wealth index quintiles	Poorest	10.7	27.8	16.5	6.5	0.2	25.3	12.4	0.6	100.0	55.0	66.3	191
	Second	17.2	48.9	11.8	0.0	1.6	13.1	7.3	0.0	100.0	78.0	83.5	202
	Middle	17.8	36.7	18.3	0.8	3.6	10.5	12.4	0.0	100.0	72.7	78.0	148
	Fourth	35.5	43.7	7.7	0.0	3.2	4.5	5.4	0.0	100.0	86.9	88.0	135
	Richest	43.3	44.9	1.7	0.0	0.8	0.8	8.5	0.0	100.0	89.9	92.8	78
Mother tongue of head	Bislama	32.6	38.8	4.6	0.0	0.0	6.9	17.1	0.0	100.0	76.0	82.0	68
	Other Language	20.5	39.9	13.3	2.0	2.0	13.5	8.6	0.2	100.0	73.7	79.6	686
National		**21.7**	**39.8**	**12.5**	**1.8**	**1.8**	**12.9**	**9.4**	**0.1**	**100.0**	**74.0**	**79.8**	**755**

* MICS indicator 4; MDG indicator 17

** MICS indicator 5

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Family Support for Learning

It is recognized that, rapid brain development occurs in the first three to four years of life and quality of home care is the major determinant of child development during this period. Important indicators of the quality of home care include the amount and nature of adult activities with children, the presence of children's books in the home, and the conditions of care. A WFFC goal is that, the children should be physically healthy, mentally alert, emotionally secured, socially competent and ready to learn by age five.

Information on a number of activities that support early learning and child development was collected in the MICS-3 survey. This included the involvement of adults with children in the following activities: reading books; telling stories; singing songs; taking children outside the home, compound or yard; playing with children; spending time with children in naming, counting or drawing things.

Table CD.1 presents the percentage of under-five children for whom household members are engaged in activities that promote learning and school readiness by selected background characteristics. The results indicate that, 91 percent of the surveyed under-5 children reported to have household members engaged in four or more activities that promote learning and school readiness during three days preceding the survey. Adult engagement in activities with children varies little with gender of the children (91.9% for male and 89.2% for female). Some differentials across the provinces are observed. Adult engagement in activities with children ranges between 82 percent in Tafea and 96 percent in Penama, Sanma and Port Vila. Adult engagement in activities with children is higher in urban area than that of the rural area (94.9% vs. 89.5%). The data also shows that adult engagement is the highest in the richest wealth quintile (94.8%) and the lowest in the poorest quintile (88.2%). Mothers and fathers education show positive relationship with the engagement of the activities promoting child development.

Table CD.1 also shows the percentage of fathers that engaged in one or more activities during three days prior to the survey that promote child learning and school readiness. It is evident that, about two-third (64.6%) children's fathers are engaged in one or more activities that promote child development, suggesting that fathers in Vanuatu are well engaged in the process of promoting learning and readiness of the children for school. Father's engagement in child development activity varies little with gender of child (65.3% for male child and 63.8% for female child). Father's engagement varies widely across the provinces – lowest in Tafea (52.1%) and the highest in Penama (83.9%). Fathers in urban areas are more likely to be engaged in activities promoting child development than in those in the rural area (71.8% vs. 62.9%). Father and mother education shows a positive effect on engagement with the child development activities.

Adults, on average, engaged in 5.2 activities with children, while the mean number of activities that father engaged in with the children is 2.6.

About 16 percent children are living in households without their natural fathers. The proportion is higher in the rural area than in the urban area (16.1% vs. 13.7%). There is large variation in the proportion of children living in the households without natural father across the provinces, ranging from 10 percent in Tafea to 28 percent in Torba and 29 percent in Shefa.

Table CD.1: Family support for learning
Percentage of children aged 0-59 months for whom household members are engaged in activities that promote learning and school readiness, Vanuatu, 2007

Background Characteristics		Percentage of children aged 0-59 months					Number of children aged 0-59 months
		For whom household members engaged in four or more activities that promote learning and school readiness *	Mean number of activities household members engage in with the child	For whom the father engaged in one or more activities that promote learning and school readiness **	Mean number of activities the father engage in with the child	Living in a household without their natural father	
Sex	Male	91.9	5.3	65.3	2.7	14.8	849
	Female	89.2	5.2	63.8	2.5	16.6	785
Region	Tafea	81.7	4.7	52.1	2.1	9.6	287
	Shefa	86.6	5.1	61.5	1.8	28.5	243
	Malampa	91.8	5.1	61.0	2.2	15.8	300
	Penama	96.0	5.7	83.9	3.3	12.1	199
	Sanma	95.9	5.5	61.2	2.8	11.6	225
	Torba	83.7	4.9	66.0	3.0	28.1	68
	Port Vila	95.9	5.6	74.6	3.1	12.6	227
	Luganville	92.1	5.4	64.6	3.2	16.5	86
Area	Urban	94.9	5.5	71.8	3.1	13.7	312
	Rural	89.5	5.2	62.9	2.4	16.1	1322
Age	0-23 months	83.1	4.8	58.3	2.2	16.5	702
	24-59 months	96.2	5.6	69.3	2.9	15.0	932
Mother's education	None	74.2	4.5	58.8	2.2	7.4	140
	Primary	90.7	5.2	65.1	2.6	16.3	1031
	Secondary	95.2	5.5	65.2	2.7	16.6	459
	Non-standard	(*)	(*)	(*)	(*)	(*)	3
	Missing/DK	(*)	(*)	(*)	(*)	(*)	1
Father's education	None	73.8	4.3	63.7	2.3	0.0	112
	Primary	91.5	5.3	70.2	2.7	0.0	764
	Secondary +	95.2	5.5	77.5	3.3	0.0	458
	Non-standard	(*)	(*)	(*)	(*)	(*)	23
	Father not in HH	85.9	5.1	21.9	0.8	100.0	256
	Missing/DK	(*)	(*)	(*)	(*)	(*)	22
Wealth index quintiles	Poorest	88.2	5.0	63.2	2.5	9.2	367
	Second	91.0	5.2	64.0	2.5	13.6	383
	Middle	89.0	5.2	61.4	2.4	20.1	328
	Fourth	91.0	5.3	64.0	2.5	21.6	302
	Richest	94.8	5.6	72.4	3.1	15.3	254
Mother tongue of head	Bislama	93.2	5.5	65.1	3.0	14.3	179
	Other Language	90.2	5.2	64.5	2.5	15.9	1452
	Missing	(*)	(*)	(*)	(*)	(*)	3
National		**90.6**	**5.2**	**64.6**	**2.6**	**15.7**	**1634**

* MICS indicator 46
** MICS indicator 47
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Learning Materials

Exposure to books in early years gives the child opportunities to see older siblings reading and doing schoolwork. The presence of books in the home can be an important determinant of a young child's future performance and intelligence.

In Vanuatu, 53 percent children live in the households where at least three non-children books are present and about 41 percent children live in the households where at least three children books are found (Table CD.2). In this regard minimum gender differentials are observed; the urban children live in the households where there is significantly more access to both types of books than that exists in the rural households. The presence of both non-children and children's book is positively associated with education level of mothers and households' wealth status.

About 19 percent surveyed children (<5 years) have three or more playthings to play with in their homes, while 12 percent do not have any of such things that were described to the respondents (Table CD.2). The playthings the children played with included 'household objects' (27.4%), 'objects and materials found outside home' (45.1%), homemade toys (38.0%) and toys from store (50.2%).

Table CD.2: Learning materials

Percentage of children aged 0-59 months living in households containing learning materials, Vanuatu, 2007

Background Characteristics		3 or more non-children's books *	Median number of non-children's books	3 or more children's books **	Median number of children's books	Child plays with:					3 or more types of playthings ***	Number of children aged 0-59 months
						Household objects	Objects and materials found outside the home	Homemade toys	Toys that came from a store	No playthings mentioned		
Sex	Male	51.7	3	38.3	2	29.4	46.9	41.4	48.1	11.6	20.7	849
	Female	54.3	3	43.3	2	25.3	43.2	34.4	52.5	13.0	16.4	785
Region	Tafea	41.7	1	40.8	1	24.2	58.3	17.5	36.3	17.1	10.0	287
	Shefa	57.0	4	46.4	2	3.9	34.1	44.7	49.7	15.6	4.5	243
	Malampa	58.2	3	26.7	1	6.2	32.9	41.8	30.8	17.1	2.1	300
	Penama	45.6	2	34.9	1	35.6	40.9	37.6	57.0	8.1	20.1	199
	Sanma	43.8	1	33.1	1	71.9	54.5	52.9	53.7	4.1	47.9	225
	Torba	35.0	1	21.2	0	41.4	69.0	44.8	39.9	7.9	30.5	68
	Port Vila	74.9	7	70.5	5	16.7	36.3	26.6	79.5	9.1	17.8	227
	Luganville	57.9	4	42.9	2	61.0	64.6	61.8	71.7	13.4	57.5	86
Area	Urban	70.2	6	62.9	5	28.8	44.0	36.3	77.4	10.3	28.7	312
	Rural	48.9	2	35.4	1	27.1	45.4	38.5	43.8	12.8	16.2	1322
Age	0-23 months	49.9	2	36.9	1	22.4	32.2	28.3	47.9	20.6	12.8	702
	24-59 months	55.2	3	43.5	2	31.2	54.9	45.3	52.0	6.1	23.0	932
Mother's education	None	13.9	0	13.0	0	33.5	59.3	28.3	22.6	16.9	14.3	140
	Primary	50.0	3	36.2	1	27.7	44.0	39.4	48.6	12.4	18.3	1031
	Secondary+	71.2	7	59.0	5	25.3	43.1	38.0	61.8	10.9	20.9	459
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
	Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Wealth index quintiles	Poorest	23.4	0	14.3	0	26.6	47.1	28.4	24.4	16.5	9.9	367
	Second	52.8	3	30.4	1	37.4	51.1	36.9	39.6	12.1	22.3	383
	Middle	53.0	3	40.1	2	22.3	45.8	44.1	53.1	10.8	17.6	328
	Fourth	68.1	5	59.9	5	23.2	40.0	43.3	66.2	10.7	19.9	302
	Richest	77.5	10	72.3	7	25.1	38.3	39.6	80.6	10.4	25.3	254
Mother tongue of head	Bislama	52.4	3	54.5	3	27.8	43.0	33.5	74.3	12.9	26.2	179
	Other Language	53.0	3	39.0	2	27.4	45.5	38.5	47.1	12.3	17.7	1452
National		**52.9**	**3**	**40.7**	**2**	**27.4**	**45.1**	**38.0**	**50.2**	**12.3**	**18.6**	**1634**

* MICS indicator 49

** MICS indicator 48

*** MICS indicator 50

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases ( ) Figure is based on 25-49 unweighted cases

Note: 3 cases missing from Mother tongue of head are not shown

Children Left Alone or with Other Children

The percentage of children having 3 or more playthings to play with differs by 5 percent point among male and female children, and by 13 percent point between urban and rural areas (Table CD.2). Small differences are observed in this proportion in respect of mother's education ranging from 14 percent with no education to 21 percent with secondary or higher level of education. The proportion of children having 3 or more playthings is the highest in the richest wealth quintile (25.3%) and the lowest in the poorest wealth quintile (9.9%).

This proportion is quite low in the provinces of Malampa (2.1%) and Shefa (4.5%); while in all other provinces it varies from 10 percent in Tafea to 58 percent in Luganville city.

Table CD.3 shows that, 36 percent of the children less than five years were left in the care of other children under ten years of age during the week preceding the interview, while 21 percent children were left alone. About 39 percent children were left under inadequate care during the week preceding the survey.

Table CD.3: Children left alone or with other children
Percentage of children age 0-59 months left in the care of other children under the age of 10 years or left alone in the past week, Vanuatu, 2007

Background Characteristics		Left in the care children under the age of 10 years in past week	Left alone in the past week	Left with inadequate care in past week *	Number of children aged 0-59 months
Sex	Male	35.5	21.7	38.5	849
	Female	36.2	21.2	39.7	785
Region	Tafea	33.3	27.9	35.4	287
	Shefa	52.5	4.5	53.1	243
	Malampa	39.0	29.5	43.2	300
	Penama	22.1	12.1	27.5	199
	Sanma	38.0	30.6	40.5	225
	Torba	47.8	38.9	56.2	68
	Port Vila	25.4	14.3	29.8	227
	Luganville	29.5	22.0	31.5	86
Area	Urban	26.6	16.4	30.3	312
	Rural	38.0	22.6	41.2	1322
Age	0-23 months	28.9	15.8	31.6	702
	24-59 months	41.1	25.7	44.7	932
Mother's education	None	34.0	29.1	38.7	140
	Primary	37.9	20.7	41.1	1031
	Secondary+	31.5	20.7	34.5	459
	Non-standard	(*)	(*)	(*)	3
	Missing/DK	(*)	(*)	(*)	1
Wealth index quintiles	Poorest	34.2	23.3	38.5	367
	Second	42.6	31.0	47.4	383
	Middle	36.7	18.9	38.6	328
	Fourth	34.3	13.9	35.7	302
	Richest	28.6	16.5	32.2	254
Mother tongue of head	Bislama	18.0	13.6	20.8	179
	Other Language	38.1	22.4	41.4	1452
	Missing	(*)	(*)	(*)	3
National		**35.8**	**21.4**	**39.1**	**1634**

* MICS indicator 51
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

This proportion differs only negligibly among male and female children and varies to some extent by location (urban/rural). Inadequate care is more prevalent among children whose mothers have no education (38.7%) as opposed to children whose mothers have secondary level of education (34.5%). Children aged 24-59 months were more left with inadequate care (44.7%) than those who were 0-23 months (31.6%). Differences of this indicator with regard to socio-economic status of the household are minor.

The survey results, described above, give somewhat encouraging picture of the state of child development in Vanuatu. Majority of the children live in households where fathers and other adult members take interest and dedicate themselves to activities that promote learning and school readiness. In the context of low literacy rate, (74%, 1999 census) the availability of non-children's books and children's books is encouraging. More than half (52.9%) of the children live in the households where non-children's books are available; and 41 percent children have children's books in their households. This indicates that, parents are aware about the value and necessity of reading materials. The survey findings show that, half of the children under-five years of age plays with the toys purchased from stores. But it is a matter of concern that, 39 percent children (under-five) are left at home with inadequate care; and it is predominant among the children whose mothers have no education.

Policy makers in the GoV should give due priority to early child development (ECD) within national development agenda. Educational policies should establish links between adult literacy, ECD and parental education. A thorough understanding of gender roles in the promotion of child learning in Vanuatu is crucial for the strengthening of ECD. Policies should encourage the participation of both parents in parental education programs. The government should develop strategies to create an enabling environment for the provision of children books at minimal or no cost to needy children and schools. Policies related to child development should articulate the link between play and readiness for school, and also reinforce parental responsibility for childcare. Appropriate program interventions should be put in place for ECD, parental education and adult education.

Pre-school Participation

Pre-school education plays an important role in increasing the readiness of children for school. One of the WFFC goals is to promote early childhood education. In 1960s Vanuatu introduced pre-school education. Pre-schools are established and managed by parents and communities, and sometimes attached to primary school premises. The GoV has approved guidelines on pre-school standards and funds pre-school coordinators who work closely with the National Pre-school Association to train community pre-school teachers and to raise community awareness. Pre-school participation rate was calculated for the children aged 36-59 months and is presented in Table ED.1.

According to the MICS-3 survey, nearly one-fourth (23.4%) of the children aged 36-59 months are attending pre-schools (Table ED.1). Pre-school attendance increased with the increase of age of the children. Only 13 percent of children aged 36-47 months attend pre-school compared to 37 percent of the children aged 48-59 months. There is no gender and urban-rural differentials in pre-school attendance. Some differentials, of course, exist across the provinces in this regard. It is the lowest in the province of Tafea (13.7%) and the highest in Malampa (35.3%). The data indicate that, the increasing level of pre-school attendance is positively associated with the increasing level of mothers' education and increasing wealth status of the households. Only 8 percent children of age 36-59 months whose mothers have no education attended pre-school. The corresponding figure for mothers having secondary or above level of education is 30 percent.

School readiness is also indicated by proportion of children currently attending the first grade of primary school, attended pre-school in the previous year. Overall, 96 percent of the children those attended pre-school in the previous year are currently attending the first grade of primary school. Girls are almost universally (98.5%) attending in the first grade of primary school, while the rate is 94 percent for boys.

Pre-school attendance rate was 50 percent among children aged 3-5 years in 2005 (GoV and UNICEF, 2005). In fact, preschool attendance is not encouraging and the GoV should provide more supports (human, material and financial) for the initiatives that increase the accessibility of the public to pre-school opportunities.

Primary and Secondary School Participation

Education is a basic human right and a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, and promoting democracy, peace, tolerance and development.

Universal access to basic education and the achievement of primary education is one of the most important goals of MDGs and WFFC. The MICS-3 indicators of primary and secondary school attendance include the following:

- Net intake rate in primary education;
- Net primary school attendance rate;
- Net secondary school attendance rate;

- Net primary school attendance rate of children of secondary school age;
- Female to male gender parity index (GPI).

The indicators of school progression include the following:

- Survival rate to grade five;
- Transition rate to secondary school;
- Net primary completion rate.

Table ED.1: Early childhood education
Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme and percentage of first graders who attended pre-school, Vanuatu, 2007

Background Characteristics		Percentage of children aged 36-59 months currently attending early childhood education*	Number of children aged 36-59 months	Percentage of children attending first grade who attended preschool program in previous year**	Number of children attending first grade
Sex	Male	23.2	304	93.7	60
	Female	23.6	285	98.5	65
Region	Tafea	13.7	96	(*)	19
	Shefa	18.2	75	(*)	24
	Malampa	35.3	105	(94.1)	35
	Penama	15.1	71	(*)	8
	Sanma	27.7	87	(*)	10
	Torba	(34.6)	26	(*)	4
	Port Vila	24.7	97	(*)	15
	Luganville	(19.4)	33	(*)	10
Area	Urban	23.3	130	(89.4)	25
	Rural	23.4	459	97.9	100
Age of child	36-47 months	12.5	324	.	0
	48-59 months	36.7	265	.	0
	6 years	.	0	96.2	125
Mother's education	None	7.7	53	(*)	7
	Primary	22.8	372	98.2	73
	Secondary +	29.5	161	(90.4)	29
	Non-standard	(*)	1	(*)	2
	Mother not in HH	(*)	0	(*)	14
	Missing/DK	(*)	1	.	0
Wealth index quintiles	Poorest	17.5	138	(*)	20
	Second	19.8	104	(*)	24
	Middle	27.9	132	(92.2)	27
	Fourth	24.8	110	(96.5)	29
	Richest	27.4	106	(93.5)	26
Mother tongue of head	Bislama	31.5	72	(*)	17
	Other Language	22.2	516	97.1	107
	Missing	(*)	1	.	0
National		**23.4**	**589**	**96.2**	**125**

* MICS Indicator 52
** MICS Indicator 53
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

There are three main levels of schooling in formal education sector of Vanuatu. These are (1) Early Childhood Education (ECE) or pre-schools, (2) primary schools and (3) Secondary schools divided into Junior and Senior secondary schools. ECEs are generally run by communities to provide introductory schooling to young children aged 4-5 years. Primary school starts at Year 1 and continues for 6 years for children aged 6-11 years. Then pupils enter into Junior secondary school at Year 7-10 (grades VII-X) at age 12-15 years. The Senior secondary school starts at Year 11 and continues for 5 years (grades XI-XIV) at age 16-20 of pupils.

Net intake rate in primary education i.e., to what extent children attend primary school in a timely manner is defined in the MICS-3 as the percentage of children of primary school entry age (6 years) who are currently attending the first grade of primary school.

According to the MICS-3, 64 percent children of primary school-entry age in the surveyed households were attending Grade-1 at the time of the interview (Table ED.2). The rate is higher for boys than girls (66.4% vs. 60.8%). No urban-rural differential is observed in this regard. The value of this indicator differs widely across the provinces. It reaches 86 percent in Malampa, while it is only 43 percent in Tafea. A positive association between this indicator and mother's education is observed. An estimated 69 percent children age 6 years, whose mothers have secondary level of education, attend the first grade, while half of the children of same age attended primary school whose mothers are illiterate. In households in the poorest quintile, this percentage is 58 which is lower than others.

Table ED.2: Primary school entry
Percentage of children of primary school entry age attending grade 1, Vanuatu, 2007

Background Characteristics		Percentage of children of primary school entry age currently attending grade 1 *	Number of children of primary school entry age
Sex	Male	66.4	239
	Female	60.8	197
Region	Tafea	43.4	66
	Shefa	61.9	59
	Malampa	85.7	73
	Penama	60.5	60
	Sanma	62.5	79
	Torba	73.2	20
	Port Vila	66.7	57
	Luganville	56.9	22
Area	Urban	64.0	79
	Rural	63.9	356
Mother's education	None	49.9	35
	Primary	63.0	258
	Secondary +	68.9	90
	Non-standard	86.2	2
	Mother not in HH	67.9	50
Wealth index quintiles	Poorest	58.4	92
	Second	68.2	89
	Middle	62.5	105
	Fourth	66.1	90
	Richest	65.2	60
Mother tongue of head	Bislama	55.5	58
	Other Language	65.1	376
National		**63.9**	**435**

* MICS Indicator 54
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Primary school net attendance rate is defined in MICS-3 as the percentage of children of primary school age (6-11 years) attending primary school or secondary school. Overall, 80 percent of the primary school age children attend primary or secondary school (Table ED.3). The rate is higher in the urban area than in rural (83.8% vs. 79.6%). Primary school net attendance rate is highest in Malampa (93.1%) and elsewhere it ranges from 70 percent in Tafea to 85 percent in Port Vila city. Mother's education and household wealth status show positive association with the net primary school attendance rate. There is no substantial difference between primary school net attendance ratios of male and female children.

Table ED.3: Primary school net attendance ratio
Percentage of children of primary school age attending primary school or secondary school (NAR), Vanuatu, 2007

Background Characteristics		Male		Female		Total	
		Net attendance ratio*	Number of children	Net attendance ratio*	Number of children	Net attendance ratio*	Number of children
Region	Tafea	71.7	181	68.9	164	70.4	345
	Shefa	82.8	170	82.7	145	82.7	315
	Malampa	93.1	181	93.2	183	93.1	364
	Penama	72.5	183	79.3	122	75.2	305
	Sanma	76.8	195	74.4	170	75.7	365
	Torba	(77.5)	49	82.2	52	79.9	101
	Port Vila	84.0	174	85.9	140	84.8	314
	Luganville	81.7	69	80.7	55	81.3	125
Area	Urban	83.3	243	84.4	195	83.8	438
	Rural	79.2	960	80.1	836	79.6	1796
Age	6	72.6	239	68.2	197	70.6	435
	7	78.2	201	79.8	165	78.9	366
	8	90.0	208	87.6	159	89.0	367
	9	80.9	205	84.6	199	82.7	404
	10	78.2	156	85.6	136	81.7	292
	11	80.9	195	82.4	176	81.6	370
Mother's education	None	59.4	114	62.2	110	60.8	224
	Primary	79.4	703	82.1	570	80.6	1274
	Secondary +	89.2	193	89.3	188	89.3	381
	Non-standard	(*)	8	(*)	4	(*)	12
	Mother not in HH	84.8	184	78.7	156	82.0	340
	Missing/DK	.	0	(*)	3	(*)	3
Wealth index quintiles	Poorest	73.6	276	72.8	211	73.3	487
	Second	80.0	236	82.5	232	81.2	468
	Middle	76.5	256	77.1	229	76.8	485
	Fourth	84.1	248	85.1	189	84.5	436
	Richest	88.9	187	89.3	171	89.1	358
Mother tongue of head	Bislama	73.0	156	79.5	130	75.9	286
	Other Language	81.2	1044	81.1	899	81.2	1943
	Missing	(*)	3	(*)	2	(*)	5
National		**80.0**	**1203**	**80.9**	**1031**	**80.4**	**2234**

* MICS indicator 55; MDG indicator 6
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Junior secondary school net attendance ratio (NAR) is defined in MICS-3 as the percentage of children of junior secondary school age (12-15 years) currently attending junior secondary schools (Grade VII-X). The data is presented in Table ED.4a. A huge decrease in the age appropriate net attendance ratio between primary and secondary schools can be seen, as, 46 percent children of junior secondary school age are attending junior secondary schools, while 80 percent children of primary school age are attending primary schools.

There is huge difference in the value of this indicator between urban (65.2%) and rural (40.0%) areas. Wide differentials in the value of this indicator are also observed across the provinces. It is highest in Port Vila city (66.6%) followed by Luganville city (61.0%) and lowest in Panama (24.4%), and elsewhere it ranges from 34 percent in Shefa to 55 percent in Malampa. No substantial sex differential is found for this indicator.

Junior secondary school NAR increases steadily by age of child from 42 percent for children aged 12 to 46 percent for children aged 15. The higher levels of this indicator are positively associated with the higher levels of mothers' education and wealth status of the households.

Table ED.4a: Junior secondary school net attendance ratio
Percentage of children of junior secondary school age (12-15 years) attending junior secondary or higher school (NAR), Vanuatu, 2007

Background Characteristics		Male		Female		Total	
		Net attendance ratio	Number of children	Net attendance ratio	Number of Children	Net attendance ratio*	Number of children
Region	Tafea	38.9	90	35.1	92	37.0	182
	Shefa	31.9	96	36.1	85	33.8	181
	Malampa	62.5	100	47.7	92	55.4	191
	Penama	19.0	59	30.6	50	24.4	109
	Sanma	36.5	103	40.9	87	38.5	189
	Torba	(51.3)	27	(56.5)	25	53.8	52
	Port Vila	66.4	97	66.7	102	66.6	199
	Luganville	(58.7)	31	(63.0)	36	61.0	67
Area	Urban	64.6	128	65.7	138	65.2	266
	Rural	40.2	474	39.8	431	40.0	905
Age	12	39.1	148	45.4	160	42.4	309
	13	46	148	45.4	163	45.7	311
	14	47.6	161	51.3	132	49.3	294
	15	48.6	144	42.1	113	45.7	257
Mother's education	None	27.2	67	32.9	50	29.7	117
	Primary	41.1	352	45.7	310	43.2	662
	Secondary +	78.3	90	71.8	93	75.0	183
	Non-standard curriculum	(*)	4	(*)	6	(*)	10
	Mother not in household	42.4	89	29.6	109	35.3	198
	Missing/DK	.	0	.	0	.	0
Wealth index quintiles	Poorest	32.1	122	21.7	104	27.3	226
	Second	38.6	105	42.6	112	40.7	217
	Middle	44.6	120	34.5	114	39.7	234
	Fourth	42.2	134	56.0	107	48.3	240
	Richest	68.8	121	70.3	132	69.6	254
Mother tongue of head	Bislama	62.8	86	69.1	75	65.7	160
	Other Language	42.1	513	42.7	493	42.4	1006
	Missing	(*)	3	(*)	1	(*)	4
National		**45.4**	**602**	**46.1**	**568**	**45.7**	**1170**

* MICS indicator 56
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Table ED.4aw presents the data regarding junior secondary school age (12-15 years) children attending primary school. About 16 percent of the children of junior secondary school age are currently attending primary school when they should have been attending junior secondary school. Small difference exists between the proportion of such children by sexes with 17 percent for male and 16 percent for female children. Urban rural difference is also high (4.8% in urban vs. 20.0% in rural). The phenomenon of older children attending primary school is most prevalent in the province of Tafea (32.2%) followed by Penama (30.8%), and is lowest in Torba province (3.4%) and Port Vila city (3.8%). In all other provinces it ranges from 8 percent in Luganville city to 18 percent in Sanma. The proportion of children of junior secondary school age attending primary school is negatively associated with the age of child; 36 percent of children aged 12 years are in primary school, while only 3 percent of 15 years old are in primary school. This indicator is also found to be negatively associated with the level of mothers' education and wealth status of households.

Table ED.4aw: Junior secondary school age children attending primary school
Percentage of children of junior secondary school age (12-15 years) attending primary school (Gr I-VI), Vanuatu, 2007

Background Characteristics		Male		Female		Total	
		Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio	Number of children
Region	Tafea	33.3	90	31.1	92	32.2	182
	Shefa	21.7	96	11.5	85	16.9	181
	Malampa	8.3	100	15.9	92	12.0	191
	Penama	33.3	59	27.8	50	30.8	109
	Sanma	15.4	103	20.5	87	17.7	189
	Torba	(2.6)	27	(4.3)	25	3.4	52
	Port Vila	4.2	97	3.3	102	3.8	199
	Luganville	(12.0)	31	(4.6)	36	8.0	67
Area	Urban	6.1	128	3.7	138	4.8	266
	Rural	20.1	474	19.9	431	20.0	905
Age	12	38.8	148	32.5	160	35.6	309
	13	15.5	148	17.5	163	16.5	311
	14	10.9	161	6.5	132	8.9	294
	15	3.3	144	1.4	113	2.5	257
Mother's education	None	25.1	67	19.0	50	22.5	117
	Primary	17.5	352	18.6	310	18.0	662
	Secondary +	7.6	90	6.4	93	7.0	183
	Non-standard curriculum	(*)	4	(*)	6	(*)	10
	Mother not in household	19.8	89	15.1	109	17.3	198
	Missing/DK	.	0	.	0	.	0
Wealth index quintiles	Poorest	21.7	122	35.3	104	28.0	226
	Second	18.1	105	20.0	112	19.1	217
	Middle	22.6	120	16.7	114	19.7	234
	Fourth	18.7	134	8.9	107	14.3	240
	Richest	4.5	121	2.5	132	3.5	254
Mother tongue of head	Bislama	7.9	86	7.1	75	7.6	160
	Other Language	18.7	513	17.4	493	18.1	1006
	Missing	(*)	3	(*)	1	(*)	4
National		**17.1**	**602**	**16.0**	**568**	**16.6**	**1170**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

The senior secondary school (Grade XI-XIV) net attendance ratio among senior secondary school age (16-20 years) children is presented in Table ED.4b. A further decrease in the age appropriate net attendance ratio between junior and senior secondary schools can be seen, as, 10 percent of children of senior secondary school age are attending senior secondary schools, while 46 percent children of junior secondary school age are attending junior secondary schools.

Like NAR of junior secondary school, the difference in the value of this indicator is huge between urban (25.4%) and rural (4.4%) areas. Differentials in the value of this indicator are not very wide across the rural provinces (2.2% in Shefa to 8.8% in Torba) and cities (19.6% in Luganville and 26.8% in Port Vila). Sex differential is not evident (11.1% male and 9.7% female).

Senior secondary school NAR gradually decreases by age of child from 16 percent for children aged 16 to 3 percent for children aged 20. The higher levels of this indicator are positively associated with the higher levels of mothers' education and wealth status of the households.

Table ED.4b: Senior secondary school net attendance ratio
Percentage of children of senior secondary school age (16-20 years) attending senior secondary or higher school (NAR), Vanuatu, 2007

Background Characteristics		Male		Female		Total	
		Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
Region	Tafea	7.4	85	3.0	83	5.2	168
	Shefa	1.5	91	2.7	102	2.2	193
	Malampa	3.8	108	4.8	131	4.3	239
	Penama	2.4	57	(3.4)	41	2.9	98
	Sanma	7.3	81	4.3	93	5.7	174
	Torba	(*)	23	(5.5)	26	(8.8)	49
	Port Vila	27.1	160	26.5	136	26.8	296
	Luganville	(17.2)	31	(21.2)	44	19.6	75
Area	Urban	25.5	191	25.2	180	25.4	371
	Rural	4.9	445	3.8	476	4.4	920
Age	16	16.9	118	14.6	128	15.7	246
	17	15.4	130	12.6	140	14.0	269
	18	11.6	131	10.7	114	11.2	245
	19	9.3	144	6.5	166	7.8	310
	20	2.1	114	4.1	108	3.0	222
Mother's education	None	(*)	13	(*)	12	(10.8)	25
	Primary	7.7	62	10.6	70	9.2	133
	Secondary +	(*)	19	(*)	16	(44.9)	34
	Mother not in household	(*)	24	(12.4)	30	15.2	54
Wealth index quintiles	Poorest	0.6	112	0.6	130	0.6	242
	Second	3.2	78	0.6	116	1.6	194
	Middle	6.5	135	7.9	125	7.1	260
	Fourth	10.9	142	6.6	123	8.9	265
	Richest	25.7	168	27.2	163	26.5	331
Mother tongue of head	Bislama	18.8	110	20.6	90	19.6	200
	Other Language	9.4	525	7.9	563	8.6	1087
	Missing	(*)	1	(*)	3	(*)	4
National		**11.1**	**636**	**9.7**	**656**	**10.4**	**1291**

* MICS indicator 56
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Table ED.4bw presents the data regarding senior secondary school age (16-20 years) children attending junior secondary school. About 6 percent of the children of senior secondary school age are currently attending junior secondary school when they should have been attending senior secondary school. Some difference exists between the proportion of such children by sexes with 8 percent for male and 5 percent for female children. Urban-rural difference is also evident (4.4% in urban vs. 7.1% in rural).

The phenomenon of older children attending junior secondary school is most prevalent in the provinces of Penama (12.9%) and Tafea (12.6%), while it is almost nil in Torba. The proportion of children of senior secondary school age attending junior secondary school is negatively associated with the age of child; 18 percent for aged 16 years to 0.5 percent for 19 years, rises up to 3 percent for 20 years aged children. This indicator does not show any consistent pattern for mothers' education and wealth status of households.

Table ED.4bw: Senior secondary school age children (16-20 years) attending junior secondary school (Gr VII-X)
Percentage of children of senior secondary school age attending junior secondary school, Vanuatu, 2007

Background Characteristics		Male		Female		Total	
		Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio	Number of children
Region	Tafea	17.6	85	7.5	83	12.6	168
	Shefa	3.1	91	2.7	102	2.9	193
	Malampa	3.8	108	7.9	131	6.1	239
	Penama	14.6	57	(10.3)	41	12.9	98
	Sanma	9.8	81	4.3	93	6.8	174
	Torba	(*)	23	(0.0)	26	(0.0)	49
	Port Vila	3.8	160	1.5	136	2.8	296
	Luganville	(12.9)	31	(9.8)	44	11.1	75
Area	Urban	5.3	191	3.5	180	4.4	371
	Rural	8.6	445	5.8	476	7.1	920
Age	16 years	20.8	118	14.4	128	17.5	246
	17 years	7.1	130	6.6	140	6.9	269
	18 years	6.2	131	4.0	114	5.2	245
	19 years	0.2	144	0.8	166	0.5	310
	20 years	5.2	114	0.3	108	2.8	222
Mother's education	None	(*)	13	(*)	12	(11.8)	25
	Primary	23.8	62	20.1	70	21.9	133
	Secondary +	(*)	19	(*)	16	(18.3)	34
	Mother not in household	(*)	24	(8.0)	30	8.9	54
Wealth index quintiles	Poorest	5.8	112	3.0	130	4.3	242
	Second	6.6	78	4.1	116	5.1	194
	Middle	5.3	135	12.7	125	8.9	260
	Fourth	12.0	142	4.5	123	8.5	265
	Richest	7.4	168	2.5	163	5.0	331
Mother tongue of head	Bislama	15.2	110	2.2	90	9.4	200
	Other Language	6.0	525	5.7	563	5.8	1087
	Missing	(*)	1	(*)	3	(*)	4
National		**7.6**	**636**	**5.2**	**656**	**6.4**	**1291**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

The percentage of children entering the first grade of primary school who eventually reach grade 6 (last grade of primary school) is presented in Table ED.5. This estimate includes children that repeat grades and eventually goes up to reach grade 6. Most (88.5%) of the children of Vanuatu, who started grade 1, eventually reach grade 6. This proportion is slightly greater for female (91.1%) than for male (86.4%) children. Percentage of children, entering into first grade of primary school who eventually reached to grade 6, varies widely across the provinces, ranging from 66 percent in Penama to 100 percent in Shefa. Mother's education shows strong positive effect on child's reaching into 6th grade education. Urban children are more likely to reach grade 6 education than that of rural children. The percentage of children passing subsequent grades between grade I and VI varies between 96 and 99. However, children reaching grade-5 is also calculated and presented here for international comparison.

Table ED.5: Children reaching grade-VI
Percentage of children entering first grade of primary school who eventually reach grade-V, Vanuatu, 2007

Background Characteristics		Percent attending 2nd grade who were in 1st grade last year	Percent attending 3rd grade who were in 2nd grade last year	Percent attending 4th grade who were in 3rd grade last year	Percent attending 5th grade who were in 4th grade last year	Percent attending 6th grade who were in 5th grade last year	Percent who reach grade 5 of those who enter 1st grade *	Percent who reach grade 6 of those who enter 1st grade
Sex	Male	98.2	97.4	98.4	96.8	94.7	91.2	86.4
	Female	99.3	97.8	99.8	95.5	98.5	92.5	91.1
Region	Tafea	98.1	98.1	100.0	96.8	97.1	93.2	90.5
	Shefa	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Malampa	100.0	96.2	100.0	100.0	100.0	96.2	96.2
	Penama	97.9	88.9	95.0	82.6	96.3	68.3	65.7
	Sanma	96.9	100.0	100.0	89.5	83.3	86.7	72.2
	Torba	97.7	97.3	94.6	100.0	100.0	89.9	89.9
	Port Vila	98.9	98.5	100.0	98.4	98.4	95.8	94.2
	Luganville	100.0	100.0	100.0	100.0	95.8	100.0	95.8
Area	Urban	99.1	99.0	100.0	98.9	97.7	97.0	94.8
	Rural	98.6	97.3	98.8	95.5	96.1	90.5	86.9
Mother's education	None	97.0	95.8	100.0	100.0	89.3	93.0	83.1
	Primary	98.4	98.1	98.4	98.3	95.6	93.3	89.2
	Secondary +	99.5	100.0	100.0	100.0	100.0	99.5	99.5
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	(*)
	Mother not in household	100.0	94.2	100.0	90.0	100.0	84.8	84.8
	Missing/DK	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Wealth index quintiles	Poorest	97.3	95.3	97.9	86.6	89.3	78.6	70.2
	Second	99.6	97.8	100.0	100.0	100.0	97.5	97.5
	Middle	99.2	96.0	98.0	93.9	97.0	87.6	84.9
	Fourth	97.8	100.0	100.0	100.0	96.1	97.8	94.0
	Richest	100.0	100.0	100.0	98.8	98.3	98.8	97.1
Mother tongue of head	Bislama	98.4	98.1	100.0	89.8	93.8	86.8	81.4
	Other Language	98.7	97.5	98.9	97.1	96.8	92.5	89.6
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)
National		**98.7**	**97.6**	**99.0**	**96.2**	**96.4**	**91.7**	**88.5**

* MICS Indicator 57 ; MDG Indicator 7
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Gender Parity in Primary and Secondary Education

Gender parity in primary and secondary education is measured by Gender Parity Index (GPI) defined as the ratio of girls to boys attending primary and secondary education. The results of MICS-3 reveal that, the GPI of primary school and junior secondary school is 1.01 and 1.02 respectively, indicating no substantial difference in the attendance of girls and boys to primary school and junior secondary school (Table ED.7). For senior secondary school the GPI is 0.90, indicating a higher attendance of boys than girls in the senior secondary school level.

The differentials in the value of GPI for primary school attendance by urban-rural location are identical, 1.01 each. But slight differentials exist for junior secondary school attendance; 1.02 in urban and 0.99 for rural; and for senior secondary school attendance the GPI is 1.03 in urban and 0.78 in rural area. The GPI value for primary school attendance is the maximum for Penama (1.09) and minimum for Tafea (0.96); for junior secondary school attendance it is maximum for Panama (1.60) and minimum for Malampa (0.76); and for senior secondary school attendance the maximum is for Shefa (1.78) and minimum for Tafea (0.41). Tafea has the minimum GPI scores for primary and senior secondary education. Increase in gender parity for both primary and secondary school attendance is positively associated with the increasing wealth status of the households.

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Table ED.7: Education gender parity

Ratio of girls to boys attending primary education and ratio of girls to boys attending secondary education, Vanuatu, 2007

Background Characteristics		Primary school net attendance ratio (NAR), girls	Primary school net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school NAR*	Junior secondary school net attendance ratio (NAR), girls	Junior secondary school net attendance ratio (NAR), boys	Gender parity index (GPI) for junior secondary school NAR*	Senior secondary school net attendance ratio (NAR), girls	Senior secondary school net attendance ratio (NAR), boys	Gender parity index (GPI) for senior secondary school NAR*
Region	Tafea	68.9	71.7	0.96	35.1	38.9	0.90	3.0	7.4	0.41
	Shefa	82.7	82.8	1.00	36.1	31.9	1.13	2.7	1.5	1.78
	Malampa	93.2	93.1	1.00	47.7	62.5	0.76	4.8	3.8	1.24
	Penama	79.3	72.5	1.09	30.6	19.0	1.60	3.4	2.4	1.41
	Sanma	74.4	76.8	0.97	40.9	36.5	1.12	4.3	7.3	0.58
	Torba	82.2	77.5	1.06	56.5	51.3	1.10	5.5	12.5	0.44
	Port Vila	85.9	84.0	1.02	66.0	65.7	1.00	26.5	25.8	1.03
	Luganville	80.7	81.7	0.99	63.0	57.6	1.09	21.2	17.2	1.23
Area	Urban	84.4	83.3	1.01	65.2	63.8	1.02	25.2	24.4	1.03
	Rural	80.1	79.2	1.01	39.8	40.2	0.99	3.8	4.9	0.78
Mother's education	None	62.2	59.4	1.05	32.9	27.2	1.21	5.6	15.4	0.37
	Primary	82.1	79.4	1.03	45.7	40.9	1.12	10.6	7.7	1.38
	Secondary +	89.3	89.2	1.00	71.0	77.9	0.91	43.6	45.9	0.95
	Non-standard curriculum	100.0	96.0	1.04	77.6	50.0	1.55	.	.	.
	Mother not in household	78.7	84.8	0.93	29.6	42.4	0.70	12.4	18.7	0.66
	Missing/DK	100.0	.	.	100.0	.	.	.	.	.
Wealth index quintiles	Poorest	72.8	73.6	0.99	21.7	32.1	0.68	0.6	0.6	0.87
	Second	82.5	80.0	1.03	42.6	38.6	1.10	0.6	3.2	0.19
	Middle	77.1	76.5	1.01	34.5	44.6	0.77	7.9	6.5	1.22
	Fourth	85.1	84.1	1.01	56.0	42.2	1.33	6.6	10.9	0.60
	Richest	89.3	88.9	1.01	69.7	68.0	1.03	27.2	24.5	1.11
Mother tongue of head	Bislama	79.5	73.0	1.09	69.1	62.8	1.10	20.6	17.5	1.18
	Other Language	81.1	81.2	1.00	42.5	41.9	1.01	7.9	9.3	0.85
	Missing	100.0	25.9	3.86	34.8	100.0	0.35	22.8	50.5	0.45
National		**80.9**	**80.0**	**1.01**	**46.0**	**45.2**	**1.02**	**9.7**	**10.8**	**0.90**

* MICS Indicator 61; MDG Indicator 9

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Adult Literacy

A literate person (adult) is more likely to be conscious about the wellbeing and development of his/her children, family, self and community than an illiterate person. Increased adult literacy contributes to the development of a country. One of the WFFC goals is to ensure adult literacy for both male and female; this is also one of MDGs.

In the MICS-3, literacy pertaining to adult female aged 15-24 was assessed based on (i) respondents' ability to read a simple and short statement written on a card, or on (ii) school attendance. A woman aged 15-24 years, who had completed at least one year at secondary level or who can read a simple and short statement was considered to be 'literate'. The results are presented in Figure ED.2 and Table ED.8. According to the results, 77 percent women aged 15-24 are literate. The literacy rate is the highest in Luganville (91.4%) and the lowest in Torba (60.6%). It is higher in urban area (85.6%) than the rural area (73.3%). Similar to other educational indicators, adult literacy rate is positively associated with the wealth status of the household.

It is observed that, adult literacy rate has increased nominally over the last eight years, as in MICS-3 it is estimated to be 77 percent; while in 1999 census it was 74 percent.

Figure ED.1: Percentage of women aged 15-24 years who are literate, Vanuatu, 2007

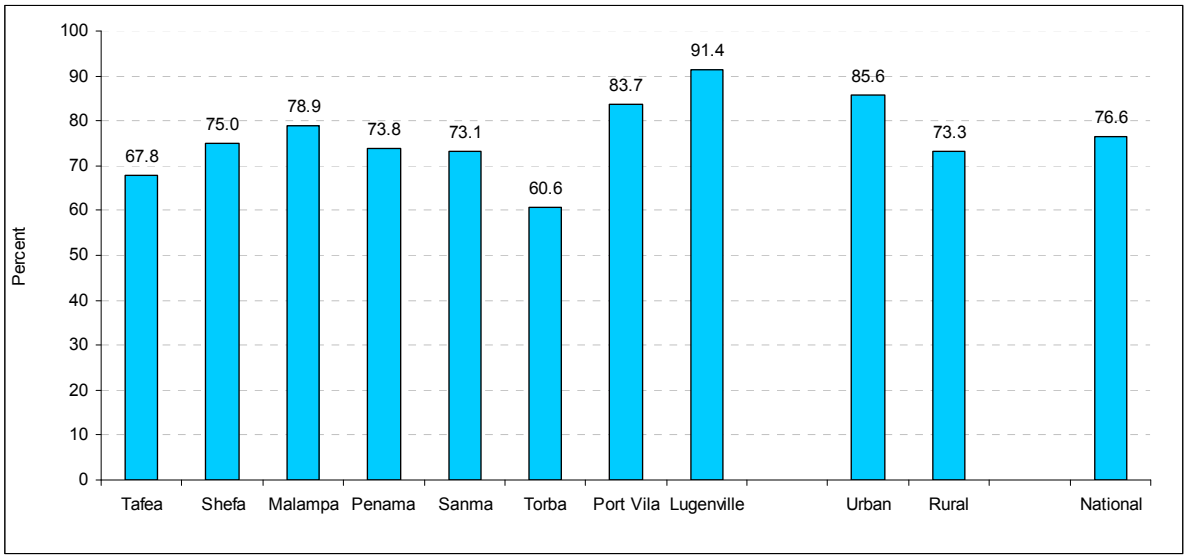

Table ED.8: Adult literacy
Percentage of women aged 15-24 years that are literate, Vanuatu, 2007

Background Characteristics		Percentage literate *	Percentage not known	Number of women aged 15-24 years
Region	Tafea	67.8	13.3	153
	Shefa	75.0	2.9	162
	Malampa	78.9	1.4	206
	Penama	73.8	3.3	91
	Sanma	73.1	3.0	136
	Torba	(60.6)	(9.1)	45
	Port Vila	83.7	9.0	218
	Luganville	91.4	4.3	71
Area	Urban	85.6	7.8	290
	Rural	73.3	4.9	793
Education	None	(6.6)	(15.1)	46
	Primary	67.5	8.5	643
	Secondary +	100.0	0.0	383
	Non-standard curriculum	(*)	(*)	10
Age	15-19	75.6	7.5	481
	20-24	77.4	4.3	602
Wealth index quintiles	Poorest	62.2	2.8	196
	Second	73.6	5.5	240
	Middle	69.8	7.0	191
	Fourth	82.9	7.6	200
	Richest	90.8	5.6	256
Mother tongue of head	Bislama	84.0	6.7	154
	Other Language	75.3	5.6	926
	Missing	(*)	(*)	3
National		**76.6**	**5.7**	**1083**

* MICS Indicator 60; MDG Indicator 8

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

11. CHILD PROTECTION

Birth Registration

The convention on the rights of child states that every child has the right to a name and nationality, and the right to protection from being deprived of her or his own identity. Birth registration is a fundamental means of securing these rights. One of the goals of a WFFC is to develop systems to ensure the registration of every child at or shortly after birth. The relevant MICS-3 indicator is the percentage of children under five years of age whose birth is registered.

Table CP.1 presents the percentage of under-five children whose birth was registered immediately after birth. Among the under-five children, birth of only one-fourth (25.6%) were registered. Gender differentials in birth registration are negligible. However, there are considerable differences in the registration of children across the provinces. It is highest in Luganville (43.7%) and the lowest in Tafea (12.5%). The percentage of children registered is higher in the urban area (38.5%) than the rural area (22.6%). Children from the richest households are more likely to be registered than the children from the poorest households. Mother's education also shows a strong positive effect on birth registration.

Mothers or caretakers of those children whose birth had not been registered were asked the reasons for not registering the births. The most common responses include "did not think it an urgent matter" (40.1%), "did not know child should be registered" (28.3%), "did not know where to register" (9.7%), "must travel too far" (7.6%) and "costs too much" (4.3%).

As a State Party to the CRC, Vanuatu must ensure that every child is registered immediately after birth. Accordingly, all children need to be registered at birth to ensure they have the right to a name, to citizenship and to an identity. But birth registration has not yet been made compulsory in Vanuatu. The National Children's Committee with UNICEF support is campaigning to encourage birth registration and promote awareness of every child's right to a legally recognized name and identity.

The survey result reveals that there has been no marked progress in expanding the coverage of birth registration. The GoV should formulate and implement compulsory birth registration policy and program.

Table CP.1: Birth registration

Percent distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, Vanuatu, 2007

Background Characteristics		Birth is registered *	Don't know if birth is registered	Total	Birth is not registered because:								Total	Number of children aged 0-59 months without birth registration
					Costs too much	Must travel too far	Didn't know child should be registered	Doesn't know where to register	Not urgent	Other	Don't know	Missing		
Sex	Male	24.5	4.9	849	3.9	7.5	28.3	10.8	38.9	3.8	6.1	0.6	100.0	599
	Female	26.9	4.9	785	4.8	7.8	28.3	8.4	41.3	3.1	5.5	0.8	100.0	536
Region	Tafea	12.5	8.8	287	0.0	1.1	41.3	23.3	27.0	2.6	4.2	0.5	100.0	226
	Shefa	29.1	5.0	243	1.7	4.2	33.9	17.8	34.7	1.7	5.1	0.8	100.0	160
	Malampa	20.5	1.4	300	1.8	3.5	45.6	2.6	26.3	2.6	16.7	0.9	100.0	234
	Penama	31.5	0.0	199	3.9	31.4	2.9	2.9	53.9	2.0	1.0	2.0	100.0	136
	Sanma	24.0	5.0	225	7.0	12.8	30.2	9.3	31.4	8.1	1.2	0.0	100.0	160
	Torba	20.7	3.9	68	30.1	11.8	17.0	2.0	22.9	7.2	7.8	1.3	100.0	51
	Port Vila	36.5	9.1	227	1.6	0.0	2.7	1.6	91.4	2.2	0.5	0.0	100.0	123
	Luganville	43.7	5.1	86	(19.2)	(0.0)	(5.4)	(1.5)	(64.6)	(6.2)	(3.1)	(0.0)	(100.0)	44
Area	Urban	38.5	8.0	312	6.2	0.0	3.4	1.6	84.4	3.2	1.2	0.0	100.0	167
	Rural	22.6	4.2	1322	4.0	9.0	32.6	11.1	32.4	3.5	6.6	0.8	100.0	968
Age	0-11 months	22.7	5.2	342	3.6	6.7	25.9	9.5	43.3	4.8	5.7	0.6	100.0	248
	2-23 months	26.9	2.2	359	3.0	7.1	27.5	10.4	36.9	5.4	7.9	1.7	100.0	255
	24-35 months	22.6	5.6	342	3.4	7.2	30.2	9.3	42.1	2.4	5.5	0.0	100.0	246
	36-47 months	30.0	5.4	324	5.9	9.9	31.7	9.1	35.5	3.1	4.9	0.0	100.0	209
	48-59 months	26.3	6.8	265	6.8	7.7	26.2	10.1	42.6	0.9	4.6	1.2	100.0	177
Mother's education	None	19.0	2.4	140	5.1	7.2	47.9	11.2	14.7	6.4	6.4	1.1	100.0	110
	Primary	22.9	4.5	1031	4.1	7.8	28.9	10.3	39.3	3.2	5.5	0.9	100.0	748
	Secondary+	34.0	6.4	459	4.8	7.3	18.4	7.4	52.2	3.3	6.6	0.0	100.0	273
	Non-standard curriculum	(*)	(*)	3	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	3
	Missing/DK	(*)	(*)	1	-	-	-	-	-	-	-	-	-	0
Wealth index quintiles	Poorest	13.3	5.1	367	3.6	9.4	37.0	11.6	27.0	4.6	6.3	0.4	100.0	299
	Second	20.5	2.7	383	5.4	10.6	36.2	9.0	26.0	3.6	8.6	0.6	100.0	294
	Middle	27.0	4.1	328	4.4	5.8	29.3	13.1	38.5	1.7	4.8	2.2	100.0	226
	Fourth	32.9	5.0	302	3.2	7.4	15.1	9.6	57.0	3.4	4.2	0.0	100.0	188
	Richest	40.9	8.9	254	5.1	0.0	7.2	0.8	80.8	3.7	2.4	0.0	100.0	127
Mother tongue of head	Bislama	34.0	5.7	179	5.6	8.8	11.4	3.3	67.5	1.6	1.9	0.0	100.0	108
	Other Language	24.6	4.8	1452	4.2	7.5	30.1	10.4	37.2	3.5	6.2	0.8	100.0	1024
	Missing	(*)	(*)	3	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	3
National		**25.6**	**4.9**	**1634**	**4.3**	**7.6**	**28.3**	**9.7**	**40.1**	**3.5**	**5.8**	**0.7**	**100.0**	**1135**

* MICS Indicator 62

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Early Marriage

Early marriage or child marriage (i.e., marriage of a girl or adolescent before attaining physical and mental maturity) is a curse to a woman. It leads to early pregnancy and motherhood and deterioration of health. It deprives her from the opportunities of basic education, skill development and self reliance. Early marriage i.e., marriage before the age of 18 is still much in vogue in many parts of the world. Parents encourage early marriage of their daughters mainly for daughters' protection, family honour and social obligation. Most often, poverty compels them to do so.

According to UNICEF estimated over 60 million women aged 20-24 worldwide were married/in union before the age of 18. Factors that influence child marriage include:

- the state of the country's civil registration system, which provides proof of age for children,
- the existence of an adequate legislative framework that is supported by an enforcement mechanism to address cases of child marriage, and
- the existence of cultural or religious norms that condone the practice.

The Universal Declaration of Human Rights recognizes the right to a "free and full" consent to a marriage when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) mentions the right to protection from child marriage in article 16. The article states: "the betrothal and the marriage of a child shall have no legal effect, and all necessary action, including legislation, shall be taken to specify a minimum age for marriage ……".

Though marriage is not considered directly in the Convention on the Rights of the Children (CRC), child marriage is linked to other rights of children such as the right to express their views freely, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices and is frequently addressed by the CRC.

Two indicators used to determine early marriage among females are the percentage of women married before 15 years of age and the percentage married before 18 years of age. The results are described in Table CP.5. The Table shows that, 7 percent of the married women aged 15-49 were married before the age of 15; while 24 percent before reaching 18 years of age.

The percentage of women married before age 15 is slightly greater in rural area (7.5%) than urban area (5.5%). The percentage varies considerably across the provinces. It is lowest in Torba (1.0%) and the highest in Penama (12.0%). The variation of this indicator by education level of the respondents as well as wealth status of the households is nominal. The percentages of women married before age 18 also saw a similar pattern in this regard. It is somewhat greater in the rural area (25.4%) than the urban area (18.3%).

Considerable differentials in the value of this indicator are observed across the provinces ranging from 8 percent in Torba to 32 percent in Tafea. The indicator varies to some extent by the level of education of the respondents ranging between 17 percent for those having no education and 27 percent for those having primary level of education. The early marriage is the highest among the poorest households (28.4%) and the lowest among the richest households (20.5%) (Table CP.5).

Table CP.5: Early marriage

Percentage of women aged 15-49 years in marriage or union before their 15th birthday, percentage of women aged 20-49 years in marriage or union before their 18th birthday, and percentage of women aged 15-19 years currently married or in union, Vanuatu, 2007

Background Characteristics		Percentage married before age 15 *	Number of women aged 15-49 years	Percentage married before age 18 *	Number of women aged 20-49 years	Percentage of women 15-19 years married/in union **	Number of women aged 15-19 years
Region	Tafea	8.0	353	31.6	301	16.1	53
	Shefa	9.8	392	31.0	321	15.2	72
	Malampa	5.1	492	20.6	411	17.9	81
	Penama	12.0	260	27.8	236	(*)	24
	Sanma	6.7	368	23.0	287	20.0	81
	Torba	1.0	110	8.0	91	(*)	19
	Port Vila	6.5	542	20.0	428	4.5	114
	Luganville	2.5	174	12.9	137	(11.3)	37
Area	Urban	5.5	716	18.3	565	6.2	151
	Rural	7.5	1976	25.4	1646	15.9	330
Age	15-19	1.9	481	.	.	12.8	481
	20-24	8.8	602	27.1	602	.	.
	25-29	9.0	437	24.8	437	.	.
	30-34	9.1	387	26.6	387	.	.
	35-39	6.9	358	19.8	358	.	.
	40-44	7.4	227	19.8	227	.	.
	45-49	5.1	201	15.4	201	.	.
Education	None	5.0	171	17.0	154	(*)	17
	Primary	8.3	1689	26.7	1398	14.5	291
	Secondary +	4.5	810	18.4	640	10.0	170
Wealth index quintiles	Poorest	7.6	476	28.4	395	21.2	81
	Second	7.8	564	25.0	484	27.1	80
	Middle	8.1	522	24.3	430	14.2	92
	Fourth	5.1	515	20.1	428	2.1	87
	Richest	6.3	615	20.5	474	5.6	141
Mother tongue of head	Bislama	4.1	393	17.3	326	12.0	67
	Other Language	7.5	2291	24.7	1879	13.0	412
National		**7.0**	**2692**	**23.6**	**2211**	**12.8**	**481**

* MICS Indicator 67

** MICS Indicator 68

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Note: Missing from Mother tongue of head and non-standard curriculum are not shown due to low number of cases

Spousal Age Difference

There is evidence to suggest that girls who marry at young ages are more likely to marry older men and consequently are more likely to become widows at early ages. The indicator that has been constructed to measure spousal age difference is the percentage of women those are currently married or in-union with a man older by ten or more years than them and presented in Table CP.6. The results indicate that, 32 percent of the currently married women aged 15-19 were married with men older than them by 10 years or above; while 10 percent of women aged 20-24 are currently married or in-union with men older than them by 10 years or above.

Percentage of women aged 15-49 having husbands older than them by 10 years and over is greater in rural area (33.6%) than the national average. While the percentage of women aged 20-49, having husbands older than them by 10 years or over is greater in the rural area (10.8%) than the urban area (7.3%). The percentage varies considerably across the provinces. It is lowest in Tafea (2.0%) and the highest in Sanma (25.0%). The percentage also varies considerably across wealth status of the households ranging between 4 percent for richest quintile and 22 percent for the fourth quintile.

Table CP.6: Spousal age difference

Percent distribution of currently married/in union women aged 15-19 and 20-24 yrs according to the age difference with their husband or partner, Vanuatu, 2007

Background Characteristics		Percentage of currently married/in union women aged 15-19 whose husband or partner is:				Total	Number of women aged 15-19 years currently married/in union	Percentage of currently married/in union women aged 20-24 whose husband or partner is:					Total	Number of women aged 20-24 years currently married/in union
		0-4 years older	5-9 years older	10+ years older *	Husband/partner's age unknown			Younger	0-4 years older	5-9 years older	10+ years older *	Husband/partner's age unknown		
Region	Tafea	(*)	(*)	(*)	(*)	(100.0)	9	2.0	53.1	18.4	2.0	24.5	100.0	83
	Shefa	(*)	(*)	(*)	(*)	(100.0)	11	14.6	43.9	24.4	9.8	7.3	100.0	64
	Malampa	(*)	(*)	(*)	(*)	(100.0)	14	6.7	53.3	26.7	6.7	6.7	100.0	87
	Penama	(*)	(*)	(*)	(*)	(100.0)	0	2.6	33.3	25.6	20.5	17.9	100.0	58
	Sanma	(*)	(*)	(*)	(*)	(100.0)	16	(0.0)	(30.0)	(30.0)	(25.0)	(15.0)	(100.0)	40
	Torba	(*)	(*)	(*)	(*)	(100.0)	2	(*)	(*)	(*)	(*)	(*)	(100.0)	16
	Port Vila	(*)	(*)	(*)	(*)	(100.0)	5	(4.6)	(55.4)	(23.1)	(6.2)	(10.8)	(100.0)	47
	Luganville	(*)	(*)	(*)	(*)	(100.0)	4	(*)	(*)	(*)	(*)	(*)	(100.0)	19
Area	Urban	(*)	(*)	(*)	(*)	(100.0)	9	3.9	55.0	24.5	7.3	9.4	100.0	66
	Rural	40.3	13.0	33.6	13.1	100.0	52	5.2	45.3	23.8	10.8	14.9	100.0	350
Age	15-19	40.8	14.7	31.6	12.9	100.0	62	.	.	.	.	.	.	.
	20-24	.	.	.	.	.	.	5.0	46.9	23.9	10.2	14.0	100.0	416
Education	None	(*)	(*)	(*)	(*)	(100.0)	2	(*)	(*)	(*)	(*)	(*)	(100.0)	21
	Primary	(47.6)	(15.0)	(32.8)	(4.6)	(100.0)	42	5.0	45.0	26.0	10.5	13.4	100.0	274
	Secondary +	(*)	(*)	(*)	(*)	(100.0)	17	5.9	52.3	18.5	9.7	13.6	100.0	120
	Non-standard curriculum	(*)	(*)	(*)	(*)	(100.0)	0	(*)	(*)	(*)	(*)	(*)	(100.0)	0
Wealth index quintiles	Poorest	(*)	(*)	(*)	(*)	(100.0)	17	1.5	36.6	30.6	9.1	22.2	100.0	98
	Second	(*)	(*)	(*)	(*)	(100.0)	22	7.3	49.0	20.0	7.1	16.5	100.0	126
	Middle	(*)	(*)	(*)	(*)	(100.0)	13	6.1	49.7	23.7	10.9	9.6	100.0	73
	Fourth	(*)	(*)	(*)	(*)	(100.0)	2	2.3	48.7	19.1	21.9	8.0	100.0	68
	Richest	(*)	(*)	(*)	(*)	(100.0)	8	8.1	54.7	27.2	3.6	6.4	100.0	51
Mother tongue of head	Bislama	(*)	(*)	(*)	(*)	(100.0)	8	0.7	64.5	21.4	8.9	4.5	100.0	52
	Other Language	42.7	14.8	29.8	12.8	100.0	54	5.7	44.0	24.4	10.5	15.5	100.0	362
	Missing	(*)	(*)	(*)	(*)	(100.0)	0	(*)	(*)	(*)	(*)	(*)	(100.0)	2
National		**40.8**	**14.7**	**31.6**	**12.9**	**100.0**	**62**	**5.0**	**46.9**	**23.9**	**10.2**	**14.0**	**100.0**	**416**

* MICS Indicator 69

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

12. HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN

Knowledge of HIV Transmission and Utilization of HIV Testing Services

One of the most important prerequisites for reducing the rate of Human Immune Virus (HIV) infection is that, the general people of a country have accurate knowledge of how HIV is transmitted and how to prevent its transmission. Misconceptions about HIV/AIDS are common among general people and this can hinder preventive efforts. The United Nations General Assembly Special Session on HIV/AIDS (UNGASS) has called on governments to improve the knowledge and skills of young people to prevent themselves from HIV/AIDS. The MDG is to combat HIV/AIDS by reducing HIV infections by half. The indicators that have been identified to measure the progress towards the achievement of both these goals describe –

(i) The level of knowledge of HIV/AIDS and its prevention, and

(ii) The level of practice of behaviours that prevent further spread of the disease.

This section describes the status of knowledge of respondents; women aged 15-49 years regarding HIV transmission as well as the utilization of HIV testing services by them.

Knowledge of HIV prevention and transmission

Respondents were asked to determine whether they know all of the three main ways of HIV transmission, i.e. having only one faithful uninfected partner, using a condom every time of sexual intercourse, and abstaining from sex. The results of this inquiry are presented in Table HA.1.

Overall, 83 percent of the women aged 15-49 have heard of AIDS; 75 percent of them know at least one way of preventing HIV transmission, while 42 percent know all the three ways. The percentage of women knowing all the three ways of HIV transmission is slightly higher in the urban area (49.3%) than the rural area (39.3%). Considerable differential proportion exists throughout the provinces, ranging from 24 percent in Tafea and 50 percent in Luganville city. As expected, percentage of women having knowledge of three prevention methods increases with women's educational level and wealth status of the household.

Transmission of HIV can be prevented by 'having only one faithful uninfected sex partner' is known to 66 percent of women, while 59 percent know that HIV transmission can be prevented by using condom. One fourth of the women aged 15-49 does not know any way of preventing HIV. The rate is higher in the rural area (28.7%) than in the urban area (14.8%). Woman education and wealth status show a strong negative effect on 'does not know any way of transmission of HIV' as well.

Table HA.1: Knowledge of preventing HIV transmission
Percent of women who have comprehensive knowledge of HIV/AIDS transmission, Vanuatu, 2007

Background Characteristics		Heard of AIDS	Percentage who know transmission can be prevented by:			Knows all three ways	Knows at least one way	Doesn't know any way	Number of women
			Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex				
Region	Tafea	51.6	43.5	37.4	30.5	24.3	47.9	52.1	353
	Shefa	86.1	63.0	63.4	51.8	39.4	77.4	22.6	392
	Malampa	91.6	66.7	55.3	53.4	42.3	75.2	24.8	492
	Penama	91.2	71.1	64.5	64.1	47.8	82.2	17.8	260
	Sanma	79.8	68.4	64.7	53.1	45.3	74.1	25.9	368
	Torba	78.0	60.4	53.9	50.2	34.1	72.4	27.6	110
	Port Vila	89.3	78.8	63.6	67.1	49.1	87.1	12.9	542
	Luganville	89.9	72.3	68.5	59.3	50.0	79.2	20.8	174
Area	Urban	89.4	77.2	64.8	65.2	49.3	85.2	14.8	716
	Rural	80.3	62.4	56.6	50.2	39.3	71.3	28.7	1976
Age	15-19	81.6	65.2	57.4	54.7	42.1	73.9	26.1	481
	20-24	84.3	64.7	59.5	52.1	38.5	75.4	24.6	602
	25-29	83.3	70.3	58.0	55.3	42.7	78.8	21.2	437
	30-34	86.6	68.7	64.1	58.9	47.7	77.9	22.1	387
	35-39	84.8	69.5	61.2	58.5	46.0	76.9	23.1	358
	40-44	75.6	61.1	55.9	49.2	41.4	68.5	31.5	227
	45-49	77.0	60.9	50.4	45.5	33.5	66.9	33.1	201
Education	None	42.6	36.0	31.9	25.4	22.3	39.8	60.2	171
	Primary	81.3	62.5	57.4	50.7	39.4	72.1	27.9	1689
	Secondary +	93.8	80.8	67.4	67.5	51.8	88.6	11.4	810
	Non-standard curriculum	(*)	(*)	(*)	(*)	(*)	(*)	(*)	22
Wealth index quintiles	Poorest	71.8	53.8	46.8	43.2	34.4	60.3	39.7	476
	Second	76.5	59.4	54.6	50.3	36.8	69.5	30.5	564
	Middle	83.6	65.5	58.3	50.0	39.9	74.3	25.7	522
	Fourth	88.3	71.4	65.8	59.2	46.9	81.4	18.6	515
	Richest	91.6	78.7	66.3	65.6	50.4	86.7	13.3	615
Mother tongue of head	Bislama	85.6	73.4	61.2	55.0	43.9	79.6	20.4	393
	Other Language	82.2	65.1	58.5	54.1	41.8	74.2	25.8	2291
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
National		**82.8**	**66.3**	**58.8**	**54.2**	**42.0**	**75.0**	**25.0**	**2692**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Identifying Misconception about HIV/AIDS

There are various misconceptions about transmission of HIV, of which two most common misconceptions are: i) HIV can be transmitted by mosquito bites, and ii) HIV can be transmitted by sharing food. Table HA.2 shows the percentage of women aged 15-49 years those have correctly identified the misconception about HIV/AIDS transmission.

Overall 47 and 61 percent of the women aged 15-49 years know that, HIV cannot be transmitted by mosquito bites and by sharing food respectively (Table HA.2). Of the interviewed women only 22 percent reject the two most common misconceptions and know that a healthy-looking person can be infected. The level of this measure is comparatively higher in Port Vila (40.1%) followed by Shefa (35.2%); and in all other provinces it varies between the proportions of 10 and 21 percent. Higher levels of knowledge about misconception are associated with urban residence, higher levels of education, and higher socio-economic status.

Table HA.2: Identifying misconceptions about HIV/AIDS
Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, Vanuatu, 2007

Background Characteristics		Percent who know that:			Reject two most common misconceptions and know a healthy-looking person can be infected	HIV cannot be transmitted by sharing food	Number of women
		HIV cannot be transmitted by supernatural means	HIV cannot be transmitted by mosquito bites	A healthy looking person can be infected			
Region	Tafea	33.7	25.3	25.4	9.4	37.1	353
	Shefa	67.0	55.1	54.0	35.2	70.4	392
	Malampa	56.8	43.6	41.4	16.8	70.7	492
	Penama	60.3	47.4	36.5	11.1	62.0	260
	Sanma	36.5	37.0	36.1	9.7	53.6	368
	Torba	40.1	33.9	49.7	15.5	50.6	110
	Port Vila	72.3	67.6	58.8	40.1	71.4	542
	Luganville	48.4	46.1	56.3	21.3	54.1	174
Area	Urban	66.5	62.3	58.2	35.6	67.2	716
	Rural	50.4	41.3	39.9	17.0	59.2	1976
Age	15-19	59.2	49.8	42.3	19.8	61.3	481
	20-24	57.9	46.3	43.8	21.8	63.2	602
	25-29	56.3	50.8	49.9	27.1	58.8	437
	30-34	51.3	46.0	49.8	21.9	62.8	387
	35-39	52.2	46.6	46.7	24.3	66.0	358
	40-44	50.7	42.6	37.2	19.7	55.8	227
	45-49	46.5	40.4	37.6	14.4	55.9	201
Education	None	22.0	13.8	19.9	5.9	22.5	171
	Primary	50.6	40.7	40.7	16.7	57.9	1689
	Secondary +	69.5	66.4	58.3	35.4	76.4	810
	Non-standard	(*)	(*)	(*)	(*)	(*)	22
Wealth index quintiles	Poorest	40.8	32.0	32.9	9.7	46.3	476
	Second	43.7	36.8	33.8	10.1	56.1	564
	Middle	51.2	41.4	42.3	18.6	63.5	522
	Fourth	66.1	56.3	49.1	29.8	67.8	515
	Richest	69.0	64.6	62.6	38.5	70.4	615
Mother tongue of head	Bislama	61.7	56.8	53.1	29.5	65.4	393
	Other Language	53.5	45.3	43.4	20.7	60.6	2291
	Missing	(*)	(*)	(*)	(*)	(*)	8
National		**54.7**	**46.9**	**44.8**	**21.9**	**61.3**	**2692**

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Comprehensive Knowledge of HIV/AIDS Transmission

Women, those i) know methods of preventing HIV, ii) reject two common misconceptions regarding HIV and iii) know that a healthy-looking person can have HIV, are considered to have comprehensive knowledge about HIV/AIDS transmission. Table HA.3 presents the percentage of women aged 15-49 years having comprehensive knowledge of HIV/AIDS.

Overall, 16 percent respondents have comprehensive correct knowledge of HIV. This proportion is the highest in Shefa (28.9%) and Port Vila (28.7%) and the lowest in Tafea (4.9%). Level of education, residence and socio-economic status of women are highly positively associated with the comprehensive knowledge of HIV/AIDS transmission.

Table HA.3: Comprehensive knowledge of HIV/AIDS transmission
Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, Vanuatu, 2007

		Knows 2 ways to prevent HIV transmission	Correctly identify 3 misconceptions about HIV transmission	Have comprehensive knowledge (identify 2 prevention methods and 3 misconceptions) *	Number of women
Region	Tafea	33.6	9.4	4.9	353
	Shefa	51.0	35.2	28.9	392
	Malampa	52.0	16.8	13.1	492
	Penama	59.7	11.1	8.0	260
	Sanma	59.0	9.7	8.2	368
	Torba	44.4	15.5	7.5	110
	Port Vila	58.1	40.1	28.7	542
	Luganville	62.5	21.3	17.1	174
Area	Urban	59.2	35.6	25.9	716
	Rural	50.4	17.0	12.9	1976
Age	15-19	51.5	19.8	14.2	481
	20-24	52.3	21.8	16.3	602
	*15-24**	*52.0*	*20.9*	*15.4*	*1083*
	25-29	52.5	27.1	19.0	437
	30-34	57.2	21.9	16.7	387
	35-39	55.9	24.3	17.9	358
	40-44	50.3	19.7	15.9	227
	45-49	46.1	14.4	12.9	201
Education	None	28.3	5.9	4.5	171
	Primary	50.2	16.7	12.4	1689
	Secondary +	63.2	35.4	26.6	810
	Non-standard	(*)	(*)	(*)	22
Wealth index quintiles	Poorest	42.4	9.7	6.3	476
	Second	47.7	10.1	7.2	564
	Middle	52.4	18.6	14.2	522
	Fourth	58.6	29.8	24.1	515
	Richest	60.8	38.5	27.8	615
Mother tongue of head	Bislama	57.0	29.5	21.2	393
	Other Language	52.1	20.7	15.5	2291
	Missing	(*)	(*)	(*)	8
National		**52.7**	**21.9**	**16.3**	**2692**

* MICS Indicator 82; MDG Indicator 19b
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Knowledge of Mother-to-Child HIV Transmission

In order to seek HIV testing during pregnancy to avoid infection in the baby a woman should know that HIV could be transmitted from mother to child during pregnancy, delivery and breastfeeding. The level of this knowledge among women aged 15-49 years is presented in Figure HA.1 and Table HA.4.

Overall, 81 percent of women know that, AIDS can be transmitted from mother to child. Among the interviewed women, 63 percent know all the three ways that mother to child transmission (MTCT) of AIDS can take place (i.e. transmission can take place during pregnancy, at delivery and through breast milk). The level of this indicator is the highest in Luganville (76.9%) followed by Sanma (73.1%) and the lowest in Tafea (42.2%). In all other provinces, it varies between 57 percent in Panama and 70 percent in Malampa. Urban women are more likely to have knowledge about transmission of AIDS from mother to child than rural women (67.0% vs. 61.4%). Mothers' education and wealth status show strong positive association with knowledge about transmission of AIDS from mother to child.

Figure HA.1: Percentage of women aged 15-49 who correctly identify means of HIV transmission from mother to child, Vanuatu, 2007

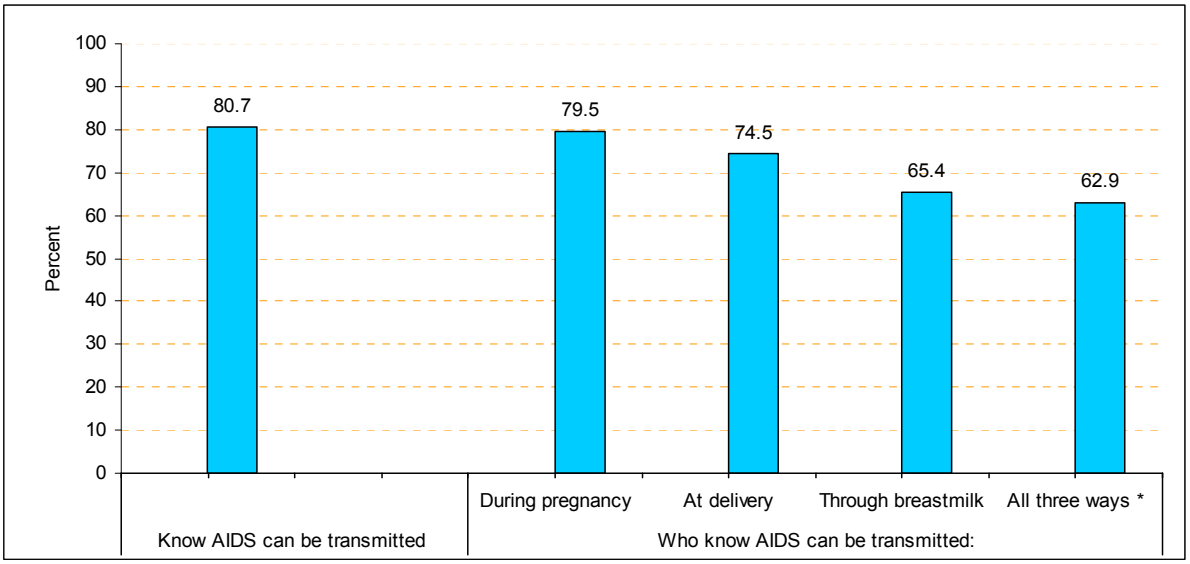

Table HA.4: Knowledge of mother-to-child HIV transmission
Percentage of women aged 15-49 who correctly identify means of HIV transmission from mother to child, Vanuatu, 2007

		Know AIDS can be transmitted from mother to child	Percent who know AIDS can be transmitted:				Did not know any specific way	Number of women
			During pregnancy	At delivery	Through breastmilk	All three ways*		
Region	Tafea	48.9	48.9	44.6	45.6	42.2	2.7	353
	Shefa	85.4	85.0	80.0	63.7	61.3	0.7	392
	Malampa	87.6	86.0	84.9	70.6	69.6	4.0	492
	Penama	88.5	86.5	64.5	60.4	56.9	2.6	260
	Sanma	79.3	78.8	76.8	74.2	73.1	0.5	368
	Torba	71.9	68.4	66.1	63.6	58.3	6.1	110
	Port Vila	88.4	86.3	82.6	67.5	63.8	0.9	542
	Luganville	87.9	87.2	84.3	78.6	76.9	2.0	174
Area	Urban	88.3	86.5	83.0	70.2	67.0	1.2	716
	Rural	77.9	76.9	71.5	63.7	61.4	2.4	1976
Age	15-19	80.4	79.4	77.3	69.2	66.7	1.1	481
	20-24	82.9	81.4	77.4	68.6	65.9	1.4	602
	25-29	81.7	80.6	73.2	64.9	61.9	1.6	437
	30-34	84.2	83.2	77.3	65.5	63.6	2.4	387
	35-39	82.5	80.7	75.1	64.6	61.7	2.3	358
	40-44	71.8	70.3	64.4	55.8	52.8	3.8	227
	45-49	72.6	72.6	67.8	60.1	58.8	4.3	201
Education	None	39.2	36.9	31.7	32.7	28.1	3.4	171
	Primary	78.9	77.8	72.7	64.3	62.5	2.5	1689
	Secondary +	92.8	91.4	87.1	74.0	70.5	0.9	810
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	22
Wealth index quintiles	Poorest	68.4	67.7	60.4	56.9	54.5	3.5	476
	Second	73.9	73.3	67.7	61.0	59.3	2.6	564
	Middle	82.1	80.2	76.0	65.1	62.6	1.5	522
	Fourth	86.7	84.9	80.0	70.8	67.1	1.6	515
	Richest	90.3	89.1	86.0	71.8	69.4	1.3	615
Mother tongue of head	Bislama	84.3	82.9	79.0	68.7	66.0	1.3	393
	Other Language	80.0	78.8	73.7	64.9	62.4	2.2	2291
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	8
National		**80.7**	**79.5**	**74.5**	**65.4**	**62.9**	**2.1**	**2692**

MICS Indicator 89
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Attitudes toward People Living with HIV/AIDS

The indicators on attitude towards people living with HIV measure stigma and discrimination in the community. A respondent is considered to have not shown any stigma and discriminatory attitude towards people living with HIV/AIDS if she does not agree with any of the following four discriminatory statements: (i) would not care for a family member sick with AIDS, (ii) if a family member has HIV, would want to keep it a secret, (iii) believe that a teacher with HIV should not be allowed to work, and (iv) would not buy food from a person with HIV/AIDS. On the other hand, a respondent is considered to have shown stigma and discriminatory attitude if she agrees with at least one of the above four statements. Table HA.5 summarizes the respondents' attitudes towards the 'persons living with HIV/AIDS' (PLHA). It is observed that, 20 percent respondents would not care for a family member sick with AIDS, while 27 percent said that if a family member has HIV they would want to keep it a secret.

Table HA.5 shows the percentage of women of reproductive age by attitude toward people living with HIV/AIDS according to some selected background characteristics. The data indicate that, 59 percent of women believe that a teacher with HIV should not be allowed to work and 56 percent would not buy food from a person with HIV/AIDS. Nearly 83 percent of the respondents agreed with at least one discriminatory statement; while the rest 17 percent did not show any discrimination towards PLHA. The proportion of women agreed with none of the discriminatory statements is higher in the urban area (22.9%) than the rural area (15.3%). This proportion is the lowest in Torba (9.0%) and the highest in Shefa and Luganville city (27.4% and 26.4% respectively). Lack of stigma and discrimination is positively associated with women economic status. However, it does not show any trend with women's education.

Table HA.5: Attitudes toward people living with HIV/AIDS
Percentage of women aged 15-49 years who have heard of AIDS who express a discriminatory attitude towards people living with HIV/AIDS, Vanuatu, 2007

		Percent of women who:						Number of women who have heard of AIDS
		Would not care for a family member who was sick with AIDS	If a family member had HIV would want to keep it a secret	Believe that a teacher with HIV should not be allowed to work	Would not buy food from a person with HIV/AIDS	Agree with at least one discriminatory statement	Agree with none of the discriminatory statements*	
Region	Tafea	15.8	38.7	52.6	59.8	85.8	14.2	182
	Shefa	21.4	12.9	52.2	53.4	72.6	27.4	338
	Malampa	29.5	25.6	71.6	51.8	90.4	9.6	451
	Penama	19.3	31.8	74.4	65.1	89.8	10.2	237
	Sanma	17.5	29.0	64.6	66.5	83.3	16.7	294
	Torba	37.1	13.5	78.8	60.6	91.0	9.0	86
	Port Vila	11.6	31.7	42.7	50.7	78.3	21.7	484
	Luganville	17.3	30.3	49.2	48.4	73.6	26.4	157
Area	Urban	13.0	31.4	44.3	50.1	77.1	22.9	641
	Rural	22.9	25.3	64.8	58.2	84.7	15.3	1587
Age	15-19	23.4	30.6	59.3	58.6	85.3	14.7	392
	20-24	20.6	27.5	55.1	53.8	81.4	18.6	508
	25-29	20.6	26.0	59.1	54.4	81.4	18.6	364
	30-34	15.1	25.0	58.6	59.6	80.7	19.3	335
	35-39	20.7	27.8	63.4	57.4	83.0	17.0	303
	40-44	16.7	22.9	59.4	53.0	82.6	17.4	171
	45-49	21.5	26.8	61.0	52.0	84.7	15.3	155
Education	None	22.7	22.9	57.4	55.6	77.9	22.1	73
	Primary	25.3	24.9	66.8	62.0	86.1	13.9	1374
	Secondary +	10.2	31.1	44.7	45.2	76.5	23.5	759
	Non-standard	(*)	(*)	(*)	(*)	(*)	(*)	22
Wealth index quintiles	Poorest	26.5	29.8	71.3	57.6	90.2	9.8	342
	Second	23.8	24.5	71.6	65.6	87.5	12.5	431
	Middle	24.9	24.3	62.4	61.9	83.3	16.7	437
	Fourth	16.0	24.8	55.5	50.7	78.6	21.4	455
	Richest	12.7	31.3	41.6	47.0	76.6	23.4	563
Mother tongue of head	Bislama	13.4	24.7	45.7	45.2	71.4	28.6	336
	Other Language	21.3	27.6	61.3	58.0	84.6	15.4	1884
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	7
National		**20.0**	**27.1**	**58.9**	**55.9**	**82.5**	**17.5**	**2228**

MICS Indicator 86
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

Utilization of HIV Testing Services

Important indicators regarding HIV testing are the women's knowledge of where HIV testing services are offered and the extent to which they utilize these services. The information relating to these two indicators is presented in Table HA.6. The table shows that, half of the women of reproductive age know where they can get the HIV testing facilities; while only 8.5 percent reported that they were tested for HIV. Among the women those were tested, over 58 percent were told the result. The knowledge of 'where HIV testing is offered' is the highest among the respondents of Port Vila (62.9%) and the lowest among those of Tafea (21.9%). Knowledge level is higher in the urban area (61.1%) than the rural area (46.6%). Higher levels of the knowledge of 'where HIV testing is offered' are positively associated with the higher levels of education and economic status of the women.

Table HA.6: Knowledge of a facility for HIV testing
Percentage of women aged 15-49 years who know where to get an HIV test, percentage of women who have been tested and, of those tested the percentage who have been told the result, Vanuatu, 2007

		Know a place to get tested *	Have been tested **	Number of women	If tested, have been told result	Number of women who have been tested for HIV
Region	Tafea	21.9	9.0	353	(59.0)	32
	Shefa	36.7	10.9	392	(60.2)	43
	Malampa	60.7	8.2	492	(54.6)	40
	Penama	62.7	6.1	260	(*)	16
	Sanma	57.1	3.1	368	(*)	11
	Torba	24.9	1.5	110	(*)	2
	Port Vila	62.9	13.5	542	66.3	73
	Luganville	55.3	6.4	174	(*)	11
Area	Urban	61.1	11.8	716	63.9	84
	Rural	46.6	7.3	1976	55.2	143
Age	15-19	46.9	3.5	481	(*)	17
	20-24	49.9	9.9	602	59.9	60
	25-29	54.2	10.2	437	(60.2)	45
	30-34	52.6	10.4	387	(53.2)	40
	35-39	48.9	10.9	358	(58.6)	39
	40-44	51.8	6.9	227	(*)	16
	45-49	49.4	5.9	201	(*)	12
Education	None	20.2	2.8	171	(*)	5
	Primary	46.0	6.8	1689	44.0	114
	Secondary +	65.4	13.0	810	74.4	105
	Non-standard	(*)	(*)	22	(*)	3
Wealth index quintiles	Poorest	41.2	4.8	476	(*)	23
	Second	45.5	8.1	564	(28.4)	46
	Middle	45.1	6.7	522	(59.5)	35
	Fourth	54.1	9.9	515	57.9	51
	Richest	63.6	11.9	615	74.9	73
Mother tongue of head	Bislama	55.9	6.6	393	(58.9)	26
	Other Language	49.6	8.7	2291	57.9	200
	Missing	(*)	(*)	8	(*)	2
National		**50.4**	**8.5**	**2692**	**58.4**	**228**

* MICS Indicator 87
** MICS Indicator 88
(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases
( ) Figure is based on 25-49 unweighted cases

Counseling and HIV Testing during Antenatal Care

Table HA.7 presents the HIV testing and counseling coverage during antenatal care among the women of reproductive age those gave birth in the two years preceding the survey. It is observed that, 84 percent of the respondents received ANC service from a health professional during this pregnancy. Among the women who received ANC service, only 28 percent were provided with information about HIV prevention during the ANC visit. This proportion of 'women received information about HIV prevention' was highest in Port Vila (58.4%) and the lowest in Torba (6.4%). In all other provinces it ranges from 18 percent in Panama to 42 percent in Shefa. The higher levels of this indicator are associated with urban residence, higher level of education and higher socio-economic status of women.

Over 12 percent of the women reported to have tested the HIV and 7 percent received the results of their test at an ANC visit to a health facility or health provider. However, this figure might be over-reported because of confusion among the respondents about the testing of HIV with other tests (eg. STD test).

As stated before, knowledge of women aged 15-49 years about prevention of HIV/AIDS and their attitude towards 'persons living with HIV/AIDS' (PLHA) are not encouraging; only 16 percent women have comprehensive correct knowledge i.e., know all the three ways of prevention of HIV/AIDS and reject the three common misconceptions about the same as well; and 18 percent women do not show any discrimination towards PLHA.

Women's knowledge about HIV/AIDS transmission from mother to child and testing of HIV/AIDS during ANC visits are also not encouraging. About 63 percent women aged 15-49 years know that, HIV/AIDS can be transmitted from mother to child during pregnancy, breastfeeding and at the time of delivery, and 50 percent know where they can be tested for HIV/AIDS during pregnancy. But only 28 percent of the women who receive ANC services from health professionals are provided with information on HIV prevention during ANC visits and 12 percent of them are tested for HIV/AIDS. The GoV should ensure the public health officials to promote HIV/AIDS counseling during ANC visits and HIV/AIDS test coverage among women aged 15-49 years.

Table HA.7: HIV testing and counseling coverage during antenatal care

Percentage of women aged 15-49 years who gave birth in the two years preceding the survey who were offered HIV testing and counseling with their antenatal care, Vanuatu, 2007

		Percent of women who:				Number of women who gave birth in two years preceding the survey
		Received antenatal care from a health professional for last pregnancy	Were provided information about HIV prevention during ANC visit *	Were tested for HIV at ANC visit	Received results of HIV test at ANC visit **	
Region	Tafea	83.0	19.7	13.6	6.4	149
	Shefa	95.3	42.0	14.8	9.5	116
	Malampa	92.6	25.7	12.3	6.7	162
	Penama	81.2	18.1	2.9	1.4	90
	Sanma	72.6	20.7	7.0	4.6	84
	Torba	(43.3)	(6.4)	(1.2)	(1.2)	37
	Port Vila	93.8	58.4	29.1	16.8	80
	Lugenville	(73.1)	(20.9)	(7.8)	(2.8)	36
Area	Urban	87.4	46.7	22.5	12.4	116
	Rural	83.7	24.4	10.4	5.8	639
Age	15-19	84.9	27.0	15.0	5.5	58
	20-24	84.8	26.3	12.3	6.9	291
	25-29	83.5	26.6	11.7	7.6	166
	30-34	90.0	31.4	13.5	7.9	119
	35-49	78.2	30.3	10.5	5.0	121
Education	None	72.5	14.4	7.0	0.8	59
	Primary	82.8	27.5	9.4	4.6	488
	Secondary +	91.4	32.6	20.5	13.8	207
	Non-standard	-	-	-	-	0
Wealth index quintiles	Poorest	77.8	19.9	7.3	5.2	191
	Second	87.5	24.2	12.2	4.4	202
	Middle	81.0	19.0	9.8	4.7	148
	Fourth	90.0	38.8	15.1	9.9	135
	Richest	88.5	54.1	24.4	15.6	78
Mother tongue of head	Bislama	78.3	30.4	11.0	7.3	68
	Other Language	84.9	27.5	12.4	6.8	686
	Missing	-	-	-	-	0
National		**84.3**	**27.8**	**12.3**	**6.8**	**755**

* MICS Indicator 90

** MICS Indicator 91

(*) Percent count has been suppressed as the figure is based on less than 25 unweighted cases

( ) Figure is based on 25-49 unweighted cases

Orphans and Vulnerable Children

As HIV/AIDS progresses epidemic, more and more children are becoming orphaned and vulnerable due to HIV/AIDS. Increased risk of neglect and exploitation of children exists if their parents are not available to assist them. Monitoring the variations in different outcomes of orphans and vulnerable children and comparing them to their peers give us a measure of how well the communities and the government are responding to their needs.

To monitor these variations, a measurable definition of orphaned and vulnerable children is needed. The Joint United Nations Programme on HIV/AIDS (UNAIDS) monitoring and evaluation Reference Group developed proxy definition of children those are affected by adult morbidity and mortality. This definition classifies children as orphaned and vulnerable if they have experienced the death of either parent, if either parent is chronically ill, or if an adult (aged 18-59) in the household either died (after being chronically ill) or was chronically ill in the year prior to the survey.

Percentage of children aged 0-17 years that live with neither parent, live with either mother or father only are presented in Table HA.10. Around 9 percent of the children are not living with a biological parent. This indicator varies across the provinces from 6 percent in Tafea to 15 percent in Shefa. The urban-rural difference of this proportion is negligible. Higher percentages of children, who are not living with biological parent, are found among older children age group 10-14 years (13.1%); whereas the wealth quintile does not show any consistent pattern in this regard. The MICS-3 survey found that, 3 percent of the children aged 0-17 years have one or both parents as dead. This figure ranges from 2 percent in Tafea, Sanma and Luganville to 4 percent in Malampa. Although this indicator does not vary by gender and place of residence, it varies little by wealth status of households and is positively associated with the increasing age of children.

Table HA.10: Children's living arrangements and orphanhood

Percent distribution of children aged 0-17 years according to living arrangements, percentage of children aged 0-17 years in households not living with a biological parent and percentage of children who are orphans, Vanuatu, 2007

		Living with both parents	Living with neither parent				Living with mother only		Living with father only		Impossible to determine	Total	Not living with a biological parent *	One or both parents dead **	Number of children
			Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead					
Sex	Male	80.3	0.2	0.3	8.4	0.6	5.6	1.6	1.2	0.2	1.6	100.0	9.5	2.9	3281
	Female	78.3	0.2	0.1	8.4	0.6	7.0	1.4	0.9	0.4	2.6	100.0	9.4	2.9	2950
Region	Tafea	85.4	0.0	0.1	5.7	0.0	2.8	2.2	0.2	0.0	3.6	100.0	5.8	2.3	1013
	Shefa	68.4	0.8	0.5	13.7	0.5	13.4	0.2	0.9	0.8	1.1	100.0	15.3	2.6	918
	Malampa	78.2	0.2	0.4	7.9	0.8	6.2	2.1	1.2	0.8	2.3	100.0	9.2	4.2	1080
	Penama	83.4	0.0	0.0	6.4	1.3	4.3	1.7	1.5	0.2	1.1	100.0	7.7	3.2	743
	Sanma	83.7	0.2	0.0	9.2	0.8	4.2	0.6	0.0	0.2	1.0	100.0	10.2	1.9	946
	Torba	72.5	0.1	0.1	8.9	0.3	13.6	2.1	0.8	0.1	1.5	100.0	9.4	2.8	268
	Port Vila	78.3	0.1	0.2	7.8	0.6	4.6	2.4	2.4	0.0	3.5	100.0	8.7	3.3	920
	Luganville	81.6	0.2	0.4	7.6	0.3	6.4	0.6	1.9	0.2	0.9	100.0	8.5	1.8	342
Area	Urban	79.2	0.1	0.3	7.8	0.5	5.1	1.9	2.3	0.1	2.8	100.0	8.6	2.9	1262
	Rural	79.4	0.2	0.2	8.6	0.6	6.6	1.4	0.7	0.4	1.9	100.0	9.6	2.9	4969
Age	0-4	83.4	0.1	0.1	4.3	0.4	10.3	0.7	0.4	0.0	0.3	100.0	4.9	1.4	1793
	5-9	79.5	0.3	0.3	8.0	0.7	5.4	1.2	1.3	0.5	2.8	100.0	9.3	3.0	1956
	10-14	77.0	0.2	0.1	12.1	0.7	4.2	2.1	1.2	0.2	2.1	100.0	13.1	3.3	1685
	15-17	74.7	0.3	0.5	10.8	0.5	3.6	2.9	1.5	0.9	4.3	100.0	12.0	5.0	797
Wealth index quintiles	Poorest	83.0	0.0	0.0	6.6	0.1	5.3	2.8	0.0	0.6	1.6	100.0	6.7	3.5	1347
	Second	82.2	0.3	0.2	5.2	0.7	5.8	2.2	0.1	0.1	3.4	100.0	6.3	3.4	1323
	Middle	80.2	0.1	0.3	9.5	0.7	6.4	0.2	1.0	0.2	1.3	100.0	10.6	1.6	1279
	Fourth	73.2	0.6	0.4	11.7	1.1	7.8	0.7	1.8	0.6	2.1	100.0	13.7	3.3	1201
	Richest	77.1	0.1	0.2	9.6	0.5	6.2	1.7	2.7	0.0	1.9	100.0	10.4	2.5	1081
Mother tongue of head	Bislama	83.0	0.1	0.3	7.4	0.3	5.1	1.4	1.2	0.1	1.1	100.0	8.1	2.3	782
	Other Language	78.8	0.2	0.2	8.6	0.6	6.4	1.5	1.0	0.4	2.2	100.0	9.6	3.0	5435
	Missing	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(100.0)	(*)	(*)	14
National		**79.3**	**0.2**	**0.2**	**8.4**	**0.6**	**6.3**	**1.5**	**1.1**	**0.3**	**2.1**	**100.0**	**9.4**	**2.9**	**6231**

* MICS Indicator 78

** MICS Indicator 75

School Attendance of Orphaned and Vulnerable Children

Less than one percent (0.7%) of the children aged 10-14 years has lost both parents (Table HA.12). Among those children, 74 percent are currently attending school; while 83 percent of the children aged 10-14 years, who have not lost a parent and 80 percent of those living with at least one parent, are attending school. These two figures can be used to form ratio-double orphans to non-orphans school attendance ratio. This is 0.92 indicating that double orphans are not disadvantaged compared to children who are not orphans in respect of their access to educational opportunities.

Though prevalence of HIV/AIDS is not yet remarkable and the situation of orphans and vulnerable children (OVC) is not so disappointing, the GoV and its partners should ensure that a policy and strategic plan of action on OVC is developed and that policy frameworks and appropriate mechanisms are put in place to guarantee to OVC their rights to life, development and protection. Special attention should be given to ensure that OVC are supported at the community level. Community based organizations (CBO) and GoV need to ensure that the families that take the responsibility of upbringing and care providing to OVCs receive support and services.

Table HA.12: School attendance of orphaned and vulnerable children
School attendance by orphaned and vulnerable status among children aged 10-14 years, Vanuatu, 2007

		Percent of children whose mother and father have died	School attendance rate of children whose mother and father have died	Percent of children of whom both parents are alive and child is living with at least one parent	School attendance rate of children of whom both parents are alive and child is living with at least one parent	Double orphans to non orphans school attendance ratio*	Total number of children aged 10-14 years
Sex	Male	0.5	58.4	82.7	77.2	0.76	852
	Female	0.9	81.8	82.4	82.2	1.00	833
Region	Tafea	0.0	.	88.7	80.2	.	242
	Shefa	1.2	50.0	75.6	70.8	0.71	240
	Malampa	0.8	100.0	79.7	91.8	1.09	256
	Penama	1.9	100.0	81.5	75.8	1.32	227
	Sanma	0.0	.	82.1	73.4	.	298
	Torba	0.5	0.0	85.1	76.6	0.00	79
	Port Vila	0.8	33.3	84.9	86.1	0.39	248
	Luganville	0.3	100.0	87.2	80.6	1.24	97
Area	Urban	0.7	42.7	85.6	84.6	0.51	345
	Rural	0.7	81.4	81.7	78.3	1.04	1341
Wealth index quintiles	Poorest	0.4	100.0	82.5	76.2	1.31	375
	Second	0.0	.	85.2	78.8	.	330
	Middle	1.3	61.5	84.5	75.0	0.82	341
	Fourth	0.8	100.0	76.0	81.8	1.22	335
	Richest	1.0	56.0	84.6	87.7	0.64	305
National		**0.7**	**73.6**	**82.5**	**79.6**	**0.92**	**1685**

* MICS Indicator 77; MDG Indicator 20

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APPENDIX A: SAMPLE DESIGN

This section describes the sample design of MICS Vanuatu 2007 including details on the sample size and the methodology for weighting the survey results. It also describes the sample frame.

Summary of sample design

The sample for MICS-3 is a probability-based, stratified cluster sample of 3000 households. They were selected in 120 clusters, each of size 25 households. The sample was designed with the intention of providing reliable estimates for the key MICS indicators at the national level and also for urban and rural separately, as well as for the 6 Provinces of Malampa, Penama, Sanma, Shefa, Tafea and Torba. The sample was allocated to the Provinces and by urban-rural in an optimum fashion to secure enough sample cases in each domain for reliable estimates to be obtained.

Sampling Frame: The sample frame was the enumeration areas (EA) that made up the 1999 Population Census, which had been up-dated in the 2006 Agricultural Census. Primary sampling units, or PSUs, were defined as either single EA or combinations of EA. Combining EA was necessary whenever an EA contained fewer than 25 households, because the cluster size to be interviewed was set at 25 households as mentioned above.

The sample was selected in two stages. The first stage consisted of first stratifying the PSUs by Province in 4 provinces and within-Province by urban/rural in Shefa and Sanma provinces and then selecting 120 PSUs with probability proportionate to size, or *pps*. At the second-stage, a fixed sample size of exactly 25 households was selected from each PSU, using systematic, equal-probability sampling, or *epsem*. Thus a total of 3000 households was selected (120 clusters times 25 households).

Table A.1: Parameters of the parent sample including its allocation by Province

Province	PSUs in the Population			Sample Clusters			Cluster Size	Sample Households		
	Urban	Rural	Total	Urban	Rural	Total		Urban	Rural	Total
Malampa	0	116	116	0	12	12	25	0	300	300
Sanma*	26	69	95	20	12	32	25	500	300	800
Shefa*	42	61	103	28	12	40	25	700	300	1000
Tafea	0	92	92	0	12	12	25	0	300	300
Torba	0	18	18	0	12	12	25	0	300	300
Penama	0	96	96	0	12	12	25	0	300	300
Total	68	452	520	48	72	120	150	1200	1800	3000

* Urban part of Sanma and Shefa are actually Lugenville city and Port Vila city respectively. The resulting sample was not theoretically self-weighing; and sample weights have been used to adjust for major variations among provinces and urban/rural EA with regard to different estimates.

Sample size – description and selection method

The sample size, *n* in terms of number of households, for MICS is a mathematical function of several factors including

- Choice of indicator,

- Desired precision and confidence level,
- Expected indicator rate or coverage,
- Size of base population that indicator refers to,
- Average household size,
- So-called sample "design effect" when cluster sampling is used,
- Allowance for non-response.

The actual calculation of *n* gives the sample size necessary for making an estimate at the national level. But the sample size necessary for the survey is also dependent on the number of domains for which estimates are wanted. In this survey, there are 8 domains of interest – each of the 6 Provinces plus the 2 cities, which are part of the two provinces. Urban and rural separately at the national level are combinations of these basic domains.

The calculating formula to determine sample size that appears in the MICS Manual is given by

$$n = [4 (r) (1 - r) (f) (1.1)] / [(.12r)^2 (p) (n_h)], \text{ where}$$

n is the required sample size, expressed as number of households, for the key indicator, 4 is a factor to achieve the 95 percent level of confidence,

r is the predicted or anticipated prevalence (coverage rate) for the key indicator, which is generally based upon a *small target group* (in terms of its proportion of the total population),

1.1 is the factor necessary to raise the sample size by 10 percent for non-response,

f is the shortened symbol for *deff*, the sample design effect that occurs when cluster samples are used (see further discussion on *deff* below); *f* is assumed to be equal to 1.5,

0.12*r* is the margin of error to be tolerated at the 95 percent level of confidence, defined as 12 percent of *r* (12 percent thus represents the relative sampling error of *r*),

p is the proportion of the total population that the target population, upon which *r* is based,

n_h is the average household size.

For MICS Vanuatu, the formula above was altered to take account of the finite correction factor (1 – *n*/*N*), where *n* is defined above and *N* is the total number of households in the population. That factor is necessary because a comparatively large percentage of the households are sampled for MICS.

However, the whole exercise of calculating sample size was somewhat moot for MICS Vanuatu, because the maximum sample size, which the survey budget can withstand, is 3000 households. The latter is the basis for the numbers that appear in Table A.1 above, including the allocation of sample size by Province.

Many of the following points are the justification for the numbers that appear in the table and, in some cases, provide the explanation of why they may seem unusual or a departure from standard practice.

1. The sample size of 3000 households is actually statistically equivalent to a sample of 3239 households in most countries in terms of the reliability it will achieve on the survey indicators.[1]
2. For provinces the equivalent sample sizes are as follows:
   - Torba – 372 instead of 300
   - Penama – 318 instead of 300
   - Malampa – 313 instead of 300
   - Tafea – 318 instead of 300
   - Sanma urban – 635 instead of 500
   - Sanma rural – 316 instead of 300
   - Shefa urban – 775 instead of 700
   - Shefa rural – 317 instead of 300
3. Note that the sum of the provincial figures above is 3364, or 125 more than the national figure of 3239. That is because differential rates of selection were used in each Province and for urban-rural in order to sample enough cases for reliable measurement in each of those domains. As a result the overall national estimate suffers slightly because of the differential weighting that must be implemented in the analysis. However, the difference is virtually trivial, about 2 percent on the sampling error for national estimates.
4. At first glance it may seem like too much to have 300 sample households in Torba since it is so small compared to the other Provinces, not to mention that it was necessary to sample fully two-thirds of the PSUs in Torba to obtain 300 cases. It was prudent, however, to use 300 here also (as in the other rural Provinces) because it is always useful to have at least several hundred households in a particular domain for analysis purposes. Three hundred is an acceptable but minimum number.
5. The sampling variance should actually be somewhat better than what would be achieved by the sample sizes mentioned in points 1 and 2 above. That is because 23 percent of the PSUs in the country were selected in the sample – 120 out of 520 (see Table A.1). A surprisingly high number. It means that the between-PSU component of variance should be virtually negligible with such a high proportion of the PSUs being included in the sample. Larger cluster size has not been used in for two reasons, because (a) it makes a convenient workload assignment for the interviewing teams and (b) it avoids an unacceptably high survey design effect (*deff*) that would increase the sampling errors.

Stratification, clustering and allocation

The sample frame was stratified prior to sampling. The strata are synonymous with the geographic estimation domains. The technique that was used is known as *implicit* stratification which simply entails organizing the frame of EA/PSUs into geographic sequence and then selecting the first-stage sampling

[1] This is due to the finite correction factor which is necessary to apply to the formula for calculating sample size whenever, n, the sample size is a significant percentage of N, the population size. In Vanuatu, n = 3000 and N = 40701. The finite correction factor is (1- 3000/40701), or 0.9263 at the national level.

units in systematic fashion, using probability proportionate to size or *pps*. There are 8 independent samples. Four of the Provinces contain only rural PSUs, with Sanma and Shefa being the only ones with an urban component – Luganville and Port Vila, respectively. Essentially, therefore, a separate systematic sample of PSUs was selected independently from each of the 4 rural Provinces, each with its own selection interval and random start. In the case of Sanma and Shefa there were 4 independent samples of PSUs selected – urban Sanma (Lugenville), rural Sanma, urban Shefa (Port Villa) and rural Shefa.

The increase in sampling variance from a cluster sample over a simple random sample is known as the sample design effect or *deff*. It is expressed mathematically as

$$Deff = 1 + \delta (\tilde{n} - 1), \text{ where}$$

δ is the intraclass correlation for the particular characteristic being observed and

$\tilde{n}$ is the cluster size in terms of persons or households.

Experience has shown that the value of *deff* tends to range from about 1.5 to 2.0 for clusters of this size, depending on the characteristic being measured.

The sample allocation adheres to the wishes of the survey management to produce MICS estimates for each of the 6 Provinces, and 2 cities as well as urban and rural separately and, of course, national totals. That stipulation generally necessitates sampling approximately the same number of cases in each sub-national domain (Provinces), so that the reliability of the data will be roughly the same in each Province; the same can be said for urban and rural domains. Accordingly, smaller provinces were over-sampled and larger Provinces were under-sampled. As it stands, the sample of 1200 total urban units is still 600 less than the rural sample, which means in effect that the urban sampling errors will be about 22 percent larger than rural.

Except for Shefa urban (Port Villa) the comparatively tiny number of PSUs in the universe for Vanuatu made it imperative to sample far fewer than 30 for each domain.[2] In Torba, for example, there are only 18 PSUs in the universe, so obviously using 30 sample PSUs was not possible in that domain.

Sample implementation

Note again that while there are 120 sample clusters, there are actually only 108 PSUs because of the fact that many PSUs contain multiple sample clusters – from 2 to 4.

As a somewhat standard procedure in MICS and other household surveys, a fresh listing of households in sample clusters were made through a field operation prior to sample selection, especially since the sample frame was unavailable. It is a form of frame up-dating confined to the second stage of selection and, hence, updates only the sample PSUs and not the entire frame. Every effort was made to possible to interview the originally selected clusters and households and did not make any substitutions of convenience.

Non-response rate

The non-response was high for 15-19 years women. The estimates could be biased because of their under-representation. Adjustments were made for the non-response.

[2] In Shefa urban, however, the number of sample PSUs is close to 30 – 28.

Sample weighting

At the analysis stage, the data were weighted for several reasons, but the most important one is that the probabilities of selection for each of the 8 domains are all different. The weight, which is the inverse of the probability of selection, must be properly applied to the raw data to ensure that estimation bias does not occur.

For MICS analysis the basic design weight was adjusted to reflect a non-response adjustment mentioned above since that become necessary following the completion of the survey interviewing. In addition, a further adjustment is made to normalize the weights, which are the actual ones used at the analysis stage. Weights are used for households, women and children. UNICEF/Headquarters has produced a weighting spreadsheet template for making these calculations, and is used with some minor changes, to create the weighting file.

This appendix presents the probabilities of selection for the sample households in the survey. The probabilities are the basis for the weights that must be used in the survey analysis. By necessity the statistical methodology for probabilities and weights is mathematical in nature.

The probabilities are developed step-by-step, showing how the stages of selection for the survey sample come together to produce an overall probability for a given sample cluster.

First stage of selection

At the first stage, sample PSUs were selected using the technique of probability proportionate to the size of the PSU, or *pps*. Note that there are 8 strata (domains) in the survey and each one has a different set of probabilities. They are each of the 4 rural Provinces of Malampa, Penama, Tafea and Torba plus urban Sanma, rural Sanma, urban Shefa and rural Shefa. The formula that expresses the selection process mathematically at the first stage is

$$P_{ps} = a_s\, m_{is}/\Sigma m_{is}, \text{ where} \qquad [1]$$

P_{ps} represents the probability of selecting the p^{th} PSU in the s^{th} stratum,

a_s represents the number of PSUs selected in the sample in the s^{th} stratum,

m_{is} represents the number of households in the p^{th} PSU of the s^{th} stratum, according to the sampling frame, and

Σm_{is} is the sum of all the m_{is} values and is equivalent to M_s, the total number of households in the s^{th} stratum.

Second stage of selection

At the second stage, a fixed number of 25 households were selected from each sample PSU in every stratum. It is a systematic, random selection, otherwise known as equal-probability sampling or *epsem*. The formula that expresses the selection process mathematically at the second stage is

$$P_c = 25/m_{is,} \text{ where} \qquad [2]$$

P_c represents the probability of selecting a cluster of 25 households in a given sample PSU, and

m_{is} is defined above.

Overall probability of selection

The overall probability, P_s, of selecting a household in the s^{th} stratum is the product of the first and second stage probabilities, or

$$P_s = P_{ps} P_c$$
$$= (a_s m_{is}/\Sigma m_{is}) (25/m_{is}). \quad [3]$$

Formula [3] reduces conveniently to

$$P_s = 25 a_s /\Sigma m_{is}, \text{ or } 25 a_s/M. \quad [4]$$

Thus, in English the probability of selecting a household in a given stratum is equal to 25 times the number of sample PSUs in that stratum divided by the total number of households in the stratum.

Accordingly, the probabilities for each of the 8 strata are as follows:

Malampa	(25 x 12)/7348 = .04083
Penama	(25 x 12)/5456 = .05499
Tafea	(25 x 12)/5210 = .05758
Torba	(25 x 12)/1545 = .19417
Sanma urban	(25 x 20)/2358 = .21204
Sanma rural	(25 x 12)/5914 = .05073
Shefa urban	(25 x 28)/7227 = .09686
Shefa rural	(25 x 12)/5643 = .05316

Survey weights

By definition, the so-called basic survey weight (also known as the design weight) is equal to the inverse of the probability, or 1/P.

Thus the basic weights are as follows:

Malampa	1/.04083 = 24.492
Penama	1/.05499 = 18.185
Tafea	1/.05758 = 17.367
Torba	1/.19417 = 5.150
Sanma urban	1/.21204 = 4.716
Sanma rural	1/.05073 = 19.712
Shefa urban	1/.09686 = 10.324
Shefa rural	1/.05316 = 18.811

The sample weights were adjusted later for household list updating when normalized weighting was done. And again, adjustment was done for the non-responses in age group 15-19 to produce the final weights.

A subset of the sample consisting of 6-7 households in each cluster was selected for use in administering questionnaire modules on nutrition indicators. The nutrition sub-sample was a systematically selected subset (every 4^{th} with a random start) of the parent sample. Thus it was based on the same sample frame and allocated by Province and urban-rural as the parent sample.

(Modified by Muhammad Shuaib from report by Anthony G. Turner, Sampling Consultant)

APPENDIX B: LIST OF PERSONS INVOLVED IN THE SURVEY

Ministry of Health, Government of Vanuatu

Len Tarivonda, Project Director
Jean Jacques Rory, Project Coordinator
Yoan Bororoa, Assistant Project Coordinator
Edgell Tari

Consultant Statisticians

Anthony G. Turner (Sampling specialist & MICS advisor, USA)
Muhammad Shuaib (Survey Manager, Bangladesh)
Md. Mokhlesur Rahman (Data Manager, Bangladesh)

UNICEF

Will Parks
Asenaca Vakacegu
Laura Warner
May Pascual
Elham Monsef
Katimal Kaun

Field work and data processing

Trainer /Team leader

Bertha Tarileo
Evatt Ala
Evangeline Doro
Gideon Ronolea
Helen Naupa
Jack Yaken
John Lee Solomon
Rolenas Lolo

Editor/Coder

Annie Lakeleo
Estella Gasi
Joy Bonga
Mary Garae
Sylvie Ben
Wendy Tony

Data processing Staffs

Anita Naupa
Ben Kaurua
Danny Tomoyan
Graziella Mala
Nairine Ala
Tom James

Enumerator

Amy Selwyn
Ann Joy Sikir
Annie Iavro
Annie Obed
Annie Toara
Doran Esau
Elsie Sawia
Emil Esline
Florence Nango
George Edwina
Hilda Naupa
Julia Hivird
Karina Assack
Lara Bororoa
Leany Vuke
Lilly Takataveti
Lynn Rose Tule
Margret Reviag
Melinda Radley
Noella Signalo
Pascaline Kilman
Rosenette Lui
Rosina Nataivi
Sandrina Banga
Shema Morisson
Stephanie Aru
Stephanie Christophe
Unity Kalmelu
Vanessa Nango
Yvonne Mera

Laboratory technician

Bernadette Aruhuri
Helene Wamle
Jack Fred
Jeffery Vutilolo
Malau Kalo.
Raymond Seule
Ronald Banga

APPENDIX C: ESTIMATES OF SAMPLING ERRORS

The sample of respondents selected in the Vanuatu Multiple Indicator Cluster Survey is only one of the samples that could have been selected from the same population, using the same design and size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey results.

The following sampling error measures are presented in this appendix for each of the selected indicators:

- Standard error (*se*): Sampling errors are usually measured in terms of standard errors for particular indicators (means, proportions etc). Standard error is the square root of the variance. The Taylor linearization method is used for the estimation of standard errors.
- Coefficient of variation (*se*/*r*) is the ratio of the standard error to the value of the indicator
- Design effect (*deff*) is the ratio of the actual variance of an indicator, under the sampling method used in the survey, to the variance calculated under the assumption of simple random sampling. The square root of the design effect (*deft*) is used to show the efficiency of the sample design. A *deft* value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a *deft* value above 1.0 indicates the increase in the standard error due to the use of a more complex sample design.
- Confidence limits are calculated to show the interval within which the true value for the population can be reasonably assumed to fall. For any given statistic calculated from the survey, the value of that statistics will fall within a range of plus or minus two times the standard error ($p + 2.se$ or $p - 2.se$) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS data, SPSS Version 14 Complex Samples module has been used. The results are shown in the tables that follow. In addition to the sampling error measures described above, the tables also include weighted and unweighted counts of denominators for each indicator.

Sampling errors are calculated for indicators of primary interest, for the national total, for the regions, and for urban and rural areas. Three of the selected indicators are based on households, 8 are based on household members, 13 are based on women, and 15 are based on children under 5. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.9 show the calculated sampling errors.

Table SE 01: Sampling: Total sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.6756	0.02012	0.030	4.861	2.205	2,632	0.6353	0.7158
Iodized salt consumption	NU.5	0.2286	0.01571	0.069	3.368	1.835	2,407	0.1972	0.2600
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.8507	0.02394	0.028	11.871	3.445	2,632	0.8028	0.8986
Use of improved sanitation facilities	EN.5	0.6349	0.02291	0.036	5.956	2.440	2,632	0.5891	0.6807
Net primary school attendance rate	ED.3	0.8048	0.01767	0.022	4.373	2.091	2,201	0.7695	0.8402
Net junior secondary school attendance rate	ED.4a	0.4573	0.02090	0.046	2.075	1.441	1180	0.4155	0.4991
Net senior secondary school attendance rate	ED.4b	0.1040	0.00864	0.083	1.075	1.037	1,344	0.0868	0.1213
Prevalence of orphans	HA.10	0.0287	0.00371	0.129	3.032	1.741	6,134	0.0213	0.0361
WOMEN									
Skilled attendant at delivery	RH.5	0.7395	0.02718	0.037	2.605	1.614	680	0.6851	0.7939
Antenatal care	RH.3	0.8430	0.01615	0.019	1.338	1.157	680	0.8107	0.8753
Contraceptive prevalence	RH.1	0.3860	0.01424	0.037	1.643	1.282	1,921	0.3575	0.4145
Adult literacy	ED.8	0.7662	0.01915	0.025	2.002	1.415	979	0.7279	0.8045
Marriage before age 18	CP.5	0.2355	0.01148	0.049	1.635	1.279	2,235	0.2126	0.2585
Comprehensive knowledge about HIV prevention among young people	HA.3	0.1538	0.01498	0.097	1.687	1.299	979	0.1238	0.1838
Attitudes towards people with HIV/AIDS	HA.5	0.1747	0.01252	0.072	2.449	1.565	2,255	0.1496	0.1997
Women who have been tested for HIV	HA.6	0.0846	0.00727	0.086	1.838	1.356	2,692	0.0701	0.0992
Knowledge of mother-to-child transmission of HIV	HA.4	0.6288	0.01286	0.020	1.907	1.381	2,692	0.6031	0.6545

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1592	0.01330	0.084	1.585	1.259	1,200	0.1326	0.1885
Tuberculosis immunization coverage	CH.2	0.8061	0.01988	0.025	0.863	0.929	342	0.7661	0.8461
Polio immunization coverage	CH.2	0.6110	0.03382	0.055	1.641	1.281	342	0.5430	0.6790
Immunization coverage for DPT	CH.2	0.6340	0.03115	0.049	1.426	1.194	342	0.5713	0.6967
Measles immunization coverage	CH.2	0.5254	0.02570	0.049	0.903	0.951	342	0.4736	0.5771
Fully immunized children	CH.2	0.4162	0.02863	0.069	1.150	1.072	342	0.3586	0.4738
Acute respiratory infection in last two weeks	CH.6	0.0288	0.00555	0.193	1.803	1.343	1,634	0.0177	0.0399
Antibiotic treatment of suspected pneumonia	CH.7	"*"	"*"	"*"	"*"	"*"	47	"*"	"*"
Diarrhoea in last two weeks	CH.4	0.1384	0.01201	0.087	1.974	1.405	1,634	0.1144	0.1624
Received ORT or increased fluids and continued feeding	CH.5	0.4308	0.04009	0.093	1.422	1.192	218	0.3492	0.5123
Under-fives sleeping under LLNs	CH.11	0.5567	0.02696	0.048	4.810	2.193	1,634	0.5028	0.6106
Fever in last two weeks	CH.12	0.0935	0.01041	0.111	2.088	1.445	1,634	0.0727	0.1143
Anti-malarial treatment	CH.12	0.3579	0.03011	0.084	0.525	0.724	134	0.2959	0.4199
Support for learning	CD.1	0.9056	0.00855	0.009	1.396	1.181	1,634	0.8885	0.9227
Birth registration	CP.1	0.2565	0.01747	0.068	2.614	1.617	1,634	0.2215	0.2914

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 02: Sampling: Urban sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.4564	0.01441	0.032	0.956	0.978	1,143	0.4266	0.4861
Iodized salt consumption	NU.5	0.4375	0.01427	0.033	0.866	0.931	1,047	0.4081	0.4670
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.9777	0.00439	0.004	1.010	1.005	1,143	0.9686	0.9868
Use of improved sanitation facilities	EN.5	0.9118	0.01313	0.014	2.449	1.565	1,143	0.8847	0.9389
Net primary school attendance rate	ED.3	0.8468	0.01863	0.022	2.233	1.494	836	0.8084	0.8852
Net junior secondary school attendance rate	ED.4a	0.6516	0.02974	0.046	1.916	1.384	493	0.5902	0.7130
Net senior secondary school attendance rate	ED.4b	0.2536	0.01774	0.070	1.098	1.048	661	0.2170	0.2903
Prevalence of orphans	HA.10	0.0290	0.00534	0.184	2.411	1.553	2,381	0.0179	0.0400
WOMEN									
Skilled attendant at delivery	RH.5	0.8676	0.01955	0.023	0.725	0.852	219	0.8273	0.9080
Antenatal care	RH.3	0.8737	0.02277	0.026	1.024	1.012	219	0.8267	0.9207
Contraceptive prevalence	RH.1	0.4141	0.01826	0.044	1.128	1.062	822	0.3765	0.4518
Adult literacy	ED.8	0.8561	0.02267	0.026	2.027	1.424	487	0.8093	0.9029
Marriage before age 18	CP.5	0.1825	0.01188	0.065	0.960	0.980	1,017	0.1580	0.2070
Comprehensive knowledge about HIV prevention among young people	HA.3	0.2246	0.02143	0.095	1.282	1.132	487	0.1804	0.2688
Attitudes towards people with HIV/AIDS	HA.5	0.2286	0.01798	0.079	2.084	1.444	1,138	0.1914	0.2657
Women who have been tested for HIV	HA.6	0.1178	0.01067	0.091	1.391	1.179	1,271	0.0958	0.1398
Knowledge of mother-to-child transmission of HIV	HA.4	0.6696	0.01430	0.021	1.173	1.083	1,271	0.6401	0.6991

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1517	0.01837	0.121	1.051	1.025	402	0.1137	0.1898
Tuberculosis immunization coverage	CH.2	0.7301	0.04177	0.057	1.036	1.018	118	0.6427	0.8175
Polio immunization coverage	CH.2	0.6665	0.04862	0.073	1.244	1.116	118	0.5648	0.7683
Immunization coverage for DPT	CH.2	0.6930	0.04268	0.062	1.002	1.001	118	0.6036	0.7823
Measles immunization coverage	CH.2	0.5026	0.05183	0.103	1.257	1.121	118	0.3941	0.6111
Fully immunized children	CH.2	0.4867	0.05153	0.106	1.244	1.115	118	0.3788	0.5945
Acute respiratory infection in last two weeks	CH.6	0.0224	0.00634	0.284	1.095	1.046	596	0.0093	0.0355
Antibiotic treatment of suspected pneumonia	CH.6	0.0107	0.00423	0.395	1.005	1.002	596	0.0020	0.0194
Diarrhoea in last two weeks	CH.4	0.1280	0.01666	0.130	1.479	1.216	596	0.0936	0.1624
Received ORT or increased fluids and continued feeding	CH.5	0.4494	0.06349	0.141	1.254	1.120	78	0.0396	0.5891
Under-fives sleeping under LLNs	CH.11	0.3325	0.02533	0.076	1.720	1.312	596	0.2802	0.3848
Fever in last two weeks	CH.12	0.0620	0.00777	0.125	0.618	0.786	596	0.0459	0.0780
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	40	"*"	"*"
Support for learning	CD.1	0.9487	0.00913	0.010	1.018	1.009	596	0.9299	0.9675
Birth registration	CP.1	0.3851	0.02959	0.077	2.200	1.483	596	0.3240	0.4462

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 03: Sampling: Rural sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.7427	0.02621	0.035	5.348	2.313	1,489	0.6896	0.7959
Iodized salt consumption	NU.5	0.1635	0.02017	0.123	4.044	2.011	1,360	0.1226	0.2044
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.8123	0.03111	0.038	9.446	3.073	1,489	0.7491	0.8754
Use of improved sanitation facilities	EN.5	0.5510	0.02905	0.053	5.075	2.253	1,489	0.4921	0.6099
Net primary school attendance rate	ED.3	0.7946	0.02145	0.027	3.844	1.961	1,365	0.7511	0.8381
Net junior secondary school attendance rate	ED.4a	0.4002	0.02501	0.062	1.788	1.337	687	0.3495	0.4509
Net senior secondary school attendance rate	ED.4b	0.0437	0.00873	0.200	1.243	1.115	683	0.0260	0.0614
Prevalence of orphans	HA.10	0.0286	0.00445	0.156	2.677	1.636	3,753	0.0196	0.0377
WOMEN									
Skilled attendant at delivery	RH.5	0.7162	0.03155	0.044	2.253	1.501	461	0.6522	0.7802
Antenatal care	RH.3	0.8374	0.01866	0.022	1.176	1.084	461	0.7996	0.8752
Contraceptive prevalence	RH.1	0.3776	0.01763	0.047	1.453	1.205	1,099	0.3419	0.4134
Adult literacy	ED.8	0.7333	0.02474	0.034	1.537	1.240	492	0.6831	0.7835
Marriage before age 18	CP.5	0.2537	0.01489	0.059	1.425	1.194	1,218	0.2235	0.2839
Comprehensive knowledge about HIV prevention among young people	HA.3	0.1279	0.01873	0.146	1.544	1.242	492	0.0900	0.1659
Attitudes towards people with HIV/AIDS	HA.5	0.1529	0.01596	0.104	2.194	1.481	1,117	0.1206	0.1853
Women who have been tested for HIV	HA.6	0.0726	0.00918	0.126	1.777	1.333	1,421	0.0540	0.0912
Knowledge of mother-to-child transmission of HIV	HA.4	0.6140	0.01677	0.027	1.685	1.298	1,421	0.5800	0.6480

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1608	0.01565	0.097	1.447	1.203	798	0.1291	0.1926
Tuberculosis immunization coverage	CH.2	0.8222	0.02224	0.027	0.754	0.869	224	0.7767	0.8678
Polio immunization coverage	CH.2	0.5992	0.03994	0.067	1.481	1.217	224	0.5174	0.6810
Immunization coverage for DPT	CH.2	0.6215	0.03678	0.059	1.282	1.132	224	0.5461	0.6968
Measles immunization coverage	CH.2	0.5302	0.02908	0.055	0.757	0.870	224	0.4706	0.5897
Fully immunized children	CH.2	0.4013	0.03328	0.083	1.028	1.014	224	0.3331	0.4694
Acute respiratory infection in last two weeks	CH.6	0.0303	0.00670	0.221	1.584	1.258	1,038	0.0167	0.0439
Antibiotic treatment of suspected pneumonia	CH.6	0.0145	0.00504	0.347	1.839	1.356	1,038	0.0043	0.0248
Diarrhoea in last two weeks	CH.4	0.1409	0.01429	0.101	1.750	1.323	1,038	0.1119	0.1699
Received ORT or increased fluids and continued feeding	CH.5	0.4268	0.04670	0.109	1.239	1.113	140	0.3299	0.5236
Under-fives sleeping under LLNs	CH.11	0.6097	0.03288	0.054	4.712	2.171	1,038	0.5430	0.6764
Fever in last two weeks	CH.12	0.1010	0.01265	0.125	1.829	1.352	1,038	0.0753	0.1266
Antimalarial treatment	CH.12	0.3774	0.03229	0.086	0.413	0.642	94	0.3089	0.4458
Support for learning	CD.1	0.8954	0.01025	0.011	1.164	1.079	1,038	0.8746	0.9162
Birth registration	CP.1	0.2261	0.02012	0.089	2.400	1.549	1,038	0.1852	0.2669

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 04: Sampling: Tafea sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.4743	0.08212	0.173	7.330	2.707	272	0.2733	0.6752
Iodized salt consumption	NU.5	0.1406	0.01774	0.126	0.646	0.804	249	0.0972	0.1840
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.7430	0.11060	0.149	17.362	4.167	272	0.4724	1.0137
Use of improved sanitation facilities	EN.5	0.5397	0.07540	0.140	6.202	2.490	272	0.3552	0.7242
Net primary school attendance rate	ED.3	0.6968	0.04883	0.070	3.115	1.765	277	0.5773	0.8162
Net junior secondary school attendance rate	ED.4a	0.3699	0.05489	0.148	1.874	1.369	146	0.2356	0.5042
Net senior secondary school attendance rate	ED.4b	0.0519	0.01664	0.321	0.754	0.869	135	0.0111	0.0926
Prevalence of orphans	HA.10	0.0234	0.01169	0.500	4.865	2.206	813	-0.0052	0.0520
WOMEN									
Skilled attendant at delivery	RH.5	0.6633	0.07021	0.106	2.450	1.565	112	0.4915	0.8351
Antenatal care	RH.3	0.8299	0.05283	0.064	2.194	1.481	112	0.7006	0.9592
Contraceptive prevalence	RH.1	0.3146	0.04532	0.144	2.124	1.458	224	0.2037	0.4255
Adult literacy	ED.8	0.6778	0.05471	0.081	1.220	1.104	90	0.5439	0.8117
Marriage before age 18	CP.5	0.3155	0.04276	0.136	1.998	1.413	237	0.2109	0.4202
Comprehensive knowledge about HIV prevention among young people	HA.3	0.0333	0.00924	0.277	0.236	0.485	90	0.0107	0.0559
Attitudes towards people with HIV/AIDS	HA.5	0.1423	0.04313	0.303	2.072	1.439	137	0.0368	0.2479
Women who have been tested for HIV	HA.6	0.0895	0.02902	0.324	2.758	1.661	268	0.0185	0.1605
Knowledge of mother-to-child transmission of HIV	HA.4	0.4220	0.05608	0.133	3.443	1.856	268	0.2847	0.5592

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1143	0.02188	0.191	0.823	0.907	175	0.0607	0.1678
Tuberculosis immunization coverage	CH.2	0.7400	0.04117	0.056	0.432	0.657	50	0.6342	0.8458
Polio immunization coverage	CH.2	0.5600	0.06915	0.123	0.951	0.975	50	0.3822	0.7378
Immunization coverage for DPT	CH.2	0.5400	0.05239	0.097	0.541	0.736	50	0.4053	0.6747
Measles immunization coverage	CH.2	0.4800	0.04450	0.093	0.389	0.623	50	0.3656	0.5944
Fully immunized children	CH.2	0.4000	0.03774	0.094	0.291	0.539	50	0.3030	0.4970
Acute respiratory infection in last two weeks	CH.6	0.0083	0.00750	0.900	1.628	1.276	240	-0.0100	0.0267
Antibiotic treatment of suspected pneumonia	CH.6	0.0000	0.00000	.	.	.	240	0.0000	0.0000
Diarrhoea in last two weeks	CH.4	0.0708	0.01665	0.235	1.006	1.003	240	0.0301	0.1116
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	17	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.4208	0.06340	0.151	3.941	1.985	240	0.2657	0.5760
Fever in last two weeks	CH.12	0.0333	0.00840	0.252	0.523	0.723	240	0.0128	0.0539
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	8	"*"	"*"
Support for learning	CD.1	0.8167	0.03454	0.042	1.905	1.380	240	0.7321	0.9012
Birth registration	CP.1	0.1250	0.01981	0.158	0.857	0.926	240	0.0765	0.1735

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 05: Sampling: Shefa sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.7567	0.07525	0.099	8.057	2.838	263	0.5725	0.9408
Iodized salt consumption	NU.5	0.2834	0.06912	0.244	5.787	2.406	247	0.1143	0.4525
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.9177	0.05145	0.056	9.179	3.030	263	0.7918	1.0436
Use of improved sanitation facilities	EN.5	0.7164	0.05855	0.082	4.420	2.102	263	0.5731	0.8597
Net primary school attendance rate	ED.3	0.8230	0.03928	0.048	2.383	1.544	226	0.7269	0.9191
Net junior secondary school attendance rate	ED.4	0.3385	0.03672	0.108	0.777	0.881	130	0.2486	0.4283
Net senior secondary school attendance rate	ED.4	0.0217	0.01318	0.606	1.119	1.058	138	-0.0105	0.0540
Prevalence of orphans	HA.10	0.0258	0.00900	0.348	2.112	1.453	658	0.0038	0.0478
WOMEN									
Skilled attendant at delivery	RH.5	0.9414	0.03496	0.037	1.794	1.339	82	0.8558	1.0269
Antenatal care	RH.3	0.9527	0.01398	0.015	0.351	0.593	82	0.9185	0.9869
Contraceptive prevalence	RH.1	0.4722	0.04194	0.089	1.433	1.197	204	0.3696	0.5748
Adult literacy	ED.8	0.7500	0.04624	0.062	1.174	1.084	104	0.6369	0.8631
Marriage before age 18	CP.5	0.3102	0.04996	0.161	2.706	1.645	233	0.1879	0.4324
Comprehensive knowledge about HIV prevention among young people	HA.3	0.3173	0.04490	0.142	0.959	0.979	104	0.2074	0.4272
Attitudes towards people with HIV/AIDS	HA.5	0.2745	0.03038	0.111	1.108	1.052	240	0.2001	0.3488
Women who have been tested for HIV	HA.6	0.1089	0.03196	0.293	2.925	1.710	279	0.0307	0.1871
Knowledge of mother-to-child transmission of HIV	HA.4	0.6128	0.01929	0.031	0.436	0.660	279	0.5656	0.6600

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1266	0.03590	0.284	1.830	1.353	158	0.0387	0.2144
Tuberculosis immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	42	"*"	"*"
Polio immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	42	"*"	"*"
Immunization coverage for DPT	CH.2	"*"	"*"	"*"	"*"	"*"	42	"*"	"*"
Measles immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	42	"*"	"*"
Fully immunized children	CH.2	"*"	"*"	"*"	"*"	"*"	42	"*"	"*"
Acute respiratory infection in last two weeks	CH.6	0.0335	0.01844	0.550	1.868	1.367	179	-0.0116	0.0786
Antibiotic treatment of suspected pneumonia	CH.6	0.0223	0.01730	0.774	2.438	1.561	179	-0.0200	0.0647
Diarrhoea in last two weeks	CH.4	0.2011	0.05508	0.274	3.361	1.833	179	0.0663	0.3359
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	36	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.4972	0.07890	0.159	4.433	2.105	179	0.3041	0.6903
Fever in last two weeks	CH.12	0.1173	0.02358	0.201	0.956	0.978	179	0.0596	0.1750
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	21	"*"	"*"
Support for learning	CD.1	0.8659	0.01997	0.023	0.611	0.782	179	0.8171	0.9148
Birth registration	CP.1	0.2905	0.04709	0.162	1.915	1.384	179	0.1753	0.4057

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 06: Sampling: Malampa sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.7675	0.04500	0.059	2.576	1.605	228	0.6574	0.8777
Iodized salt consumption	NU.5	0.1202	0.03228	0.269	2.040	1.428	208	0.0412	0.1992
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.8459	0.02619	0.031	1.194	1.093	228	0.7818	0.9100
Use of improved sanitation facilities	EN.5	0.3818	0.07816	0.205	5.875	2.424	228	0.1905	0.5730
Net primary school attendance rate	ED.3	0.9314	0.02026	0.022	1.118	1.057	175	0.8819	0.9810
Net junior secondary school attendance rate	ED.4a	0.5543	0.06027	0.109	1.338	1.157	92	0.4069	0.7018
Net senior secondary school attendance rate	ED.4b	0.0435	0.01934	0.445	1.026	1.013	115	-0.0039	0.0908
Prevalence of orphans	HA.10	0.0424	0.00981	0.232	1.229	1.109	519	0.0184	0.0664
WOMEN									
Skilled attendant at delivery	RH.5	0.7180	0.08256	0.115	2.188	1.479	66	0.5160	0.9200
Antenatal care	RH.3	0.9256	0.02970	0.032	0.833	0.913	66	0.8530	0.9983
Contraceptive prevalence	RH.1	0.2540	0.04470	0.176	1.676	1.295	160	0.1447	0.3634
Adult literacy	ED.8	0.7887	0.06079	0.077	1.552	1.246	71	0.6400	0.9375
Marriage before age 18	CP.5	0.2058	0.00813	0.040	0.073	0.270	181	0.1859	0.2257
Comprehensive knowledge about HIV prevention among young people	HA.3	0.1127	0.04889	0.434	1.674	1.294	71	-0.0070	0.2323
Attitudes towards people with HIV/AIDS	HA.5	0.0957	0.03432	0.359	2.587	1.608	191	0.0117	0.1796
Women who have been tested for HIV	HA.6	0.0817	0.01048	0.128	0.304	0.552	209	0.0561	0.1073
Knowledge of mother-to-child transmission of HIV	HA.4	0.6958	0.02844	0.041	0.795	0.891	209	0.6262	0.7654

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1574	0.04120	0.262	1.369	1.170	108	0.0566	0.2582
Tuberculosis immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	34	"*"	"*"
Polio immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	34	"*"	"*"
Immunization coverage for DPT	CH.2	"*"	"*"	"*"	"*"	"*"	34	"*"	"*"
Measles immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	34	"*"	"*"
Fully immunized children	CH.2	"*"	"*"	"*"	"*"	"*"	34	"*"	"*"
Acute respiratory infection in last two weeks	CH.6	0.0411	0.01671	0.407	1.028	1.014	146	0.0002	0.0820
Antibiotic treatment of suspected pneumonia	CH.6	0.0274	0.00936	0.342	0.477	0.691	146	0.0045	0.0503
Diarrhoea in last two weeks	CH.4	0.1370	0.02108	0.154	0.545	0.738	146	0.0854	0.1886
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	20	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.7603	0.08786	0.116	6.141	2.478	146	0.5453	0.9753
Fever in last two weeks	CH.12	0.1507	0.04278	0.284	2.073	1.440	146	0.0460	0.2554
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	22	"*"	"*"
Support for learning	CD.1	0.9178	0.01361	0.015	0.356	0.597	146	0.8845	0.9511
Birth registration	CP.1	0.2055	0.04320	0.210	1.657	1.287	146	0.0998	0.3112

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 07: Sampling: Penama sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.8600	0.04398	0.051	4.000	2.000	250	0.7524	0.9676
Iodized salt consumption	NU.5	0.0538	0.01176	0.219	0.603	0.777	223	0.0250	0.0826
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.8356	0.03856	0.046	2.696	1.642	250	0.7413	0.9300
Use of improved sanitation facilities	EN.5	0.3900	0.07581	0.194	6.016	2.453	250	0.2044	0.5755
Net primary school attendance rate	ED.3	0.7431	0.04270	0.057	2.073	1.440	218	0.6386	0.8476
Net junior secondary school attendance rate	ED.4a	0.2436	0.06055	0.249	1.532	1.238	78	0.0954	0.3917
Net senior secondary school attendance rate	ED.4b	0.0286	0.01775	0.621	0.784	0.885	70	-0.0149	0.0720
Prevalence of orphans	HA.10	0.0320	0.01351	0.422	3.120	1.766	531	-0.0010	0.0651
WOMEN									
Skilled attendant at delivery	RH.5	0.7886	0.06299	0.080	1.547	1.244	66	0.6345	0.9427
Antenatal care	RH.3	0.8124	0.04791	0.059	0.979	0.989	66	0.6951	0.9296
Contraceptive prevalence	RH.1	0.4184	0.03551	0.085	0.855	0.925	166	0.3315	0.5053
Adult literacy	ED.8	0.7377	0.07835	0.106	1.903	1.380	61	0.5460	0.9294
Marriage before age 18	CP.5	0.2779	0.04537	0.163	1.795	1.340	176	0.1669	0.3889
Comprehensive knowledge about HIV prevention among young people	HA.3	0.1148	0.02086	0.182	0.257	0.507	61	0.0637	0.1658
Attitudes towards people with HIV/AIDS	HA.5	0.1022	0.02821	0.276	1.510	1.229	175	0.0331	0.1712
Women who have been tested for HIV	HA.6	0.0610	0.01143	0.187	0.435	0.660	192	0.0330	0.0890
Knowledge of mother-to-child transmission of HIV	HA.4	0.5688	0.03108	0.055	0.752	0.867	192	0.4928	0.6449

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.2185	0.04198	0.192	1.218	1.104	119	0.1158	0.3212
Tuberculosis immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	38	"*"	"*"
Polio immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	38	"*"	"*"
Immunization coverage for DPT	CH.2	"*"	"*"	"*"	"*"	"*"	38	"*"	"*"
Measles immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	38	"*"	"*"
Fully immunized children	CH.2	"*"	"*"	"*"	"*"	"*"	38	"*"	"*"
Acute respiratory infection in last two weeks	CH.6	0.0201	0.01156	0.574	1.002	1.001	149	-0.0081	0.0484
Antibiotic treatment of suspected pneumonia	CH.6	0.0000	0.00000	.	.	.	149	0.0000	0.0000
Diarrhoea in last two weeks	CH.4	0.1342	0.03232	0.241	1.331	1.154	149	0.0551	0.2133
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	20	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.7785	0.04776	0.061	1.958	1.399	149	0.6617	0.8954
Fever in last two weeks	CH.12	0.1074	0.02327	0.217	0.836	0.915	149	0.0504	0.1643
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	16	"*"	"*"
Support for learning	CD.1	0.9597	0.01647	0.017	1.039	1.019	149	0.9194	1.0000
Birth registration	CP.1	0.3154	0.06119	0.194	2.566	1.602	149	0.1657	0.4652

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 08: Sampling: Sanma sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.7949	0.04985	0.063	2.957	1.719	195	0.6729	0.9168
Iodized salt consumption	NU.5	0.2123	0.06757	0.318	4.861	2.205	179	0.0469	0.3776
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.6704	0.10036	0.150	8.843	2.974	195	0.4249	0.9160
Use of improved sanitation facilities	EN.5	0.6869	0.05612	0.082	2.841	1.686	195	0.5496	0.8243
Net primary school attendance rate	ED.3	0.7676	0.06931	0.090	4.954	2.226	185	0.5980	0.9372
Net junior secondary school attendance rate	ED.4a	0.3854	0.06582	0.171	1.738	1.318	96	0.2244	0.5465
Net senior secondary school attendance rate	ED.4b	0.0568	0.02773	0.488	1.248	1.117	88	-0.0110	0.1247
Prevalence of orphans	HA.10	0.0188	0.00676	0.360	1.188	1.090	480	0.0022	0.0353
WOMEN									
Skilled attendant at delivery	RH.5	"*"	"*"	"*"	"*"	"*"	44	"*"	"*"
Antenatal care	RH.3	"*"	"*"	"*"	"*"	"*"	44	"*"	"*"
Contraceptive prevalence	RH.1	0.4339	0.04021	0.093	0.981	0.990	150	0.3355	0.5323
Adult literacy	ED.8	0.7313	0.04991	0.068	0.837	0.915	67	0.6092	0.8535
Marriage before age 18	CP.5	0.2299	0.02829	0.123	0.692	0.832	154	0.1607	0.2991
Comprehensive knowledge about HIV prevention among young people	HA.3	0.0597	0.04847	0.812	2.762	1.662	67	-0.0589	0.1783
Attitudes towards people with HIV/AIDS	HA.5	0.1673	0.04583	0.274	2.323	1.524	155	0.0551	0.2794
Women who have been tested for HIV	HA.6	0.0309	0.01369	0.443	1.209	1.100	194	-0.0026	0.0644
Knowledge of mother-to-child transmission of HIV	HA.4	0.7314	0.05337	0.073	2.799	1.673	194	0.6008	0.8620

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1964	0.04241	0.216	1.265	1.125	112	0.0926	0.3002
Tuberculosis immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	26	"*"	"*"
Polio immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	26	"*"	"*"
Immunization coverage for DPT	CH.2	"*"	"*"	"*"	"*"	"*"	26	"*"	"*"
Measles immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	26	"*"	"*"
Fully immunized children	CH.2	"*"	"*"	"*"	"*"	"*"	26	"*"	"*"
Acute respiratory infection in last two weeks	CH.6	0.0496	0.02284	0.461	1.328	1.153	121	-0.0063	0.1055
Antibiotic treatment of suspected pneumonia	CH.6	0.0248	0.01940	0.782	1.867	1.366	121	-0.0227	0.0723
Diarrhoea in last two weeks	CH.4	0.1818	0.02743	0.151	0.607	0.779	121	0.1147	0.2489
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	22	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.5620	0.05309	0.094	1.374	1.172	121	0.4321	0.6919
Fever in last two weeks	CH.12	0.1074	0.02403	0.224	0.723	0.850	121	0.0486	0.1662
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	13	"*"	"*"
Support for learning	CD.1	0.9587	0.01526	0.016	0.706	0.840	121	0.9213	0.9960
Birth registration	CP.1	0.2397	0.06400	0.267	2.698	1.642	121	0.0831	0.3963

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 09: Sampling: Torba sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.8719	0.01673	0.019	0.702	0.838	281	0.831	0.9128
Iodized salt consumption	NU.5	0.1811	0.04785	0.264	3.906	1.976	254	0.064	0.2982
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.9465	0.02491	0.026	3.431	1.852	281	0.8856	1.0075
Use of improved sanitation facilities	EN.5	0.6940	0.02861	0.041	1.079	1.039	281	0.624	0.764
Net primary school attendance rate	ED.3	0.7993	0.03964	0.050	2.772	1.665	284	0.7023	0.8963
Net junior secondary school attendance rate	ED.4a	0.5379	0.04489	0.083	1.167	1.080	145	0.4281	0.6478
Net senior secondary school attendance rate	ED.4b	0.0876	0.02512	0.287	1.074	1.036	137	0.0261	0.1491
Prevalence of orphans	HA.10	0.0279	0.01056	0.378	3.087	1.757	752	0.0021	0.0538
WOMEN									
Skilled attendant at delivery	RH.5	0.3202	0.06218	0.194	1.599	1.264	91	0.1681	0.4724
Antenatal care	RH.3	0.4334	0.06163	0.142	1.392	1.180	91	0.2826	0.5842
Contraceptive prevalence	RH.1	0.5273	0.03930	0.075	1.202	1.096	195	0.4311	0.6235
Adult literacy	ED.8	0.6061	0.04649	0.077	0.887	0.942	99	0.4923	0.7198
Marriage before age 18	CP.5	0.0796	0.00939	0.118	0.284	0.533	237	0.0566	0.1026
Comprehensive knowledge about HIV prevention among young people	HA.3	0.0707	0.03900	0.552	2.269	1.506	99	-0.0247	0.1661
Attitudes towards people with HIV/AIDS	HA.5	0.0897	0.02034	0.227	1.104	1.051	219	0.0399	0.1395
Women who have been tested for HIV	HA.6	0.0148	0.00677	0.457	0.873	0.935	279	-0.0018	0.0314
Knowledge of mother-to-child transmission of HIV	HA.4	0.5835	0.0554	0.095	3.510	1.874	279	0.4479	0.7190

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1905	0.01528	0.080	0.189	0.435	126	0.1531	0.2279
Tuberculosis immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	35	"*"	"*"
Polio immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	35	"*"	"*"
Immunization coverage for DPT	CH.2	"*"	"*"	"*"	"*"	"*"	35	"*"	"*"
Measles immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	35	"*"	"*"
Fully immunized children	CH.2	"*"	"*"	"*"	"*"	"*"	35	"*"	"*"
Acute respiratory infection in last two weeks	CH.6	0.0296	0.01462	0.495	1.506	1.227	203	-0.0062	0.0653
Antibiotic treatment of suspected pneumonia	CH.6	0.0000	0.00000	.	.	.	203	0.0000	0.0000
Diarrhoea in last two weeks	CH.4	0.1232	0.03714	0.302	2.58	1.606	203	0.0323	0.2140
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	25	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.8079	0.03218	0.040	1.348	1.161	203	0.7291	0.8866
Fever in last two weeks	CH.12	0.0690	0.01768	0.256	0.984	0.992	203	0.0257	0.1122
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	14	"*"	"*"
Support for learning	CD.1	0.8374	0.01803	0.022	0.482	0.694	203	0.7933	0.8815
Birth registration	CP.1	0.2069	0.04128	0.200	2.098	1.449	203	0.1059	0.3079

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 10: Sampling: Port Vila sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.4305	0.01474	0.034	0.604	0.777	683	0.3988	0.4621
Iodized salt consumption	NU.5	0.3518	0.01479	0.042	0.623	0.790	651	0.3200	0.3835
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.9756	0.00560	0.006	0.899	0.948	683	0.9636	0.9876
Use of improved sanitation facilities	EN.5	0.9426	0.00969	0.010	1.182	1.087	683	0.9218	0.9633
Net primary school attendance rate	ED.3	0.8550	0.02123	0.025	1.676	1.294	462	0.8094	0.9005
Net junior secondary school attendance rate	ED.4a	0.6655	0.03434	0.052	1.547	1.244	293	0.5919	0.7392
Net senior secondary school attendance rate	ED.4b	0.2683	0.01923	0.072	0.819	0.905	436	0.2271	0.3096
Prevalence of orphans	HA.10	0.0332	0.00710	0.214	2.129	1.459	1,355	0.0180	0.0484
WOMEN									
Skilled attendant at delivery	RH.5	0.9469	0.01593	0.017	0.566	0.752	113	0.9128	0.9811
Antenatal care	RH.3	0.9382	0.01424	0.015	0.392	0.626	113	0.9077	0.9688
Contraceptive prevalence	RH.1	0.4620	0.02289	0.050	0.997	0.998	474	0.4129	0.5111
Adult literacy	ED.8	0.8372	0.02911	0.035	1.866	1.366	301	0.7748	0.8997
Marriage before age 18	CP.5	0.1998	0.01536	0.077	0.894	0.946	607	0.1669	0.2327
Comprehensive knowledge about HIV prevention among young people	HA.3	0.2558	0.02781	0.109	1.219	1.104	301	0.1962	0.3155
Attitudes towards people with HIV/AIDS	HA.5	0.2169	0.02317	0.107	2.153	1.467	682	0.1672	0.2666
Women who have been tested for HIV	HA.6	0.1352	0.01375	0.102	1.234	1.111	764	0.1057	0.1647
Knowledge of mother-to-child transmission of HIV	HA.4	0.6377	0.01547	0.024	0.791	0.889	764	0.6045	0.6709

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.1331	0.02089	0.157	1.048	1.024	278	0.0883	0.1779
Tuberculosis immunization coverage	CH.2	0.7324	0.05123	0.070	0.937	0.968	71	0.6217	0.8431
Polio immunization coverage	CH.2	0.6761	0.05899	0.087	1.112	1.055	71	0.5486	0.8035
Immunization coverage for DPT	CH.2	0.7042	0.05225	0.074	0.918	0.958	71	0.5913	0.8171
Measles immunization coverage	CH.2	0.5070	0.06732	0.133	1.269	1.127	71	0.3616	0.6525
Fully immunized children	CH.2	0.4930	0.06698	0.136	1.257	1.121	71	0.3482	0.6377
Acute respiratory infection in last two weeks	CH.6	0.0234	0.00811	0.347	0.982	0.991	342	0.0060	0.0408
Antibiotic treatment of suspected pneumonia	CH.6	0.0088	0.00504	0.574	0.996	0.998	342	-0.0020	0.0196
Diarrhoea in last two weeks	CH.4	0.1228	0.02192	0.178	1.521	1.233	342	0.0758	0.1698
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	42	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.3421	0.02988	0.087	1.352	1.163	342	0.2780	0.4062
Fever in last two weeks	CH.12	0.0526	0.00775	0.147	0.411	0.641	342	0.0360	0.0693
Antimalarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	18	"*"	"*"
Support for learning	CD.1	0.9591	0.01152	0.012	1.152	1.073	342	0.9344	0.9838
Birth registration	CP.1	0.3655	0.03620	0.099	1.926	1.388	342	0.2879	0.4431

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

Table SE 11: Sampling: Luganville sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff.) and confidence intervals for selected indicator, Vanuatu, 2007

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
HOUSEHOLD									
Availability of long-lasting nets	CH.10	0.5348	0.03610	0.068	2.405	1.551	460	0.4543	0.6152
Iodized salt consumption	NU.5	0.7247	0.03872	0.053	2.969	1.723	396	0.6385	0.8110
HOUSEHOLD MEMBER									
Use of improved drinking water sources	EN.1	0.9840	0.00499	0.005	0.724	0.851	460	0.9728	0.9951
Use of improved sanitation facilities	EN.5	0.8183	0.04313	0.053	5.743	2.396	460	0.7222	0.9144
Net primary school attendance rate	ED.3	0.8262	0.03709	0.045	3.573	1.890	374	0.7436	0.9088
Net junior secondary school attendance rate	ED.4a	0.6100	0.05871	0.096	2.883	1.698	200	0.4792	0.7408
Net senior secondary school attendance rate	ED.4b	0.1956	0.03962	0.203	2.236	1.495	225	0.1073	0.2838
Prevalence of orphans	HA.10	0.0175	0.00465	0.265	1.285	1.134	1,026	0.0072	0.0279
WOMEN									
Skilled attendant at delivery	RH.5	0.6921	0.05677	0.082	1.588	1.260	106	0.5656	0.8186
Antenatal care	RH.3	0.7310	0.06717	0.092	2.409	1.552	106	0.5814	0.8807
Contraceptive prevalence	RH.1	0.2759	0.02487	0.090	1.075	1.037	348	0.2205	0.3313
Adult literacy	ED.8	0.9140	0.01892	0.021	0.842	0.918	186	0.8718	0.9561
Marriage before age 18	CP.5	0.1285	0.01250	0.097	0.570	0.755	410	0.1007	0.1564
Comprehensive knowledge about HIV prevention among young people	HA.3	0.1290	0.01969	0.153	0.638	0.799	186	0.0852	0.1729
Attitudes towards people with HIV/AIDS	HA.5	0.2644	0.01619	0.061	0.613	0.783	456	0.2284	0.3005
Women who have been tested for HIV	HA.6	0.0636	0.01016	0.160	0.877	0.937	507	0.0409	0.0862
Knowledge of mother-to-child transmission of HIV	HA.4	0.7688	0.03269	0.043	3.042	1.744	507	0.6960	0.8417

	Table	Estimate	Standard Error	Coefficient of Variation	Design Effect	Square Root Design Effect	Unweighted Count	95% Confidence Interval	
								Lower	Upper
UNDER-5s									
Underweight prevalence	NU.1	0.2339	0.03095	0.132	0.658	0.811	124	0.1625	0.3052
Tuberculosis immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	47	"*"	"*"
Polio immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	47	"*"	"*"
Immunization coverage for DPT	CH.2	"*"	"*"	"*"	"*"	"*"	47	"*"	"*"
Measles immunization coverage	CH.2	"*"	"*"	"*"	"*"	"*"	47	"*"	"*"
Fully immunized children	CH.2	"*"	"*"	"*"	"*"	"*"	47	"*"	"*"
Acute respiratory infection in last two weeks	CH.6	0.0197	0.00863	0.438	0.976	0.988	254	0.0005	0.0389
Antibiotic treatment of suspected pneumonia	CH.6	0.0157	0.00767	0.487	0.959	0.980	254	-0.0013	0.0328
Diarrhoea in last two weeks	CH.4	0.1417	0.01698	0.120	0.600	0.774	254	0.1039	0.1796
Received ORT or increased fluids and continued feeding	CH.5	"*"	"*"	"*"	"*"	"*"	36	"*"	"*"
Under-fives sleeping under LLNs	CH.11	0.3071	0.04592	0.150	2.508	1.584	254	0.2048	0.4094
Fever in last two weeks	CH.12	0.0866	0.01978	0.228	1.251	1.119	254	0.0425	0.1307
Anti-malarial treatment	CH.12	"*"	"*"	"*"	"*"	"*"	22	"*"	"*"
Support for learning	CD.1	0.9213	0.01288	0.014	0.578	0.761	254	0.8926	0.9500
Birth registration	CP.1	0.4370	0.05068	0.116	2.642	1.625	254	0.3241	0.5499

"*" Percent count has been suppressed as the figure is based on less than 50 unweighted cases

APPENDIX D: DATA QUALITY TABLES

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex (weighted), Vanuatu, 2007

Age in years	Males		Females		Age in years	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	183	2.6	203	3.1	42	48	0.7	52	0.8
1	206	3.0	177	2.7	43	62	0.9	45	0.7
2	208	3.0	173	2.7	44	35	0.5	51	0.8
3	173	2.5	176	2.7	45	68	1.0	57	0.9
4	155	2.2	138	2.1	46	49	0.7	44	0.7
5	221	3.2	172	2.7	47	50	0.7	46	0.7
6	213	3.1	182	2.8	48	48	0.7	57	0.9
7	239	3.5	197	3.0	49	52	0.8	37	0.6
8	201	2.9	165	2.5	50	52	0.8	105	1.6
9	208	3.0	159	2.5	51	32	0.5	26	0.4
10	205	3.0	199	3.1	52	31	0.4	47	0.7
11	156	2.3	136	2.1	53	41	0.6	28	0.4
12	195	2.8	176	2.7	54	35	0.5	35	0.5
13	148	2.2	160	2.5	55	26	0.4	38	0.6
14	148	2.1	163	2.5	56	23	0.3	23	0.4
15	161	2.3	132	2.0	57	33	0.5	16	0.2
16	144	2.1	113	1.7	58	25	0.4	20	0.3
17	118	1.7	128	2.0	59	23	0.3	19	0.3
18	130	1.9	140	2.2	60	30	0.4	33	0.5
19	131	1.9	114	1.8	61	20	0.3	10	0.2
20	144	2.1	166	2.6	62	14	0.2	18	0.3
21	114	1.7	108	1.7	63	11	0.2	8	0.1
22	96	1.4	121	1.9	64	10	0.1	8	0.1
23	85	1.2	117	1.8	65	26	0.4	23	0.4
24	91	1.3	122	1.9	66	5	0.1	7	0.1
25	105	1.5	134	2.1	67	15	0.2	18	0.3
26	76	1.1	85	1.3	68	8	0.1	11	0.2
27	107	1.6	96	1.5	69	10	0.1	10	0.2
28	82	1.2	115	1.8	70	21	0.3	12	0.2
29	76	1.1	88	1.4	71	7	0.1	9	0.1
30	118	1.7	103	1.6	72	10	0.1	3	0.0
31	59	0.9	77	1.2	73	8	0.1	3	0.0
32	83	1.2	87	1.3	74	3	0.0	5	0.1
33	41	0.6	74	1.1	75	9	0.1	8	0.1
34	62	0.9	93	1.4	76	6	0.1	1	0.0
35	136	2.0	122	1.9	77	7	0.1	2	0.0
36	64	0.9	77	1.2	78	5	0.1	8	0.1
37	78	1.1	73	1.1	79	8	0.1	6	0.1
38	80	1.2	83	1.3	80+	44	0.6	29	0.4
39	60	0.9	64	1.0	DK/Missing	446	6.5	185	2.9
40	86	1.2	75	1.2					
41	49	0.7	38	0.6	Total	6890	100.0	6480	100.0

Table DQ.2: Age distribution of eligible and interviewed women
Household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age group, Vanuatu, 2007

	Household population of women age 10-54	Interviewed women age 15-49		Eligible women interviewed
Age	Number	Number	Percent	Percentage
10-14	833	na	na	na
15-19	626	416	16.0	66.4
20-24	633	508	19.6	80.3
25-29	517	454	17.5	87.7
30-34	434	402	15.5	92.6
35-39	419	371	14.3	88.6
40-44	260	235	9.1	90.5
45-49	241	210	8.1	87.0
50-54	240	na	na	na
15-49	3131	2597	100.0	82.9

na Not applicable

Table DQ.3: Age distribution of eligible and interviewed under-5s
Household population of children age 0-4, children whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed (weighted), by five-year age group, Vanuatu, 2007

	Household population of children age 0-7	Interviewed children age 0-4		Eligible children interviewed
Age	Number	Number	Percent	Percent
0	386	365	21.6	94.6
1	384	368	21.8	95.8
2	381	358	21.2	93.9
3	349	325	19.3	93.1
4	293	273	16.2	93.2
5	393	na	na	na
6	395	na	na	na
7	435	na	na	na
0-4	1793	1689	100.0	94.2

na Not applicable

Table DQ.4: Age distribution of under-5 children
Age distribution of under-5 children by 3-month groups (weighted), Vanuatu, 2007

	Males		Females		Total	
Age in months	Number	Percent	Number	Percent	Number	Percent
0-2	41	4.9	29	3.7	70	4.3
3-5	32	3.8	57	7.3	89	5.5
6-8	42	5.0	50	6.3	92	5.6
9-11	43	5.0	47	6.0	90	5.5
12-14	56	6.5	45	5.7	101	6.2
15-17	52	6.1	46	5.9	98	6.0
18-20	50	5.9	37	4.7	87	5.3
21-23	37	4.4	38	4.8	75	4.6
24-26	50	5.9	33	4.2	84	5.1
27-29	64	7.5	42	5.4	106	6.5
30-32	49	5.8	46	5.8	95	5.8
33-35	29	3.4	30	3.8	58	3.6
36-38	36	4.2	33	4.2	69	4.2
39-41	44	5.2	56	7.1	100	6.1
42-44	39	4.6	52	6.6	91	5.5
45-47	41	4.9	22	2.8	63	3.9
48-50	33	3.8	23	2.9	55	3.4
51-53	48	5.7	46	5.9	95	5.8
54-56	34	4.1	31	3.9	65	4.0
57-59	29	3.4	22	2.8	51	3.1
Total	849	100.0	785	100.0	1634	100.0

Table DQ.5: Heaping on ages and periods
Age and period ratios at boundaries of eligibility by type of information collected (weighted), Vanuatu, 2007

	Age and period ratios*			Eligibility boundary (lower-upper)	Module or questionnaire
	Males	Females	Total		
Age in household questionnaire					
1	1.04	0.96	1.00		
2	1.06	0.98	1.03	Lower	Child discipline and child disability
3	0.97	1.09	1.02		
4	0.85	0.85	0.85	Upper	Under-5 questionnaire
5	1.13	1.05	1.09	Lower	Child labour and education
6	0.95	0.99	0.97		
8	0.93	0.95	0.94		
9	1.02	0.91	0.97	Upper	Child disability
10	1.08	1.21	1.14		
13	0.91	0.96	0.94		
14	0.97	1.07	1.02	Upper	Child labour and child discipline
15	1.07	0.97	1.02	Lower	Women's questionnaire
16	1.02	0.91	0.97		
17	0.90	1.01	0.96	Upper	Orphaned and vulnerable children
18	0.94	1.01	0.97		
23	0.94	0.97	0.96		
24	0.97	0.98	0.98	Upper	Education
25	1.16	1.18	1.17		
48	0.96	1.21	1.08		
49	1.03	0.56	0.77	Upper	Women's questionnaire
50	1.15	1.87	1.55		
Age in women's questionnaire					
23	na	1.01	na		
24	na	1.02	na	Upper	Sexual behaviour
25	na	1.14	na		
Months since last birth in women's questionnaire					
6-11	na	0.96	na		
12-17	na	1.13	na		
18-23	na	0.91	na	Upper	Tetanus toxoid and maternal and child health
24-29	na	1.08	na		
30-35	na	0.92	na		

* Age or period ratios are calculated as $x / ((x_{n-1} + x_n + x_{n+1}) / 3)$, where x is age or period.
na Not applicable

Table DQ.6: Completeness of reporting
Percentage of observations missing information for selected questions and indicators (weighted), Vanuatu, 2007

Questionnaire and Subject	Reference group	Percent with missing information*	Number of cases
Household			
Salt testing	All households surveyed	3.9	2632
Women			
Date of Birth	All women age 15-49		
Month only		11.4	2692
Month and year missing		0.0	2692
Date of first birth	All women age 15-49 with at least one live birth		
Month only		3.1	2038
Month and year missing		1.0	2038
Completed years since first birth	All women age 15-49 with at least one live birth	0.0	24
Date of last birth	All women age 15-49 with at least one live birth		
Month only		1.0	2038
Month and year missing		0.4	2038
Date of first marriage/union	All ever married women age 15-49		
Month only		14.9	2094
Month and year missing		20.5	2094
Age at first marriage/union	All ever married women age 15-49	14.1	2094
Under-5			
Date of Birth	All under five children surveyed		
Month only		1.1	1634
Month and year missing		0.0	1634
Anthropometry	All under five children surveyed		
Height		16.7	1634
Weight		17.7	1634
Height or Weight		17.9	1634

* Includes "Don't know" responses

Table DQ.7: Presence of mother in the household and the person interviewed for the under-5 questionnaire
Distribution of children under five by whether the mother lives in the same household, and the person interviewed for the under-5 questionnaire (weighted), Vanuatu, 2007

Age	Mother in the household				Mother not in the household				Total	Number of children aged 0-4 years
	Mother interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	Child (<15) interviewed		
0	96.5	--	--	--	0.0	3.3	0.1	0.2	100.0	386
1	96.4	--	--	--	0.0	3.5	0.2	0.0	100.0	384
2	94.2	--	--	--	0.1	5.7	0.0	0.0	100.0	381
3	94.0	--	--	--	0.2	5.8	0.0	0.0	100.0	349
4	90.1	--	--	--	0.6	9.3	0.0	0.0	100.0	293
Total	94.4	--	--	--	0.2	5.3	0.1	0.0	100.0	1793

Table DQ.8: School attendance by single age

Distribution of household population age 5-24 by educational level and grade attended in the current year (weighted), Vanuatu, 2007

		Primary school						Secondary school									Non-standard	Don't know	Not attending school	Total	Number
	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	VII	VIII	IX	X	XI	XII	XIII	XIV	Higher	curriculum				
Age																					
5	50.2	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.7	100.0	393
6	37.1	32.3	5.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.6	100.0	395
7	15.5	32.3	32.7	5.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7	100.0	435
8	5.5	14.4	33.6	29.1	1.5	0.5	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8	100.0	366
9	0.4	5.0	21.3	31.9	25.7	4.2	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10	100.0	367
10	2.3	2.1	12.2	16.6	30	19.3	2.9	1.3	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	12.4	100.0	404
11	0.4	0.0	3.3	8.3	20.4	30.8	18.4	2.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5	100.0	292
12	0.0	0.6	1.8	3.1	13.8	18.9	28.8	11.5	3.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.9	100.0	370
13	0.0	0.0	1.3	1.5	8.1	7.9	16.8	24.5	14.6	2.3	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	22.1	100.0	309
14	0.1	0.0	0.0	1.3	2.4	3.9	9.0	14.2	18.1	10.1	2.4	0.7	0.5	0.0	0.0	0.0	0.0	0.2	37.2	100.0	311
15	0.0	0.0	0.0	0.4	1.6	0.9	6.0	9.9	12.5	14.8	7.3	3.6	0.9	0.3	0.0	0.0	0.0	0.0	41.7	100.0	294
16	0.0	0.0	0.5	0.1	1.0	0.4	0.5	5.2	10.9	5.7	14.5	8.0	1.3	0.3	0.0	0.0	0.0	0.0	51.7	100.0	257
17	0.0	0.0	0.0	0.0	0.0	0.6	0.5	2.4	4.3	4.4	5.5	8.5	5	2.3	0.0	0.0	1.0	0.0	65.5	100.0	246
18	0.0	0.0	0.0	0.5	0.0	0.0	0.2	0.2	1.8	1.7	3.2	1.9	6.6	4.1	0.9	0.5	0.0	0.0	78.4	100.0	269
19	0.0	0.5	0.6	0.0	0.5	0.0	0.6	1.1	0.0	1.2	2.2	1.4	3.9	5.2	0.4	0.3	0.8	0.0	81.3	100.0	245
20	0.0	0.0	0.0	0.0	0.1	0.0	0.6	0.6	0.0	0.0	0.0	0.0	2.1	3.5	0.5	1.9	0.0	0.0	90.7	100.0	310
21	0.0	0.0	0.0	0.0	0.3	0.0	0.2	0.2	0.7	0.3	1.1	0.9	0.3	0.3	0.2	1.4	0.6	0.0	93.6	100.0	222
22	0.0	0.3	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.2	0.3	0.0	0.2	0.9	0.0	2.4	0.0	0.0	95.2	100.0	217
23	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.7	0.2	0.3	0.2	0	0.2	1.2	0.0	0.0	96.9	100.0	202
24	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0	0.2	0.0	0.0	0.0	0.3	0.0	0.0	99.2	100.0	213
	7.2.	6	7.1	5.9	6.1	4.9	4.6	3.8	3.2	2.1	1.7	1.1	0.9	0.7	0.1	0.3	0.1	0	44.1		

Note: Levels and grades refer to the most recent school year of data collection

Table DQ.9: Sex ratio at birth among children ever born and living
Sex ratio at birth among children ever born, children living, and deceased children, by age of women (weighted), Vanuatu, 2007

Age	Children Ever Born			Children Living			Children deceased			Number of women
	Number of sons ever born	Number of daughters ever born	Sex ratio	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	
15-19	30	39	0.76	30	36	0.83	0	3	0	430
20-24	349	296	1.18	335	287	1.17	14	9	1.67	528
25-29	553	473	1.17	537	452	1.19	16	21	0.77	469
30-34	696	619	1.12	673	608	1.11	22	11	1.98	415
35-39	782	761	1.03	758	741	1.02	24	21	1.17	386
40-44	583	488	1.2	565	475	1.19	18	12	1.42	246
45-49	522	507	1.03	499	486	1.03	23	22	1.06	217
Total	3514	3182	1.1	3396	3083	1.1	118	99	1.19	2692

Table DQ.10: Distribution of women by time since last birth
Distribution of women aged 15-49 with at least one live birth, by months since last birth (weighted), Vanuatu, 2007

Months since last birth					
	Number	Percent		Number	Percent
0	15	1.5	18	29	2.9
1	32	3.3	19	34	3.4
2	39	3.9	20	18	1.8
3	42	4.2	21	34	3.4
4	22	2.2	22	24	2.4
5	38	3.8	23	17	1.7
6	33	3.4	24	18	1.8
7	37	3.7	25	22	2.2
8	27	2.8	26	20	2.0
9	25	2.5	27	27	2.7
10	29	2.9	28	38	3.8
11	36	3.6	29	24	2.4
12	29	2.9	30	22	2.2
13	44	4.4	31	18	1.8
14	40	4.0	32	25	2.5
15	34	3.4	33	9	0.9
16	32	3.3	34	20	2.0
17	28	2.8	35	14	1.4
			Total	996	100.0

Figure 1. Scatterplot of weight (Y-axis) by height (x-axis) (unweighted), Vanuatu, 2007

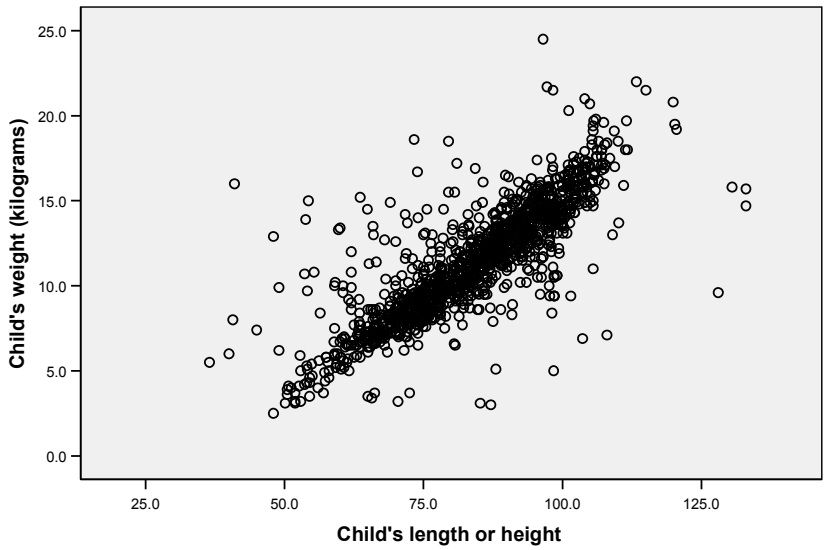


Figure 2. Scatterplot of weights of children by age in months (unweighted), Vanuatu, 2007

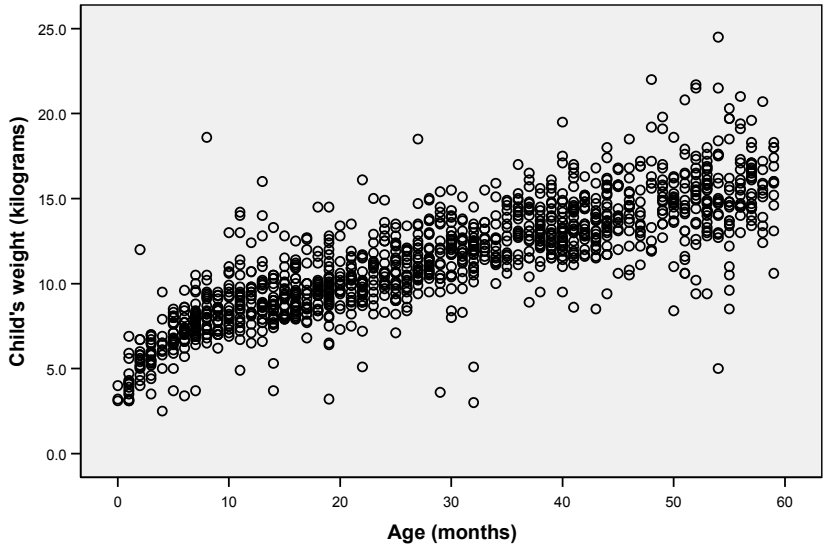


Figure 3. Scatterplot of heights of children by age in months (unweighted), Vanuatu, 2007

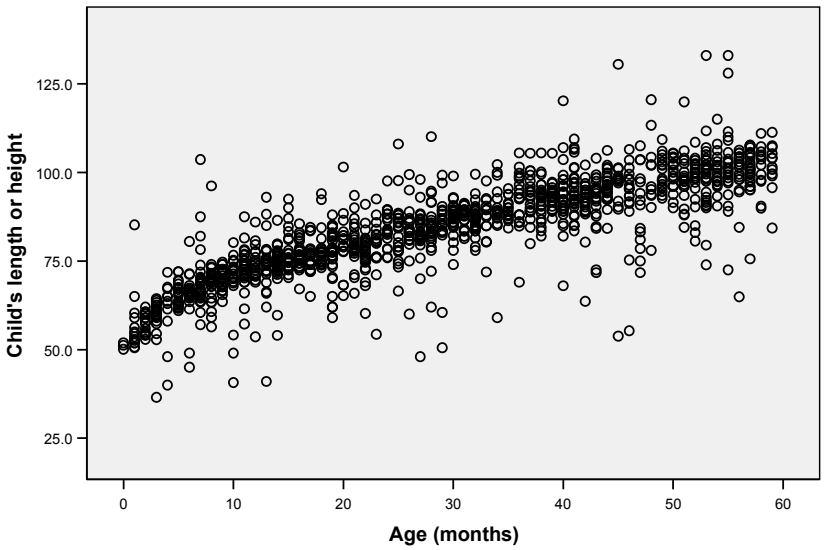


Figure 4. Number of male household population (Y-axis) by single ages (X-axis) (weighted), Vanuatu, 2007

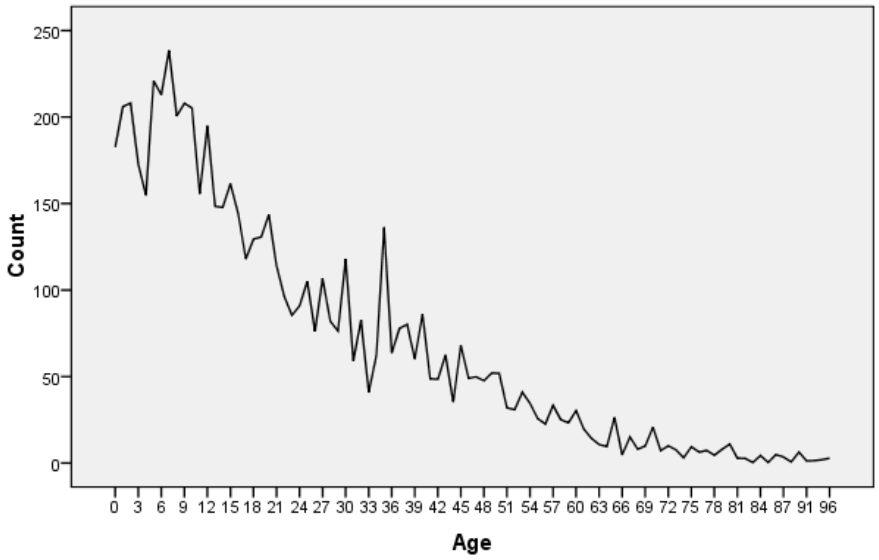


Figure 5. Number of female household population (Y-axis) by single ages (X-axis) (weighted), Vanuatu, 2007

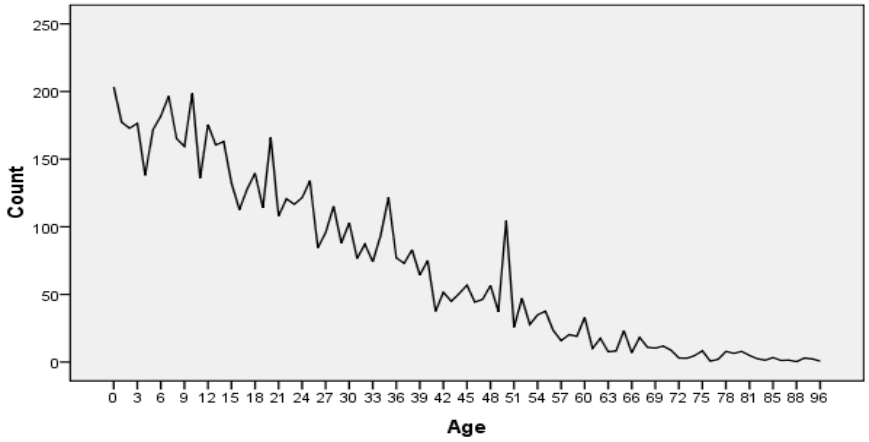
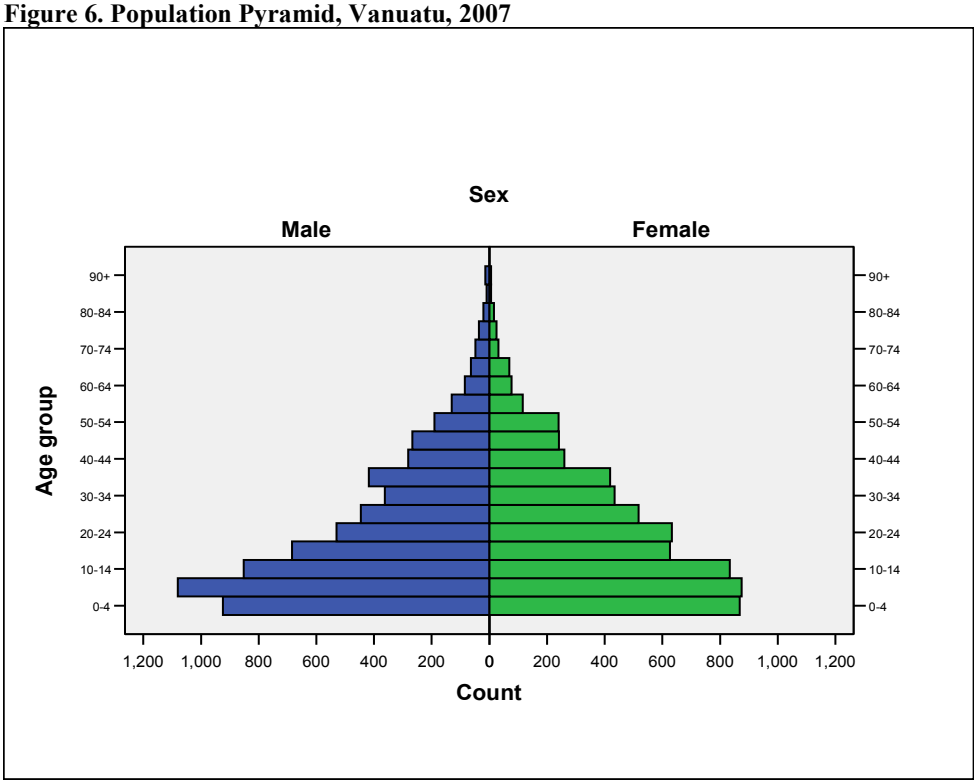


Figure 6. Population Pyramid, Vanuatu, 2007



APPENDIX E: MICS INDICATORS: NUMERATORS AND DENOMINATORS

	INDICATOR	NUMERATOR	DENOMINATOR
1	Under-five mortality rate	Probability of dying by exact age 5 years	
2	Infant mortality rate	Probability of dying by exact age 1 year	
4	Skilled attendant at delivery	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that were attended during childbirth by skilled health personnel	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
5	Institutional deliveries	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that delivered in a health facility	Total number of women surveyed aged 15-49 years with a birth in 2 years preceding the survey
6	Underweight prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five that were weighed
7	Stunting prevalence	Number of children under age five that fall below minus two standard deviations from the median height for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five measured
8	Wasting prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for height of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	Total number of children under age five weighed and measured
9	Low-birthweight infants	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams	Total number of last live births in the 2 years preceding the survey
10	Infants weighed at birth	Number of last live births in the 2 years preceding the survey that were weighed at birth	Total number of last live births in the 2 years preceding the survey
11	Use of improved drinking water sources	Number of household members living in households using improved sources of drinking water	Total number of household members in households surveyed
12	Use of improved sanitation facilities	Number of household members using improved sanitation facilities	Total number of household members in households surveyed
13	Water treatment	Number of household members using water that has been treated	Total number of household members in households surveyed
14	Disposal of child's faeces	Number of children under age three whose (last) stools were disposed off safely	Total number of children under age three surveyed
15	Exclusive breastfeeding rate	Number of infants aged 0-5 months that are exclusively breastfed	Total number of infants aged 0-5 months surveyed
16	Continued breastfeeding rate	Number of infants aged 12-15 months, and 20-23 months, that are currently breastfeeding	Total number of children aged 12-15 months and 20-23 months surveyed
17	Timely complementary feeding rate	Number of infants aged 6-9 months that are receiving breastmilk and complementary foods	Total number of infants aged 6-9 months surveyed
18	Frequency of complementary feeding	Number of infants aged 6-11 months that receive breastmilk and complementary food at least the minimum recommended number of times per day (two times per day for infants aged 6-8 months, three times per day for infants aged 9-11 months)	Total number of infants aged 6-11 months surveyed

	INDICATOR	NUMERATOR	DENOMINATOR
19	Adequately fed infants	Number of infants aged 0-11 months that are appropriately fed: infants aged 0-5 months that are exclusively breastfed and infants aged 6-11 months that are breastfed and ate solid or semi-solid foods the appropriate number of times (see above) yesterday	Total number of infants aged 0-11 months surveyed
20	Antenatal care	Number of women aged 15-49 years that were attended at least once during pregnancy in the 2 years preceding the survey by skilled health personnel	Total number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
21	Contraceptive prevalence	Number of women currently married or in union aged 15-49 years that are using (or whose partner is using) a contraceptive method (either modern or traditional)	Total number of women aged 15-49 years that are currently married or in union
22	Antibiotic treatment of suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks receiving antibiotics	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
23	Care-seeking for suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks that are taken to an appropriate health provider	Total number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
24	Solid fuels	Number of residents in households that use solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy to cook	Total number of residents in households surveyed
25	Tuberculosis immunization coverage	Number of children aged 12-23 months receiving BCG vaccine before their first birthday	Total number of children aged 12-23 months surveyed
26	Polio immunization coverage	Number of children aged 12-23 months receiving OPV3 vaccine before their first birthday	Total number of children aged 12-23 months surveyed
27	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	Number of children aged 12-23 months receiving DPT3 vaccine before their first birthday	Total number of children aged 12-23 months surveyed
28	Measles immunization coverage	Number of children aged 12-23 months receiving measles vaccine before their first birthday	Total number of children aged 12-23 months surveyed
29	Hepatitis B immunization coverage	Number of children aged 12-23 months immunized against hepatitis before their first birthday	Total number of children aged 12-23 months surveyed
32	Neonatal tetanus protection	Number of mothers with live births in the last 2 years that were given at least two doses of tetanus toxoid (TT) vaccine within the appropriate interval prior to giving birth	Total number of women surveyed aged 15-49 years with a birth in the last 2 years preceding the survey
33	Use of oral rehydration therapy (ORT)	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received oral rehydration salts and/or an appropriate household solution	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
34	Home management of diarrhoea	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received more fluids AND continued eating somewhat less, the same or more food	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
35	Received ORT or increased fluids and continued feeding	Number of children aged 0-59 months with diarrhoea that received ORT (oral rehydration salts or an appropriate household solution) or received more fluids AND continued eating somewhat less, the same or more food	Total number of children aged 0-59 months with diarrhoea in the previous 2 weeks
36	Household availability of insecticide-treated long-lasting nets (LLNs)	Number of households with at least one permanently treated mosquito net	Total number of households surveyed
37	Under-fives sleeping under insecticide- treated nets	Number of children aged 0-59 months that slept under an insecticide-treated mosquito net the previous night	Total number of children aged 0-59 months surveyed
38	Under-fives sleeping under mosquito nets	Number of children aged 0-59 months that slept under a mosquito net the previous night	Total number of children aged 0-59 months surveyed
39	Antimalarial treatment (under- fives)	Number of children aged 0-59 months reported to have had fever in the previous 2 weeks that were treated with an appropriate anti-malarial within 24 hours of onset	Total number of children aged 0-59 months reported to have had fever in the previous 2 weeks
41	Iodized salt consumption	Number of households with salt testing 15 parts per million or more of iodine/iodate	Total number of households surveyed

	INDICATOR	NUMERATOR	DENOMINATOR
44	Content of antenatal care	Number of women with a live birth in the 2 years preceding the survey that received antenatal care during the last pregnancy	Total number of women with a live birth in the 2 years preceding the survey
45	Timely initiation of breastfeeding	Number of women with a live birth in the 2 years preceding the survey that put the newborn infant to the breast within 1 hour of birth	Total number of women with a live birth in the 2 years preceding the survey
46	Support for learning	Number of children aged 0-59 months living in households in which an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days	Total number of children aged 0-59 months surveyed
47	Father's support for learning	Number of children aged 0-59 months whose father has engaged in one or more activities to promote learning and school readiness in the past 3 days	Total number of children aged 0-59 months
48	Support for learning: children's books	Number of households with three or more children's books	Total number of households surveyed
49	Support for learning: non-children's books	Number of households with three or more non-children's books	Total number of households surveyed
50	Support for learning: materials for play	Number of households with three or more materials intended for play	Total number of households surveyed
51	Non-adult care	Number of children aged 0-59 months left alone or in the care of another child younger than 10 years of age in the past week	Total number of children aged 0-59 months surveyed
52	Pre-school attendance	Number of children aged 36-59 months that attend some form of early childhood education programme	Total number of children aged 36-59 months surveyed
53	School readiness	Number of children in first grade that attended some form of pre-school in the previous year	Total number of children in the first grade surveyed
54	Net intake rate in primary education	Number of children of school-entry age that are currently attending first grade	Total number of children of primary- school entry age surveyed
55	Net primary school attendance rate	Number of children of primary-school age currently attending primary or secondary school	Total number of children of primary- school age surveyed
56	Net secondary school attendance rate	Number of children of secondary-school age currently attending secondary school or higher	Total number of children of secondary-school age surveyed
57	Children reaching grade six	Proportion of children entering the first grade of primary school that eventually reach grade six	
60	Adult literacy rate	Number of women aged 15-24 years that are able to read a short simple statement about everyday life	Total number of women aged 15-24 years surveyed
61	Gender parity index	Proportion of girls in primary, junior secondary and senior secondary education	Proportion of boys in primary, junior secondary and senior secondary education
62	Birth registration	Number of children aged 0-59 months whose births are reported registered	Total number of children aged 0-59 months surveyed
67	Marriage before age 15 and age 18	Number of women that were first married or in union by the exact age of 15 and the exact age of 18, by age groups	Total number of women aged 15-49 years and 20-49 years surveyed, by age groups
68	Young women aged 15-19 years currently married or in union	Number of women aged 15-19 years currently married or in union	Total number of women aged 15-19 years surveyed
69	Spousal age difference	Number of women married/in union aged 15-19 years and 20-24 years with a difference in age of 10 or more years between them and their current spouse	Total number of women aged 15-19 and 20-24 years surveyed that are currently married or in union
75	Prevalence of orphans	Number of children under age 18 with at least one dead parent	Total number of children under age 18 surveyed
77	School attendance of orphans versus non-orphans	Proportion of double orphans (both mother and father dead) aged 10-14 years attending school	Proportion of children aged 10-14 years, both of whose parents are alive, that are living with at least one parent and are attending school
78	Children's living arrangements	Number of children aged 0-17 years not living with a biological parent	Total number of children aged 0-17 years surveyed
82	Comprehensive knowledge about HIV prevention among young people	Number of women aged 15-24 years that correctly identify two ways of avoiding HIV infection and reject three common misconceptions about HIV transmission	Total number of women aged 15-24 years surveyed
86	Attitude towards people with HIV/AIDS	Number of women expressing acceptance on all four questions about people with HIV or AIDS	Total number of women surveyed
87	Women who know where to be tested for HIV	Number of women that state knowledge of a place to be tested	Total number of women surveyed
88	Women who have been tested for HIV	Number of women that report being tested for HIV	Total number of women surveyed

	INDICATOR	NUMERATOR	DENOMINATOR
89	Knowledge of mother-to-child transmission of HIV	Number of women that correctly identify all three means of vertical transmission	Total number of women surveyed
90	Counselling coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received counselling on HIV/AIDS during this care	Total number of women that gave birth in the previous 24 months surveyed
91	Testing coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received the results of an HIV test during this care	Total number of women that gave birth in the previous 24 months surveyed

APPENDIX F: SURVEY QUESTIONNAIRES

HOUSEHOLD QUESTIONNAIRE

WE ARE FROM MINISTRY OF HEALTH. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 60 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. DURING THIS TIME I WOULD LIKE TO SPEAK WITH THE HOUSEHOLD HEAD AND ALL MOTHERS OR OTHERS WHO TAKE CARE OF CHILDREN IN THE HOUSEHOLD.

MAY I START NOW? *If permission is given, begin the interview.*

HOUSEHOLD INFORMATION PANEL	**HH**
HH1. Cluster number: ___ ___ ___	HH2. Household number: ___ ___ ___
HH3. Interviewer name and number: Name_____ ___ ___	HH4. Supervisor name and number: Name_____ ___ ___
HH5. Day/Month/Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___	
HH6. Area: Urban ..... 1 Rural 2	HH7. Region/Province: Tafea ..... 1 Shefa ..... 2 Malampa ..... 3 Penama ..... 4 Sanma ..... 5 Torba ..... 6 Port Vila ..... 7 Luganville 8
HH 8. Name of head of household: _____	
After all questionnaires for the household have been completed, fill in the following information:	
HH9. Result of HH interview: Completed ..... 1 Not at home ..... 2 Refused ..... 3 HH not found/destroyed ..... 4 Other (*specify*)_____ 6	HH10. Respondent to HH questionnaire: Name:_____ Line No: ___ ___ HH11. Total number of household members: ___ ___
HH12. No.of women eligible for interview: ___ ___	HH13. No.of women questionnaires completed: ___ ___
HH14. No.of children under age 5: ___ ___	HH15. No.of under-5 questionnaires completed: ___ ___
Interviewer/supervisor notes: *Use this space to record notes about the interview with this household, such as call-back times, incomplete individual interview forms, number of attempts to re-visit, etc.*	
HH16. Data entry clerk: ___ ___	

HOUSEHOLD LISTING FORM HL

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.

List the head of the household in line 01. List all household members (HL2), their relationship to the household head (HL3), and their sex (HL4).

Then ask: ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW? (THESE MAY INCLUDE CHILDREN IN SCHOOL OR AT WORK*). If yes, complete listing.*

Then, ask questions starting with HL5 for each person at a time. Add a continuation sheet if there are more than 15 household members. Tick here if continuation sheet used ☐

					Eligible for:		*For children* ***age 0-17 years*** *ask HL9-HL12*			
					WOMEN'S INTERVIEW	UNDER-5 INTERVIEW				
HL1. *Line no.*	HL2. *Name*	HL3. WHAT IS THE RELATION-SHIP OF (*name*) TO THE HEAD OF THE HOUSE-HOLD?	HL4. IS (*name*) MALE OR FEMALE? 1 MALE 2 FEM.		HL5. HOW OLD IS (*name*)? HOW OLD WAS (*name*) ON HIS/HER LAST BIRTHDAY? *Record in completed years* 98=DK*	HL6. *Circle Line no. if woman is age 15-49*	HL8. *For each child* ***under 5****:* WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? *Record Line no. of mother/ caretaker*	HL9. IS (*name's*) NATURAL MOTHER ALIVE? 1 YES 2 NO⇨ HL11 8 DK⇨ HL11	HL10. *If alive*: DOES (*name's*) NATURAL MOTHER LIVE IN THIS HOUSEHOLD? *Record Line no. of mother or 00 for 'no'*	HL11. IS (*name's*) NATURAL FATHER ALIVE? 1 YES 2 NO⇘ NEXT LINE 8 DK⇘ NEXT LINE	HL12. *If alive*: DOES (*name's*) NATURAL FATHER LIVE IN THIS HOUSEHOLD? *Record Line no. of father or 00 for 'no'*
LINE	NAME	REL.	M	F	AGE	15-49	MOTHER	Y N DK	MOTHER	Y N DK	FATHER
01		0 1	1	2	___ ___	01	___ ___	1 2 8	___ ___	1 2 8	___ ___
02		___ ___	1	2	___ ___	02	___ ___	1 2 8	___ ___	1 2 8	___ ___
03		___ ___	1	2	___ ___	03	___ ___	1 2 8	___ ___	1 2 8	___ ___
04		___ ___	1	2	___ ___	04	___ ___	1 2 8	___ ___	1 2 8	___ ___
05		___ ___	1	2	___ ___	05	___ ___	1 2 8	___ ___	1 2 8	___ ___
06		___ ___	1	2	___ ___	06	___ ___	1 2 8	___ ___	1 2 8	___ ___
07		___ ___	1	2	___ ___	07	___ ___	1 2 8	___ ___	1 2 8	___ ___
08		___ ___	1	2	___ ___	08	___ ___	1 2 8	___ ___	1 2 8	___ ___
09		___ ___	1	2	___ ___	09	___ ___	1 2 8	___ ___	1 2 8	___ ___
10		___ ___	1	2	___ ___	10	___ ___	1 2 8	___ ___	1 2 8	___ ___

HL1. *Line no.*	HL2. *Name*	HL3. WHAT IS THE RELATION-SHIP OF (*name*) TO THE HEAD OF THE HOUSE-HOLD?	HL4. IS (*name*) MALE OR FEMALE? 1 MALE 2 FEM.	HL5. HOW OLD IS (*name*)? HOW OLD WAS (*name*) ON HIS/HER LAST BIRTHDAY? *Record in completed years* 98=DK*	HL6. *Circle Line no. if woman is age 15-49*	HL8. *For each child **under 5**:* WHO IS THE MOTHER OR PRIMARY CARETAKER OF THIS CHILD? *Record Line no. of mother/ caretaker*	HL9. IS (*name's*) NATURAL MOTHER ALIVE? 1 YES 2 NO⇨ HL11 8 DK⇨ HL11	HL10. *If alive*: DOES (*name's*) NATURAL MOTHER LIVE IN THIS HOUSEHOLD? *Record Line no. of mother or 00 for 'no'*	HL11. IS (*name's*) NATURAL FATHER ALIVE? 1 YES 2 NO↘ NEXT LINE 8 DK↘ NEXT LINE	HL12. *If alive*: DOES (*name's*) NATURAL FATHER LIVE IN THIS HOUSEHOLD? *Record Line no. of father or 00 for 'no'*
LINE	NAME	REL.	M F	AGE	15-49	MOTHER	Y N DK	MOTHER	Y N DK	FATHER
11		___ ___	1 2	___ ___	11	___ ___	1 2 8	___ ___	1 2 8	___ ___
12		___ ___	1 2	___ ___	12	___ ___	1 2 8	___ ___	1 2 8	___ ___
13		___ ___	1 2	___ ___	13	___ ___	1 2 8	___ ___	1 2 8	___ ___
14		___ ___	1 2	___ ___	14	___ ___	1 2 8	___ ___	1 2 8	___ ___
15		___ ___	1 2	___ ___	15	___ ___	1 2 8	___ ___	1 2 8	___ ___

ARE THERE ANY OTHER PERSONS LIVING HERE – EVEN IF THEY ARE NOT MEMBERS OF YOUR FAMILY OR DO NOT HAVE PARENTS LIVING IN THIS HOUSEHOLD? INCLUDING CHILDREN AT WORK OR AT SCHOOL? *If yes, insert child's name and complete form.*
Then, complete the totals below.

	Women 15-49	Under-5s
Totals	___ ___	___ ___

** See instructions: to be used only for elderly household members (code meaning "do not know/over age 50").*

Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of the Women's Questionnaire.
For each child under age 5, write his/her name and line number AND the line number of his/her mother or caretaker in the information panel of the Questionnaire for Children UnderFive.
You should now have a separate questionnaire for each eligible woman and each child under five in the household.

** Codes for HL3: Relationship to head of household:*

01 = Head
02 = Wife or Husband
03 = Son or Daughter
04 = Son or Daughter In-Law
05 = Grandchild
06 = Parent
07 = Parent-In-Law
08 = Brother or Sister/step brother
09 = Brother or Sister-In-Law
10 = Uncle/Aunt
11 = Niece/Nephew By Blood
12 = Niece/Nephew By Marriage
13 = Other Relative
14 = Adopted/Foster/Stepchild
15 = Not Related
98 = Don't Know

EDUCATION MODULE **ED**

For household members age 5 and above

For household members age 5-24 years

ED1. *Line no.*	ED1A. *Name*	ED2. HAS (*name*) EVER ATTENDED SCHOOL OR PRESCHOOL? 1 YES ⇨ ED3 2 NO ⇩ NEXT LINE	ED3. WHAT IS THE HIGHEST LEVEL OF SCHOOL (*name*) ATTENDED? WHAT IS THE HIGHEST GRADE (*name*) COMPLETED AT THIS LEVEL? LEVEL: 0 PRE-SCHOOL 1 PRIMARY 2 SECONDARY 3 HIGHER 6 VOCATIONAL SCHOOLS/RURAL TRAINING CE TER 8 DK GRADE: 98 DK *If less than 1 grade, enter 00.*		ED4. DURING THE *2007* SCHOOL YEAR, DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME? 1 YES 2 NO ⇨ ED7	ED5. SINCE LAST *(day of the week)*, HOW MANY DAYS DID (*name*) ATTEND SCHOOL? *Insert number of days in space below.*	ED6. DURING THIS SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (*name*) ATTENDING? LEVEL: 0 PRESCHOOL 1 PRIMARY 2 SECONDARY 3 HIGHER 6 VOCATIONAL SCHOOLS/RURAL TRAINING CEN TER 8 DK GRADE: 98 DK		ED7. DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR, THAT IS *2006*? 1 YES 2 NO ⇩ NEXT LINE 8 DK ⇩ NEXT LINE			ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (*name*) ATTEND? LEVEL: 0 PRESCHOOL 1 PRIMARY 2 SECONDARY 3 HIGHER 6 VOCATIONAL SCHOOLS /RURAL TRAINING CEN TER 8 DK GRADE: 98 DK	
LINE		YES NO	LEVEL	GRADE	YES	NO	DAYS	LEVEL	GRADE	Y	N	DK	LEVEL	GRADE
01		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
02		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
03		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
04		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
05		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
06		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
07		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
08		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
09		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
10		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
11		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
12		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
13		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
14		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
15		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1	2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___

WATER AND SANITATION MODULE		WS
WS1. WHAT IS THE MAIN SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?	Piped water Piped into dwelling ..... 11 Piped into yard or plot ..... 12 Public tap/standpipe ..... 13 Tubewell/borehole ..... 21 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 **Bottled water ..... 91** Other (*specify*) _____ 96	11⇨WS5 12⇨WS5 ⇨WS3 96⇨WS3
WS2. WHAT IS THE MAIN SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HANDWASHING?	Piped water Piped into dwelling ..... 11 Piped into yard or plot ..... 12 Public tap/standpipe ..... 13 Tubewell/borehole ..... 21 Dug well Protected well ..... 31 Unprotected well ..... 32 Water from spring Protected spring ..... 41 Unprotected spring ..... 42 Rainwater collection ..... 51 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) ..... 81 Other (*specify*) _____ 96	11⇨WS5 12⇨WS5
WS3. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?	No. of minutes ..... __ __ __ Water on premises ..... 995 DK 998	995⇨WS5
WS4. WHO USUALLY GOES TO THIS SOURCE TO FETCH THE WATER FOR YOUR HOUSEHOLD? *Probe:* IS THIS PERSON UNDER AGE 15? WHAT SEX? *Circle code that best describes this person.*	Adult woman ..... 1 Adult man ..... 2 Female child (under 15) ..... 3 Male child (under 15) ..... 4 DK 8	
WS5. DO YOU TREAT YOUR WATER IN ANY WAY TO MAKE IT SAFER TO DRINK?	Yes ..... 1 No ..... 2 DK 8	2⇨WS7 8⇨WS7
WS6. WHAT DO YOU USUALLY DO TO THE WATER TO MAKE IT SAFER TO DRINK? ANYTHING ELSE? *Record all items mentioned.*	Boil ..... A Add bleach/chlorine ..... B Strain it through a cloth ..... C Use water filter (ceramic, sand, composite, etc.) ..... D Solar disinfection ..... E Let it stand and settle ..... F Other (*specify*) _____ X DK ..... Z	

WS7. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE? *If "flush" or "pour flush", probe:* WHERE DOES IT FLUSH TO? *If necessary, ask permission to observe the facility.*	Flush / pour flush Flush to piped sewer system ..... 11 Flush to septic tank ..... 12 Flush to pit (latrine) ..... 13 Flush to somewhere else ..... 14 Flush to unknown place/not sure/DK where..... 15 Ventilated Improved Pit latrine (VIP) ..... 21 Pit latrine with slab ..... 22 Pit latrine without slab / open pit ..... 23 Hanging toilet/hanging latrine ..... 51 No facilities or bush or field..... 95 Other (*specify*) _____ 96	95⇨ NEXT MODULE
WS8. DO YOU SHARE THIS FACILITY WITH OTHER HOUSEHOLDS?	Yes ..... 1 No..... 2	2⇨ NEXT MODULE
WS9. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY?	No. of households (if less than 10) .... 0 ___ Ten or more households ..... 10 DK 98	

HOUSEHOLD CHARACTERISTICS MODULE		HC
HC1A. WHAT IS THE RELIGION OF THE HEAD OF THIS HOUSEHOLD?	*Christianity* ..... 1 *Muslim/ Islam* ..... 2 *Kustom* ..... 3 Other religion (*specify*) _____ 6 No religion 7	
HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	*Bislama* ..... 1 Other language (*specify*)_____6	
HC1C. TO WHAT ETHNIC GROUP DOES THE HEAD OF THIS HOUSEHOLD BELONG?	*Melanesian* ..... 1 *Polinesian*.....*2* Micronesian.....3 Caucasian .....4 Other ethnic group (*specify*) _____6	
HC1D. FOR HOW LONG THE MEMBERS OF THIS HOUSEHOLD ARE LIVING IN THIS AREA?	No. of years..... __ __	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	No. of rooms ..... __ __	
HC3. Main material of the dwelling floor: *Record observation.*	Natural floor Earth/sand..... 11 Coral.....13 Rudimentary floor Wood planks ..... 21 Palm/bamboo..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips..... 32 Ceramic tiles ..... 33 Cement..... 34 Carpet ..... 35 Mat ..... 36 Other (*specify*) _____ 96	
HC4. Main material of the roof. *Record observation.*	Natural roofing No Roof..... 11 Thatch/palm leaf..... 12 Sod..... 13 Rudimentary Roofing Rustic mat ..... 21 Palm/bamboo..... 22 Wood planks ..... 23 Finished roofing Metal/metal sheets..... 31 Wood..... 32 Calamine/cement fiber..... 33 Ceramic tiles ..... 34 Cement..... 35 Other (*specify*) _____96	

HC5. Main material of the walls. *Record observation.*	Natural walls No walls ... 11 Cane/palm/trunks ... 12 Dirt ... 13 Coconut Leaves/thatches ... 14 Bamboo ... 15 Rudimentary walls Bamboo with mud ... 21 Stone with mud ... 22 Plywood ... 24 Carton ... 25 Reused wood ... 26 Finished walls Cement ... 31 Stone with lime/cement ... 32 Bricks ... 33 Cement blocks ... 34 Wood planks/shingles ... 36 Other (*specify*) _____ 96	
HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD MAINLY USE FOR COOKING?	Electricity ... 01 Liquid Propane Gas (LPG) ... 02 Kerosene ... 05 Coal / Lignite ... 06 Charcoal ... 07 Wood ... 08 Straw/shrubs/grass ... 09 Other (*specify*) _____ 96	01⇨HC8 02⇨HC8
HC7. IN THIS HOUSEHOLD, IS FOOD COOKED ON AN OPEN FIRE, AN OPEN STOVE OR A CLOSED STOVE? *Probe for type.*	Open fire ... 1 Open stove ... 2 Closed stove ... 3 Other (*specify*) _____ 6	 3⇨HC8 6⇨HC8
HC7A. DOES THE FIRE/STOVE HAVE A CHIMNEY OR A HOOD?	Yes ... 1 No ... 2	
HC8. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS?	In the house ... 1 In a separate building ... 2 Outdoors ... 3 Shed attached to the living room ... 4 Other (*specify*) _____ 6	
HC9. DOES YOUR HOUSEHOLD HAVE:	Yes No	
ELECTRICITY?	Electricity ... 1 2	
A RADIO?	Radio ... 1 2	
A TELEVISION?	Television ... 1 2	
A MOBILE TELEPHONE?	Mobile Telephone ... 1 2	
WASHING MACHINE?	Washing machine ... 1 2	
MICR-WAVE OVEN?	Micr-wave oven ... 1 2	
IRON (FOR CLOTH)	Iron (for cloth) ... 1 2	
TABLE	Table ... 1 2	
CHAIR	Chair ... 1 2	
BED/COT	Bed/cot ... 1 2	
MATTRESS/BLANKETS	Mattress/blanket ... 1 2	
MAT	Mat ... 1 2	
KEROSINE LAMP/HURICANE LIGHT/COLEMAN LIGHT	Kerosine lamp ... 1 2	
AXE/BUSH KNIFE/SPADE/HAMMER/HOE	Axe/bush knife/spade/hammer/hoe ... 1 2	
TELEPHONE	Telephone ... 1 2	
HC10. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN:	Yes No	
A WATCH?	Watch ... 1 2	
A BICYCLE?	Bicycle ... 1 2	
A MOTORCYCLE OR SCOOTER?	Motorcycle/Scooter ... 1 2	
A CAR OR TRUCK OR BUS?	Car/Truck ... 1 2	
A BOAT WITH A MOTOR?	Boat with motor ... 1 2	
CANOE	Canoe ... 1 2	

ITN MODULE		TN
TN1. DOES YOUR HOUSEHOLD HAVE ANY MOSQUITO NETS THAT CAN BE USED WHILE SLEEPING?	Yes ..... 1 No 2	 2⇨TN6B
TN2. HOW MANY MOSQUITO NETS DOES YOUR HOUSEHOLD HAVE? *If 7 or more nets, record '7'.*	Number of nets .....___	
TN3. IS THE NET (ARE ANY OF THE NETS) ANY OF THE FOLLOWING BRANDS: *Read each brand name, show picture card, and circle codes for Yes or No for each brand. If possible, observe the net to verify brand.*	Y N DK	
LONG-LASTING TREATED NETS:	Long-lasting treated nets 1 2 8	2⇨TN6B 8⇨TN6B
OTHER NETS:	Other nets:……..1 2 8	
TN3C.. HOW MANY LONG-LASTING NETS DOES YOUR HOUSEHOLD HAVE	Number of long lasting nets. ……__	
TN6. HOW MANY MONTHS AGO WAS THE (MOST RECENT) LONG LASTING NET OBTAINED? *If less than 1 month ago, record '00'.* *If answer is "12 months" or "1 year", probe to determine if net was obtained exactly 12 months ago or earlier or later.*	Months ago ..... __ __ More than 24 months ago..... 95 Not sure..... 98	
TN6B. DO YOU KNOW WHAT CAUSES MALARIA?	Mosquito ……A Mosquito and others……B Others (specify)……X Don't know……Z	
TN6C. DID YOU TAKE ANY MEASURE TO PREVENT MALARIA?	Yes……1 No…… 2	 2⇨NEXT MODULE
TN6D If yes, WHAT MEASURE HAVE YOU TAKEN TO PREVENT MALARIA?	Using mosquito nets……A Reduce mosquito breedng site……B Take medicine…… C Sprayed home……D Others (specify)……X	
TN6E. FROM WHERE DID YOU GET THIS KNOWLEDGE?	Radio……A TV……B Printed materials……C Health workers……D Chief of church……E Realtive/friend/neighbour……F School……G Other(specify)……X	

SALT IODIZATION MODULE		SI
SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I SEE A SAMPLE OF THE SALT USED TO COOK THE MAIN MEAL EATEN BY MEMBERS OF YOUR HOUSEHOLD LAST NIGHT? *Once you have examined the salt, circle number that corresponds to test outcome.*	Not iodized 0 PPM ..... 1 Less than 15 PPM..... 2 15 PPM or more..... 3 No salt in home ..... 6 Salt not tested 7	

IF IT IS A NUTRITION HOUSEHOLD, COMPLETE NEXT SECTION

SI2. *Does any eligible woman age 15-49 reside in the household?*
Check household listing, column HL6.You should have a questionnaire with the Information Panel filled in for each eligible woman.

☐ *Yes. ⇨ Go to QUESTIONNAIRE FOR INDIVIDUAL WOMEN to administer the questionnaire to the first eligible woman.*

☐ *No. ⇨ Continue.*

SI3. *Does any child under the age of 5 reside in the household?*
Check household listing, column HL8. You should have a questionnaire with the Information Panel filled in for each eligible child.

☐ *Yes. ⇨ Go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE to administer the questionnaire to mother or caretaker of the first eligible child.*

☐ *No. ⇨ End the interview by thanking the respondent for his/her cooperation.*
Gather together all questionnaires for this household and tally the number of interviews completed on the cover page.

NUTRITION HOUSEHOLD			NH
NH1. IS IT A NUTRITION HOUSEHOLD?	Yes .....1 No 2		2=NEXT MODULE
NH2. IF YES, LABEL NUMBER FOR		Label Number	
	Woman-1		
	Woman-2		
	Child -1		
	Child -2		
	Child -3		

MICS

QUESTIONNAIRE FOR CHILDREN UNDER FIVE

UNDER-FIVE CHILD INFORMATION PANEL	UF
This questionnaire is to be administered to all mothers or caretakers (see household listing, column HL8) who care for a child that lives with them and is under the age of 5 years (see household listing, column HL5). A separate questionnaire should be used for each eligible child. Fill in the cluster and household number, and names and line numbers of the child and the mother/caretaker in the space below. Insert your own name and number, and the date.	
UF1. Cluster number: ___ ___ ___	UF2. Household number: ___ ___ ___
UF3. Child's Name: _____	UF4. Child's Line Number: ___ ___
UF5. Mother's/Caretaker's Name: _____	UF6. Mother's/Caretaker's Line Number: ___ ___
UF7. Interviewer name and number: _____ ___ ___	UF8. Day/Month/Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___
UF9. Result of interview for children under 5 (Codes refer to mother/caretaker.)	Completed..... 1 Not at home ..... 2 Refused..... 3 Partly completed ..... 4 Incapacitated..... 5 Other (specify) _____ 6

Repeat greeting if not already read to this respondent:

WE ARE FROM MINISTRY OF HEALTH. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?

If permission is given, begin the interview. If the respondent does not agree to continue, thank him/her and go to the next interview. Discuss this result with your supervisor for a future revisit.

UF10. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH OF EACH CHILD UNDER THE AGE OF 5 IN YOUR CARE, WHO LIVES WITH YOU NOW. NOW I WANT TO ASK YOU ABOUT (*name*). IN WHAT MONTH AND YEAR WAS (*name*) BORN? *Probe:* WHAT IS HIS/HER BIRTHDAY? If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day.	Date of birth: Day ..... __ __ DK day ..... 98 Month ..... __ __ Year..... __ __ __ __	
UF11. HOW OLD WAS (*name*) AT HIS/HER LAST BIRTHDAY? Record age in completed years.	Age in completed years ..... __	

BIRTH REGISTRATION AND EARLY LEARNING MODULE	BR

BR1. DOES (*name*) HAVE A BIRTH CERTIFICATE? MAY I SEE IT?	Yes, seen ..... 1 Yes, not seen ..... 2 No ..... 3 DK 8	1⇨BR5
BR2. HAS (*name's*) BIRTH BEEN REGISTERED WITH THE CIVIL AUTHORITIES?(AREA COUNCIL/PROV. COUNCIL/MUNICIPALITY/CIVIL STATUS OFFICE),	Yes ..... 1 No ..... 2 DK 8	1⇨BR5 8⇨BR4
BR3. WHY IS (*name's*) BIRTH NOT REGISTERED?	Costs too much ..... 1 Must travel too far ..... 2 Did not know it should be registered ..... 3 Does not know where to register ..... 5 Will do later/ not felt urgency ..... 7 Other (*specify*) _____ 6 DK 8	
BR4. DO YOU KNOW HOW TO REGISTER YOUR CHILD'S BIRTH?	Yes ..... 1 No 2	
BR5. *Check age of child in UF11: Child is 3 or 4 years old?* ☐ *Yes. ⇨ Continue with BR6* ☐ *No. ⇨ Go to BR8*		
BR6. DOES (*name*) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?	Yes ..... 1 No ..... 2 DK 8	 2⇨BR8 8⇨BR8
BR7. WITHIN THE LAST SEVEN DAYS, ABOUT HOW MANY HOURS DID (*name*) ATTEND?	No. of hours ..... __ __	

BR8. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER OVER 15 YEARS OF AGE ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH (*name*):

If yes, ask: WHO ENGAGED IN THIS ACTIVITY WITH THE CHILD - THE MOTHER, THE CHILD'S FATHER OR ANOTHER ADULT MEMBER OF THE HOUSEHOLD (INCLUDING THE CARETAKER/RESPONDENT)?

Circle all that apply.

		Mother	Father	Other	No one
BR8A. READ BOOKS OR LOOK AT PICTURE BOOKS WITH (*name*)?	Books	A	B	X	Y
BR8B. TELL STORIES TO (*name*)?	Stories	A	B	X	Y
BR8C. SING SONGS WITH (*name*)?	Songs	A	B	X	Y
BR8D. TAKE (*name*) OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?	Take outside	A	B	X	Y
BR8E. PLAY WITH (*name*)?	Play with	A	B	X	Y
BR8F. SPEND TIME WITH (*name*) NAMING, COUNTING, AND/OR DRAWING THINGS?	Spend time with	A	B	X	Y

Child development CE

Question CE1 is to be administered only once to each caretaker		
CE1. HOW MANY BOOKS ARE THERE IN THE HOUSEHOLD? PLEASE INCLUDE SCHOOLBOOKS, BUT NOT OTHER BOOKS MEANT FOR CHILDREN, SUCH AS PICTURE BOOKS If 'none' enter 00	Number of non-children's books 0__ Ten or more non-children's books 10	
CE2. HOW MANY CHILDREN'S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (*name*)? If 'none' enter 00	Number of children's books 0 __ Ten or more books 10	
CE3. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (*name*) PLAYS WITH WHEN HE/SHE IS AT HOME. WHAT DOES (*name*) PLAY WITH? DOES HE/SHE PLAY WITH HOUSEHOLD OBJECTS, SUCH AS BOWLS, PLATES, CUPS OR POTS? OBJECTS AND MATERIALS FOUND OUTSIDE THE LIVING QUARTERS, SUCH AS STICKS, ROCKS, ANIMALS, SHELLS, OR LEAVES? HOMEMADE TOYS, SUCH AS DOLLS, CARS AND OTHER TOYS MADE AT HOME? TOYS THAT CAME FROM A STORE? If the respondent says "YES" to any of the prompted categories, then probe to learn specifically what the child plays with to ascertain the response Code Y if child does not play with any of the items mentioned.	Household objects (bowls, plates, cups, pots) A Objects and materials found outside the living quarters (sticks, rocks, animals, shells, leaves) B Homemade toys (dolls, cars/other toys made at home) C Toys that came from a store D No playthings mentioned Y	
CE4. SOMETIMES ADULTS TAKING CARE OF CHILDREN HAVE TO LEAVE THE HOUSE TO GO SHOPPING, WASH CLOTHES, OR FOR OTHER REASONS AND HAVE TO LEAVE YOUNG CHILDREN WITH OTHERS. SINCE LAST (*day of the week*) HOW MANY TIMES WAS (*name*) LEFT IN THE CARE OF ANOTHER CHILD (THAT IS, SOMEONE LESS THAN 10 YEARS OLD)? If 'none' enter 00	Number of times __ __	
CE5. IN THE PAST WEEK, HOW MANY TIMES WAS (*name*) LEFT ALONE? If 'none' enter 00	Number of times __ __	

BREASTFEEDING MODULE		BF
BF1. HAS (*name*) EVER BEEN BREASTFED?	Yes ..... 1 No ..... 2 DK 8	 2⇨BF3 8⇨BF3
BF2. IS HE/SHE STILL BEING BREASTFED?	Yes ..... 1 No ..... 2 DK 8	
BF3. SINCE THIS TIME YESTERDAY, DID HE/SHE RECEIVE ANY OF THE FOLLOWING: Read each item aloud and record response before proceeding to the next item. BF3A. VITAMIN, MINERAL SUPPLEMENTS OR MEDICINE? BF3B. PLAIN WATER? BF3C. SWEETENED, FLAVOURED WATER OR FRUIT JUICE OR TEA OR INFUSION? BF3D. ORAL REHYDRATION SOLUTION (ORS)? BF3E. INFANT FORMULA? BF3F. TINNED, POWDERED OR FRESH MILK? BF3G. ANY OTHER LIQUIDS? BF3H. SOLID OR SEMI-SOLID (MUSHY) FOOD?	Y N DK A. Vitamin supplements ..... 1 2 8 B. Plain water ..... 1 2 8 C. Sweetened water or juice ..... 1 2 8 D. ORS ..... 1 2 8 E. Infant formula ..... 1 2 8 F. Milk ..... 1 2 8 G. Other liquids ..... 1 2 8 H. Solid or semi-solid food 1 2 8	
BF4. Check BF3H: Child received solid or semi-solid (mushy) food? ☐ Yes. ⇨ Continue with BF5 ☐ *No or DK. ⇨ Go to Next Module*		
BF5. SINCE THIS TIME YESTERDAY, HOW MANY TIMES DID (*name*) EAT SOLID, SEMISOLID, OR SOFT FOODS OTHER THAN LIQUIDS? If 7 or more times, record '7'.	No. of times ..... ___ Don't know 8	

CARE OF ILLNESS MODULE		CA
CA1. HAS (*name*) HAD DIARRHOEA IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST? Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool.	Yes ..... 1 No ..... 2 DK 8	 2⇨CA5 8⇨CA5
CA2. DURING THIS LAST EPISODE OF DIARRHOEA, DID (*name*) DRINK ANY OF THE FOLLOWING: Read each item aloud and record response before proceeding to the next item. CA2A. A FLUID MADE FROM A SPECIAL PACKET CALLED (*local name for ORS packet solution*)? CA2B. GOVERNMENT-RECOMMENDED HOMEMADE FLUID LIKE RICE WATER, GREEN COCONUT WATER OR SUGAR-SALT SOLUTION?	Yes No DK A. Fluid from ORS packet ..... 1 2 8 B. Recommended homemade fluid (rice water, green coconut water, sugar salt solution 1 2 8	
CA3. DURING (*name's*) ILLNESS, DID HE/SHE DRINK MUCH LESS, ABOUT THE SAME, OR MORE THAN USUAL?	Much less or none ..... 1 About the same (or somewhat less) ..... 2 More ..... 3 DK 8	
CA4. DURING (*name's*) ILLNESS, DID HE/SHE EAT LESS, ABOUT THE SAME, OR MORE FOOD THAN USUAL? If "less", probe: MUCH LESS OR A LITTLE LESS?	None ..... 1 Much less ..... 2 Somewhat less ..... 3 About the same ..... 4 More ..... 5 DK 8	
CA5. HAS (*name*) HAD AN ILLNESS WITH A COUGH AT ANY TIME IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA12 8⇨CA12
CA6. WHEN (*name*) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, QUICK BREATHS OR HAVE DIFFICULTY BREATHING?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA12 8⇨CA12
CA7. WERE THE SYMPTOMS DUE TO A PROBLEM IN THE CHEST OR A BLOCKED NOSE?	Problem in chest ..... 1 Blocked nose ..... 2 Both ..... 3 Other (*specify*) _____ 6 DK 8	 2⇨CA12 6⇨CA12
CA8. DID YOU SEEK ADVICE OR TREATMENT FOR THE ILLNESS OUTSIDE THE HOME?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA10 8⇨CA10

CA9. FROM WHERE DID YOU SEEK CARE? ANYWHERE ELSE? Circle all providers mentioned, but do NOT prompt with any suggestions. If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code. _____ (Name of place)	Public sector Govt. hospital .....A Govt. health centre.....B Govt. health post (Dispensary)..... C Village health worker (Aid post) ..... D Mobile/outreach clinic.....E Other public (*specify*) _____H Private medical sector Private hospital/clinic.....I Private physician ..... J Private pharmacy .....K Other private medical (*specify*) _____O Other source Relative or friend .....P Shop ..... Q Traditional practitioner ..... R Other (*specify*) _____X	
CA10. WAS (*name*) GIVEN MEDICINE TO TREAT THIS ILLNESS?	Yes ..... 1 No..... 2 DK 8	2⇨CA12 8⇨CA12
CA11. WHAT MEDICINE WAS (*name*) GIVEN? Circle all medicines given.	Antibiotic:Amoxicilin .....A Antibiotic:Penicilln ..... D Antibiotic:Bectrim .....E Paracetamol/Panadol/Acetaminophen.....P Aspirin ..... Q Ibupropfen ..... R Other (*specify*) _____X DK .....Z	

CA12. Check UF11: Child aged under 3?
☐ Yes. ⇨ Continue with CA13
☐ *No. ⇨ Go to CA14*

CA13. THE LAST TIME *(name)* PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?	Child used toilet/latrine.....01 Put/rinsed into toilet or latrine .....02 Put/rinsed into drain or ditch .....03 Thrown into garbage (solid waste).....04 Buried.....05 Left in the open .....06 Other (*specify*) _____ 96 DK 98	
Ask the following question (CA14) only once for each mother/caretaker. CA14. SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE YOUR CHILD TO A HEALTH FACILITY RIGHT AWAY? Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms. Circle all symptoms mentioned, But do NOT prompt with any suggestions.	Child not able to drink or breastfeed .....A Child becomes sicker.....B Child develops a fever.....C Child has fast breathing ..... D Child has difficult breathing.....E Child has blood in stool .....F Child is drinking poorly ..... G Other (*specify*) _____X Other (*specify*) _____Y Other (*specify*) _____Z	

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MALARIA MODULE FOR UNDER-FIVES		ML
ML1. IN THE LAST TWO WEEKS, THAT IS, SINCE (*day of the week*) OF THE WEEK BEFORE LAST, HAS (*name*) BEEN ILL WITH A FEVER?	Yes ..... 1 No ..... 2 DK 8	 2⇨ML10 8⇨ML10
ML2. WAS (*name*) SEEN AT A HEALTH FACILITY DURING THIS ILLNESS?	Yes ..... 1 No ..... 2 DK 8	 2⇨ML6 8⇨ML6
ML3. DID (*name*) TAKE A MEDICINE FOR FEVER OR MALARIA THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY?	Yes ..... 1 No ..... 2 DK 8	 2⇨ML5 8⇨ML5
ML4. WHAT MEDICINE DID (*name*) TAKE THAT WAS PROVIDED OR PRESCRIBED AT THE HEALTH FACILITY? *Circle all medicines mentioned.*	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B SP+Chloroquine ..... F Quinine ..... D Other anti-malarial (*specify*) _____ H Other medications: Paracetamol/Panadol/Acetaminophen .... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*) _____ X DK ..... Z	
ML5. WAS (*name*) GIVEN MEDICINE FOR THE FEVER OR MALARIA BEFORE BEING TAKEN TO THE HEALTH FACILITY?	Yes ..... 1 No ..... 2 DK 8	1⇨ML7 2⇨ML8 8⇨ML8
ML6. WAS (*name*) GIVEN MEDICINE FOR FEVER OR MALARIA DURING THIS ILLNESS?	Yes ..... 1 No ..... 2 DK 8	 2⇨ML8 8⇨ML8
ML7. WHAT MEDICINE WAS (*name*) GIVEN? *Circle all medicines given. Ask to see the medication if type is not known. If type of medication is still not determined, show typical anti-malarials to respondent.*	Anti-malarials: SP/Fansidar ..... A Chloroquine ..... B SP+Chloroquine ..... F Quinine ..... D Other anti-malarial *(specify)* _____ H Other medications: Paracetamol/Panadol/Acetaminophen .... P Aspirin ..... Q Ibuprofen ..... R Other (*specify*) _____ X DK ..... Z	
ML8. *Check ML4 and ML7: Anti-malarial mentioned (codes A - H)?* ☐ *Yes. ⇨ Continue with ML9* ☐ *No. ⇨ Go to ML10*		
ML9. HOW LONG AFTER THE FEVER STARTED DID (*name*) FIRST TAKE (*name of anti-malarial from ML4 or ML7*)?	Same day ..... 0 Next day ..... 1 2 days after the fever ..... 2 3 days after the fever 3	

If multiple anti-malarials mentioned in ML4 or ML7, name all anti-malarial medicines mentioned. *Record the code for the day on which the first anti-malarial was given.*	4 or more days after the fever ..... 4 DK 8	
ML10. DID (*name*) SLEEP UNDER A MOSQUITO NET LAST NIGHT?	Yes ..... 1 No ..... 2 DK 8	2⇨NEXT MODULE 8⇨NEXT MODULE
ML11. HOW LONG AGO DID YOUR HOUSEHOLD OBTAIN THIS MOSQUITO NET? *If less than 1 month, record '00'.* *If answer is "12 months" or "1 year", probe to determine if net was treated exactly 12 months ago or earlier or later.*	Months ago ..... __ __ More than 24 months ago ..... 95 Not sure 98	
ML12. WHAT BRAND IS THIS NET? *If the respondent does not know the brand of the net, show sample piece, or if possible, observe the net.* LONG LASTING NETS: OTHER NETS:	Long lasting net: ..... 11 Other net: ..... 31 DK brand 98	

IMMUNIZATION MODULE											**IM**
If an immunization card is available, copy the dates in IM2-IM6 for each type of immunization recorded on the card. IM10-IM19A are for recording vaccinations that are not recorded on the card. IM10-IM19A will only be asked when a card is not available.											
IM1. IS THERE A VACCINATION CARD FOR (*name*)?		Yes, seen ..... 1 Yes, not seen ..... 2 No 3									 2⇨IM10 3⇨IM10
(a) Copy dates for each vaccination from the card. (b) Write '44' in day column if card shows that vaccination was given but no date recorded.		Date of Immunization DAY		MONTH		YEAR					
IM2. BCG	BCG										
IM3B. POLIO 1	OPV1										
IM3C. POLIO 2	OPV2										
IM3D. POLIO 3	OPV3										
IM4A. DPT1	DPT1										
IM4B. DPT2	DPT2										
IM4C. DPT3	DPT3										
IM5A. HEPB1	H1										
IM5B. HEPB2	H2										
IM5C. HEPB3	H3										
IM6. MEASLES (OR MMR)	MEASLES										
IM9. IN ADDITION TO THE VACCINATIONS SHOWN ON THIS CARD DID (*name*) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN CAMPAIGNS OR IMMUNIZATION DAYS? Record 'Yes' only if respondent mentions BCG, OPV 0-3, DPT 1-3, Hepatitis B 1-3, Measles vaccine(s).		Yes ..... 1 (Probe for vaccinations and write '66' in the corresponding day column on IM2 to IM6.) No ..... 2 DK 8									1⇨IM19 2⇨IM19 8⇨IM19
IM10. HAS (*name*) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN A CAMPAIGN OR IMMUNIZATION DAY?		Yes ..... 1 No ..... 2 DK 8									 2⇨IM19 8⇨IM19
IM11. HAS (*name*) EVER BEEN GIVEN A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT CAUSED A SCAR?		Yes ..... 1 No ..... 2 DK 8									
IM12. HAS (*name*) EVER BEEN GIVEN ANY "VACCINATION DROPS IN THE MOUTH" TO PROTECT HIM/HER FROM GETTING DISEASES – THAT IS, POLIO?		Yes ..... 1 No ..... 2 DK 8									 2⇨IM15 8⇨IM15
IM14. HOW MANY TIMES HAS HE/SHE BEEN GIVEN THESE DROPS?		No. of times ..... __ __									

IM15. HAS (*name*) EVER BEEN GIVEN "DPT VACCINATION INJECTIONS" – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA? (SOMETIMES GIVEN AT THE SAME TIME AS POLIO)	Yes ..... 1 No ..... 2 DK 8	 2⇨IM17 8⇨IM17
IM16. HOW MANY TIMES?	No. of times ..... __ __	
IM17. HAS (*name*) EVER BEEN GIVEN "MEASLES VACCINATION INJECTIONS" OR MMR – THAT IS, A SHOT IN THE ARM AT THE AGE OF **9** MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?	Yes ..... 1 No ..... 2 DK 8	
IM19. PLEASE TELL ME IF (*name*) HAS PARTICIPATED IN ANY OF THE FOLLOWING CAMPAIGNS, NATIONAL IMMUNIZATION DAYS AND/OR CHILD HEALTH DAYS: IM19A. *MEASLES IMMUNISATION DAY, NOV.'06*	Y N DK *Measles imm. Campaign day* 1 2 8	

IM20. *Does another eligible child reside in the household for whom this respondent is mother/caretaker? Check household listing, column HL8.*

☐ *Yes. ⇨ End the current questionnaire and then Go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE to administer the questionnaire for the next eligible child.*

☐ *No. ⇨ End the interview with this respondent by thanking him/her for his/her cooperation.*

If this is the last eligible child in the household, go on to ANTHROPOMETRY MODULE.

ANTHROPOMETRY MODULE		AN
After questionnaires for all children are complete, the measurer weighs and measures each child. Record weight and length/height below, taking care to record the measurements on the correct questionnaire for each child. Check the child's name and line number on the household listing before recording measurements.		
AN1. Child's weight.	Kilograms (kg) ..... __ __. __	
AN2. Child's length or height. Check age of child in UF11: ☐ Child under 2 years old. ⇨ Measure length (lying down). ☐ Child age 2 or more years. ⇨ Measure height (standing up).	Length (cm) Lying down ..... 1 __ __ __ . __ Height (cm) Standing up ..... 2 __ __ __ . __	
AN3. Measurer's identification code.	Measurer code ..... __ __	
AN4. Result of measurement.	Measured ..... 1 Not present ..... 2 Refused ..... 3 Other (*specify*) _____ 6	

IF IT IS A NUTRITION HOUSEHOLD, COMPLETE NEXT SECTION

AN5. Is there another child in the household who is eligible for measurement?

☐ Yes. ⇨ Record measurements for next child.

☐ No. ⇨ End the interview with this household by thanking all participants for their cooperation.

Gather together all questionnaires for this household and check that all identification numbers are inserted on each page. Tally on the Household Information Panel the number of interviews completed.

NUTRITION CHILDREN		NC
NC1. IS (S)HE A NUTRITION CHILD?	Yes……1 No……..2	2⇨NEXT MODULE
NC2. LAB TECHNICIAN'S NAME AND ID _____	NC3. DAY/MONTH/YEAR OF SAMPLE COLLECTION __ __/__ __/__ __ __ __	
NC4. LABEL NUMBER FOR CHILD	STICK HERE ⇨	
NC5. RESULT OF CHILD'S NUTRITION DATA COLLECTION	Completed .....1 Not at home .....2 Refused.....3 Partly completed.....4 Others (Specify) 6	
NC6. STOOL SAMPLE	Collected: Yes .....1 No……..2	2⇨NC8
NC7. TIME OF STOOL COLLECTED BY MOTHER/CARETAKER NOTE: TIME CAN BE WRITTEN EITHER IN HOURS OR IF MOTHER HAS NO WATCH THEN USE TERM SUCH AS: LAST NIGHT; THIS MORNING; THIS AFTERNOON	Hour:Min ..... __ __ :__ __ Last night .....1 This morning.....2 This afternoon 3	
NC7A. IF YES, SAF TUBE PREPARED? NC7B. TIME OF PREPARATION OF SAF TUBE	Yes……..1 No……2 Hour:Min ..... __ __ :__ __	
NC8. HEMOGLOBIN RESULT NOTE: IF HB <7G/DL, PLEASE REPEAT NOTE: IF HB VALUE IS LOW, PLEASE REFER TO CLINIC	Collected: Yes .....1 No……..2 If yes, Hb count ..... __ __ .__	2⇨NC9
NC9. MALARIA SLIDES PREPARED	Yes .....1 No……2	2⇨NEXT MODULE
NC9A. RESULT OF MALARIA TEST [*NOTE: TO BE COMPLETED AFTER SLIDES ARE REACHING PORT VILA/ MELBORNE]*	Pf ……..1 Pfg ……2 Pv ……3 MPNS …… 0	

NC7A. RESULT OF STOOL ANALYSIS (WP) [*NOTE: TO BE COMPLETED AFTER SLIDES ARE REACHING PORT VILA/ MELBORNE]*	Ascaris Lambricoiles eggs……..A Hookworm eggs…….B Endolimax Nana cysts ..……E Entamoeba Coli cysts…… F Gardia Lamblia cysts …… G Blastocystis hominis …… I Lodomoeba …… J Dientamoeba Fragilis …… K Ascaris Lumbricoilies …… L Entamoeba for further ID …… M Trichuris Trichuria …… N Trophozoites ……..…… O Endolimax Nana Trophozoites ……. P No parasite detected …… X	
NC7B. RESULT OF STOOL ANALYSIS (FC) [*NOTE: TO BE COMPLETED AFTER SLIDES ARE REACHING PORT VILA/ MELBORNE]*	Ascaris Lambricoiles eggs……..A Hookworm eggs…….B Endolimax Nana cysts ..……E Entamoeba Coli cysts…… F Gardia Lamblia cysts …… G Blastocystis hominis …… I Lodomoeba …… J Dientamoeba Fragilis …… K Ascaris Lumbricoilies …… L Entamoeba for further ID …… M Trichuris Trichuria …… N Trophozoites ……..…… O Endolimax Nana Trophozoites ……. P No parasite detected …… X	

Note:
Options of question NW9A were changed to include exact response of MP test, while, NW7A and NW7B were included to accommodate the lab results of stool analysis in WP and FC method respectively and the questionnaire was updated accordingly.

QUESTIONNAIRE FOR INDIVIDUAL WOMEN

WOMEN'S INFORMATION PANEL		WM
This module is to be administered to all women age 15 through 49 (see column HL6 of HH listing). *Fill in one form for each eligible woman* *Fill in the cluster and household number, and the name and line number of the woman in the space below. Fill in your name, number and the date.*		
WM1. Cluster number: ___ ___ ___	WM2. Household number: ___ ___ ___	
WM3. Woman's Name: _____	WM4. Woman's Line Number: ___ ___	
WM5.Interviewer name and number: _____ ___ ___	WM6. Day/Month/Year of interview: ___ ___ / ___ ___ / ___ ___ ___ ___	
WM7. Result of women's interview	Completed ..... 1 Not at home ..... 2 Refused ..... 3 Partly completed ..... 4 Incapacitated ..... 5 Other (*specify*) _____ 6	

Repeat greeting if not already read to this woman:

WE ARE FROM MINISTRY OF HEALTH . WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. THE INTERVIEW WILL TAKE ABOUT 30 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND YOUR ANSWERS WILL NEVER BE IDENTIFIED. ALSO, YOU ARE NOT OBLIGED TO ANSWER ANY QUESTION YOU DON'T WANT TO, AND YOU MAY WITHDRAW FROM THE INTERVIEW AT ANY TIME. MAY I START NOW?

If permission is given, begin the interview. If the woman does not agree to continue, thank her, complete WM7, and go to the next interview. Discuss this result with your supervisor for a future revisit.

WM8. IN WHAT MONTH AND YEAR WERE YOU BORN?	Date of birth: Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
WM9. HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?	Age (in completed years) ..... __ __	

WM10. HAVE YOU EVER ATTENDED SCHOOL?	Yes ..... 1 No 2	 2⇨WM14
WM11. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED: PRIMARY, SECONDARY, OR HIGHER?	 Primary ..... 1 Secondary ..... 2 Higher ..... 3 Vocational school/Rural training center 6	
WM12. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?	 Grade ..... __ __	
WM13. *Check WM11:* ☐ *Secondary or higher. ⇨ Go to Next Module* ☐ *Primary or Vocational school. ⇨ Continue with WM14*		
WM14. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME. *Show sentences to respondent.* *If respondent cannot read whole sentence, probe:* CAN YOU READ PART OF THE SENTENCE TO ME? *Example sentences for literacy test:* *1. The child is reading a book.* *Pikinini ia i stap ridim wan buk* *2. The rains came late this year.* *Ren i bin kam let long yia ia* *3. Parents must care for their children.* *Ol papa mo mama oli mas lukaotgud long pikinini blong olgeta* *4. Gardening is hard work.* *Blong mekem garen hem i hadwok tumas* OR IN FRENCH *1. L'enfant lit un livre.* *2. Les pluies sont en retard cette année.* *3. Les parents doivent prendre soin de leurs enfants* *4. .Le travail des champs estdur. .*	Cannot read at all ..... 1 Able to read only parts of sentence ..... 2 Able to read whole sentence ..... 3 No sentence in required language _____ 4 *(specify language)* Blind/mute, visually/speech impaired ..... 5 Know only the local dialect……6	

CHILD MORTALITY MODULE		CM
This module is to be administered to all women age 15-49. *All questions refer only to LIVE births.*		
CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH? *If "No" probe by asking:* I MEAN, TO A CHILD WHO EVER BREATHED OR CRIED OR SHOWED OTHER SIGNS OF LIFE – EVEN IF HE OR SHE LIVED ONLY A FEW MINUTES OR HOURS?	Yes ..... 1 No 2	2⇨ MARRIAGE /UNION MODULE
CM2A. WHAT WAS THE DATE OF YOUR FIRST BIRTH? I MEAN THE VERY FIRST TIME YOU GAVE BIRTH, EVEN IF THE CHILD IS NO LONGER LIVING, OR WHOSE FATHER IS NOT YOUR CURRENT PARTNER. *Skip to CM3 only if year of first birth is given. Otherwise, continue with CM2B.*	Date of first birth Day ..... __ __ DK day ..... 98 Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	 ⇨CM3 ⇩CM2B
CM2B. HOW MANY YEARS AGO DID YOU HAVE YOUR FIRST BIRTH?	Completed years since first birth ..... __ __	
CM3. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes ..... 1 No 2	2⇨CM5
CM4. HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU?	Sons at home ..... __ __ Daughters at home ..... __ __	
CM5. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE ALIVE BUT DO NOT LIVE WITH YOU?	Yes ..... 1 No 2	2⇨CM7
CM6. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU?	Sons elsewhere ..... __ __ Daughters elsewhere ..... __ __	
CM7. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED?	Yes ..... 1 No 2	2⇨CM9
CM8. HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED?	Boys dead ..... __ __ Girls dead ..... __ __	
CM9. Sum answers to CM4, CM6, and CM8.	Sum ..... __ __	

CM10. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (*total number*) BIRTHS DURING YOUR LIFE. IS THIS CORRECT? ☐ *Yes. ⇨ Go to CM11* ☐ *No. ⇨ Check responses and make corrections before proceeding to CM11*		
CM11. OF THESE (*total number*) BIRTHS YOU HAVE HAD, WHEN DID YOU DELIVER THE LAST ONE (EVEN IF HE OR SHE HAS DIED)? If day is not known, enter '98' in space for day.	Date of last birth Day/Month/Year..... __ __/__ __/__ __ __ __	
CM12. *Check CM11: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview in 2005)?* *If child has died, take special care when referring to this child by name in the following modules.* ☐ *No live birth in last 2 years. ⇨ Go to MARRIAGE/UNION module.* ☐ *Yes, live birth in last 2 years. ⇨ Continue with CM13* *Name of child*_____		
CM13. AT THE TIME YOU BECAME PREGNANT WITH (*name*), DID YOU WANT TO BECOME PREGNANT THEN, DID YOU WANT TO WAIT UNTIL LATER, OR DID YOU WANT NO (MORE) CHILDREN AT ALL?	Then ..... 1 Later ..... 2 No more 3	

TETANUS TOXOID (TT) MODULE		TT
This module is to be administered to all women with a live birth in the 2 years preceding date of interview.		
TT1. DO YOU HAVE A CARD OR OTHER DOCUMENT WITH YOUR OWN IMMUNIZATIONS LISTED? *If a card is presented, use it to assist with answers to the following questions.*	Yes (card seen) ..... 1 Yes (card not seen) ..... 2 No ..... 3 DK 8	
TT2. WHEN YOU WERE PREGNANT WITH YOUR LAST CHILD, DID YOU RECEIVE ANY INJECTION TO PREVENT HIM OR HER FROM GETTING TETANUS, THAT IS CONVULSIONS AFTER BIRTH (AN ANTI-TETANUS SHOT, AN INJECTION AT THE TOP OF THE ARM OR SHOULDER)?	Yes ..... 1 No ..... 2 DK 8	 2⇨TT5 8⇨TT5
TT3. *If yes:* HOW MANY TIMES DID YOU RECEIVE THIS ANTI-TETANUS INJECTION DURING YOUR LAST PREGNANCY?	No. of times ..... __ __ DK 98	 98⇨TT5
TT4. *How many TT doses during last pregnancy were reported in TT3?* ☐ *At least two TT injections during last pregnancy. ⇨ Go to Next Module* ☐ *Fewer than two TT injections during last pregnancy. ⇨ Continue with TT5*		
TT5. DID YOU RECEIVE ANY TETANUS TOXOID INJECTION AT ANY TIME BEFORE YOUR LAST PREGNANCY?	Yes ..... 1 No ..... 2 DK 8	 2⇨NEXT MODULE 8⇨NEXT MODULE
TT6. HOW MANY TIMES DID YOU RECEIVE IT?	No. of times ..... __ __	
TT7. IN WHAT MONTH AND YEAR DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY? *Skip to next module only if year of injection is given. Otherwise, continue with TT8.*	Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	 ⇨NEXT MODULE ⇩TT8
TT8. HOW MANY YEARS AGO DID YOU RECEIVE THE LAST ANTI-TETANUS INJECTION BEFORE THAT LAST PREGNANCY?	Years ago ..... __ __	

MATERNAL AND NEWBORN HEALTH MODULE		MN
This module is to be administered to all women with a live birth in the 2 years preceding date of interview. Check child mortality module CM12 and record name of last-born child here _____. Use this child's name in the following questions, where indicated.		
MN2. DID YOU SEE ANYONE FOR ANTENATAL CARE FOR THIS PREGNANCY? If yes: WHOM DID YOU SEE? ANYONE ELSE? *Probe for the type of person seen and circle all answers given.*	Health professional: Hospital (Doctor) ..... A Health centre(Nurse practitioner/midwife) B Dispensary (Nurse) ..... C Mobile clinic (Nurse)……..D Other person Traditional birth attendant ..... F Aid post (Village health worker:8wk training) ..... G Relative/friend ..... H Other (*specify*) _____ X No one..... Y	Y⇨MN7
MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE? MN3A. WERE YOU WEIGHED? MN3B. WAS YOUR BLOOD PRESSURE MEASURED? MN3C. DID YOU GIVE A URINE SAMPLE? MN3D. DID YOU GIVE A BLOOD SAMPLE?	Yes No Weight ..... 1 2 Blood pressure ..... 1 2 Urine sample ..... 1 2 Blood sample 1 2	
MN4. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN ANY INFORMATION OR COUNSELED ABOUT AIDS OR THE AIDS VIRUS?	Yes ..... 1 No..... 2 DK 8	
MN5. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR HIV/AIDS AS PART OF YOUR ANTENATAL CARE?	Yes ..... 1 No..... 2 DK 8	2⇨MN7 8⇨MN7
MN6. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes ..... 1 No..... 2 DK 8	
MN7. WHO ASSISTED WITH THE DELIVERY OF YOUR LAST CHILD (*or name*)? ANYONE ELSE? *Probe for the type of person assisting and circle all answers given.*	Health professional: Doctor..... A Nurse/midwife(Health center) ..... B Nurse (Dispensary) ..... C Other person Traditional birth attendant ..... F Village health worker(Aid post) ..... G Relative/friend ..... H Other (*specify*) _____ X No one..... Y	
MN8. WHERE DID YOU GIVE BIRTH TO (*name*)? If source is hospital, health center, or clinic, write the name of the place below. Probe to identify the type of source and circle the appropriate code. _____ (Name of place)	Home Your home..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic/health center..... 22 Other public (*specify*) _____26 Private Medical Sector Private hospital..... 31 Other (*specify*) _____96	

MN9. WHEN YOUR LAST CHILD (*name*) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?	Very large ..... 1 Larger than average ..... 2 Average ..... 3 Smaller than average ..... 4 Very small ..... 5 DK 8	
MN10. WAS (*name*) WEIGHED AT BIRTH?	Yes ..... 1 No ..... 2 DK 8	 2⇨MN12 8⇨MN12
MN11. HOW MUCH DID (*name*) WEIGH? *Record weight from health card, if available.*	From card ..... 1 (kilograms) __ . __ __ __ From recall ..... 2 (kilograms) __ . __ __ __ DK 99998	
MN12. DID YOU EVER BREASTFEED (*name*)?	Yes ..... 1 No 2	 2⇨ NEXT MODULE
MN13. HOW LONG AFTER BIRTH DID YOU FIRST PUT (*name*) TO THE BREAST? *If less than 1 hour, record '00' hours.* *If less than 24 hours, record hours.* *Otherwise, record days.*	Immediately ..... 000 Hours ..... 1 __ __ *or* Days ..... 2 __ __ Don't know/remember 998	

MARRIAGE/UNION MODULE		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN AS IF MARRIED?	Yes, currently married ..... 1 Yes, living with a man ..... 2 No, not in union 3	 3⇨MA3
MA2. HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years ..... __ __ DK 98	⇨MA5 98⇨MA5
MA3. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN?	Yes, formerly married ..... 1 Yes, formerly lived with a man ..... 2 No 3	 3⇨NEXT MODULE
MA4. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed ..... 1 Divorced ..... 2 Separated 3	
MA5. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN ONLY ONCE OR MORE THAN ONCE?	Only once ..... 1 More than once 2	
MA6. IN WHAT MONTH AND YEAR DID YOU FIRST MARRY OR START LIVING WITH A MAN AS IF MARRIED?	Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
MA7. *Check MA6:* ☐ *Both month and year of marriage/union known? ⇨ Go to Next Module* ☐ *Either month or year of marriage/union not known? ⇨ Continue with MA8*		
MA8. HOW OLD WERE YOU WHEN YOU STARTED LIVING WITH YOUR FIRST HUSBAND/PARTNER?	Age in years ..... __ __	

SECURITY OF TENURE AND DURABILITY OF HOUSING

ST1. DO YOU FEEL SECURE FROM EVICTION FROM THIS DWELLING?	Yes..... 1 No..... 2 DK..... 8	

CONTRACEPTION MODULE		CP
CP1. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH. ARE YOU PREGNANT NOW?	Yes, currently pregnant ..... 1 No ..... 2 Unsure or DK 8	1⇨ CP4
CP2. SOME PEOPLE USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?	Yes ..... 1 No 2	2⇨ NEXT MODULE
CP3. WHICH METHOD ARE YOU USING CURRENTLY? *Do not prompt.* *If more than one method is mentioned, circle each one.*	Female sterilization ..... A Male sterilization ..... B Pill ..... C IUD ..... D Injections ..... E Implants ..... F Condom ..... G Female condom ..... H Diaphragm ..... I Foam/jelly ..... J Lactational amenorrhoea method (LAM) ..... K Periodic abstinence ..... L Withdrawal ..... M Other (*specify*) _____ X	⇨ NEXT MODULE
CP4. DID YOU SLEPT UNDER A BEDNET LAST NIGHT?	Yes ..... 1 No 2	2⇨ NEXT MODULE
CP5. IF YES, WAS IT A LONG LASTING NET OR OTHER NET?	Longlasting net ..... 1 Other net 2	

HIV/AIDS MODULE		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF THE VIRUS HIV OR AN ILLNESS CALLED AIDS?	Yes ..... 1 No 2	2⇨ NEXT MODULE
HA2. CAN PEOPLE PROTECT THEMSELVES FROM GETTING INFECTED WITH THE AIDS VIRUS BY HAVING ONE SEX PARTNER WHO IS NOT INFECTED AND ALSO HAS NO OTHER PARTNERS?	Yes ..... 1 No ..... 2 DK 8	
HA3. CAN PEOPLE GET INFECTED WITH THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes ..... 1 No ..... 2 DK 8	
HA4. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY USING A CONDOM EVERY TIME THEY HAVE SEX?	Yes ..... 1 No ..... 2 DK 8	
HA5. CAN PEOPLE GET THE AIDS VIRUS FROM MOSQUITO BITES?	Yes ..... 1 No ..... 2 DK 8	
HA6. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING INFECTED WITH THE AIDS VIRUS BY NOT HAVING SEX AT ALL?	Yes ..... 1 No ..... 2 DK 8	
HA7. CAN PEOPLE GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS AIDS?	Yes ..... 1 No ..... 2 DK 8	
HA8. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK 8	
HA9. CAN THE AIDS VIRUS BE TRANSMITTED FROM A MOTHER TO A BABY? HA9A. DURING PREGNANCY? HA9B. DURING DELIVERY? HA9C. BY BREASTFEEDING?	Yes No DK During pregnancy ..... 1 2 8 During delivery ..... 1 2 8 By breastfeeding 1 2 8	
HA10. IF A FEMALE TEACHER HAS THE AIDS VIRUS BUT IS NOT SICK, SHOULD SHE BE ALLOWED TO CONTINUE TEACHING IN SCHOOL?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA11. WOULD YOU BUY FRESH VEGETABLES FROM A SHOPKEEPER OR VENDOR IF YOU KNEW THAT THIS PERSON HAD THE AIDS VIRUS?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA12. IF A MEMBER OF YOUR FAMILY BECAME INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA13. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH THE AIDS VIRUS, WOULD YOU BE WILLING TO CARE FOR HIM OR HER IN YOUR HOUSEHOLD?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	

HA14. *Check MN5: Tested for HIV during antenatal care?* ☐ *Yes.* ⇨ *Go to HA18A* ☐ *No.* ⇨ *Continue with HA15*		
HA15. I DO NOT WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE HIV, THE VIRUS THAT CAUSES AIDS?	Yes ..... 1 No ..... 2 DK 8	 2⇨HA18 8⇨HA18
HA16. I DO NOT WANT YOU TO TELL ME THE RESULTS OF THE TEST, BUT HAVE YOU BEEN TOLD THE RESULTS?	Yes ..... 1 No 2	
HA17. DID YOU, YOURSELF, ASK FOR THE TEST, WAS IT OFFERED TO YOU AND YOU ACCEPTED, OR WAS IT REQUIRED?	Asked for the test ..... 1 Offered and accepted ..... 2 Required 3	1⇨NEXT MODULE 2⇨NEXT MODULE 3⇨NEXT MODULE
HA18. AT THIS TIME, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET SUCH A TEST TO SEE IF YOU HAVE THE AIDS VIRUS? HA18A. *If tested for HIV during antenatal care:* OTHER THAN AT THE ANTENATAL CLINIC, DO YOU KNOW OF A PLACE WHERE YOU CAN GO TO GET A TEST TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes ..... 1 No 2	

NUTRITION WOMEN		NW
NW1. IS SHE A NUTRITION WOMAN?	Yes ……1 No……...2	2⇨NEXT MODULE
NW2. LAB TECHNICIAN'S NAME AND ID _____ ___ ___	NW3. DAY/MONTH/YEAR OF SAMPLE COLLECTION __ __/__ __/__ __ __ __	
NW4. LABEL NUMBER FOR WOMAN	STICK HERE …….⇨	
NW5. RESULT OF WOMAN'S NUTRITION DATA COLLECTION	Completed ..... 1 Not at home..... 2 Refused ..... 3 Partly completed ..... 4 Others (Specify) 6	
NW6. WOMAN'S WEIGHT	Kilograms (kg) ..... __ __ . __	
NW7. WOMAN'S HEIGHT	Height (cm)..... __ __ __ . __	
NW8. URINE SAMPLE	Collected: Yes ..... 1 No……...2	2⇨NW9
NW8A. IF YES, 2 CRYOVIALS PREPARED?	Yes ……..1 No……2	
NW8B. IS THE WOMAN PREGNANT?	Yes ……1 No……...2	
NW9. HEMOGLOBIN RESULT NOTE: IF HB <7G/DL, PLEASE REPEAT NOTE: IF HB VALUE IS LOW, PLEASE REFER TO CLINIC	Collected: Yes ..... 1 No……...2 If yes, Hb count ..... __ __ .__	2⇨NW10
NW10. MALARIA SLIDES PREPARED	Yes ..... 1 No……...2	2⇨NW11
NW10A. RESULT OF MALARIA TEST [*NOTE: TO BE COMPLETED AFTER SLIDES ARE REACHING PORT VILA/ MELBORNE]*	Pf ……..1 Pfg ……2 Pv ……3 MPNS …… 0	

NW11. SALT SAMPLE GIVEN TO THE LAB TECHNICIAN BY ENUMERATOR	Yes……...1 No……2	2⇨NEXT MODULE
NW12. SALT LABEL ENUMERATORS STICK LABEL HERE⇨		
NW12A. SALT IODINE LEVEL	__ __ .__ mg/kg	
NW8C. URINARY IODINE CONCENTRATION	__ __ .__ mcg/l	

Note:
Options of question NW10A were changed to include exact response of MP test and the questionnaire was updated accordingly. While, NW12A and NW8C were included to accommodate the lab results of salt iodine and urinary iodine respectively.

APPENDIX G: TASK FORCE MEMBERS OF THE MICS 2007

Len Tarivonda (Chairman)

Jean Jacques Rory (MOH)

Flora Kalsaria (DESP)

Hilson Toaliu (Save the Children Fund Australia)

Dr. Sahayi Ros (WHO)

Simil Johnson (SO)

Hilda Taleo (DOWA)

Fabiola Bibi (MOE)

Theto Moses (MOH)

Leonard Tabilip (MOH)

Apisai Tokon (MOH)

Yvannah Taga (MOH)

Leona Sai (MOH)

Edgell Tari (MICS Survey Coordinator), MOH

Will Parks (UNICEF)

Elham Monsef (UNICEF)

Muhammad Shuaib (MICS Survey Manager)