Turkmenistan

Monitoring the Situation of Children and Women

Turkmenistan Multiple Indicator Cluster Survey 2006

NATIONAL INSTITUTE OF STATE STATISTICS AND INFORMATION OF TURKMENISTAN

MICS

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FINAL REPORT

NATIONAL INSTITUTE OF STATE STATISTICS AND INFORMATION OF TURKMENISTAN

UNITED NATIONS CHILDREN'S FUND

Turkmenistan
Multiple Indicator Cluster Survey
2006

TURKMENMILLIHASABAT
National Institute of State Statistics and Information of Turkmenistan

UNICEF
United Nations Children's Fund

UNFPA

United Nations Population Fund

Ministry of Foreign Affairs of Turkmenistan

Ministry of Health and Medical Industry of Turkmenistan

2006

The Turkmenistan Multiple Indicator Cluster Survey (MICS) was carried out by the National Institute of State Statistics and Information of Turkmenistan (Turkmenmillihasabat) and assisted by the Ministry of Foreign Affairs of Turkmenistan and the Ministry of Health and Medical Industry of Turkmenistan. Financial and technical support was provided by the United Nations Children's Fund (UNICEF).

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

National Institute of State Statistics and Information of Turkmenistan. 2006. Turkmenistan Multiple Indicator Cluster Survey 2006, Final Report. Ashgabat, Turkmenistan: Turkmenmillihasabat.

Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Turkmenistan, 2006

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value	
			CHILD MORTALITY		
Child mortality	1	13	Under-5 mortality rate	67	per 1,000
	2	14	Infant mortality rate	56	per 1,000
			NUTRITION		
Nutritional status	6	4	Underweight prevalence	11	percent
	7		Stunting prevalence	15	percent
	8		Wasting prevalence	6	percent
Breastfeeding	45		Timely initiation of breastfeeding	60	percent
	15		Exclusive breastfeeding rate	11	percent
	16		Continued breastfeeding rate		
			At 12-15 months	72	percent
			At 20-23 months	37	percent
	17		Timely complementary feeding rate	54	percent
	18		Frequency of complementary feeding	33	percent
	19		Adequately fed infants	21	percent
Salt iodization	41		Iodized salt consumption	87	percent
Low birth weight	9		Low-birth-weight infants	4	percent
	10		Infants weighed at birth	98	percent
			CHILD HEALTH		
Immunization	25		Tuberculosis immunization coverage	99.8	percent
	26		Polio immunization coverage	96.8	percent
	27		DPT immunization coverage	98.4	percent
	28	15	Measles immunization coverage	97.0	percent
	31		Fully immunized children	93.5	percent
	29		Hepatitis B immunization coverage	96.8	percent
Care of illness	33		Use of oral rehydration therapy (ORT)	47	percent
	34		Home management of diarrhoea	15	percent
	35		Received ORT or increased fluids and continued feeding	25	percent
	23		Care seeking for suspected pneumonia	83	percent
	22		Antibiotic treatment of suspected pneumonia	50	percent
Solid fuel use	24	29	Solid fuels	0.4	percent
Source and cost of supplies	96		Source of supplies (from public sources)		
			Oral rehydration salts	82	percent
			ENVIRONMENT		
Water and sanitation	11	30	Use of improved drinking water sources	71	percent
	13		Water treatment	58	percent
	12	31	Use of improved sanitation facilities	99	percent
			REPRODUCTIVE HEALTH		
Contraception and unmet need	21	19c	Contraceptive prevalence	48	percent
	98		Unmet need for family planning	16	percent
	99		Demand satisfied for family planning	75	percent

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value	
Maternal and newborn health	20		Antenatal care	99.1	percent
	44		Content of antenatal care		
			Blood sample	98	percent
			Blood pressure	95	percent
			Urine sample	97	percent
			Weight	90	percent
	4	17	Skilled attendant at delivery	99.5	percent
	5		Institutional deliveries	98	percent
			CHILD DEVELOPMENT		
Child development	46		Support for learning	80	percent
	47		Father's support for learning	61	percent
	48		Support for learning: children's books	42	percent
	49		Support for learning: non-children's books	58	percent
	50		Support for learning: materials for play	24	percent
	51		Non-adult care	15	percent
			EDUCATION		
Education	52		Preschool attendance	24	percent
	53		School readiness	32	percent
	54		Net intake rate in primary education	97	percent
	55	6	Net primary school attendance rate	99	percent
	56		Net secondary school attendance rate	95	percent
	57	7	Children reaching grade 5	99.9	percent
	58		Transition rate to secondary school	99.8	percent
	59	7b	Primary completion rate	99.2	percent
	61	9	Gender parity index		
			Primary school	1.00	ratio
			Secondary school	1.00	ratio
Literacy	60	8	Adult literacy rate	99.2	percent
			CHILD PROTECTION		
Birth registration	62		Birth registration	96	percent
Early marriage and polygyny	67		Marriage before age 15	0.4	percent
			Marriage before age 18	7	percent
	68		Young women aged 15-19 currently married/in union	5	percent
	69		Spousal age difference	4	percent
Domestic violence	100		Attitudes toward domestic violence	38	percent
			HIV/AIDS AND ORPHANED CHILDREN		
HIV/AIDS knowledge and attitudes	82	19b	Comprehensive knowledge about HIV prevention among young people	9	percent
	89		Knowledge of mother- to-child transmission of HIV	19	percent
	86		Attitude toward people with HIV/AIDS	6	percent
	87		Women who know where to be tested for HIV	28	percent
	88		Women who have been tested for HIV	12	percent
	90		Counselling coverage for the prevention of mother-to-child transmission of HIV	35	percent
	91		Testing coverage for the prevention of mother-to-child transmission of HIV	22	percent
Support to orphaned and vulnerable children	75		Prevalence of orphans	6	percent
	78		Children's living arrangements*	1.5	percent
	77	20	School attendance of orphans vs. non-orphans	1.00	ratio

* Percentage of 0-17 children in households living separately from one of their biological parents

Table of Contents

List of Tables

List of Figures

List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BCG	Bacillis-Cereus-Geuerin (Tuberculosis)
DHS	Demographic and Health Survey in Turkmenistan
DPT	Diphtheria Pertussis Tetanus
EPI	Expanded Programme on Immunization
HepB	Hepatitis B Vaccine
HIV	Human Immunodeficiency Virus
IDD	Iodine Deficiency Disorders
IUD	Intrauterine Device
LAM	Lactational Amenorrhoea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoH&MIT	Ministry of Health and Medical Industry of Turkmenistan
NAR	Net Attendance Rate
OPV	Polio Vaccine
ppm	Parts Per Million
SPSS	Statistical Package for Social Sciences
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
WFFC	World Fit For Children
WHO	World Health Organization

FOREWORD

The Multiple Indicator Cluster Survey (MICS) is a household survey developed by UNICEF to assist countries in filling data gaps for monitoring the situation of children and women, as well as assessing progress towards the Millennium Development Goals (MDGs) to which countries have pledged to achieve by the year 2015. It is capable of producing statistically sound, internationally comparable estimates of these indicators.

The MICS was originally developed in response to the World Summit for Children to measure progress towards an internationally agreed set of mid-decade goals. The first round of MICS was conducted around 1995 in more than 60 countries. A second round of surveys was conducted in 2000, and resulted in an increasing wealth of data to monitor the situation of children and women. For the first time it was possible to monitor trends in many indicators and set baselines for other indicators.

The current round of MICS is focused on providing a monitoring tool for the World Fit for Children (WFFC), the Millennium Development Goals (MDGs), as well as for other major international commitments, such as the UNGASS on HIV/AIDS. It is significant to mention that 21 of the 48 MDG indicators have been collected in the current round of MICS, offering the largest single source of data for MDG monitoring.

MICS 2006 is the first internationally acceptable detailed social sector survey carried out in Turkmenistan that is being published for global use. It is unique in the sense that it provides vast range and set of data and indicators for Turkmenistan and allows dis-aggregation on most of them for sub national regions, gender and welfare indices. As such it is extremely valuable source for disparity analysis and an excellent planning baseline for social investments at national and local levels in the country. It is expected that the data will be widely used by national and local level authorities to not only plan for the children and women of their respective constituencies but use it as a guide for far reaching policy initiatives in the social sectors.

UNICEF deeply appreciates the excellent and hard work carried out by the specialists of the National Institute of State Statistics and Information (NISSI) at the central and velayat levels during MICS preparatory and field works. Globally developed questionnaires comprising of three major sections; on household, women and children were professionally adapted to the realities of the country, based on which a total of 5208 households in all the five velayats and Ashgabat city area were surveyed by 90 trained staff of NISSI. Data collected from this vast number of households were subsequently entered and analysed through the standard programmes developed under the global MICS 3 project.

UNICEF wishes to convey its sincere appreciation and thanks to the national authorities which supported the MICS process. This includes the National Institute of State Statistics and Information for carrying out the survey, Ministry of Foreign Affairs for its excellent coordination and Ministry of Health and Medical Industry, Ministry of Education and local level authorities for providing full support during the survey. UNICEF also would like to express its appreciation to the UN partners, in particular UNFPA for cooperating during the survey. In addition, we would like to extend our appreciation to UNICEF colleagues in the Regional Office and the UNICFEF Headquarters in New York for providing technical assistance throughout the process.

Mahboob Shareef
Representative
United Nation's Children's Fund
Ashgabat, Turkmenistan

Acknowledgements

The Multiple Indicator Cluster Survey (monitoring situation of children and women), or MICS, was implemented by the National Institute of State Statistics and Information of Turkmenistan (Turkmenmillihasabat) in 2006. Before the Survey itself, questionnaires and guidelines were discussed by the Cabinet of Ministers of Turkmenistan (Deputy Chairman of the CMT for economy), Ministry of Health and Medical Industry of Turkmenistan (MoH&MIT), Ministry of Education, and Turkmenmillihasabat, with the support of the Ministry of Foreign Affairs of Turkmenistan (MFA). Comments and recommendations made by the Government of Turkmenistan were considered and approved by UNICEF.

Turkmenmillihasabat expresses its profound gratitude to the Government of Turkmenistan (CMT, MFA) and to representatives of the national and local authorities for their help and assistance in carrying out this Survey. Turkmenmillihasabat also expresses its appreciation of the important part in the Survey performed by the health professionals of the MoH&MIT.

In addition, Turkmenmillihasabat thanks UNICEF Headquarters and its Regional Office for their financial and technical support for MICS in Turkmenistan. We render special thanks to the UNICEF Country Representative in Turkmenistan, Mahboob Shareef; to Social Policy Officer Shohrat Orazov, for his efficient response to emerging problems and help with the Survey logistics; and to Guy Kalustov, for data editing and tabulation. An important contribution was made by the UNICEF international consultant Shuaib Muhammad, who provided his expertise to the project from beginning to end. He participated in the sample preparation, conducted training workshops, provided consultations on the contents of the questionnaires and was involved in organization of the Survey. We express our gratitude to the MICS3 Regional Coordinator/Eastern Europe and CIS UNICEF Officer in Geneva, Georgy Sakvarelidze, for the methodological support.

Finally, Turkmenmillihasabat thanks all individuals directly or indirectly involved in this Survey, especially those members of households in Turkmenistan who kindly agreed, on a confidential basis, to answer the questionnaires and provide information useful for decision making and aimed at further improvement of the situation of women and children in the country.

Executive Summary

The **Turkmenistan** Multiple Indicator Cluster Survey (MICS) is a nationally representative sample of more than 5,000 households implemented in 2006 by the National Institute of State Statistics and Information of Turkmenistan (Turkmenmillihasabat).

The Survey provided basic information on the situation of under-5 children and fertile-age women in Turkmenistan. Moreover, it allowed the monitoring of progress toward goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002.

The household sample provided the basis for the evaluation of main indicators of the situation of children and women, taking into account such background factors as gender, area of residence, region, age, level of education, wealth index, etc.

Child mortality

Through the use of the indirect estimation technique known as the Brass method, the under-5 child mortality rate and infant mortality rate were calculated for Turkmenistan as a whole as well as for the regions/provinces. The national infant mortality rate was estimated at 56 per 1,000 live births and the probability of dying among under-5 children at 67 per 1,000 live births; these estimates have been calculated by averaging mortality estimates obtained from women aged 25-29 and 30-34, and refer to mid-2003. The MICS estimates show a decline in child mortality during the last 15 years, particularly pronounced during the period 1999-2004.

Nutrition

Anthropometric measurements of under-5 children were conducted and the findings compared with the WHO international standards. In Turkmenistan, every one in nine under-5-year-old children is moderately underweight (11 percent), with fewer than 2 percent considered severely underweight. Nearly 15 percent of children are moderately stunted, or short for their age, and slightly more than 6 percent are moderately wasted, or too thin for their height.

Turning to the percentages of breastfed children under age 3 years and of low-birth-weight children, fewer than 11 percent of children younger than age 6 months were exclusively breastfed, which is significantly lower than recommended. An estimated 4 percent of newborns weighed less than 2500 grams, out of the 98 percent of newborns weighed after birth.

Child health

As immunization in Turkmenistan is mandatory and free for all children in Turkmenistan, rather high vaccination coverage is observed irrespective of the area of residence (urban/rural), educational level of mothers and households' wealth.

Environment

In general over 71 percent of the population use improved sources for drinking water - 91 percent in urban and 58 percent in rural areas. The situation in the south-east (Mary velayat), where only 39 percent of the local population have access to improved drinking water, is worse than in the rest of the country. Around 99 percent of the households in Turkmenistan maintain improved sanitation facilities: 99.8 percent in the urban areas and 98 percent in the rural areas, respectively. Among the regions, the use of the improved sanitation is practically the same.

On average, 70 percent of household use both improved sources of drinking water and improved sanitation facilities. At that, there are urban-rural and regional distinctions: the highest figures are in the capital city (95 percent) and Lebap velayat (more than 88 percent), the lowest – in Mary velayat (less than 39 percent); the figures are also higher in urban areas (91 percent) than in the rural areas (57 percent).

Reproductive Health

Nearly 16 percent of women aged 15-49 have an unmet need of contraceptives, encompassing 6 percent for planning birth spacing and 10 percent for limiting the number of children. The total demand for contraception stands at about 64 percent (using contraceptives and unmet need for contraceptives). Antenatal care coverage (services provided by a doctor, nurse or midwife) is high: more than 99 percent of women receive antenatal care, making at least one visit to a doctor during their pregnancy. Nearly all births – 99.5 percent – occurring in the year before the MICS Survey were delivered by skilled personnel, a notably high figure.

Child Protection

For its part, birth registration is a fundamental means of securing children's rights. In Turkmenistan, the fact of birth has been registered for 96 percent of under-5 children. The percentage of under-1 children whose births were registered was less than 87 percent, while for 4-year old children it was more than 99 percent, which indicates a significant number of cases of "delayed" birth registration.

Child Development

During the Survey, information likewise was collected about various activities promoting early child learning (Child Development Module). Within three days prior to the Survey, adults in Turkmenistan said they were engaged in more than four activities promoting learning and school readiness for 80 percent of under-5 children. The average number of activities in which adults engaged with their children was 4.6, which remained virtually constant across areas of residence (urban/rural) as well as gender. Involvement of fathers was quite high – more than 61 percent in one or more activities. In addition, nearly one in four child (24 percent) aged 0-59 months had three or more playthings in their homes, while fewer than 4 percent had no playthings according to the responses of their mothers/caretakers.

Education

Turkmenistan has high figures of education coverage indicators. The Constitution of Turkmenistan guarantees compulsory secondary education free of charge, and school education coverage is high. As MICS shows, the net primary school attendance rate is 99 percent, and more than 95 percent of secondary school-age children attend secondary schools. The gender parity index both for primary and secondary school is 1.00, evidence of equality in attendance rates between boys and girls. The percentage of literate women aged 15-24 in the country also is high, at 99.2 percent.

Orphaned children

The percentage of orphaned children in Turkmenistan aged 0-17 is not high – 6 percent of children have lost one or both parents, with only 0.4 percent being double orphans. A total of 0.5 percent of children aged 10-14 had lost both parents; at present all attend school. Among children aged 10-14 whose parents are alive, or who have at least one parent, 99.6 percent attend school. Thus, double orphans' access to school education is equal to that of non-orphaned children.

HIV/ AIDS

One of the most important prerequisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. More than half of the interviewed reproductive-age women (55 percent) had heard about AIDS. However, only slightly more than 12 percent of women knew all three primary ways of HIV prevention.

I. Introduction

Background

This report is based on the Turkmenistan Multiple Indicator Cluster Survey, conducted in 2006 by the National Institute of State Statistics and Information of Turkmenistan (Turkmenmillihasabat). The Survey provides valuable information on the situation of children and women in Turkmenistan and was based, in large part, on the need to monitor progress toward goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. Both of these commitments build upon promises made by the international community at the 1990 World Summit for Children.

In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress toward that end. UNICEF was assigned a supporting role in this task (see table 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 subnational 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."

In 2003 Turkmenistan prepared its National Report on progress toward the Millennium Development Goals, or MDGs (UNDP, Union of Economists, Turkmenmillihasabat, MoH&MIT, and MFA).

Of the 18 MDG targets, 13 already had been achieved; the National Report therefore formulated a new set of targets for the country. Specifically, because global target 1 of the first MDG ("To reduce by half during 1990-2015 the proportion of people with income less than US$1 per day") had been achieved in Turkmenistan by the year 2000, a new national target was set: "To reduce, by a factor of three during 2001-2015, the proportion of people with income less than 50 percent of monthly average income." Global target 2 for the second MDG ("To ensure by 2015 that all children in the world, both boys and girls, have opportunity for full primary school education") likewise was replaced, by the new national target "To expand the access of people to high-quality education at all levels and achieve world standards in education."

Turkmenistan also had already achieved global target 5 of the fourth MDG ("To reduce, by two-thirds during 1990-2015, under-5 child mortality"). To a greater extent, the country faces the challenge of further reducing infant mortality, which had been reduced by 2.2 times during 1991-2000; the new target is "To reduce infant mortality during 2000-2015 by a factor of 2.1."

Similarly, with regard to global target 6 of the fifth MDG ("To reduce, by three-fourths during 1990-2015, the maternal mortality rate"), Turkmenistan had achieved this by reducing the rate by a factor of more than 2 during 1990-2000. The new target thus set was "To reduce by half the maternal mortality rate during 2000-2015."

In 2004 Turkmenistan submitted to the United Nations its National Reports on implementation of three international Conventions: "On Elimination of All Forms of Racial Discrimination," "On the Rights of the Child" and "On Elimination of All Forms of Discrimination against Women."

To monitor population living standards and measure progress of implementation of national social and economic programmes, statistics institutions carried out household (HH) sample surveys in all provinces; these were conducted jointly with the World Bank (WB) in 1998 and with the Asian Development Bank (ADB) in 2003. During the 1998 survey, anthropometric measurements of all HH members were taken. Findings of the subsequent 2003 living standards survey showed growth in practically all living standards indicators in Turkmenistan.

This final report presents the results of the indicators and topics covered in the MICS Survey.

Survey Objectives

The 2006 Turkmenistan Multiple Indicator Cluster Survey has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Turkmenistan;

- To furnish data needed for monitoring progress toward goals established by the Millennium Development Goals, the goals of A World Fit For Children (WFFC), and other internationally agreed upon goals, as a basis for future action;

- To contribute to the improvement of data and monitoring systems in Turkmenistan and to strengthen technical expertise in the design, implementation, and analysis of such systems.

These objectives have been achieved. Results of the 2006 Turkmenistan MICS made it possible:

- To obtain reliable information about the situation of children and women of fertile age in the country;

- To monitor the main indicators set by the Millennium Development Goals, Plan of Action of WFFC, and the national long-term development programme until 2020, which have shown improvement in living standards and the situation of children and women;

- To identify factors (resources) for further improvement of the situation of children and women which will be taken into account by the Government of Turkmenistan in implementation of the national long-term programmes for social and economic development, such as Strategy for Economic, Political and Cultural Development of Turkmenistan for the Period up to 2020, the Health Programme, and others;

- To enlarge statistical databases on situation of children and women (such as Genstat, Genstat Region, DevInfo);

- To increase the capacity of the Turkmenmillihasabat staff in methodology, organization and conduct of sample surveys in the social sphere.

II. Sample and Survey Methodology

Sample Design

The sample for the Turkmenistan Multiple Indicator Cluster Survey (MICS) was designed to provide estimates on a large number of indicators on the situation of children and women at the national level, for urban and rural areas, and for six regions: the capital city of Ashgabat and the *velayats* (provinces) of Ahal, Balkan, Dashoguz, Lebap and Mary. Regions were identified as the main sampling domains and the sample was selected in two stages. Within each region, 42 census enumeration areas were selected, with probability proportional to size. After a household listing was carried out within the selected enumeration areas, a systematic sample of 1,008 households in Ashgabat and 840 households in each *velayat* was drawn. All selected enumeration areas were visited during fieldwork. The sample was stratified by region and is not self-weighting. For reporting national-level results, sample weights are used. A more detailed description of the sample design can be found in Appendix A.

Questionnaires

Three sets of questionnaires were used in the Survey: 1) a household questionnaire used to collect information on all *de jure* household members, the household, and the dwelling; 2) a women's questionnaire administered in each household to all women aged 15-49 years; and 3) an under-5 questionnaire, administered to mothers or caretakers of all children under 5 living in the household.[1]

The Household Questionnaire included the following modules:

- Household Listing
- Education
- Water and Sanitation
- Household Characteristics
- Additional Household Characteristics
- Child Discipline
- Salt Iodization

The Questionnaire for Individual Women included the following modules:

- Child Mortality
- Maternal and Newborn Health
- Marriage and Union
- Contraception
- Attitudes Toward Domestic Violence
- HIV Knowledge
- Tuberculosis

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

The Questionnaire for Children Under 5 was administered to mothers or caretakers of under-5 children living in the household. Usually the questionnaire was offered to mothers of the under-5 children; if a mother was not found in the household the main caretaker was identified and interviewed. The Questionnaire included the following modules:

- Birth Registration and Early Learning
- Child Development
- Breastfeeding
- Care of Illness
- Immunization
- Anthropometry
- Immunization by Health Care Facility

The questionnaires are based on the MICS3 model questionnaire[2]. From the MICS3 model English version, the questionnaires were translated into the Turkmen and Russian languages and were pre-tested in Ashgabat city during April 2006. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires. A copy of the Turkmenistan MICS questionnaires is provided in Appendix F.

In addition to the administration of questionnaires, fieldwork teams tested the salt used for cooking in the households for iodine content, and measured the weights and heights of children aged under 5 years. Details and findings of these measurements are provided in the respective sections of the report.

Training and Fieldwork

Training for fieldwork was conducted for 10 days in June 2006 and included lectures on interviewing techniques and the contents of the questionnaires, as well as mock interviews between trainees to gain practice in asking questions. Toward the end of the training period, trainees spent 4 days in practice interviewing in each region/province.

The data were collected by 18 teams; each was comprised of 4 interviewers, one driver, 3 editors and a supervisor. Fieldwork began in June 2006 and concluded in July 2006.

Data Processing

Data were entered on 12 microcomputers using the CSPro software, carried out by 12 data entry operators and 6 data entry supervisors. In order to ensure quality control, all questionnaires were double-entered and internal consistency checks performed. Procedures and standard programmes developed under the global MICS3 project and adapted to the Turkmenistan questionnaire were used throughout. Data processing began simultaneously with data collection in July 2006 and was completed in October 2006. Data were analysed using the Statistical Package for Social Sciences (SPSS) software programme, Version 14, and the model syntax and tabulation plans developed by UNICEF for this purpose.

[2] The model MICS3 questionnaire can be found at www.childinfo.org, or in UNICEF, 2006.

III. Sample Coverage and the Characteristics of Households and Respondents

Sample Coverage

Of the 5,208 households selected for the sample, 5,204 were found to be occupied. Of these, 5,042 were successfully interviewed, for a household response rate of 96.9 percent. In the interviewed households, 7,177 women aged 15-49 were identified. Of these, 7,160 were successfully interviewed, yielding a response rate of 99.8 percent. In addition, 2,087 children under age 5 were listed in the household questionnaire. Questionnaires were completed for 2,075 of these children, corresponding to a response rate of 99.4 percent. Overall response rates of 96.7 percent and 96.3 percent are calculated for the women's and under-5's interviews respectively (Table HH.1).

The response rate in the capital city of Ashgabat, at 93 percent, was the lowest compared to other regions. This can be explained by the fact that urban populations overall encompass higher levels of non-response than rural areas. Among the other five regions, the response rate was the lowest in Balkan *velayat* (95 percent), which also may be linked to the prevalence of urban population in this region in comparison with the other *velayats*. In general, the response rate in the rural areas (99.5 percent) was higher than that in the urban areas (94.6 percent).

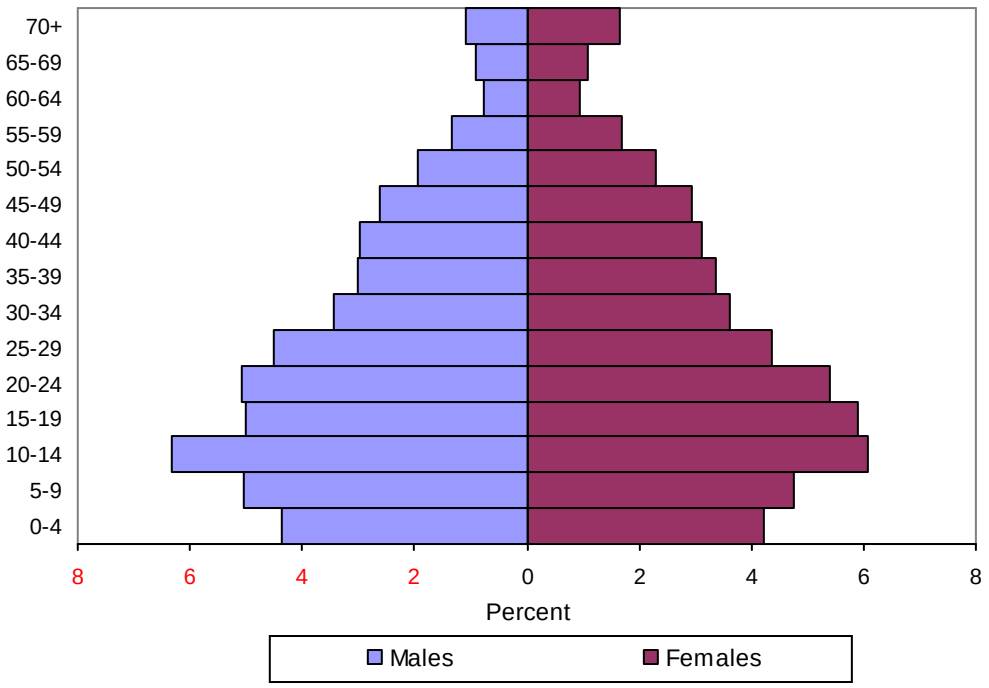
Characteristics of Households

The age and sex distribution of the MICS 2006 population is provided in Table HH.2. This distribution also was used to produce the population pyramid in Figure HH.1. In the 5,042 households successfully interviewed, 25,364 household members were listed; of these, 12,294 were males, and 13,070 were females. These figures also support the average household size of 5.0.

According to Survey findings, about one-third of the population are children under 15 (31 percent), 64 percent are aged 15-64 years, and 5 percent are aged 65 years and older. Children aged 0-17 comprise 38 percent of the population; male predominance is observed in this age group, linked to the larger number of male births.

The largest age group for males and females, at more than 12 percent of the population, is aged 10-14 years. Each subsequent age group, starting from ages 15-19, shows a gradual decrease in the population pyramid. It should be noted that females disproportionately outnumber males in the 15-19 age group, given that household lists did not include men aged 18-19 who were doing their military service in the National Armed Forces (see Table DQ.1). This also influenced the overall male-female ratio.

Figure HH.1: Age and sex distribution of household population, Turkmenistan, 2006



Comparison of the Turkmenistan population census 1995 data and MICS 2006 data revealed certain changes in the age population structure (Figure HH.2). A decrease was seen in the percentage of the population under 15 and increase in the percentage of middle- and old-age groups. This can be explained by the decrease in birth rates over a period of several years. However, on the basis of the MICS data (see Table DQ.1), it can be assumed that within the last five years the birth rate has stabilized.

Figure HH2. Age distribution of population, Turkmenistan, 2006

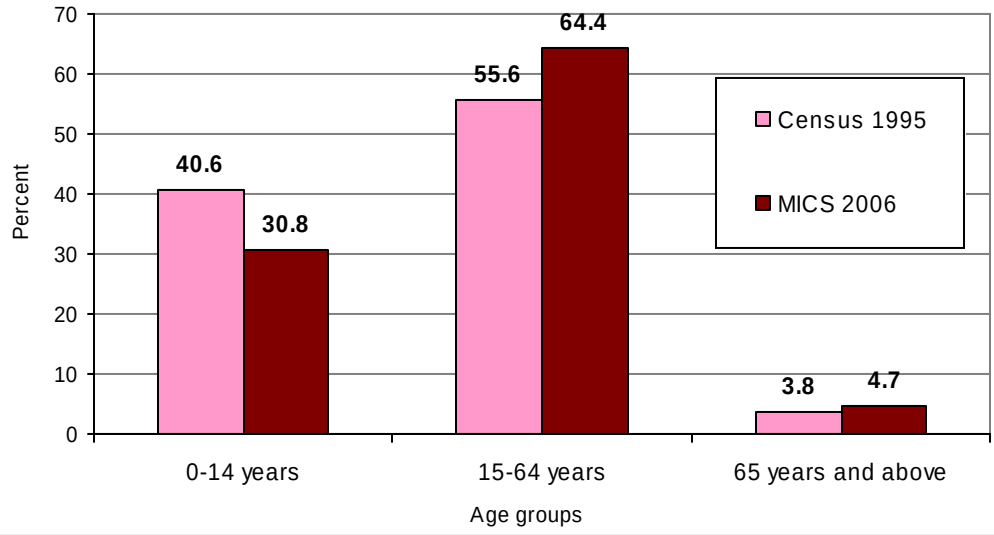


Table HH.3 provides basic background information on the households. Within households, the sex of the household head, region, urban/rural status, number of household members, and mother tongue[3] of the household head are shown in the table. These background characteristics also are used in subsequent tables in this report; figures in the table are further intended to show the numbers of observations by major categories of analysis in the report.

The weighted and unweighted numbers of households are equal, because sample weights were normalized (See Appendix A). The table also shows the proportions of households where at least one child under 18, at least one child under 5, and at least one eligible woman aged 15-49 were found.

Of the total number of the households interviewed, 45.5 percent were in urban areas and 54.5 percent in rural areas. Percentage distribution of households among the regions was as follows: Ashgabat city, 13 percent; Ahal *velayat*, 14 percent; Balkan *velayat*, 9 percent; Dashoguz *velayat*, 18 percent; Lebap *velayat*, 22 percent; and Mary *velayat*, 24 percent.

The heads of most households were men (75 percent). In the distribution of the households by the number of persons living in them, households with the largest proportional weight were those comprised of 4-5 members (39 percent), followed by households comprised of 6-7 persons (25 percent). The lowest proportions encompassed households consisting of one person (6 percent) and those of 10 or more persons (4 percent). The Turkmen language was indicated as the mother tongue of the household head in more than 80 percent of the households. At least one child under 18 was found in 79 percent of households and at least one child under 5 in 31 percent of households. In 88 percent of households lived at least one fertile-age woman.

Characteristics of Respondents

Tables HH.4 and HH.5 provide information on the background characteristics of female respondents aged 15-49 and of children under age 5. In both tables, the total numbers of weighted and unweighted observations are equal, because sample weights have been normalized. The tables also are intended to show the numbers of observations in each background category; these categories are used in subsequent tabulations of this report.

Table HH.4 provides background characteristics of female respondents aged 15-49. The table includes information on the distribution of women according to region, urban/rural areas, age, marital status, motherhood status, education[4], wealth index quintiles[5] and mother tongue.

[3] This was determined by asking "What is the mother tongue of the household head?"

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

[5] 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 to obtain wealth scores for each household in the sample (The assets used in these calculations were as follows: source of water; sanitary [toilet] facility; main materials of the floor, roof and walls; number of rooms used for sleeping; type of fuel used for cooking; household effects (appliances and furniture). 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

Thirty-nine percent of interviewed fertile-age women live in urban area; 61 percent live in rural area. By region, the distribution of women is as follows: Ashgabat city, 11 percent; Ahal *velayat*, 14 percent; Balkan *velayat*, 8 percent; Dashoguz and Lebap *velayats*, 21 percent each; and Mary *velayat*, 25 percent.

The largest female group are women aged 15-24 (39 percent). A total of 46.5 percent of reproductive-age women are in the optimal age for childbearing – 20 to 35 years. The majority of the female respondents (more than 55 percent) are currently married or in union; nearly 38 percent have never been married, and about 7 percent are widows or were married (in union) before. More than 57 percent of women had given birth.

More than 82 percent of the interviewed women had secondary education or less, 12 percent had secondary vocational (special/professional) education, and 5 percent had higher education. The mother tongue of almost 85 percent of women is Turkmen.

According to the wealth index (for all its conditional and disputable methodology – UNICEF), 21 percent of women aged 15-49 live in the fifth quintile, or the richest households, against 19 percent living in first-quintile households with the lowest incomes.

Some background characteristics of children under 5 are presented in Table HH.5. These include distribution of children by several attributes: sex, region and area of residence, age in months, mother's or caretaker's education, wealth, and mother tongue.

Of the total number of children under 5, 50.6 percent are boys and 49.4 percent are girls. Because of higher birth rates in rural areas, 65 percent of children of this age are concentrated there, while 35 percent of children live in urban areas. A direct relation of the proportion of 0-4 children to the proportional weight of the rural population and reproductive-age women is observed in *velayats,* with the largest proportion in Mary *velayat* (26 percent) and the smallest in Balkan *velayat* (8 percent). The largest number of children (more than 22 percent) is aged 0-11 months. Also for children under 5, about 85 percent of women are native Turkmens whose mother tongue is Turkmen; more than 84 percent of women have basic primary and secondary education.

A total of 57 percent of children under 5 live in households of middle and above middle level of wealth and, accordingly, 43 percent live in households below middle level of wealth.

applicable for only the particular data set on which they are based. Further information on the construction of the wealth index can be found in Rutstein and Johnson, 2004, and Filmer and Pritchett, 2001.

IV. Child Mortality

One of the overarching goals of both the MDGs and the WFFC is to reduce infant and under-5 mortality. Specifically, the MDGs call for the reduction in under-5 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 at 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 those obtained from other sources. Indirect methods also minimize the pitfalls of memory lapses, inexact or misinterpreted definitions, and poor interviewing techniques.

The infant mortality rate is the probability of dying before the first birthday, while the under-5 mortality rate reflects the probability of dying before the fifth birthday. In MICS surveys, infant and under-5 mortality rates are calculated based on an indirect estimation technique known as the Brass method (United Nations, 1983; 1990a; 1990b). Data used in the estimation are: the mean number of children ever born for five-year age groups of women aged 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 Turkmenistan, the East model life table was selected as most appropriate.

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 56 per 1,000, while the under-5 mortality rate (U5MR) is around 67 per 1,000. These estimates have been calculated by averaging mortality estimates obtained from women aged 25-29 and 30-34 and refer to mid-2003. Some difference exists between the probabilities of dying among males and females; infant and under-5 mortality rates are 1.6 times higher among males than females. Infant and under-5 mortality rates also are lowest in the metropolitan regions (Ahal *velayat* and Ashgabat city) as well as Balkan *velayat*, while the figures for the other three regions (Dashoguz, Lebap and Mary *velayats*) are about 1.7 times higher than that of Ahal *velayat* and about 1.3 times higher than that of Ashgabat and Balkan *velayat*. Significant differences in mortality also exist in terms of educational levels of mothers. In particular, the probabilities of dying among infants and under-5 children of mothers with secondary special (vocational) and higher education are considerably lower than the national average. In Turkmenistan, no correlations are observed between household wealth and infant/child mortality.

Differentials in under-5 mortality rates by background characteristics also are shown in Figure CM.1.

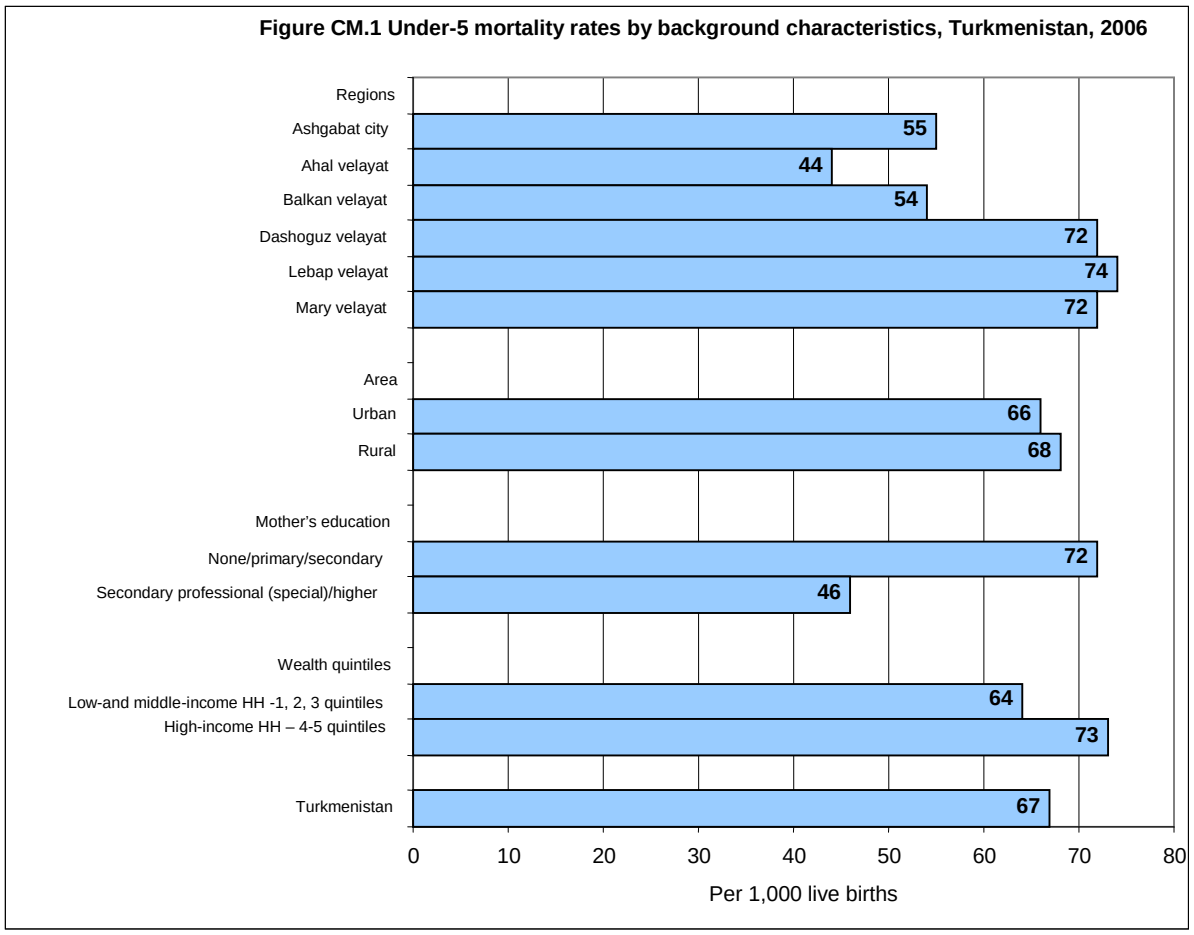


Figure CM.2 shows the series of U5MR estimates, based on responses of women in different age groups and referring to various points in time, thus indicating the estimated trend in U5MR based on the Survey. The MICS estimates indicate a decline in mortality during the last 15 years but are higher than official statistics estimates of the mortality trend, which also show the decline. For example, the most recent MICS U5MR estimate (53 per 1,000 live births) is about two times higher than the estimate from official statistics for the same year. It should be noted, however, that such comparison may not be fully correct because of differences in the technique of estimation: MICS is an indirect-method, non-specialized sample survey, while official statistics are a direct method. The trend indicated by the MICS results are not in agreement with those estimated in the Demographic and Health Survey in 2000 (DHS 2000). DHS estimates depicted U5MR growth starting from 1995, while MICS estimates show a trend of decline. ***According to the MICS results, the most intensive decline in child mortality was observed during the period 1999-2004. Further qualification of these apparent declines and differences, as well as their determinants, should be taken up in a more detailed and separate analysis.***

Figure CM.2: Trend in under-5 mortality rates, Turkmenistan

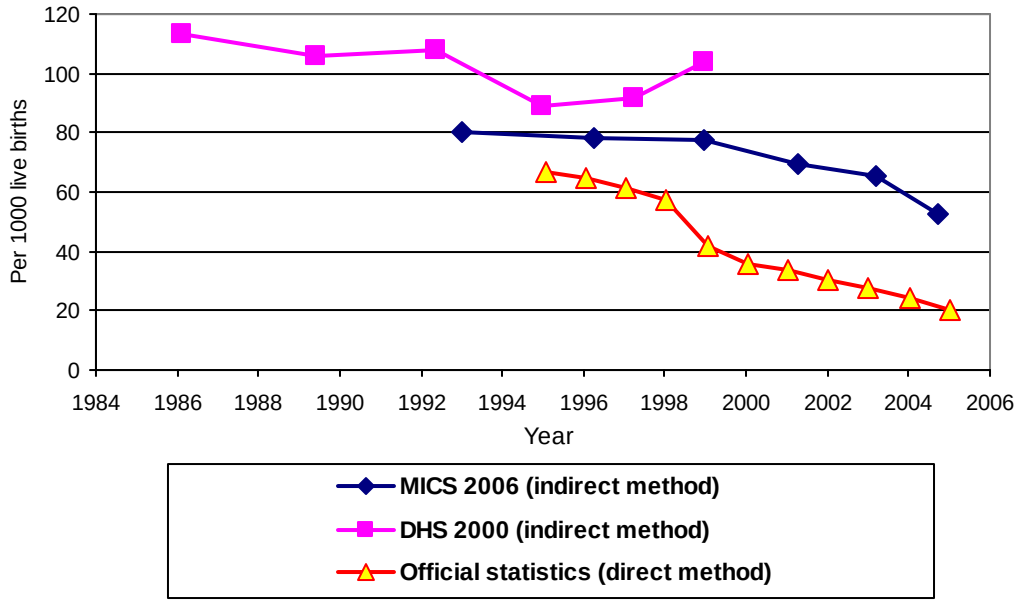
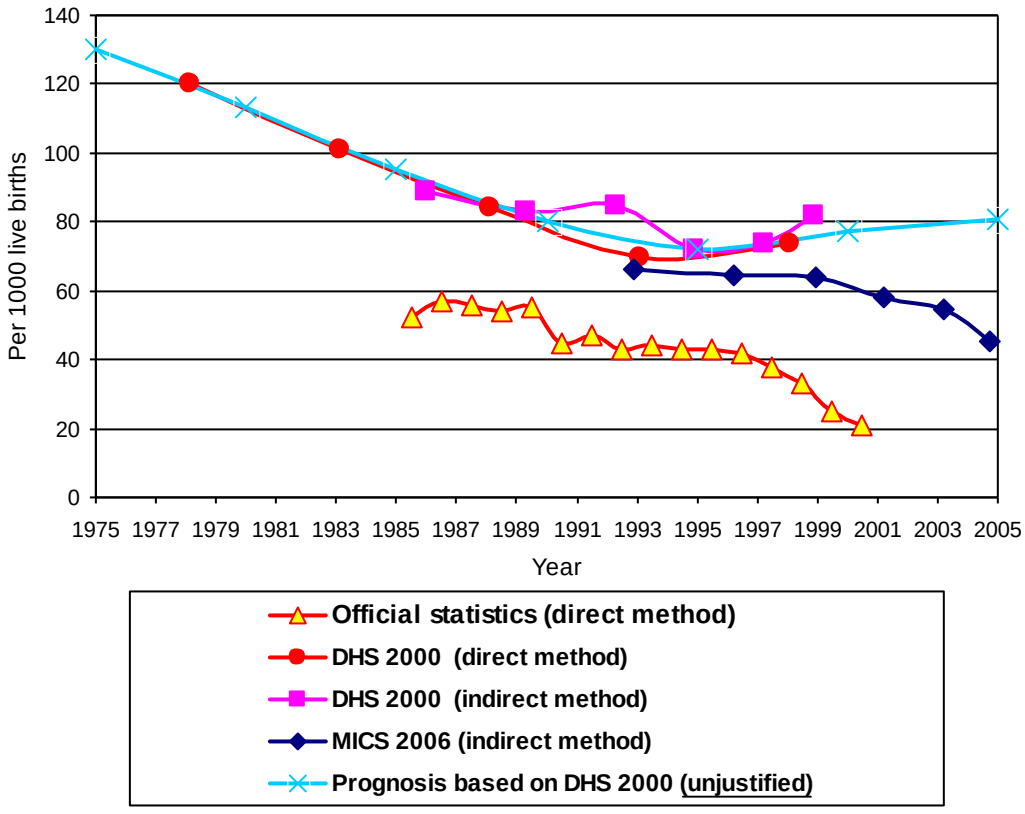


Figure CM.3. Infant (under 1) mortality rates in Turkmenistan by various sources (*pro mil*)



V. Nutrition

Nutritional Status

Children's nutritional status is a reflection of their overall health. When children have access to an adequate food supply, are not exposed to repeated illness and are well cared for, they reach their growth potential and are considered well-nourished.

Malnutrition is associated with more than half of all child deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and those who survive may have recurring sicknesses and faltering growth. Three-quarters of children who die from causes related to malnutrition are only mildly or moderately malnourished, showing no outward sign of their vulnerability. The MDG target is to reduce by half the proportion of people who suffer from hunger between 1990 and 2015. The WFFC goal is to reduce the prevalence of malnutrition among children under 5 by at least one-third (between 2000 and 2010), with special attention to children under 2 years of age. A reduction in the prevalence of malnutrition will assist in the goal of reducing child mortality.

In a well-nourished population, a reference distribution exists for height and weight for children under 5. Undernourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is the WHO/CDC/NCHS reference, which was recommended for use by UNICEF and the World Health Organization at the time the Survey was implemented.

New WHO growth standards were made available in April 2006. Syntax programmes will be produced based on the new standards and will be provided to countries in due course, to facilitate the calculation of anthropometry data based on the new growth standards.

Each of the three nutritional status indicators can be expressed in standard deviation units (z-scores) from the median of the reference population.

Weight for age is a measure of both acute and chronic malnutrition. Children whose weight for age is more than two standard deviations below the median of the reference population are considered *moderately or severely underweight* while those whose weight for age is more than three standard deviations below the median are classified as *severely underweight.*

Height for age is a measure of linear growth. Children whose height for age is more than two standard deviations below the median of the reference population are considered short for their age and are classified as *moderately or severely stunted.* Those whose height for age is more than three standard deviations below the median are classified as *severely stunted.* Stunting is a reflection of chronic malnutrition as a result of failure to receive adequate nutrition over a long period and recurrent or chronic illness.

Finally, children whose weight for height is more than two standard deviations below the median of the reference population are classified as *moderately or severely wasted,* while those who fall more than three standard deviations below the median are *severely wasted*. Wasting is usually the result of a recent nutritional deficiency. The indicator may exhibit significant seasonal shifts associated with changes in the availability of food or prevalence of disease.

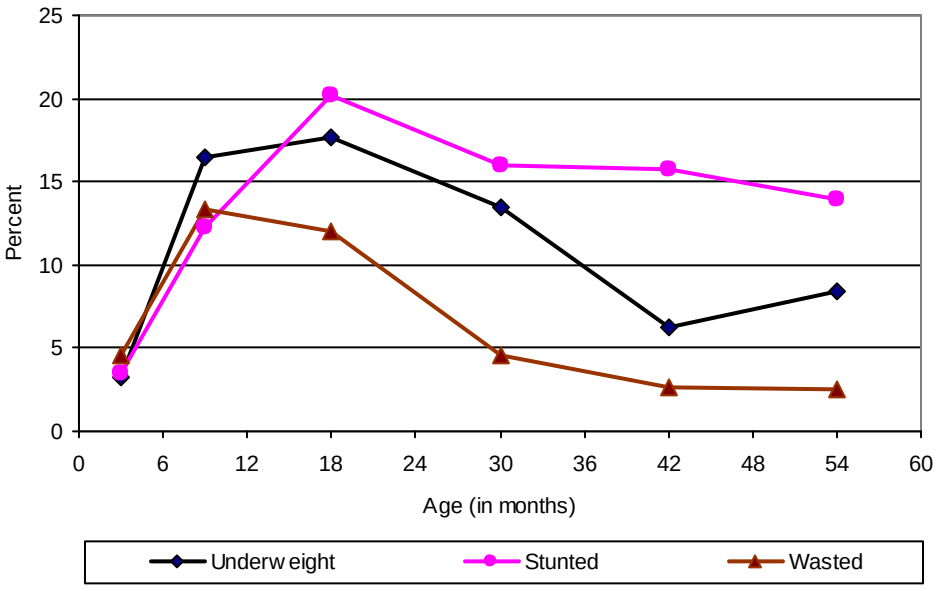
In MICS, weights and heights of all children under 5 were measured using anthropometric equipment recommended by UNICEF (UNICEF, 2006). Findings in this section are based on the results of these measurements.

Table NU.1 shows percentages of children classified into each of these categories, based on anthropometric measurements taken during fieldwork. In addition, the table includes the percentage of children who are overweight, which takes into account those children whose weight for height is above 2 standard deviations from the median of the reference population.

In Table NU.1, children who were not weighed and measured (about 2 percent of children) and those whose measurements are outside a plausible range are excluded.

Almost 1 in 9 children under age 5 in Turkmenistan are moderately underweight (11 percent), while less than 2 percent are classified as severely underweight (Table NU.1). Nearly 15 percent of children are moderately stunted, or too short for their age, and slightly above 6 percent are moderately wasted, or too thin for their height.

Figure NU.1: Percentage of children under-5 who are undernourished, Turkmenistan, 2006



Children in the South (Ahal *velayat*) are more likely to be underweight and stunted than other children. The percentage of those wasted also is higher here than in other regions. Those children whose mothers have secondary or higher education are the least likely to be underweight and stunted, compared to children of mothers with lower educational levels. At the same time, it should be noted that in Turkmenistan there is no distinct inverse negative relationship between wasted children and the wealth of households.

Boys appear slightly more likely to be underweight, stunted and wasted than girls. The age pattern shows that a higher percentage of children aged 12-23 months are undernourished according to two of the three indices, in comparison to children who are younger and older

(Figure NU.1). This pattern is expected and is related to the age at which many children cease to be breastfed and are exposed to contamination in water, food and the environment.

Only 2.5 percent of children under 5 are overweight. The highest percentages of overweight children were found in households where mothers have higher education (6.4 percent) and in households with high levels of wealth (fourth and fifth quintiles, 3.4 and 4.6 percent respectively).

Breastfeeding

Breastfeeding for the first few years of life protects children from infection, provides an ideal source of nutrients and is economical and safe. However, many mothers stop breastfeeding too soon and pressures often exist to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and is unsafe if clean water is not readily available. The WFFC goal states that children should be exclusively breastfed for 6 months and continue to be breastfed with safe, appropriate and adequate complementary feeding for up to age 2 years and beyond.

WHO/UNICEF have the following feeding recommendations:

- Exclusive breastfeeding for first 6 months
- Continued breastfeeding for 2 years or more
- Safe, appropriate and adequate complementary foods beginning at 6 months
- Frequency of complementary feeding: 2 times per day for 6- to 8-month-olds; 3 times per day for 9- to 11-month-olds

It also is recommended that breastfeeding be initiated within one hour of birth.

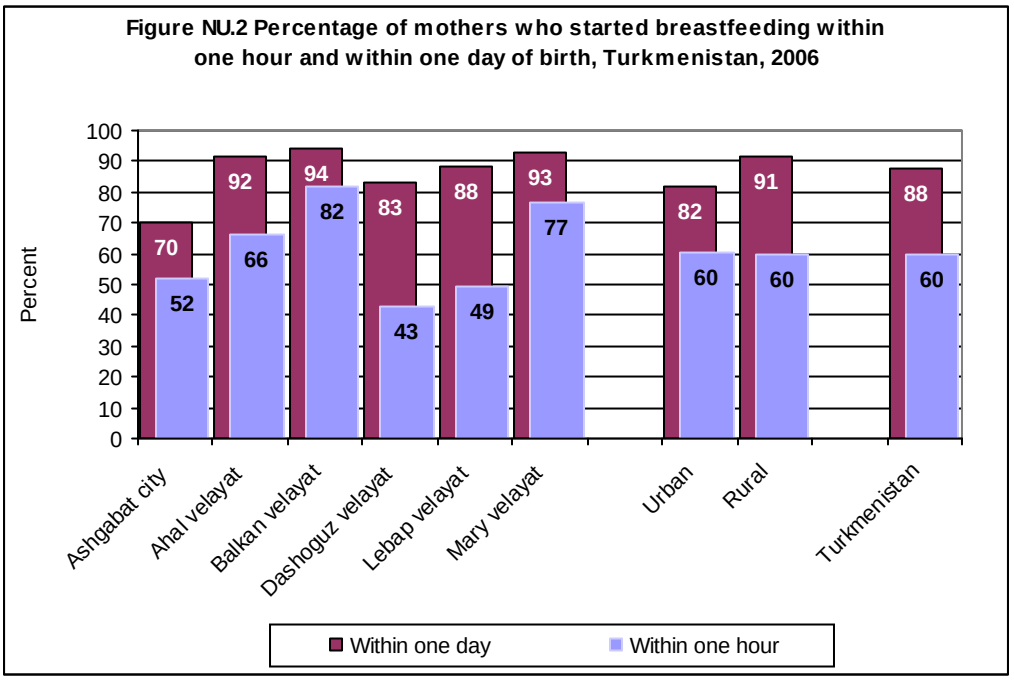
The indicators of recommended child feeding practices are as follows:

- Exclusive breastfeeding rate (< 6 months and < 4 months)
- Timely complementary feeding rate (6-9 months)
- Continued breastfeeding rate (12-15 and 20-23 months)
- Timely initiation of breastfeeding (within 1 hour of birth)
- Frequency of complementary feeding (6-11 months)
- Adequately fed infants (0-11 months)

Table NU.2 provides the proportion of women who started breastfeeding their infants within one hour of birth and women who started breastfeeding within one day of birth (which includes those who started within one hour).

The dominant majority of mothers – about 88 percent – started breastfeeding within one day of birth, including 60 percent (both in urban and rural areas) within one hour of birth, in compliance with recommended international standards. However, a significant difference exists in the breastfeeding rate among the regions, particularly within one hour of birth (Figure NU.2). The lowest proportion of mothers who started breastfeeding within one day of birth is in the capital city of Ashgabat (70 percent) and in Dashoguz *velayat* (83 percent); the highest percentage is in Balkan *velayat* (nearly 94 percent). Similarly, the lowest percentage of mothers who started breastfeeding within one hour of birth is in Dashoguz *velayat* (less than 43 percent), while the highest is in Balkan *velayat* (82 percent). An inversely

proportional relationship was found between the percentage of initiation of breastfeeding within one day, as well as within one hour of birth, and educational levels of mothers.

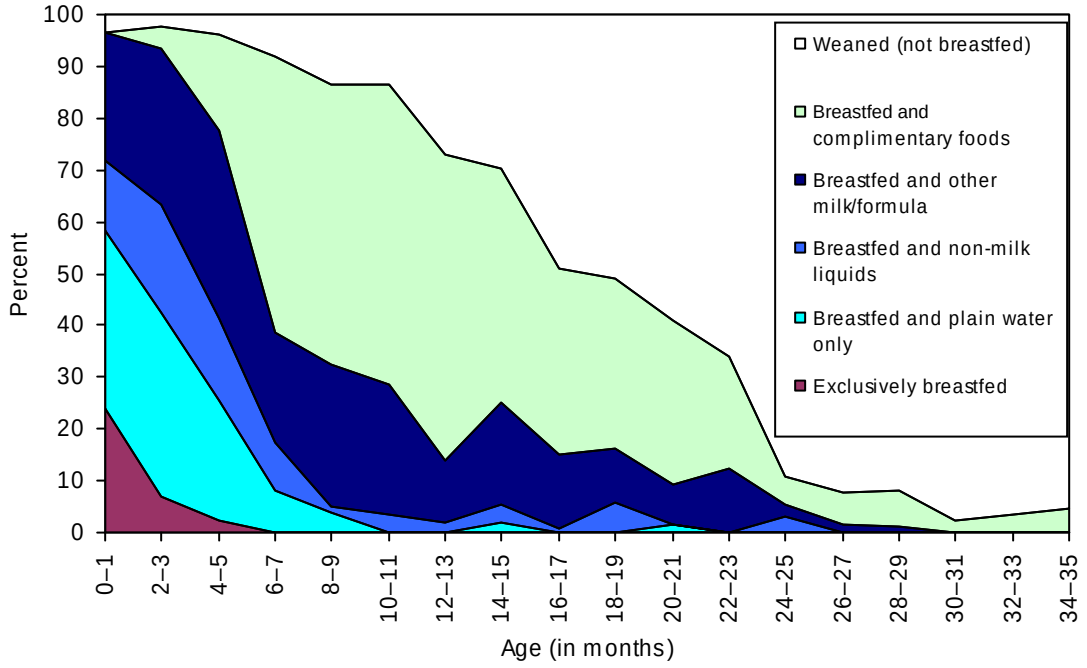


In Table NU.3, breastfeeding status is based on reports by mothers/caretakers of children's consumption of food and fluids in the 24 hours before the interview. *Exclusively breastfed* refers to infants who received only breast milk (and vitamins, mineral supplements or medicine). The table shows exclusive breastfeeding of infants during the first 6 months of life (separately for 0-3 months and 0-5 months), as well as complementary feeding of children 6-9 months and continued breastfeeding of children aged 12-15 and 20-23 months.

About 11 percent of children younger than 6 months are exclusively breastfed, a level considerably lower than recommended. At age 6-9 months, 54 percent of children are receiving breast milk and solid or semi-solid foods. By age 12-15 months, 72 percent of children are still being breastfed and by age 20-23 months, 40 percent are still breastfed. Girls were more likely to be exclusively breastfed than boys. The percentage of exclusive breastfeeding also is differentiated in terms of area of residence, being somewhat higher in rural areas than in urban.

Figure NU.3 shows the detailed pattern of breastfeeding by the child's age in months. Even at the earliest ages, the majority of children are receiving liquids or foods other than breast milk. By the end of the sixth month the percentage of children exclusively breastfed is below 11 percent.

Figure NU.3 Infant feeding patterns by age: Percent distribution of children aged under 3 years by feeding pattern by age group, Turkmenistan, 2006



The adequacy of infant feeding in children under 12 months is provided in Table NU.4. Different criteria of adequate feeding are used, depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered adequate feeding. Infants aged 6-8 months are considered adequately fed if they are receiving breastmilk and complementary food at least two times per day, while infants aged 9-11 months are considered adequately fed if they are receiving breastmilk and eating complementary food at least three times a day. As a result of these feeding patterns, those adequately fed represent less than 11 percent of 0- to 5-month-old infants, slightly above 41 percent of 6- to 8-month-old infants, and less than 33 percent of 6- to 11-month-old infants. Adequate feeding among all infants (aged 0-11 months) drops to 21 percent. The percentage of adequately fed girls is higher than that of boys, and that of infants aged 0-8 months is higher in rural areas than in urban.

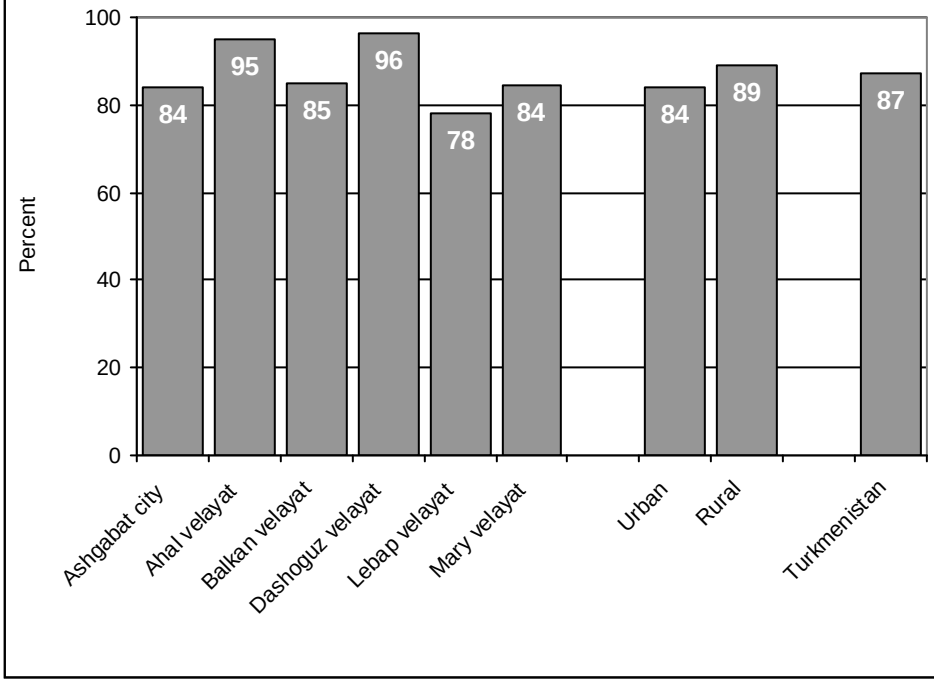
Salt Iodization

Iodine Deficiency Disorder (IDD) is the world's leading cause of preventable mental retardation and impaired psychomotor development in young children. In its most extreme form, iodine deficiency causes cretinism and increases the risks of stillbirth and miscarriage in pregnant women. Iodine deficiency is most commonly and visibly associated with goitre. IDD takes its greatest toll in impaired mental growth and development, contributing in turn to poor school performance, reduced intellectual ability and impaired work performance. The international goal has been to achieve sustainable elimination of iodine deficiency by 2005. The indicator is the percentage of households consuming adequately iodized salt ($\geq$15 parts per million).

In Turkmenistan, the first Turkmen President adopted the decree "On Salt Iodization and Flour Fortification with Iron" in May 1996 as a measure to strengthen the population's health, preventing and eliminating widespread illnesses related to the deficiency of iodine, folic acid and iron. In November 2004, Turkmenistan was the first among CIS and Central Asian countries and the fourth in the world to be certified as having universal (100 percent) salt iodization, meeting generally accepted international standards.

In 99.6 percent of households, salt used for cooking was tested for iodine content by using salt test kits and testing for the presence of potassium iodide or potassium iodate content. Table NU.5 shows that in a very small proportion of households (0.2 percent), no salt was available. In 86.5 percent of households, salt was found to contain 15 parts per million (ppm) or more of iodine. Use of iodized salt was lowest in Lebap *velayat* (slightly above 78 percent) and highest in Dashoguz *velayat* (more than 96 percent). A total of 89 percent of rural households were found to be using adequately iodized salt, compared to 84 percent in urban areas. (Figure NU.4). Interestingly, in the richest households this figure was lower (about 83 percent) than in other quintile groups; this can be explained by the fact that some urban residents, mostly of high levels of wealth, use imported salt (most often from Iran) for cooking, which has a lower iodine content than salt domestically produced in Turkmenistan.

Figure NU.4. Percentage of households consuming adequately iodized salt, Turkmenistan, 2006



Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status, but also of the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (less than 2500 grams) carries a range of grave health risks for children. Babies who were undernourished in the womb face a greatly increased risk of dying during their early months and years. Those who survive have impaired immune

function and increased risk of disease; they are 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, affecting their performance in school and their job opportunities as adults.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have the most impact: the mother's poor nutritional status before conception, short stature (due mostly to undernutrition and infections during her childhood), and poor nutrition during the pregnancy. Inadequate weight gain during pregnancy is particularly important because it accounts for a large proportion 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, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing run the risk of bearing underweight babies.

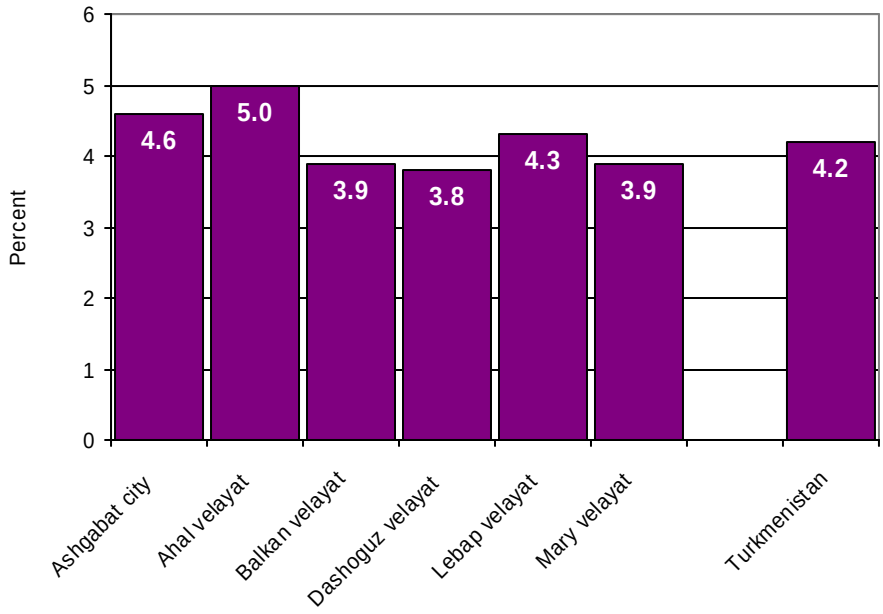
A major challenge in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased in most developing countries because the majority of newborns are not delivered in facilities, and those who are represent only a selected sample of all births.

Because many infants are not weighed at birth and those who are weighed may be a biased sample of all births, reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, the percentage of births below 2500 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,** or the weight as recorded on a health card if the child was weighed at birth[6] .

Overall, 98 percent of births were weighed at birth, and about 4 percent of infants are estimated to weigh less than 2500 grams at birth (Table NU.6). Variation by region was insignificant (Figure NU.5). The percentage of low birth weight does not vary much by urban and rural areas or by mother's education.

[6] For a detailed description of the methodology, see Boerma, Weinstein, Rutstein and Sommerfelt, 1996.

Figure NU.5. Percentage of infants weighing less than 2500 grams at birth, Turkmenistan, 2006



VI. Child Health

Immunization

Immunization plays a key part in MDG4, which is to reduce child mortality by two-thirds between 1990 and 2015. Indeed, immunizations have saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide, 27 million children are still not covered by routine immunization – and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

A WFFC goal is to ensure full immunization of children under 1 year of age at 90 percent nationally, with at least 80 percent coverage in every district or equivalent administrative unit.

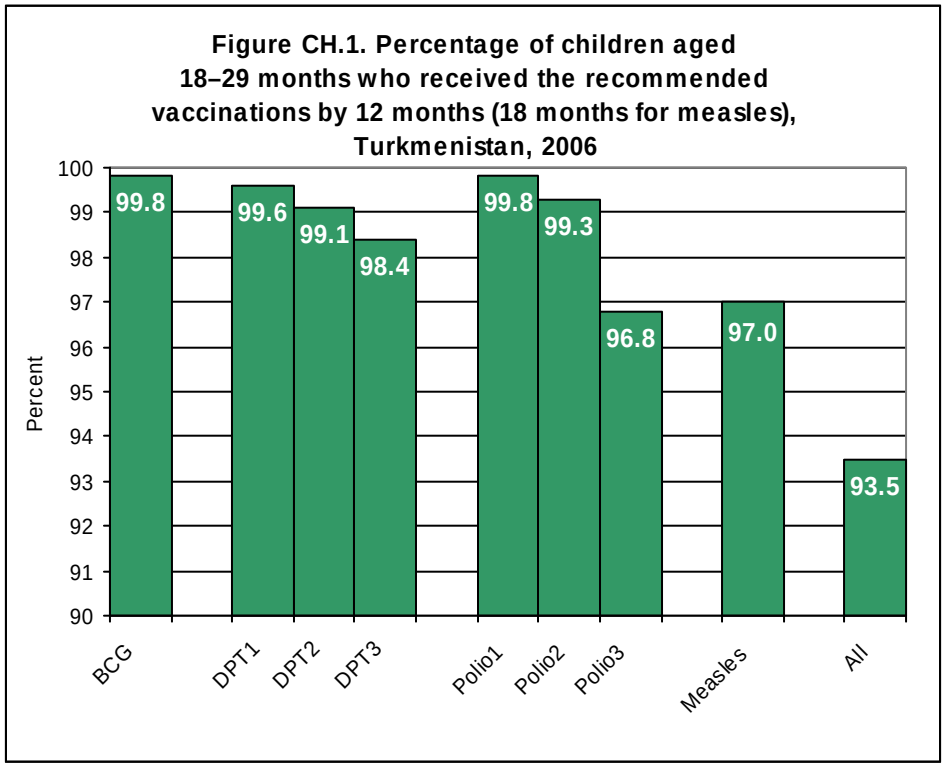
According to the vaccination schedule/calendar (Immunization Card) approved by Order No. 2 of the Ministry of Health and Medical Industry of Turkmenistan on 02.01.2004, which complies with the UNICEF and WHO guidelines, a child should receive the following vaccinations by age 23 months:

- Within the first 24 hours of life – a vaccination to protect against hepatitis B ($HepB_1$)
- On the second or third day of life – against tuberculosis (BCG_1) and polio ($Polio/OPV_0$)
- At 2 months – against hepatitis B ($HepB_2$); diphtheria, pertussis and tetanus (DPT_1); and polio ($Polio/OPV_1$)
- At 3 months – against diphtheria, pertussis and tetanus (DPT_2) and polio ($Polio/OPV_2$)
- At 4 months – against hepatitis B ($HepB_3$); diphtheria, pertussis and tetanus (DPT_3); and polio ($Polio/OPV_3$)
- At 12-15 months – against measles ($MEASLES_1$) and parotitis
- At 18 months - against diphtheria, pertussis and tetanus (DPT_4) and polio ($Polio/OPV_4$).

Mothers were asked to provide vaccination cards for children under age 5, and interviewers copied vaccination information from the cards onto the MICS questionnaire. In addition, interviewers visited health facilities where they copied information on vaccinations of children under 5 from immunization cards there.

Overall, 99.4 percent of children had health cards (Table CH.2). The mother also was asked to recall whether the child had received each vaccination and, for DPT and Polio, how many times. The percentage of children aged 18 to 29 months who received each of the vaccinations is shown in Table CH.1. The denominator for the table is comprised of children aged 18-29 months, so that only children who are old enough to be fully vaccinated are counted. In the top panel, the numerator includes all children vaccinated at any time before the Survey, according to the vaccination card or the mother's report. In the bottom panel, only those vaccinated before their first birthday/12 months (18 months for measles vaccination), as recommended, are included. For children without vaccination cards, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards.

A total of 99.8 percent of children aged 18-29 months received a BCG vaccination by age 12 months, with the first and second doses of DPT given to 99.6 and 99.1 percent respectively. For the third dose of DPT, the percentage declines to 98.4 percent (Figure CH.1). Similarly, 99.8 percent of children received Polio 1 by age 12 months, but this declines to 96.8 percent by the third dose. The coverage for measles vaccine by 18 months is 97 percent.



In Turkmenistan, vaccines against hepatitis B also are recommended as part of the immunization schedule. A total of 99.5 percent of children aged 18-29 months received HepB-1 vaccine by age 12 months. Subsequently, the percentage declined to 98.4 for the second dose and 96.8 for the third dose.

Tables CH.2 and CH.2.C show vaccination coverage rates among children 18-29 months by background characteristics. The figures indicate children receiving the vaccinations at any time before the Survey and are based on information from both vaccination cards and mothers'/caretakers' reports.

Because immunization is compulsory and free for all children in Turkmenistan, a rather high vaccination coverage rate is observed everywhere, irrespective of the area of residence (urban/rural), mothers' level of education or household wealth.

Oral Rehydration Treatment

Worldwide, diarrhoea is the second leading cause of death among children under 5. Most diarrhoea-related deaths in children result from dehydration caused by loss of large quantities of water and electrolytes from the body in liquid stools. Management of diarrhoea – either through oral rehydration salts (ORS) or a recommended home fluid (RHF) – can prevent many of these deaths. Preventing dehydration and malnutrition by increasing

fluid intake and continuing to feed the child also are important strategies for managing diarrhoea.

The goals are to: 1) reduce by one-half deaths due to diarrhoea among children under 5 between 2000 and 2010 (WFFC) and 2) reduce by two-thirds the mortality rate among children under 5 between 1990 and 2015 (MDGs). In addition, the WFFC calls for a reduction in the incidence of diarrhoea by 25 percent. Indicators include:

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

In the MICS questionnaire, mothers or caretakers were asked to report whether their child had had diarrhoea in the two weeks before the Survey. If so, the mother was asked a series of questions about what the child had to drink and eat during the episode and whether this was more or less that the child usually ate and drank.

Overall, 5.5 percent of under-5 children had diarrhoea in the two weeks preceding the Survey (Table CH.3). Diarrhoea prevalence was different in all regions: the highest percentage of sick children was in Ashgabat city (9.2 percent) and Dashoguz *velayat* (6.3 percent), the lowest in Balkan *velayat* (3.2 percent). However, no significant differences were observed between the areas of residence (urban/rural). The peak of diarrhoea prevalence occurs in the weaning period, among children aged 6-23 months.

Table CH.3 also shows the percentage of children receiving various types of recommended liquids during the episode of diarrhoea. Because mothers were able to name more than one type of liquid, percentages do not necessarily add up to 100. Slightly more than 40 percent received fluids from ORS packets, and about 15 percent received recommended homemade fluids. Overall, 47 percent of children with diarrhoea received one or more of the recommended home treatments (i.e., were treated with ORS or RHF), while 53 percent received no treatment. No interdependence between diarrhoea prevalence in children and background variables was found.

About 39 percent of under-5 children with diarrhoea drank more than usual, while nearly 56 percent drank the same or less (Table CH.4). About 42 percent ate somewhat less, the same or more (continued feeding), but 55 percent ate much less or almost none. Given these figures, only slightly more than 15 percent of children received increased fluids and at the same time continued feeding. Combining the information in Table CH.4 with that in Table CH.3 on oral rehydration therapy, it is observed that 25 percent of children either received ORT or increased fluid intake and at the same time continued feeding, as is the recommendation.

Care Seeking and Antibiotic Treatment of Pneumonia

Pneumonia is the leading cause of death in children, and the use of antibiotics in under-5s with suspected pneumonia is a key intervention. A WFFC goal is to reduce by one-third the deaths due to acute respiratory infections.

Children with suspected pneumonia are those who had an illness with a cough accompanied by rapid or difficult breathing and whose symptoms were NOT due to a problem in the chest and a blocked nose. Indicators include:

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

Table CH.5 presents the prevalence of suspected pneumonia and, if care was sought outside the home, the site of care. Only 1.3 percent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the Survey. Of these, about 83 percent were taken to an appropriate provider.

A total of 96 percent sought professional care for suspected pneumonia from public-sector providers/Government health care facilities. The majority of children were taken to a Government health centre (57 percent). Seeking care from non-Government health facilities was not reported, while care from a traditional practitioner was sought by slightly more than 4 percent.

Table CH.6 presents the use of antibiotics for the treatment of suspected pneumonia in under-5s. More than 50 percent of under-5 children in Turkmenistan with suspected pneumonia had received an antibiotic during the two weeks before the Survey.

Issues related to knowledge of danger signs of pneumonia are presented in Table CH.7. Clearly, mothers' knowledge of the danger signs is an important determinant of care-seeking behaviour. Overall, it was found that slightly more than 12 percent of women know the two danger signs of pneumonia – fast and difficult breathing. The most commonly identified symptom for taking a child to a health facility was fever (about 92 percent). A total of 26.5 percent of mothers identified fast breathing, and slightly above 28 percent of mothers identified difficult breathing as symptoms for taking children immediately to a health care provider. Interestingly, the two danger signs of pneumonia were better known by less educated mothers (below secondary education – 13 percent; higher education – less than 10 percent), as well as by the native population (Turkmen – more than 13 percent). At the same time, the level of knowledge of low-income households (first quintile) is the lowest, at 7 percent. The level of knowledge of urban and metropolitan region residents is higher than in rural areas.

Solid Fuel Use

More than 3 billion people around the world rely on solid fuels (biomass and coal) for their basic energy needs, including cooking and heating. Cooking and heating with solid fuels leads to high levels of indoor smoke, a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is products of incomplete combustion, including CO, polyaromatic hydrocarbons, SO_2, and other toxic elements. Use of solid fuels increases the risks of acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, low birth weight, cataracts and asthma. The primary indicator is the proportion of the population using solid fuels as the primary source of domestic energy for cooking.

In Turkmenistan, solid fuels are practically not used for cooking, employed in only 0.4 percent of all households (Table CH.8). Solid fuels are not used at all in urban areas and not broadly in use in rural areas (0.7 percent). Some differentials exist with respect to household wealth and the educational level of the household head. The table clearly shows that the vast majority of households (93 percent) use natural (piped) gas for cooking, while slightly more than 6 percent use liquid propane gas (in cylinders) and 0.3 percent use electric stoves. It should be noted here that gas and electricity have been supplied to the citizens of Turkmenistan free of charge (by established average per-capita norms) since the beginning of 1993, making them highly accessible for the population. Free consumption of gas and electricity, as well as water and edible salt, by the citizens of Turkmenistan has been extended till 2030 by the XVI *Halk Maslahaty* (People's Assembly).

Sources and Costs of Oral Rehydration Salts

In the Turkmenistan MICS, questions were included to collect information on the sources and costs of oral rehydration salts. Such information is very important in that it makes possible a population-based assessment of the reach of programmes and the extent to which particular target groups are covered. Such information also is useful for monitoring the provision of free or subsidized supplies and for the assessment of costs of supplies, since prices of supplies can be a barrier to use. For programme managers who wish to find out public and private shares in the provision of supplies, and the relative importance of each source, information on sources and costs of supplies can be crucial.

The source and cost of supplies for oral rehydration salts for children under 5 are presented in Table CH.9. The main source of supplies for oral rehydration salts in Turkmenistan is the public sector, at more than 82 percent. A practice also exists in the country of providing oral rehydration salts for children under 1 year free of charge.

VII. Environment

Water and Sanitation

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant carrier of diseases such as trachoma, cholera, typhoid and schistosomiasis. Drinking water also can be tainted with chemical, physical and radiological contaminants, with harmful effects on human health. In addition to its association with disease, access to drinking water may be particularly important for women and children – especially in rural areas – who bear the primary responsibility for carrying water, often for long distances.

The MDG goal is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The WFFC goal calls for a reduction in the proportion of households without access to hygienic sanitation facilities and affordable and safe drinking water by at least one-third.
The lists of indicators used in MICS are as follows:

Water

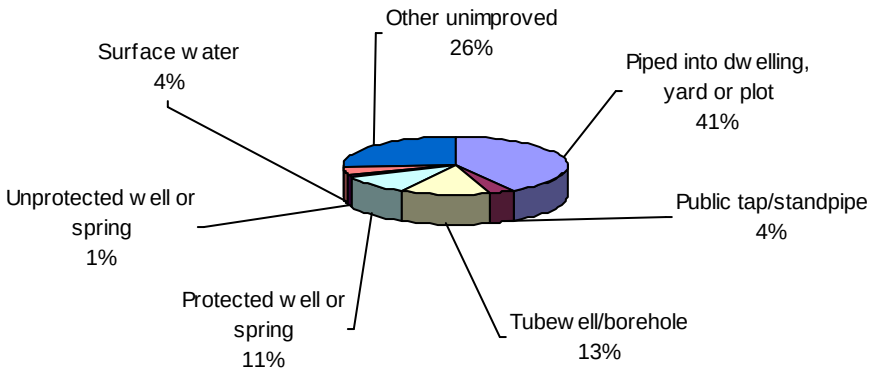
- Use of improved drinking water sources
- Use of adequate water treatment method
- Time to source of drinking water
- Person collecting drinking water

Sanitation

- Use of improved sanitation facilities

The distribution of the population by source of drinking water is shown in Table EN.1 and Figure EN.1. The population using *improved sources* of drinking water are those using any of the following types of supply: piped water (into dwelling, yard or plot); public tap/standpipe; tubewell/borehole; protected well; protected spring; or rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for other purposes, such as hand washing and cooking.

Figure EN.1. Percentage distribution of household members by source of drinking water, Turkmenistan, 2006



Overall, 71 percent of the population of Turkmenistan is using an improved source of drinking water – 91 percent in urban areas and 58 percent in rural areas. The situation in the south-east (Mary *velayat*) is worse than in other regions; only 39 percent of the population in this region gets its drinking water from an improved source.

The source of drinking water for the population varies strongly by region (Table EN.1). In the central region (the capital city), 86 percent of the population uses drinking water that is piped into their dwelling, yard or plot. In the south and west (Ahal and Balkan *velayats*), 55 and 64 percent respectively use piped water. In contrast, in the other regions the percentage of households using piped water is about the same: Dashoguz *velayat*, 27 percent, Mary *velayat*, 28 percent; and Lebap *velayat,* 30 percent. In the north and east (Dashoguz and Lebap *velayats*), the second most important source of drinking water is tubewell/borehole, while in Ahal and Balkan *velayats,* tanker-trucked water is used (unimproved water source) by 39 and 26 percent respectively. In the southeast (Mary *velayat*) tanker-trucked water is used by almost half of the total household population.

Use of in-house water treatment is presented in Table EN.2. Households were asked of ways they may be treating water at home to make it safer to drink; boiling, adding bleach or chlorine, using a water filter, and using solar disinfection were considered as proper treatment of drinking water. The table shows the percentages of household members using appropriate water treatment methods, for all households as well as for households using improved and unimproved drinking water sources.

Overall, more than 70 percent of the population used water treatment methods, although only slightly more than 58 percent used appropriate water treatment methods. Differentials were found with respect to the area of residence. In Ashgabat, this indicator was below 56 percent. The highest value was found in Ahal *velayat* (about 70 percent); while in Dashoguz *velayat* it stood at 41 percent. In the other regions, appropriate methods of water treatment were used by 62 to 63 percent of population. Among water treatment methods, the most widely employed were boiling (more than 57 percent) and use of settled water (42 percent). It should be noted that in the capital city, about 10 percent of households use bottled water that needs no additional treatment, which affected the water treatment figure for this region.

The highest percentage using water filters also is in the capital: about 3 percent, compared to an average of less than 1 percent. A relationship is observed between using improved sources of drinking water and background variables. In particular, the percentage is higher in urban areas than in rural areas, in households with a higher wealth index, and where household heads have higher levels of education.

The amount of time it takes to obtain water is presented in Table EN.3 and the person who usually collected the water in Table EN.4. Note that these results refer to one round-trip from home to a drinking water source. Information on the number of trips made in one day was not collected.

Table EN.3 shows that for 80 percent of households, the drinking water source is on the premises; even so, this is more common for urban areas (91 percent) than rural areas (71 percent). For 18 percent of all households, it takes less than 30 minutes to get to the water source and bring water, while a very small percentage of households (0.2 percent) spend more than 1 hour for this purpose. Excluding those households with water on the premises, the average time to the source of drinking water is 13 minutes. The time spent in rural areas (14 minutes) in collecting water is slightly higher than in urban areas (12 minutes). It was

found that the time spent in Balkan *velayat* for collecting water was 27 minutes, which is explained by the geographical features of this region. At the same time, it should be noted that in Balkan *velayat* water is piped to the premises of 93 percent of households, one of the highest figures among the regions; only in the capital city it is slightly higher, at 97 percent.

Table EN.4 shows that for the majority of households (70 percent), an adult female usually collects water when the source of drinking water is not on the premises. Adult men collect water in only 23 percent of cases, while for the rest of the households, female or male children under age 15 collect water (7 percent).

Meanwhile, inadequate disposal of human excreta and personal hygiene is associated with a range of diseases, including diarrhoeal diseases and polio. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank or latrine; ventilated improved pit latrine; and pit latrine with slab.

About 99 percent of the population of Turkmenistan is living in households using improved sanitation facilities (Table EN.5). This percentage is 99.8 in urban areas and 98 in rural areas. Among residents of the regions, use of improved facilities is virtually equal. The table indicates that use of improved sanitation facilities is, to a certain degree, correlated with wealth and educational level of household heads, but this differs profoundly between urban and rural areas. In rural areas, the population is mostly using pit latrines with slabs (83 percent); in contrast, the most common facilities in urban areas are flush toilets with connection to a sewage system or septic tank (51 percent).

An overview of the percentage of households with improved sources of drinking water and sanitary means of excreta disposal is presented in Table EN.6.

On average, 70 percent of households use both improved sources of drinking water and improved sanitary facilities. However, some residential and regional differentials exist: The highest figures are in the capital city (95 percent) and Lebap *velayat* (above 88 percent), with the lowest in Mary *velayat* (below 39 percent), and they are higher for urban areas (91 percent) than for rural areas (57 percent). Some interrelation between the level of using improved sources of drinking water and sanitation and the educational level of household head and household wealth was observed.

VIII. Reproductive Health

Contraception

Appropriate family planning is important to the health of women and children through: 1) preventing pregnancies too early or too late; 2) extending the period between births; and 3) limiting the number of children. A WFFC goal is access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many.

Current use of contraception was reported by 48 percent of women currently married or in union (Table RH.1). The most popular method is the IUD, used by 43 percent of married women in Turkmenistan. Other methods of contraception are little used: about 2 percent reported use of the pill, while less than 1 percent use injectables, condoms, periodic abstinence, withdrawal, vaginal methods or the lactational amenorrhoea method (LAM).

Contraceptive prevalence is highest in the southeast region (Mary *velayat*), at 55 percent, and in the capital city, at 54 percent. Forty-eight percent of married women in the north (Dashoguz *velayat*), 45 percent in the south (Ahal *velayat*) and 43 percent in the east (Lebap *velayat*) use a method of contraception. In the west (Balkan *velayat*), contraceptive use is rarer (below 38 percent). Adolescents are far less likely to use contraception than older women. Less than 6 percent of married or in-union women aged 15-19 currently use a method of contraception, compared to 64 percent of 35- to 39-year-olds and about 58 percent of women aged 30-34 and 40-44.

Women's education level is somewhat associated with contraceptive prevalence. The percentage of women using any method of contraception rises from 46 percent among women with secondary education or below, to 54 percent among women with secondary special (vocational) education and 57 percent among women with higher education. In addition to differences in prevalence, the method mix varies by education. A total of 41 percent of contraceptive users with secondary education or below use IUD and only slightly more than 1 percent use the pill or LAM. As for contraceptive users with higher education, 46 percent use IUD, more than 4 percent use the pill and 3 percent use condom.

Significant differentials in the use of contraceptives are found in relation to the number of children. Only slightly more than 1 percent of women with no children use contraceptives – i.e., they practically do not use them. At the same time, about 1 woman in 4 with one child and more than half of women with two or more living children use modern or traditional methods of contraception.

Unmet Need

Unmet need[7] for contraception refers to fecund women who are not using any method of contraception, but who wish to postpone the next birth or stop childbearing altogether.

[7] Unmet need measurement in MICS is somewhat different than that used in other household surveys, such as the Demographic and Health Surveys (DHS). In DHS, more detailed information is collected on additional variables, such as postpartum amenhorroea, and sexual activity. Results from the two types of surveys are strictly not comparable.

Unmet need is identified in MICS by using a set of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity and fertility preferences.

Women with unmet need for spacing includes women currently married or in union; fecund (currently pregnant or think they are physically able to become pregnant); currently not using contraception; and wanting to space their births. Pregnant women are considered to want to space their births when they did not want the child at the time they got pregnant. Women who are not pregnant are classified in this category if they want to have a(nother) child, but want to have the child at least two years later, or after marriage.

Women with unmet need for limiting are those women currently married or in union; fecund (currently pregnant or think that they are physically able to become pregnant); currently not using contraception; and wanting to limit their births. The latter group includes women who are currently pregnant but had not wanted the pregnancy at all, and women who are not currently pregnant but do not want to have a(nother) child.

Total unmet need for contraception represents the sum of unmet need for spacing and unmet need for limiting.

Using information on contraception and unmet need, the percentage of demand for contraception satisfied also is estimated from the MICS data. The percentage of demand for contraception satisfied is defined as the proportion of women currently married or in union and currently using contraception, to the total demand for contraception. The total demand for contraception includes women who currently have an unmet need for spacing or limiting, plus those who are currently using contraception.

Table RH.2 shows the results of the survey on contraception, unmet need and the demand for contraception satisfied. In Turkmenistan, the demand of more than 75 percent of fecund women for contraception is satisfied. In this respect, no significant differences by area of residence (urban/rural) or level of household wealth are observed.

Less than 16 percent of women aged 15-49 have an unmet need for contraception, including 6 percent for birth spacing and 10 percent for limiting the number of births. The unmet need indicator differs by area of residence and regions. It is somewhat higher in urban areas (17 percent) than in rural areas (below 16 percent). The highest figure of unmet need was found in Lebap *velayat* (18.7 percent) and Ahal *velayat* (18.3 percent), the lowest in Mary *velayat* (less than 12 percent). The main need is limiting the number of births, with the exception of Dashoguz *velayat*, where the main need is planning of birth spacing; it should be noted that Dashoguz *velayat* has one of the highest birth rates in the country. Nationwide, an inversely proportional relation regularly exists between the educational level of fecund women and the level of unmet need for contraception, mostly for limiting the number of children. The figures and reasons for unmet need differ by the women's age, with the main reason for women aged 15-30 being spacing, while it is limiting for women aged 30-49. No relationship between an unmet need and level of wealth or ethnicity is observed.

The total demand for contraception stands at about 64 percent (currently using contraceptives and unmet need for contraceptives).

Antenatal Care

The 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. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of 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 and symptoms and about the risks of labour and delivery, it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. The antenatal period also provides an opportunity to supply 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 the mother and infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of STIs can significantly improve foetal outcomes and improve 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 STIs) 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.

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO guidelines are specific on the content on antenatal care visits, which include:

- Blood pressure measurement
- Urine testing for bacteriuria and proteinuria
- Blood testing to detect syphilis and severe anaemia
- Weight measurement

In addition, the following types of antenatal care were included in the Turkmenistan questionnaire:

- Blood grouping
- Gynaecological examination
- Pregnancy term calculation (reckoning)
- Ultrasonic examination

Coverage of antenatal care (by a doctor, nurse, or midwife) is relatively high in Turkmenistan, with 99 percent of women receiving antenatal care at least once during the pregnancy. A lower level of antenatal care is found in Balkan *velayat* (slightly above 95 percent), while the in the capital city and Ahal *velayat* it equals 100 percent. Significant differentials with respect to other background variables were not found.

The type of personnel providing antenatal care to women aged 15-49 who gave birth in the two years preceding the Survey is presented in Table RH.3. By far most antenatal care is provided by doctors (more than 95 percent), more so in urban areas (about 97 percent) than in rural areas (just over 94 percent). In rural areas, almost 4 percent of antenatal care is performed by medical nurses or midwives. The highest level of antenatal care coverage by doctors is in the capital city of Ashgabat (100 percent) and Mary *velayat* (about 99 percent), the lowest in Balkan *velayat*, at slightly above 88 percent. The highest percentage of uncovered antenatal care is in Balkan *velayat*, at 4 percent, with the average countrywide figure at 0.6 percent. Balkan *velayat* is the least populated region in Turkmenistan, with a

population density of 4.1 men per square kilometre (as of 01.01.2006), or less than 30 percent of the level of average population density nationwide (13.7 persons per sq.km). This region is characterized by some remoteness of settlements. Well-to-do reproductive-age women have higher figures of antenatal care by doctors.

The types of services pregnant women received are shown in table RH.4. In Turkmenistan overall, no significant differentials in antenatal care by urban/rural status or other background variables were found. In the majority of regions, almost all pregnant women made at least one antenatal care visit (99.4 -100 percent). The lowest percentage of overall antenatal care provided to pregnant women is in Balkan *velayat*, at about 96 percent.

More than 98 percent of pregnant women had their blood tested; 97 percent had urine tested; 96 percent were given gynaecological examinations and their pregnancy terms were calculated; and 95 percent had their blood pressure measured, while 93 percent had their blood group identified. Less than 90 percent were body-weight measured, and only 77 percent were given ultrasonic scanning.

Assistance at Delivery

Three-quarters of all maternal deaths occur during delivery and the immediate post-partum 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 transport is available to a referral facility for obstetric care in case of emergency. A WFFC goal is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators are the proportion of births with a skilled attendant and proportion of institutional deliveries. The skilled attendant at delivery indicator also is used to track progress toward the MDG target of reducing the maternal mortality ratio by three-quarters between 1990 and 2015.

The MICS included a number of questions to assess the proportion of births attended by a skilled attendant. *A skilled attendant* includes a doctor, nurse, midwife or auxiliary midwife.

A total of 99.5 percent of births in Turkmenistan occurring in the year prior to the MICS were delivered by skilled personnel (Table RH.5), quite a high figure. Full coverage with skilled attendance at delivery was found in the capital region (Ashgabat city and Ahal *velayat*) and in the north (Dashoguz *velayat*), while the lowest was in the west (Balkan *velayat*), at 97.5 percent. The more educated a woman is, the more likely she is to have delivered with the assistance of a skilled attendant.

The vast majority of births (88 percent) in the year before the Survey were delivered with assistance by a doctor. Nurses and midwives assisted with the delivery of 12 percent of births. The type of personnel providing delivery assistance differs by regions: in the west (Balkan *velayat*), 69 percent of births are delivered by a doctor, while 29 percent are delivered with the assistance of a nurse or midwife. In the rest of the regions, 82 to 95 percent of births are delivered by a doctor, while 4-17 percent is delivered with the assistance of a nurse or midwife. In Turkmenistan, almost 98 percent of births were institutional deliveries – i.e., the proportion of so-called "domestic deliveries" is very low (2 percent).

IX. Child Development

It is well recognized that a period of rapid brain development occurs in the first 3-4 years of life, and the quality of home care is the major determinant of the child's development during this period. In this context, adult activities with children, presence of books in the home and the conditions of care are important indicators of quality of home care. A WFFC goal is that "children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn."

Information on a number of activities that support early learning was collected in the Survey. These included the involvement of adults with children in the following activities: reading books or looking at picture books, telling stories, singing songs, taking children outside the home, compound or yard, playing with children, and spending time with children naming, counting or drawing things.

In Turkmenistan, for 80 percent of under-5 children an adult engaged in more than four activities that promote learning and school readiness during the three days preceding the Survey (Table CD.1). The average number of activities that adults engaged in with children was 4.6, which did not vary significantly by area of residence (urban/rural) or gender. The table also indicates that the father's involvement in such activities was sufficiently active. Fathers' involvement with one or more activities was higher than 61 percent. Only 6 percent of children were living in a household without their fathers. The percentage of children living separately from their biological fathers noticeably varied by background characteristics: Specifically, in urban areas the proportion of such children is 4.5 times larger (almost 13 percent) than in rural areas (about 3 percent). This is connected to the significantly higher level of divorces in urban areas than in rural areas.

No gender differentials exist in terms of adult activities with children; however, a larger proportion of them engaged in activities with male children (81 percent) than with female children (78 percent). A similar picture was observed in the engagement of fathers in learning activities with children. The percentage of adults engaged in learning and school readiness activities with children was equal in urban areas and rural areas; however, certain differentials by region and socioeconomic status were observed. For 85 percent of children living in the richest households, adult engagement in activities with children was greatest in Ashgabat city and Dashoguz *velayat* (87-88 percent), less so in Mary *velayat* (68 percent); these findings are somewhat higher than in other quintile groups. Fathers' involvement did not reflect a similar pattern in terms of adults' engagement in such activities. The highest figure among the regions was in Ahal *velayat* (76 percent), and fathers' engagement in the richest households was somewhat lower (57 percent) than in other quintile groups. Note that more educated mothers and fathers engaged more frequently in activities with children than those with less education.

Exposure to books in early years not only provides the child with a greater understanding of the nature of print, but may also give the child opportunities to see others reading, such as older siblings doing school work. The presence of books is important for later school performance and IQ scores.

A total of 58 percent of children in Turkmenistan are living in households where at least three non-children's books are present (Table CD.2). Some 42 percent of children aged 0-59 months have children's books. The median number of non-children's books is higher than children's books (5:2 ratio). While no gender differentials are observed, urban children appear to have more access to both types of books than those living in rural households; 69 percent of under-5 children in urban areas live in households with more than three non-children's books (the median is 10 books), while the figure is 53 percent in rural households (the median is three books). The proportion of under-5 children who have three or more children's books is 56 percent in urban areas, compared to 34 percent in rural areas. Strong differentials were found among the regions. It also was noted that with higher levels of mothers' education and wealth index, the percentage of non-children's and children's books intensively increased.

Table CD.2 also shows that nearly 1 child in 4 (24 percent) aged 0-59 months had three or more playthings in their homes, while less than 4 percent had none of the playthings that were the subject of the MICS query, including household objects, homemade toys, toys from a store, and objects and materials found outside the home (Table CD.2). It is interesting to note that the vast majority of children (92 percent) play with toys from a store; however, the percentage playing with other types of toys remains below 39 percent. The proportion of children who have three or more playthings is above 24 percent among male children and 23 percent among female children. Some urban-rural differentials are observed in this respect, in terms of mothers' education and households' socioeconomic status. The most noticeable differentials, however, are found among regions. The only background variable that appears to have a strong correlation with the number of playthings children have is the age of the child, a somewhat expected result.

Leaving children alone or in the presence of other young children is known to increase the risk of accidents. In MICS, two questions were asked to find out whether children aged 0-59 months were left alone during the week preceding the interview, and whether children were left in the care of other children under 10 years of age.

Table CD.3 shows that 15 percent of children aged 0-59 months were left in the care of other children, while less than 4 percent had been left alone during the week preceding the interview. Combining the two care indicators, however, it is calculated that 15 percent of children were left with inadequate care during the week preceding the survey. No differences were observed by the sex of the child or between urban and rural areas. On the other hand, inadequate care was less prevalent among children whose mothers had professional (special secondary and higher) education, as opposed to children whose mothers had secondary or lower education. More children aged 24-59 months (20 percent) were left with inadequate care than those aged 0-23 months (10 percent). Differences also were observed with regard to the socioeconomic status of the household.

X. Education

Preschool Attendance and School Readiness

Attendance in preschool education in an organized learning or child education programme is important for the readiness of children to school. One of the WFFC goals is the promotion of early childhood education.

About 1 in 4 children aged 36-59 months is attending preschool in Turkmenistan (Table ED.1). Urban-rural and regional differentials are significant – the figure is as high as 52 percent in urban areas, compared to 11 percent in rural areas. Among children aged 36-59 months, attendance in preschool is more prevalent in the central region (the capital) – above 67 percent – and lowest in the north (Dashoguz *velayat*), at below 11 percent. Similarly, differentials are significant by socioeconomic status and level of mothers' education. More than 64 percent of children living in the richest households attend preschool, while the figure drops to 8-10 percent in low-income households. Gender differential is not significant. The proportion of children attending preschool at ages 36-47 months (23 percent) is somewhat smaller than that at 48-59 months (26 percent).

The table also shows the proportion of children in the first grade of primary school who attended preschool the previous year (Table ED.1), an important indicator of school readiness. Overall, 32 percent of children who are currently age 7 and attending the first grade of primary school were attending preschool the previous year. The proportion among males is slightly higher (35 percent) than females (30 percent), while almost two-thirds of children in urban areas (64 percent) had attended preschool the previous year compared to less than 17 percent among children in rural areas. Regional differentials also are very significant: more than seven times the first graders in the central region (the capital), a very high 90 percent, have attended preschool than their counterparts in the north region (Dashoguz *velayat*). Socioeconomic status appears to have a positive correlation with school readiness – while the indicator is only 16 percent among low-income households (first quintile), it soars to 84 percent among children in the richest households (fifth quintile). This is explained by the fact that the households with a high wealth index (fourth and fifth quintiles) include mostly urban households with higher average per-capita incomes than rural households. Moreover, urban areas (especially the capital city) have more preschool institutions than rural areas.

Primary and Secondary School Participation

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the MDGs and WFFC. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous/exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

Indicators for primary and secondary school attendance include:

- 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 education ratio (GPI)

The indicators of school progression include:

- Survival rate to grade 5
- Transition rate to secondary school
- Net primary completion rate

Of children who are of primary school entry age (age 7) in Turkmenistan, about 97 percent are attending the first grade of primary school (Table ED.2). Urban-rural differentials do not exist; however, some differentials are present by region. In the north (Dashoguz *velayat*), for example, the value of the indicator reaches more than 98 percent, while it is below 92 percent in the south (Ahal *velayat*). Female children's participation in primary school is timelier (98 percent) than that of male children (96 percent). No correlation with socioeconomic status of households is observed.

Table ED.3 provides the percentage of children of primary school age attending primary or secondary school. The net school attendance rate in Turkmenistan is high, at 99 percent. Only a small proportion of children (1 percent) are out of school when they are expected to be participating. The values of the net primary and secondary school attendance rates are not affected by background variables.

The secondary school net attendance ratio is presented in Table ED.4. More than 95 percent of the children of secondary school age are attending secondary school; however, the percentage of children aged 15 is far lower (77 percent). This is explained by the fact that among the children of this age are those who completed secondary school but have not continued further (vocational) education. Socioeconomic status does not affect the high level of the net secondary school attendance rate.

The primary school net attendance ratio of children of secondary school age is presented in Table ED.5. Only a very small proportion (0.6 percent) of these children is attending primary school when they should be attending secondary school. These are mostly boys (0.9 percent) rather than girls (0.3 percent) aged 10-11 years. Of all background variables, only the differential by regions is significant: the highest percentage of such children is in the capital city (1.2 percent) and the lowest in Dashoguz *velayat* (0.1 percent).

The percentage of children entering first grade who eventually reach grade 5 is presented in Table ED.6. In Turkmenistan, practically all children starting grade 1 (99.9 percent) will eventually reach grade 5. Notice that this number includes children that repeat grades and that eventually move up to reach grade 5. Of those female students who had entered first grade, 0.2 percent did not reach grade 5 in urban areas (Ashgabat city – 1 percent).

The net primary school completion rate and transition rate to secondary education is presented in Table ED.7. At the time of the Survey, 99.2 percent of the children of primary completion age (9 years) were attending the last grade of primary education. This value should be distinguished from the gross primary completion ratio, which includes children of any age attending the last grade of primary school. A total of 99.8 percent of the children that successfully completed the last grade of primary education were attending secondary school at the time of the Survey. The transition to secondary education was not made by a

small percentage of girls (0.5 percent), in urban areas (0.6 percent), mostly in the capital (2 percent).

The ratio of girls to boys attending primary and secondary education is provided in Table ED.8. These ratios are better known as the Gender Parity Index (GPI). The ratios included here are obtained from net attendance ratios rather than gross attendance ratios, the latter of which provide an erroneous description of the GPI, mainly because the majority of over-aged children attending primary education tend to be boys. The table shows that gender parity for both primary and secondary school in Turkmenistan equals to 1.00, evidence of equality and the absence of differences in school attendance between girls and boys.

Adult Literacy

One of the World Fit for Children goals is to assure adult literacy. Adult literacy also is an MDG indicator, relating to both men and women. Because only a women's questionnaire was administered in MICS, the results are based only on females aged 15-24. Literacy was assessed on the ability of women to read a short, simple statement or on school attendance. The percent literate is presented in Table ED.9. In Turkmenistan, the percentage of literate women aged 15-24 is high, at 99.2 percent. However, 0.3 percent was missed, i.e., the literacy level was not identified at the interview. The highest literacy level was in Lebap *velayat*, at 100 percent, and the lowest in Mary *velayat*, at 98.5 percent (0.9 percent missing). The level of literacy is not significantly affected by background variables, as in accordance with the Constitution citizens of Turkmenistan are guaranteed free compulsory secondary education irrespective of gender, ethnicity or other factors.

XI. Child Protection

Birth Registration

The Convention on the Rights of the Child states that every child has the right to a name and a nationality and the right to protection from being deprived of his or her identity. Birth registration is a fundamental means of securing these rights for children. The WFFC encompasses the goal to develop systems to ensure the registration of every child at or shortly after birth, and to fulfil his or her right to acquire a name and a nationality, in accordance with national laws and relevant international instruments. The indicator is the percentage of children under 5 whose birth is registered.

The births of about 96 percent of children under 5 in Turkmenistan have been registered (Table CP.1). Insignificant variations exist in birth registration across regions and by mothers' education. Children in the southeast (Mary *velayat*) were somewhat less likely to have their births registered (94 percent) than children in other regions. Births of all children of mothers with higher education were registered. The most noticeable differentials were found in relation to the child's age: the percentage of under-1 children whose birth was registered was below 87 percent, while for 4-year-olds it was above 99 percent – evidence of "delayed" birth registration cases. The main reason for this (75 percent of responses) was not included in the list of reasons offered in the "closed"-type model questionnaire and was entered as "Other."

Indeed, in the recent years there has been a downtrend of birth registration in Turkmenistan because of untimely applications to the civilian registry offices. Comparison of record data from civilian registries and health authorities revealed significant discrepancies in the number of births. As the practice shows, health authorities also sometimes under-record the number of births (domestic deliveries). To study modern reproductive behaviours and attitudes of fertile-age women and obtain accurate information on vital statistics, the National Institute of State Statistics and Information, jointly with the United Nations Population Fund in Turkmenistan, conducted a sample survey of 1,500 households in all regions (2,496 reproductive-age women) in 2003. This survey showed that not all children had birth certificates. The questionnaire was also of the "closed" type and, similarly to MICS, 80 percent of respondents specified the reason of non-registration as "Other." The second significant reason was specified as "Did not have time to receive certificate" (more than 12 percent). However, the root primary reason for non-registration of child births is apparently the lack of necessity to register births, in parents' opinion. For the most part, this category is comprised of non-working women (engaged in households and personal subsidiary plots – tax-exempt informal activities) who raise children at home. In such cases, however, birth certificates are starting to be obtained before the children's enrolment in kindergartens (at age 3 years or above) or primary school.

In order to improve the situation of birth registration and resolve other issues, Turkmenmillihasabat together with UNFPA:

1. Presented the sample survey results to representatives of the relevant Ministries and agencies (Ministries of Justice, Health and Medical Industry, Interior, Social Welfare, Economy and Finance, and local authorities)

2. Published booklets in the Turkmen and Russian languages advocating birth registration

As the MICS results show, the situation of birth registration in Turkmenistan has somewhat improved compared to the data of the above-mentioned 2003 survey.

Child Discipline

As stated in A World Fit for Children, "children must be protected against any acts of violence …," while the Millennium Declaration calls for the protection of children against abuse, exploitation and violence. In the Turkmenistan MICS survey, mothers/caretakers of children aged 2-14 years were asked a series of questions on the ways parents tend to discipline their children when they misbehave. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. The following two indicators of the child discipline were selected from the list offered in this module for the questionnaire adopted for Turkmenistan: 1) number of children of 2-14 years of age subjected to psychological pressure as a method of punishment; and 2) number of parents/caretakers of 2-14 children who think that children should be subjected to corporal punishments in order to be properly brought-up.

A total of 62 percent of children aged 2-14 years in Turkmenistan were disciplined by taking away privileges, forbidding something they liked or not allowing them to leave the house (Table CP.2). The percentage of children who were told why their behaviour was wrong stood at 86 percent. Male children were subjected more to such disciplinary methods than female children. Differentials with respect to many of the background variables were relatively small.

It also is of importance to indicate that far fewer parents/caretakers nationwide (17 percent) believe that physical punishment is necessary to raise their children properly. Among the background variables, the widest range of this indicator was found in correlation with the regions: from 10 percent in Ashgabat city to 29 percent in Ahal *velayat*.

Early Marriage

Marriage before the age of 18 is a reality for many young girls. According to UNICEF's worldwide estimates, more than 60 million women aged 20-24 were married/in union before the age of 18. Factors that influence child marriage rates include: the state of the country's civil registration system, which provides proof of age for children; the existence of an adequate legislative framework with an accompanying enforcement mechanism to address cases of child marriage; and the existence of customary or religious laws that condone the practice.

In many parts of the world parents encourage the marriage of their daughters while they are still children, in hopes that the marriage will benefit them both financially and socially while also relieving financial burdens on the family. In actual fact, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty. The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights – with the recognition that consent cannot be 'free and full' 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 mentions the right to protection from child marriage in Article 16, which 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..." While marriage is not considered directly in the Convention on the Rights of the Child, child marriage is linked to other rights – 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 Committee on the Rights of the Child. Other international agreements related to child marriage are the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages, and the African Charter on the Rights and Welfare of the Child and the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa. Child marriage also was identified by the Pan-African Forum Against the Sexual Exploitation of Children as a type of commercial sexual exploitation of children.

Young married girls are a unique, though often invisible, group. Required to perform heavy amounts of domestic work, under pressure to demonstrate fertility, and responsible for raising children while still children themselves, married girls and child mothers face constrained decision making and reduced life choices. Boys also are affected by child marriage, but the issue has an impact on girls in far larger numbers and with more intensity. Cohabitation – when a couple lives together as if married – raises the same human rights concerns as marriage. Where a girl lives with a man and takes on the role of caregiver for him, the assumption is often that she has become an adult woman, even if she has not yet reached age 18. Additional concerns due to the informality of the relationship – for example, inheritance, citizenship and social recognition – might make girls in informal unions vulnerable in different ways than those in formally recognized marriages.

Research suggests that many factors interact to place a child at risk of marriage. Poverty, protection of girls, family honour and the provision of stability during unstable social periods are considered significant factors in determining a girl's risk of becoming married while still a child. Women who married at younger ages were more likely to believe that it is sometimes acceptable for a husband to beat his wife and were more likely to experience domestic violence themselves. The age gap between partners is thought to contribute to these abusive power dynamics and to increase the risk of untimely widowhood.

Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before age 18 tend to have more children than those who marry later in life. Pregnancy-related deaths are known to be a leading cause of mortality for both married and unmarried girls aged 15-19, particularly among the youngest of this cohort. Evidence suggests that girls who marry at young ages are more likely to marry older men, which puts them at increased risk of HIV infection. Parents seek to marry off their girls to protect their honour, and men often seek younger women as wives as a means to avoid choosing a wife who might already be infected. The demand for this young wife to reproduce, and the power imbalance resulting from the age differential, lead to very low condom use among such couples.

Two of the indictors are to estimate the percentage of women married before age 15 and percentage married before age 18. The percentage of women married at various ages is provided in Table CP.3. In Turkmenistan, the percentage of women married before age 15 is very small (0.4 percent). Fewer than 7 percent of women entered in marriage/union before age 18. According to the 1998 Law of Turkmenistan "On Amendments to the Marriage and

Family Code" (Article 16), the marriage age is set at 16. An inverse proportional correlation was found between the percentage of women married before age 15, and particularly before age 18, and level of education.

Another component is spousal age difference, with an indicator being the percentage of married/in union women with a difference of 10 or more years of age compared to their spouse. Table CP.4 presents the results of the age difference between husbands and wives. About 4 percent of women aged 15-19 and 20-24 that were currently married/in union have a husband/partner who is 10 or more years older. This number mostly includes women with basic secondary education or lower, i.e., without professional education. More than half of women aged 15-24 are married/in union with a man (husband or partner) who is 0-4 years older.

Domestic Violence

A number of questions were asked of women aged 15-49 to assess their attitudes toward whether husbands are justified to hit or beat their wives/partners for a variety of scenarios. These questions were asked to gain an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women who agree with statements indicating that husbands/partners are justified in beating their wives/partners in reality tend to be abused by their own husbands/partners. The responses to these questions can be found in Table CP.5.

Overall, in Turkmenistan about 38 percent of women aged 15-49 believe that a husband/partner is justified to hit or beat his wife/partner for any of the scenarios listed in the questionnaire. Among the offered scenarios of possible domestic violence, the highest percentage of responses was given to the scenario of a woman arguing with her husband/partner (about 32 percent). One in five women thinks that a husband/partner is justified to beat his wife/partner if she neglects the children. Other reasons received affirmative responses from nearly 16 percent of women.

Significant differentials were found in correlation with all background characteristics, except for the woman's age, where only small variations were observed. Specifically, the percentage of women who thought that a husband/partner was justified to beat his wife/partner for at least one of the offered reasons stood at only 10 percent in the capital city of Ashgabat, while in Ahal *velayat* it reached 62 percent. If in urban areas 1 in 4 women allows the possibility of domestic violence from a husband/partner, in rural areas it is 1 in 2. Fewer highly educated women than those with less education believe a husband is justified to beat his wife for any of the reasons listed.

XII. HIV/AIDS, Sexual Behaviour, and Orphaned Children

Knowledge of HIV Transmission and Condom Use

One of the most important prerequisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step toward raising awareness and giving young people the tools to protect themselves from infection. Misconceptions about HIV are common and can confuse young people and hinder prevention efforts. Different regions are likely to have variations in misconceptions, although some appear to be universal (for example, that mosquito bites or sharing of food can transmit HIV). The United Nations General Assembly Special Session on HIV/AIDS (UNGASS) called on governments to improve the knowledge and skills of young people to protect themselves from HIV. Indicators to measure this goal, as well as the MDG of reducing HIV infections by half, include improving the level of knowledge of HIV and its prevention, and changing behaviours to prevent further spread of the disease. The HIV module was administered to women aged 15-49.

One indicator for both the MDGs and UNGASS is the percentage of young women who have comprehensive and correct knowledge of HIV prevention and transmission. Women were asked whether they knew of the three main ways of HIV transmission – having only one faithful, uninfected partner; using a condom every time; and abstaining from sex. The results are presented in Table HA.1.

In Turkmenistan, more than half of the interviewed women (55 percent) had heard of AIDS. However, the percentage of women who knew of all three main ways of preventing HIV transmission was much lower, at just above 12 percent. More than 31 percent of women knew about having one faithful uninfected sex partner, 25 percent knew about using a condom every time, and 24 percent knew about abstaining from sex as main ways of preventing HIV transmission. While more than 40 percent of women overall knew at least one way of preventing HIV, that nonetheless indicates that a high proportion of women (60 percent) do not know any of the three ways.

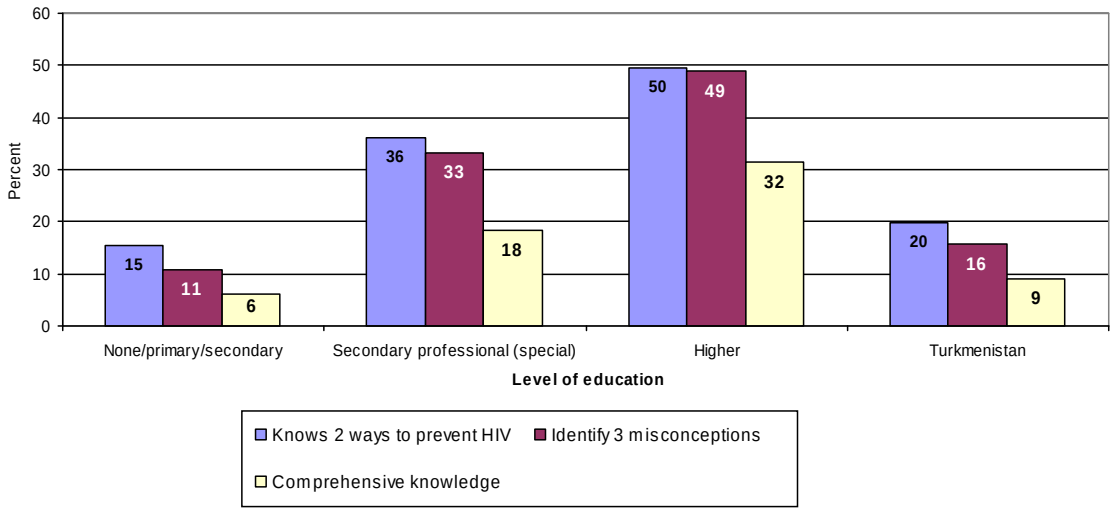
A clear correlation exists between the level of knowledge of the three main ways of HIV transmission and the level of education. Urban women are better informed than rural ones. As a rule, the level of knowledge of residents of the capital city is higher than in the regions. At the same time, however, the proportional weight of reproductive-age women in the capital city who know all three main ways to prevent HIV transmission (below 14 percent) is just slightly higher than the national average.

Table HA.2 presents the percentage of women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions in Turkmenistan, that HIV can be transmitted by supernatural means and mosquito bites. The table also provides information on whether women know that HIV cannot be transmitted by sharing food, and that HIV can be transmitted by sharing needles. Of the interviewed women, 16 percent rejected the two most common misconceptions and knew that a healthy-looking person can be infected. Forty-two percent of women knew that HIV cannot be transmitted by supernatural means and 31 percent knew it cannot be transmitted by mosquito bites, while 29 percent of women knew that a healthy-looking

person can be infected. A relationship exists between level of education and wealth of women and rejection of the two most common misconceptions as well as knowledge that a healthy-looking person can be infected. Urban women are almost two times better informed than rural women. Knowledge of misconceptions about HIV/AIDS is highest among the women in the capital city (29 percent) and lowest in Balkan and Mary *velayats* (8 percent each).

Table HA.3 summarizes information from Tables HA.1 and HA.2 and presents the percentage of women who know two ways of preventing HIV transmission and reject three common misconceptions. Comprehensive knowledge of HIV prevention methods and transmission is still fairly low, although differences are found by area of residence. Overall, 9 percent of women were found to have comprehensive knowledge, which was slightly higher in urban areas (12 percent). As expected, the percentage of women with comprehensive knowledge increases with the woman's education level (Figure HA.1). Fertile-age women in wealthy households also have higher levels of comprehensive knowledge about HIV/AIDS transmission, while women in metropolitan regions (Ashgabat city and Ahal *velayat*) have higher levels of comprehensive knowledge than women in other regions.

Figure HA.1. Percent of women who have comprehensive knowledge of HIV/AIDS transmission, Turkemnistan, 2006



Knowledge of mother-to-child transmission of HIV also is an important first step for women to seek HIV testing when they are pregnant, to avoid infection in the baby. Women should know that HIV can be transmitted during pregnancy, delivery, and through breastfeeding. The level of knowledge among women aged 15-49 concerning mother-to-child transmission is presented in Table HA.4. Overall, 43 percent of women know that HIV can be transmitted from mother to child. The percentage of women who know all three ways of mother-to-child transmission is 19 percent, while 12 percent of women did not know of any specific way. The same trend of correlation with background variables manifests itself here: the level of knowledge of reproductive-age women depends on their level of education, area of residence (higher in urban than in rural areas), and household wealth index. The highest level of knowledge about all three ways of mother-to-child transmission of HIV is among

women in Lebap *velayat* and the capital city (32-33 percent), the lowest in Dashoguz and Ahal *velayats* (10-11 percent).

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are low if respondents report an accepting attitude on the following four variables: 1) would care for family member ill with AIDS; 2) would buy fresh vegetables from a vendor who was HIV-positive; 3) thinks that a female teacher who is HIV-positive should be allowed to teach in school; and 4) would ***not*** want to keep HIV status of a family member a secret. Table HA.5 presents the attitudes of women in Turkmenistan toward people living with HIV/AIDS.

More than 81 percent of women stated that they would not buy foodstuffs from an HIV-positive vendor, which was the most common discriminating statement. In addition, more than half (60 percent) of the women thought that a female teacher who is HIV-positive should not be allowed to teach in school and that the HIV status of a family member should be kept a secret (53 percent). The lowest percentage was found for the statement concerning denial of care for a family member ill with AIDS (below 15 percent). Acceptance of each of the offered discriminating statements depended mostly on the region and mother tongue of the female respondent.

Overall, 94 percent of women agreed with at least one discriminating statement. Any significant differentials in terms of background characteristics were not observed. Only 6 percent of the fertile-age women did not agree with any of the discriminating statements, and more so in urban areas (8 percent) than in rural areas (4 percent). By the regions, the highest percentage of those who disagreed was in Balkan *velayat* – at more than 11 percent, and the lowest – in Dashoguz *velayat* at less than 2 percent.

Another important indicator is the knowledge of where to be tested for HIV and use of such services. Table HA.6 presents responses to questions related to knowledge among women of a facility for HIV testing and whether they have ever been tested.

About 28 percent of women know where to be tested, while only 12 percent have actually been tested. Of these, a large proportion had been told the result (more than 78 percent). Knowledge of urban women is slightly higher than rural women and is in direct relation to the level of their education.

Among women who had given birth within the two years preceding the survey, the percentage who received counselling and HIV testing during antenatal care is presented in Table HA.7.

In the context of antenatal care – nearly universal at 99 percent – more than 35 percent of women received information on HIV prevention during their visits to a doctor, 31 percent were tested for HIV and 22 percent were told the test results. Receiving information, testing for HIV and getting the test results during antenatal visits were differentiated by the level of education, a direct proportional relationship, and regions. The highest level was found among fertile-age women in Lebap *velayat* and the lowest in Balkan *velayat*.

Orphaned Children

Children are defined as orphaned if they have experienced the death of either parent. The frequency of children living with neither parent, mother only, and father only is presented in Table HA.8.

In Turkmenistan more than 86 percent of children of 0-17 years of age live with both parents; 6 percent have lost one or both parents, while only 0.4 percent are double orphans. Four percent of the children have experienced the death of their father and less than 2 percent the death of their mother. The proportion of double orphans does not differ significantly by background variables. Overall, the proportional weight of orphaned children is slightly higher in urban areas (just above 7 percent) than in rural areas (6 percent). Among the regions, the highest proportion of orphans is in the capital city (above 8 percent); the lowest is in Balkan *velayat* (5 percent). Gender differentials were not found. The proportion of orphaned children grows with the age, from 1.5 percent at 0-4 years to 12 percent at age 15-17.

One of the measures developed for the assessment of the status of orphaned and vulnerable children relative to their peers looks at the school attendance of children aged 10-14 for children who have lost both parents (double orphans) versus children whose parents are alive (and who live with at least one of these parents). If children whose parents have died do not have the same access to school as their peers, then families and schools are not ensuring that these children's rights are being met.

A total of 0.5 percent of children in Turkmenistan aged 10-14 have lost both parents. All of these children (100 percent) are currently attending school. Among the children aged 10-14 who have not lost a parent and who live with at least one parent, 99.6 percent are attending school. This would suggest that double orphans are not disadvantaged compared to non-orphaned children in terms of school attendance.

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Table HH.1: Results of household and individual interviews

Number of households, women and children under 5, by results of the household, women's and under-5s interviews, and household, women's and under-5s response rates, Turkmenistan, 2006

	Residence		Region						Total
	Urban	Rural	Ashgabat city	Ahal	Balkan	Dashoguz	Lebap	Mary	
Number of households									
Sampled	2768	2440	1008	840	840	840	840	840	5208
Occupied	2764	2440	1008	840	837	840	840	839	5204
Interviewed	2614	2428	937	832	795	840	815	823	5042
Response rate	94.6	99.5	93.0	99.0	95.0	100.0	97.0	98.1	96.9
Number of women									
Eligible	3246	3931	1098	1292	993	1419	1146	1229	7177
Interviewed	3237	3923	1094	1289	993	1419	1137	1228	7160
Response rate	99.7	99.8	99.6	99.8	100.0	100.0	99.2	99.9	99.8
Overall response rate	94.3	99.3	92.6	98.8	95.0	100.0	96.3	98.0	96.7
Number of children under 5									
Eligible	849	1238	262	358	291	397	395	384	2087
Mother/caretaker interviewed	843	1232	261	356	291	395	392	380	2075
Response rate	99.3	99.5	99.6	99.4	100.0	99.5	99.2	99.0	99.4
Overall response rate	93.9	99.0	92.6	98.5	95.0	99.5	96.3	97.1	96.3

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, Turkmenistan, 2006

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Age						
0-4	1103	9.0	1074	8.2	2178	8.6
5-9	1283	10.4	1208	9.2	2491	9.8
10-14	1600	13.0	1545	11.8	3145	12.4
15-19	1271	10.3	1499	11.5	2770	10.9
20-24	1289	10.5	1366	10.5	2655	10.5
25-29	1145	9.3	1111	8.5	2256	8.9
30-34	873	7.1	920	7.0	1793	7.1
35-39	766	6.2	858	6.6	1624	6.4
40-44	757	6.2	795	6.1	1552	6.1
45-49	667	5.4	748	5.7	1415	5.6
50-54	496	4.0	585	4.5	1082	4.3
55-59	337	2.7	430	3.3	767	3.0
60-64	198	1.6	235	1.8	433	1.7
65-69	230	1.9	275	2.1	505	2.0
70+	278	2.3	420	3.2	698	2.8
Dependency age groups						
< 15	3986	32.4	3828	29.3	7814	30.8
15-64	7799	63.4	8547	65.4	16346	64.4
65 +	508	4.1	695	5.3	1203	4.7
Children aged 0-17	4950	40.3	4743	36.3	9693	38.2
Adults 18+	7344	59.7	8327	63.7	15671	61.8
Total	**12294**	**100.0**	**13070**	**100.0**	**25364**	**100.0**

Table HH.3: Household composition

Percent distribution of households by selected characteristics, Turkmenistan, 2006r

		Number of households	
	Weighted percent	Weighted	Unweighted
Sex of household head			
Male	74.9	3776	3756
Female	25.1	1266	1286
Region			
Ashgabat city	13.2	666	937
Ahal	13.5	683	832
Balkan	9.0	455	795
Dashoguz	17.9	904	840
Lebap	22.1	1117	815
Mary	24.1	1217	823
Residence			
Urban	45.5	2292	2614
Rural	54.5	2750	2428
Number of household members			
1	5.5	278	297
2–3	18.7	943	1007
4–5	38.5	1942	1944
6–7	24.5	1237	1190
8–9	8.7	437	408
10+	4.1	205	196
Language			
Turkmen	80.3	4050	4015
Uzbek	6.9	346	301
Russian	8.2	411	499
Other	4.7	235	227
Total	**100.0**	**5042**	**5042**
At least one child aged < 18 years	78.8	5042	5042
At least one child aged < 5 years	31.2	5042	5042
At least one woman aged 15-49 years	87.5	5042	5042

Table HH.4: Women's background characteristics

Percent distribution of women aged 15-49 years, by background characteristics, Turkmenistan, 2006

		Number of women	
	Weighted percent	Weighted	Unweighted
Region			
Ashgabat city	10.7	769	1094
Ahal	14.5	1040	1289
Balkan	7.8	556	993
Dashoguz	20.9	1498	1419
Lebap	21.3	1529	1137
Mary	24.7	1769	1228
Residence			
Urban	39.0	2794	3237
Rural	61.0	4366	3923
Age			
15-19	20.6	1472	1456
20-24	18.7	1341	1301
25-29	15.2	1088	1086
30-34	12.6	901	920
35-39	11.8	843	849
40-44	10.9	781	803
45-49	10.3	734	745
Marital/union status			
Currently married/in union	55.3	3961	3933
Formerly married/in union	6.9	494	527
Never married/in union	37.8	2705	2700
Motherhood status			
Ever gave birth	57.3	4102	4107
Never gave birth	42.7	3058	3053
Education			
None/primary/secondary	82.3	5890	5809
Secondary vocational/professional (special)	12.4	889	932
Higher	5.3	381	419
Wealth index quintiles			
Poorest	19.1	1369	1200
Second	19.7	1409	1239
Middle	19.8	1415	1338
Fourth	20.4	1461	1603
Richest	21.0	1506	1780
Language			
Turkmen	84.9	6082	6079
Uzbek	7.1	505	454
Russian	4.3	306	371
Other	3.7	266	256
Total	**100.0**	**7160**	**7160**

Table HH.5: Children's background characteristics

Percent distribution of children under 5 years of age, by background characteristics, Turkmenistan, 2006

		Number of under-5 children	
	Weighted percent	Weighted	Unweighted
Sex			
Male	50.6	1050	1046
Female	49.4	1025	1029
Region			
Ashgabat city	8.6	178	261
Ahal	13.5	281	356
Balkan	7.6	158	291
Dashoguz	19.6	407	395
Lebap	24.9	517	392
Mary	25.7	534	380
Residence			
Urban	34.6	718	843
Rural	65.4	1357	1232
Age			
< 6 months	11.7	242	237
6-11 months	10.4	217	215
12-23 months	19.5	406	410
24-35 months	20.0	416	412
36-47 months	20.7	429	432
48-59 months	17.7	366	369
Mother's education			
None/primary/secondary	84.5	1753	1732
Secondary vocational/professional (special)	11.2	232	239
Higher	4.3	90	104
Wealth index quintiles			
Poorest	23.4	485	427
Second	20.0	414	377
Middle	21.0	435	422
Fourth	18.8	389	429
Richest	16.9	351	420
Language			
Turkmen	84.8	1759	1764
Uzbek	9.3	193	178
Russian	2.6	54	72
Other	3.3	69	61
Total	**100.0**	**2075**	**2075**

Table CM.1: Child mortality

Infant and under-5 mortality rates (East model), Turkmenistan, 2006

	Infant mortality rate*	Under-5 mortality rate**
Sex		
Male	68	81
Female	44	52
Region		
Ashgabat city	47	55
Ahal	38	44
Balkan	46	54
Dashoguz	59	72
Lebap	61	74
Mary	59	72
Residence		
Urban	55	66
Rural	57	68
Mother's education		
None/primary/secondary	60	72
Secondary vocational/professional (special)/higher	40	46
Wealth index quintiles		
Low-income and mid-income HH – 1-2 & 3 quintiles	54	64
High-income HH – 4-5 quintiles	61	73
Language		
Turkmen	60	72
Other	38	44
Total	**56**	**67**

*** MICS indicator 2; MDG indicator 14**

**** MICS indicator 1; MDG indicator 13**

Table CM.2: Children ever born and proportion dead

Mean number of children ever born and proportion dead, by age of women, Turkmenistan, 2006

	Mean number of children ever born	Proportion dead	Number of women
Age			
15-19 yrs	0.023	0.000	1472
20-24 yrs	0.401	0.043	1341
25-29 yrs	1.263	0.059	1088
30-34 yrs	2.171	0.067	901
35-39 yrs	2.962	0.078	843
40-44 yrs	3.704	0.084	781
45-49 yrs	4.124	0.094	734
Total	**1.721**	**0.078**	**7160**

Table NU.1: Child malnourishment

Percentage of children aged 0-59 months who are severely or moderately malnourished, Turkmenistan, 2006

	Weight for age		Height for age		Weight for height			Number of children aged 0-59 months
	% below - 2 SD*	% below - 3 SD*	% below - 2 SD**	% below - 3 SD**	% below - 2 SD***	% below - 3 SD***	% above + 2 SD	
Sex								
Male	11.9	1.8	15.8	5.0	7.1	1.0	1.9	1021
Female	10.2	1.4	13.3	3.8	5.2	0.6	3.2	989
Region								
Ashgabat city	4.4	0.4	12.7	4.9	5.9	0.4	6.9	171
Ahal	18.3	2.6	19.6	5.5	12.7	2.3	4.1	271
Balkan	5.0	0.3	8.2	1.8	1.8	0.0	1.1	151
Dashoguz	11.4	1.8	17.5	7.0	4.1	1.0	1.5	400
Lebap	10.3	1.3	10.2	1.2	4.7	0.0	1.3	507
Mary	11.7	2.0	16.6	5.8	7.1	1.1	2.6	508
Residence								
Urban	9.4	0.9	13.1	4.3	6.6	0.9	3.7	694
Rural	11.9	1.9	15.4	4.5	5.9	0.8	1.9	1315
Age								
< 6 months	3.2	0.0	3.5	0.8	4.6	1.5	5.0	227
6-11 months	16.5	3.6	12.2	3.2	13.3	1.3	1.7	207
12-23 months	17.7	2.9	20.2	7.1	12.0	1.3	4.3	392
24-35 months	13.5	2.1	16.0	5.1	4.6	0.6	1.9	407
36-47 months	6.3	0.5	15.7	3.9	2.6	0.5	1.6	417
48-59 months	8.4	0.7	14.0	4.4	2.5	0.2	1.2	359
Mother's education								
None/primary/secondary	11.4	1.8	14.6	4.6	6.7	0.8	2.3	1696
Secondary vocational/professional (special)	11.5	0.4	14.8	4.3	3.9	0.9	2.7	224
Higher	3.4	0.0	14.1	1.7	1.8	0.0	6.4	89
Wealth index quintiles								
Poorest	12.3	2.5	15.5	4.0	5.0	0.4	2.0	475
Second	15.0	0.9	15.2	5.2	6.6	0.7	1.2	396
Middle	10.4	2.1	13.5	3.8	7.5	1.2	1.9	421
Fourth	11.7	2.0	18.8	6.1	5.9	1.4	3.4	373
Richest	4.8	0.0	9.5	3.1	5.9	0.3	4.6	344
Language								
Turkmen	10.9	1.4	14.3	4.2	6.4	0.9	2.6	1703
Uzbek	9.1	0.5	17.0	6.3	3.6	0.0	2.3	189
Russian	2.3	0.0	3.9	0.0	4.2	0.0	2.7	51
Other	27.5	9.4	22.5	9.6	9.6	1.6	1.9	66
Total	**11.0**	**1.6**	**14.6**	**4.4**	**6.2**	**0.8**	**2.5**	**2009**

*** MICS indicator 6; MDG indicator 4**

**** MICS indicator 7**

***** MICS indicator 8**

Table NU.2: Initial breastfeeding

Percentage of women aged 15-49 years with a birth in the two years preceding the survey who breastfed their baby within one hour of birth and within one day of birth, Turkmenistan, 2006

	Percentage who started breastfeeding within one hour of birth*	Percentage who started breastfeeding within one day of birth	Number of women with a live birth in the two years preceding the Survey
Region			
Ashgabat city	52.2	70.2	72
Ahal	66.2	91.7	108
Balkan	82.0	93.9	71
Dashoguz	42.6	82.8	172
Lebap	49.2	88.4	229
Mary	76.7	92.8	218
Residence			
Urban	60.2	81.7	327
Rural	59.6	91.4	543
Months since birth			
< 6 months	57.7	91.3	253
6-11 months	61.6	84.4	233
12-23 months	60.1	87.4	383
Mother's education			
None/primary/secondary	60.4	89.2	745
Secondary vocational/professional (special)	59.4	83.0	86
Higher	(48.5)	(69.5)	38
Wealth index quintiles			
Poorest	55.1	91.2	183
Second	50.9	88.5	182
Middle	65.8	91.8	176
Fourth	72.0	88.1	178
Richest	54.9	77.4	151
Language			
Turkmen	63.0	88.1	728
Uzbek	34.0	89.9	88
Russian	(46.2)	(66.9)	21
Other	(66.7)	(86.7)	32
Total	**59.8**	**87.7**	**869**

*** MICS indicator 45**

Table NU.3: Breastfeeding

Percentage of living children according to breastfeeding status at each age group, Turkmenistan, 2006

	Children 0-3 months		Children 0-5 months		Children 6-9 months		Children 12-15 months		Children 20-23 months	
	Percent exclusively breastfed	Number of children	Percent exclusively breastfed*	Number of children	Percent receiving breastmilk & solid/ mushy food**	Number of children	Percent breastfed***	Number of children	Percent breastfed***	Number of children
Sex										
Male	12.8	77	10.2	109	44.9	65	75.9	66	34.9	81
Female	16.4	90	11.4	133	62.8	61	67.1	66	38.9	62
Region										
Ashgabat city	(*)	9	(0.0)	17	(*)	11	(*)	14	(*)	14
Ahal	(8.3)	20	(5.9)	28	(*)	13	(68.5)	21	44.1	21
Balkan	(*)	12	(22.2)	19	(*)	12	(*)	7	(*)	13
Dashoguz	(6.4)	32	(4.5)	45	(*)	22	(84.9)	34	(56.3)	26
Lebap	(20.9)	49	16.2	71	(68.1)	34	(80.9)	36	(33.9)	35
Mary	(15.4)	45	(11.3)	62	(*)	34	(*)	21	(*)	34
Residence										
Urban	13	60	9.0	87	50.7	53	71.3	42	33.9	62
Rural	15.7	107	11.9	155	55.6	73	71.6	91	38.8	81
Mother's education										
None/primary/secondary	15.8	144	11.6	211	52.7	108	70.4	110	39.0	120
Secondary vocational/professional (special)	(*)	17	(*)	22	(*)	12	(*)	15	(*)	17
Higher	(*)	6	(*)	9	(*)	7	(*)	7	(*)	6
Wealth index quintiles										
Poorest	(21.1)	41	(15.4)	57	(*)	24	(71.0)	33	(*)	24
Second	(14.1)	33	(10.4)	49	(*)	25	(78.9)	30	(36.6)	31
Middle	(7.1)	37	(5.4)	49	(45.4)	27	(70.2)	25	(34.5)	30
Fourth	(29.1)	28	19.8	47	(60.1)	27	(66.2)	22	(38.5)	26
Richest	(1.7)	28	(1.2)	40	(*)	23	(69.1)	23	(26.2)	31
Language										
Turkmen	18.3	134	13.2	199	54.5	106	72.6	112	35.2	120
Uzbek	(*)	19	(0.0)	28	(*)	12	72.6	(*)	57.5	(*)
Russian	(*)	4	(*)	5	(*)	4	66.7	(*)	41.5	(*)
Other	(*)	10	(*)	10	(*)	4	47.0	(*)	21.0	(*)
Total	**14.7**	**167**	**10.9**	**242**	**53.6**	**126**	**71.5**	**133**	**36.7**	**143**

*** MICS indicator 15**
**** MICS indicator 17**
***** MICS indicator 16**

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, Turkmenistan, 2006

	Percent of infants					
	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	10.2	36.6	23.6	29.3	19.8	219
Female	11.4	46.5	28.9	36.1	22.5	239
Region						
Ashgabat city	0.0	8.5	31.4	22.0	11.4	36
Ahal	5.9	27.2	13.0	17.6	11.7	54
Balkan	22.2	26.1	23.6	24.4	23.3	36
Dashoguz	4.5	63.4	29.2	41.9	21.9	84
Lebap	16.2	51.7	47.5	49.6	30.7	126
Mary	11.3	35.9	13.2	23.5	17.3	122
Residence						
Urban	9.0	39.2	29.9	34.5	21.4	170
Rural	11.9	43.1	24.5	31.5	21.0	289
Mother's education						
None/primary/secondary	11.6	39.4	25.7	31.4	20.9	398
Secondary vocational/professional (special)	(2.2)	(59.2)	(28.0)	(42.9)	(21.4)	41
Higher	(*)	(*)	(*)	(*)	(*)	19
Wealth index quintiles						
Poorest	15.4	63.4	22.7	39.6	25.8	100
Second	10.4	34.6	33.3	33.8	22.4	100
Middle	5.4	28.6	20.7	24.2	14.1	92
Fourth	19.8	50.7	26.3	34.6	27.1	94
Richest	1.2	32.5	26.5	30.0	14.4	74
Language						
Turkmen	13.2	38.8	25.8	31.2	21.9	383
Uzbek	(0.0)	(59.9)	(31.1)	(41.9)	(17.9)	49
Russian	(*)	(*)	(*)	(*)	(*)	11
Other	(*)	(*)	(*)	(*)	(*)	16
Total	**10.9**	**41.3**	**26.3**	**32.7**	**21.2**	**459**

*** MICS indicator 18**

**** MICS indicator 19**

Table NU.5: Iodized salt consumption

Percentage of households consuming adequately iodized salt, Turkmenistan, 2006

			Percent of households with salt test result				
	Percent of households in which salt was tested	Number of households interviewed	No salt	< 15 PPM	15+ PPM*	Total	Number of households in which salt was tested or with no salt
Region							
Ashgabat city	97.5	666	0.7	15.8	83.5	100.0	655
Ahal	100.0	683	0.0	5.0	95.0	100.0	683
Balkan	99.5	455	0.4	14.3	85.3	100.0	454
Dashoguz	100.0	904	0.0	3.8	96.2	100.0	904
Lebap	100.0	1117	0.0	21.7	78.3	100.0	1117
Mary	99.8	1217	0.2	15.7	84.1	100.0	1217
Residence							
Urban	99.1	2292	0.4	16.1	83.5	100.0	2280
Rural	100.0	2750	0.0	11.0	89.0	100.0	2750
Wealth index quintiles							
Poorest	100.0	885	0.0	16.2	83.8	100.0	885
Second	100.0	932	0.0	11.2	88.8	100.0	932
Middle	100.0	907	0.0	9.1	90.9	100.0	907
Fourth	99.9	972	0.1	11.8	88.1	100.0	972
Richest	98.5	1346	0.6	16.9	82.5	100.0	1334
Total	**99.6**	**5042**	**0.2**	**13.3**	**86.5**	**100.0**	**5030**

*** MICS indicator 41**

Table NU.6: Low birth weight infants

Percentage of live births in the 2 years preceding the Survey that weighed below 2500 grams at birth, Turkmenistan, 2006

	Percent of live births:		
	Below 2500 grams*	Weighed at birth**	Number of live births
Region			
Ashgabat city	4.6	92.1	72
Ahal	5.0	96.5	108
Balkan	3.9	95.0	71
Dashoguz	3.8	97.5	172
Lebap	4.3	98.8	229
Mary	3.9	99.3	218
Residence			
Urban	4.1	97.0	327
Rural	4.2	97.9	543
Mother's education			
None/primary/secondary	4.2	97.5	745
Secondary vocational/professional (special)	4.1	97.5	86
Higher	(3.2)	(98.5)	38
Wealth index quintiles			
Poorest	4.8	97.8	183
Second	3.7	98.2	182
Middle	3.9	99.4	176
Fourth	4.1	95.3	178
Richest	4.3	96.8	151
Language			
Turkmen	4.3	97.1	728
Uzbek	3.7	100.0	88
Russian	(1.8)	(96.6)	21
Other	(3.4)	(100.0)	32
Total	**4.2**	**97.5**	**869**

*** MICS indicator 9**

**** MICS indicator 10**

Table CH.1: Vaccinations in first year of life

Percentage of children aged 18-29 months immunized against childhood diseases at any time before the Survey and before the first birthday (18 months for measles), Turkmenistan, 2006

	Percentage of children who received:											Number of children aged 18-29 months
	BCG*	DPT1	DPT2	DPT3**	OPV0	OPV1	OPV2	OPV3***	Measles****	All *****	None	
Vaccinated at any time before the Survey *According to:*												
Vaccination card	99.3	99.7	99.7	99.3	98.5	99.2	99.0	98.9	97.6	97.3	0.0	413
Mother's report	0.6	0.3	0.3	0.6	1.3	0.8	0.8	0.1	1.0	0.0	0.0	413
Total	**99.8**	**100.0**	**100.0**	**99.9**	**99.8**	**100.0**	**99.9**	**99.1**	**98.6**	**97.3**	**0.0**	**413**
Vaccinated by 12 months of age	99.8	99.6	99.1	98.4	99.8	99.8	99.3	96.8	97.0	93.5	0.0	413

*** MICS indicator 25**
**** MICS indicator 27**
***** MICS indicator 26**
****** MICS indicator 28; MIDG indicator 15**
******* MICS indicator 31**

Table CH.1C: Vaccinations in first year of life (continued)

Percentage of children aged 18-29 months immunized against childhood diseases at any time before the Survey and before the first birthday (18 months for measles), Turkmenistan, 2006

	Percentage of children who received:			Number of children aged 18-29 months
	HepB1	HepB2	HepB3*	
Vaccinated at any time before the survey *According to:*				
Vaccination card	99.3	99.3	98.9	413
Mother's report	0.7	0.4	0.4	413
Total	**100.0**	**99.7**	**99.3**	**413**
Vaccinated by 12 months of age	99.5	98.4	96.8	413

*** MICS indicator 29**

Table CH.2: Vaccinations by background characteristics

Percentage of children aged 18-29 months currently vaccinated against childhood diseases, Turkmenistan, 2006

	Percentage of children who received:												Number of children aged 18-29 months
	BCG	DPT1	DPT2	DPT3	OPV0	OPV1	OPV2	OPV3	Measles	All	None	Percent with health card	
Sex													
Male	99.7	100.0	100.0	100.0	99.5	100.0	100.0	99.5	98.1	97.3	0.0	100.0	202
Female	100.0	100.0	100.0	99.8	100.0	100.0	99.7	98.6	99.0	97.4	0.0	98.9	212
Region													
Ashgabat city	98.6	100.0	100.0	100.0	100.0	100.0	100.0	98.5	96.7	93.7	0.0	98.5	45
Ahal	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	53
Balkan	100.0	100.0	100.0	98.5	100.0	100.0	98.3	96.5	95.0	90.2	0.0	95.1	33
Dashoguz	100.0	100.0	100.0	100.0	98.6	100.0	100.0	97.2	98.6	95.8	0.0	100.0	74
Lebap	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	107
Mary	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.3	98.3	0.0	100.0	101
Residence													
Urban	99.6	100.0	100.0	99.7	100.0	100.0	99.7	98.9	97.7	95.9	0.0	98.6	165
Rural	100.0	100.0	100.0	100.0	99.6	100.0	100.0	99.2	99.1	98.3	0.0	100.0	248
Mother's education													
None/primary/secondary	100.0	100.0	100.0	99.9	99.7	100.0	100.0	99.3	98.5	97.6	0.0	99.7	353
Secondary vocational/professional (special)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.5)	(100.0)	(98.5)	(0.0)	(98.5)	47
Higher	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14
Wealth index quintiles													
Poorest	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	82
Second	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.1	98.1	0.0	100.0	85
Middle	100.0	100.0	100.0	100.0	98.8	100.0	100.0	97.6	99.4	97.0	0.0	100.0	86
Fourth	100.0	100.0	100.0	99.4	100.0	100.0	100.0	100.0	97.0	96.3	0.0	99.4	77
Richest	99.2	100.0	100.0	100.0	100.0	100.0	99.3	97.8	98.2	95.3	0.0	97.8	84
Language													
Turkmen	100.0	100.0	100.0	99.9	99.7	100.0	100.0	99.4	98.5	97.8	0.0	99.9	350
Other	99.0	100.0	100.0	100.0	100.0	100.0	99.1	97.1	98.9	95.0	0.0	97.1	64
Total	**99.8**	**100.0**	**100.0**	**99.9**	**99.8**	**100.0**	**99.9**	**99.1**	**98.6**	**97.3**	**0.0**	**99.4**	**413**

Table CH.2C: Vaccinations by background characteristics (continued)

Percentage of children aged 18-29 months currently vaccinated against childhood diseases, Turkmenistan, 2006

	Percentage of children who received				
	HepB1	HepB2	HepB3	Percent with health card	Number of children aged 18-29 months
Sex					
Male	100.0	99.6	99.3	100.0	202
Female	100.0	99.7	99.2	98.9	212
Region					
Ashgabat city	100.0	98.4	97.0	98.5	45
Ahal	100.0	100.0	100.0	100.0	53
Balkan	100.0	98.3	95.1	95.1	33
Dashoguz	100.0	100.0	100.0	100.0	74
Lebap	100.0	100.0	100.0	100.0	107
Mary	100.0	100.0	100.0	100.0	101
Residence					
Urban	100.0	99.2	98.2	98.6	165
Rural	100.0	100.0	100.0	100.0	248
Mother's education					
None/primary/secondary	100.0	100.0	99.7	99.7	353
Secondary vocational/professional (special)	(100.0)	(100.0)	(98.6)	(98.5)	47
Higher	(*)	(*)	(*)	(*)	14
Wealth index quintiles					
Poorest	100.0	100.0	100.0	100.0	82
Second	100.0	100.0	100.0	100.0	85
Middle	100.0	100.0	100.0	100.0	86
Fourth	100.0	100.0	98.5	99.4	77
Richest	100.0	98.5	97.8	97.8	84
Language					
Turkmen	100.0	100.0	99.7	99.9	350
Other	100.0	98.0	97.1	97.1	64
Total	**100.0**	**99.7**	**99.3**	**99.4**	**413**

Table CH.3: Oral rehydration treatment

Percentage of children aged 0-59 months with diarrhoea in the last two weeks and treatment with oral rehydration solution (ORS) or other oral rehydration treatment (ORT), Turkmenistan, 2006

			Children with diarrhoea who received:				
	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	5.8	1050	41.8	18.6	49.1	50.9	61
Female	5.1	1025	38.1	10.1	57.3	42.7	52
Region							
Ashgabat city	9.2	178	(*)	(*)	(*)	(*)	16
Ahal	6.0	281	(*)	(*)	(*)	(*)	17
Balkan	3.2	158	(*)	(*)	(*)	(*)	5
Dashoguz	6.3	407	(35.7)	(32.1)	(52.3)	(47.7)	26
Lebap	4.3	517	(*)	(*)	(*)	(*)	22
Mary	5.1	534	(*)	(*)	(*)	(*)	27
Residence							
Urban	5.7	718	(31.7)	(4.1)	(68.3)	(31.7)	41
Rural	5.4	1357	44.8	20.6	44.3	55.7	73
Age							
Under 6 months	4.2	242	(*)	(*)	(*)	(*)	10
6–11 months	7.1	217	(*)	(*)	(*)	(*)	15
12–23 months	9.4	406	(51.0)	(10.8)	(44.2)	(55.8)	38
24–35 months	6.0	416	(31.8)	(12.0)	(62.7)	(37.3)	25
36–47 months	2.0	429	(*)	(*)	(*)	(*)	8
48–59 months	4.5	366	(*)	(*)	(*)	(*)	16
Mother's education							
None/primary/secondary	5.5	1753	40.0	15.0	51.8	48.2	97
Secondary vocational/professional (special)	4.0	232	(*)	(*)	(*)	(*)	9
Higher	7.7	90	(*)	(*)	(*)	(*)	7
Wealth index quintiles							
Poorest	4.7	485	(*)	(*)	(*)	(*)	23
Second	3.7	414	(*)	(*)	(*)	(*)	15
Middle	7.0	435	(43.8)	(24.8)	(42.3)	(57.7)	30
Fourth	5.2	389	(*)	(*)	(*)	(*)	20
Richest	6.9	351	(29.7)	(4.4)	(70.3)	(29.7)	24
Language							
Turkmen	5.5	1759	37.7	11.8	55.1	44.9	97
Other	5.2	316	(*)	(*)	(*)	(*)	16
Total	**5.5**	**2075**	**40.1**	**14.7**	**52.9**	**47.1**	**113**

*** MICS indicator 33**

Table CH.4: Home management of diarrhea

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, Turkmenistan, 2006

			Children with diarrhoea who:						
	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Drank more	Drank the same or less	Ate somewh at less, same or more	Ate much less or none	Home manage-ment of diarrhoea*	Received ORT or increased fluids and continued feeding**	Number of children aged 0-59 months with diarrhoea
Sex									
Male	5.8	1050	42.1	52.6	47.6	49.6	20.6	31.9	61
Female	5.1	1025	34.8	59.1	35.1	61.3	9.2	17.4	52
Region									
Ashgabat city	9.2	178	(*)	(*)	(*)	(*)	(*)	(*)	16
Ahal	6.0	281	(*)	(*)	(*)	(*)	(*)	(*)	17
Balkan	3.2	158	(*)	(*)	(*)	(*)	(*)	(*)	5
Dashoguz	6.3	407	(24.1)	(67.9)	(24.2)	(71.8)	(4.1)	(8.1)	26
Lebap	4.3	517	(*)	(*)	(*)	(*)	(*)	(*)	22
Mary	5.1	534	(*)	(*)	(*)	(*)	(*)	(*)	27
Residence									
Urban	5.7	718	(48.1)	(47.7)	(50.6)	(46.4)	(18.3)	(31.4)	41
Rural	5.4	1357	33.4	60.1	36.9	59.8	13.6	21.7	73
Age									
0-11 months	5.6	459	(23.9)	(61.0)	(44.1)	(47.9)	(5.0)	(13.4)	25
12-23 months	9.4	406	(50.5)	(46.8)	(40.7)	(56.6)	(24.4)	(31.1)	38
24-35 months	6.0	416	(53.4)	(44.5)	(38.6)	(59.3)	(16.6)	(25.8)	25
36-47 months	2.0	429	(*)	(*)	(*)	(*)	(*)	(*)	8
48-59 months	4.5	366	(*)	(*)	(*)	(*)	(*)	(*)	16
Mother's education									
None/primary/ secondary	5.5	1753	34.9	58.5	38.2	58.1	12.3	20.2	97
Secondary vocational/ professional (special)	4.0	232	(*)	(*)	(*)	(*)	(*)	(*)	9
Higher	7.7	90	(*)	(*)	(*)	(*)	(*)	(*)	7
Wealth index quintiles									
Poorest	4.7	485	(*)	(*)	(*)	(*)	(*)	(*)	23
Second	3.7	414	(*)	(*)	(*)	(*)	(*)	(*)	15
Middle	7.0	435	(19.0)	(77.7)	(32.1)	(67.9)	(7.1)	(15.6)	30
Fourth	5.2	389	(*)	(*)	(*)	(*)	(*)	(*)	20
Richest	6.9	351	(63.4)	(34.3)	(51.6)	(48.4)	(27.9)	(36.3)	24
Language									
Turkmen	5.5	1759	39.2	55.2	44.0	53.3	16.8	26.6	97
Other	5.2	316	(*)	(*)	(*)	(*)	(*)	(*)	16
Total	**5.5**	**2075**	**38.7**	**55.6**	**41.8**	**55.0**	**15.3**	**25.2**	**113**

*** MICS indicator 34**

**** MICS indicator 35**

Table CH.5: Care seeking for suspected pneumonia

Percentage of children aged 0-59 months with suspected pneumonia in the last two weeks taken to a health provider, Turkmenistan, 2006

			Children with suspected pneumonia who were taken to:							
			Public sources					Other source		
	Had acute respiratory infection[1]	Number of children aged 0–59 months	Govt hospital	Govt. health center	Govt. health post	Village health worker	Pharmacy	Traditional practitioner	Any appropriate provider*	Number of children aged 0–59 months with suspected pneumonia
Total	**1.3**	**2075**	**(23.8)**	**(56.9)**	**(17.3)**	**(18.2)**	**(5.0)**	**(4.4)**	**(82.7)**	**28**

*** MICS indicator 23**

Table CH.6: Antibiotic treatment of pneumonia
Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, Turkmenistan, 2006

	Percentage of under-5s with suspected pneumonia who received antibiotics in the last two weeks*	Number of children with suspected pneumonia in the two weeks prior to the Survey
Total	**(50.4)**	**28**

*** MICS indicator 22**

Table CH.7: 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, Turkmenistan, 2006

	Percentage of mothers/caretakers of children aged 0-59 months who think that a child should be taken immediately to a health facility if the child:									
	Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficult breathing	Has blood in stool	Is drinking poorly	Has other symptoms	Mothers/caretakers who recognize the two danger signs of pneumonia*	Number of mothers/caretakers of children aged 0-59 months
Region										
Ashgabat city	28.5	52.1	87.9	30.5	34.9	23.1	13.9	8.8	20.6	178
Ahal	46.2	65.0	89.9	42.6	51.7	42.9	18.1	12.3	31.9	281
Balkan	19.1	50.1	93.9	12.3	17.7	9.4	10.0	12.6	2.0	158
Dashoguz	25.7	56.1	92.3	31.0	30.2	20.4	24.4	4.6	9.4	407
Lebap	17.1	44.1	90.9	14.1	13.9	5.6	1.1	12.2	1.0	517
Mary	29.2	65.0	94.1	29.6	29.1	25.8	19.6	8.0	15.7	534
Residence										
Urban	26.6	52.4	91.3	23.4	29.1	21.8	14.3	11.1	13.4	718
Rural	27.2	57.6	92.1	28.2	27.7	19.9	14.6	8.5	11.8	1357
Mother's education										
None/primary/secondary	28.3	54.9	91.3	27.4	28.6	20.6	15.2	8.5	12.8	1753
Secondary vocational/professional (special)	20.8	63.1	96.2	21.9	25.4	19.3	11.7	14.8	10.2	232
Higher	17.3	55.0	91.6	21.3	28.2	23.1	7.8	12.1	9.6	90
Wealth index quintiles										
Poorest	23.7	58.3	90.8	26.1	21.3	17.1	11.4	5.1	7.0	485
Second	30.1	59.3	92.8	30.6	29.5	22.7	19.5	6.5	15.2	414
Middle	26.8	51.6	95.0	26.9	34.1	23.1	16.2	12.1	14.4	435
Fourth	32.7	58.0	90.2	26.5	30.3	22.5	14.1	10.4	14.6	389
Richest	21.7	51.1	90.2	21.8	26.5	17.4	11.4	14.2	11.5	351
Language										
Turkmen	26.6	58.9	91.3	26.6	28.4	22.2	13.9	9.4	13.3	1759
Uzbek	29.0	39.0	94.4	31.4	29.0	11.3	21.9	8.6	7.9	193
Russian	16.8	38.9	94.2	13.4	21.8	14.9	5.5	18.2	5.2	54
Other	38.6	36.9	96.2	20.1	27.2	8.2	15.8	4.9	6.6	69
Total	**27.0**	**55.8**	**91.8**	**26.5**	**28.2**	**20.5**	**14.5**	**9.4**	**12.4**	**2075**

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, Turkmenistan, 2006

	Percentage of households using:						
	Electricity	Liquified Petroleum Gas (LPG)	Natural Gas	Wood	Total	Solid fuels for cooking*	Number of households
Region							
Ashgabat city	0.2	0.0	99.8	0.0	100.0	0.0	666
Ahal	0.6	0.3	99.2	0.0	100.0	0.0	683
Balkan	0.1	11.1	88.8	0.0	100.0	0.0	455
Dashoguz	0.2	2.4	97.3	0.1	100.0	0.1	904
Lebap	0.2	16.7	81.5	1.6	100.0	1.6	1117
Mary	0.2	4.9	94.8	0.1	100.0	0.1	1217
Residence							
Urban	0.1	3.1	96.8	0.0	100.0	0.0	2292
Rural	0.4	9.0	89.8	0.7	100.0	0.7	2750
Education of household head							
None/primary/secondary	0.3	7.0	92.1	0.5	100.0	0.5	3161
Secondary vocational/professional (special)	0.1	6.3	93.2	0.4	100.0	0.4	1026
Higher	0.2	3.9	95.9	0.0	100.0	0.0	854
DK/Missing	(*)	(*)	(*)	(*)	100.0	(*)	2
Wealth index quintiles							
Poorest	0.5	31.0	66.3	2.1	100.0	2.1	885
Second	0.3	2.2	97.4	0.2	100.0	0.2	932
Middle	0.1	2.1	97.7	0.0	100.0	0.0	907
Fourth	0.3	0.4	99.3	0.0	100.0	0.0	972
Richest	0.2	0.1	99.7	0.0	100.0	0.0	1346
Language							
Turkmen	0.3	6.1	93.4	0.3	100.0	0.3	4050
Uzbek	0.3	14.0	83.6	2.1	100.0	2.1	346
Russian	0.2	0.5	99.4	0.0	100.0	0.0	411
Other	0.6	10.0	89.4	0.0	100.0	0.0	235
Total	**0.3**	**6.3**	**93.0**	**0.4**	**100.0**	**0.4**	**5042**

***MICS indicator 24; MDG indicator 29**

Table CH.9: Source and cost of supplies for oral rehydration salts

Percent distribution of children aged 0-59 months with diarrhoea during the two weeks preceding the Survey, by source of oral rehydration salts for treatment of diarrhoea, and percentage of children aged 0-59 months with diarrhoea during the two weeks preceding the Survey for whom oral rehydration salts were obtained for free, Turkmenistan, 2006

	Source of oral rehydration salts				Number of children with diarrhoea in prior 2 weeks who received oral rehydration salts	Percentage free		Median cost for those not free	
	Public*	Private	Other	Total		Public	Private	Public	Private
Total	**(82.3)**	**(7.9)**	**(9.9)**	**100.0**	**45**	**(27.1)**	**(*)**	**(*)**	**(*)**

*** MICS indicator 96**

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, Turkmenistan, 2006

	Main source of drinking water																
	Improved sources								Unimproved sources								
	Piped into dwelling	Piped into yard/plot	Public tap/ stand-pipe	Tube-well/ bore-hole	Pro-tected well	Pro-tected spring	Rain water	Bottled water[1]	Unpro-tected well	Unpro-tected spring	Tanker truck	Cart with tank/ drum	Surface water	Other	Total	Improved source of drinking water *	Number of house-hold members
Region																	
Ashgabat city	70.6	14.9	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	5.0	0.0	0.0	0.0	100.0	95.0	2639
Ahal	21.7	33.4	2.9	0.0	2.7	0.0	0.1	0.0	0.0	0.0	38.7	0.3	0.2	0.0	100.0	60.8	3751
Balkan	43.7	20.6	0.0	2.8	0.0	0.1	5.3	0.1	0.0	1.4	26.0	0.0	0.0	0.0	100.0	72.6	1941
Dashoguz	9.7	17.4	15.3	26.5	13.8	0.2	0.0	0.0	0.4	0.6	14.9	0.0	1.1	0.3	100.0	82.9	5302
Lebap	15.5	14.6	2.6	28.2	27.1	1.5	0.0	0.0	0.8	0.3	3.8	0.0	5.5	0.1	100.0	89.5	5525
Mary	14.6	13.8	0.5	6.2	4.0	0.0	0.0	0.0	1.3	0.4	47.7	0.4	11.3	0.0	100.0	39.0	6205
Residence																	
Urban	54.9	23.2	4.7	4.2	1.0	0.0	0.5	2.6	0.0	0.0	8.7	0.2	0.0	0.1	100.0	91.1	9676
Rural	3.1	15.2	4.0	19.1	15.8	0.6	0.4	0.0	0.9	0.6	33.2	0.1	6.8	0.1	100.0	58.2	15688
Education of household head																	
None/primary/secondary	17.5	19.3	4.6	13.9	11.3	0.3	0.5	0.2	0.7	0.4	26.0	0.1	5.0	0.1	100.0	67.7	16388
Secondary vocational/professional (special)	32.4	15.5	3.6	13.9	8.6	0.6	0.4	1.2	0.3	0.4	19.3	0.2	3.5	0.1	100.0	76.1	4871
Higher	33.1	17.4	3.8	10.9	7.2	0.2	0.1	3.9	0.5	0.1	20.7	0.1	1.8	0.0	100.0	76.7	4091
Wealth index quintiles																	
Poorest	0.2	15.8	1.8	19.8	21.5	1.8	0.0	0.0	0.7	0.3	28.9	0.0	9.2	0.0	100.0	61.0	5073
Second	0.1	14.2	6.2	23.5	14.8	0.0	0.3	0.0	0.3	0.7	34.2	0.2	5.2	0.3	100.0	59.2	5073
Middle	2.0	25.3	7.1	17.5	11.0	0.0	0.6	0.0	1.4	1.0	30.8	0.0	3.2	0.1	100.0	63.5	5072
Fourth	23.6	32.8	4.7	6.1	3.5	0.0	1.2	0.0	0.6	0.0	23.6	0.5	3.4	0.0	100.0	71.9	5074
Richest	88.4	3.1	1.7	0.1	0.0	0.0	0.1	5.0	0.0	0.0	1.7	0.0	0.0	0.0	100.0	98.3	5071
Language																	
Turkmen	19.9	17.2	4.7	13.2	11.9	0.1	0.5	0.8	0.7	0.4	27.7	0.2	2.7	0.1	100.0	68.3	21307
Uzbek	15.1	36.4	4.4	28.5	0.9	3.7	0.0	0.0	0.0	0.8	5.1	0.0	5.2	0.0	100.0	89.0	1898
Russian	86.1	4.3	0.1	2.1	0.0	0.0	0.0	6.8	0.0	0.0	0.5	0.1	0.0	0.0	100.0	99.4	1137
Other	29.6	21.5	1.1	2.3	2.0	0.0	0.0	1.3	0.0	0.0	4.1	0.0	38.0	0.0	100.0	57.9	1022
Total	**22.9**	**18.3**	**4.3**	**13.4**	**10.2**	**0.4**	**0.4**	**1.0**	**0.6**	**0.4**	**23.8**	**0.1**	**4.2**	**0.1**	**100.0**	**70.8**	**25364**

*** MICS indicator 11; MDG indicator 30**

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, Turkmenistan, 2006

	Water treatment method used in the household									All drinking water sources		Improved drinking water sources		Unimproved drinking water sources	
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Solar dis-infection	Let it stand and settle	Other	Don't know	Appropriate water treatment method*	Number of house-hold members	Appropriate water treatment method	Number of house-hold members	Appropriate water treatment method	Number of house-hold members
Region															
Ashgabat city	37.2	54.2	0.0	0.3	2.7	0.0	21.0	0.8	0.0	55.6	2639	57.9	2507	11.5	132
Ahal	16.1	69.3	2.2	0.2	0.0	0.1	67.8	0.0	0.0	69.6	3751	62.5	2280	80.5	1471
Balkan	14.8	54.3	8.6	6.9	1.4	0.3	52.3	0.5	0.0	63.3	1941	63.2	1409	63.5	532
Dashoguz	57.9	40.7	0.0	0.0	0.3	0.0	12.5	0.1	0.0	40.7	5302	45.5	4393	17.6	909
Lebap	25.5	63.4	0.0	0.6	0.2	0.0	47.8	0.0	0.0	63.4	5525	62.9	4944	67.3	581
Mary	19.3	60.9	0.9	0.3	0.9	0.3	51.0	0.2	0.0	61.5	6205	58.3	2420	63.6	3785
Residence															
Urban	30.2	59.1	1.4	1.5	1.1	0.1	36.9	0.3	0.0	60.6	9676	60.3	8816	64.3	860
Rural	29.5	56.2	1.1	0.4	0.5	0.1	44.7	0.1	0.0	56.9	15688	54.5	9137	60.2	6551
Education of household head															
None/primary/ secondary	29.5	56.4	1.3	0.8	0.3	0.1	43.0	0.2	0.0	57.2	16388	56.4	11096	58.8	5292
Secondary vocational/ professional (special)	29.5	59.8	1.2	1.1	1.2	0.1	39.5	0.1	0.0	61.0	4871	58.2	3708	69.8	1164
Higher	30.7	57.9	0.9	0.5	2.0	0.1	39.2	0.5	0.0	59.6	4091	59.6	3136	59.6	955
Wealth index quintiles															
Poorest	32.0	56.7	1.1	0.3	0.2	0.0	47.2	00.0	0.0	57.4	5073	54.8	3093	61.6	1981
Second	28.9	57.2	0.9	0.3	0.5	0.2	42.0	0.1	0.0	57.5	5073	56.3	3004	59.2	2069
Middle	30.4	57.4	1.5	0.7	0.6	0.0	42.7	0.2	0.0	58.5	5072	56.2	3223	62.6	1849
Fourth	27.5	56.2	2.3	1.1	0.1	0.2	45.9	0.1	0.0	57.7	5074	56.4	3649	61.1	1425
Richest	29.9	59.0	.3	1.6	2.1	0.1	30.7	0.6	0.0	60.3	5071	60.9	4983	25.8	88
Language															
Turkmen	27.6	58.6	1.4	0.8	0.6	0.1	44.0	0.2	0.0	59.6	21307	59.3	14543	60.3	6764
Uzbek	59.4	40.4	0.0	0.1	0.0	0.0	16.7	0.0	0.0	40.4	1898	35.8	1689	78.2	209
Russian	26.6	63.1	0.0	2.1	4.6	0.2	28.6	0.9	0.0	65.8	1137	66.1	1130	(*)	7
Other	24.0	54.5	0.3	1.0	0.8	0.2	55.3	0.0	0.0	55.0	1022	52.8	591	58.0	430
Total	**29.8**	**57.3**	**1.2**	**0.8**	**0.7**	**0.1**	**41.7**	**0.2**	**0.0**	**58.3**	**25364**	**57.3**	**17953**	**60.7**	**7411**

*** MICS indicator 13**

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, Turkmenistan, 2006

	Time to source of drinking water								
	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	Don't know	Total	Mean time to source of drinking water*	Number of households
Region									
Ashgabat city	96.6	3.4	0.0	0.0	0.0	0.0	100.0	4.9	666
Ahal	92.8	5.9	1.0	0.0	0.0	0.3	100.0	6.7	683
Balkan	93.4	2.1	2.0	0.9	1.6	0.0	100.0	27.0	455
Dashoguz	53.7	21.0	18.8	6.1	0.1	0.4	100.0	15.6	904
Lebap	73.9	19.6	5.3	1.1	0.0	0.0	100.0	8.3	1117
Mary	83.2	9.0	3.8	3.6	0.2	0.1	100.0	16.1	1217
Residence									
Urban	90.5	6.2	1.9	1.2	0.0	0.1	100.0	11.7	2292
Rural	70.8	16.4	9.1	3.2	0.4	0.1	100.0	13.7	2750
Education of household head									
None/primary/secondary	76.2	13.6	7.3	2.6	0.2	0.1	100.0	13.4	3161
Secondary vocational/professional (special)	84.7	9.5	3.2	2.3	0.2	0.1	100.0	13.1	1026
Higher	86.7	7.9	3.6	1.4	0.3	0.1	100.0	13.1	854
Wealth index quintiles									
Poorest	67.1	17.4	10.8	3.8	0.8	0.0	100.0	15.0	885
Second	68.8	18.0	8.9	3.9	0.1	0.2	100.0	13.2	932
Middle	74.1	14.0	8.5	3.1	0.1	0.2	100.0	13.6	907
Fourth	83.0	11.7	3.3	1.7	0.1	0.2	100.0	11.2	972
Richest	97.5	2.0	0.4	0.0	0.0	0.1	100.0	7.5	1346
Language									
Turkmen	78.8	13.0	5.9	1.9	0.2	0.1	100.0	12.3	4050
Uzbek	75.0	10.9	9.6	4.5	0.0	0.0	100.0	16.0	346
Russian	99.1	0.8	0.2	0.0	0.0	0.0	100.0	9.6	411
Other	67.7	11.3	9.1	10.1	1.2	0.6	100.0	22.5	235
Total	**79.6**	**11.8**	**5.9**	**2.3**	**0.2**	**0.1**	**100.0**	**13.3**	**5042**

* The mean time to source of drinking water is calculated based on those households that do not have water on the premises.

Table EN.4: Person collecting water

Percent distribution of households according to the person collecting drinking water used in the household, Turkmenistan, 2006

	Person collecting drinking water					
	Adult woman	Adult man	Female child under age 15	Male child under age 15	Total	Number of households
Region						
Ashgabat city	(70.8)	(29.2)	(0.0)	(0.0)	100.0	20
Ahal	92.1	4.9	1.5	1.5	100.0	49
Balkan	(52.4)	(22.6)	(14.6)	(10.3)	100.0	30
Dashoguz	64.0	28.4	4.3	3.4	100.0	419
Lebap	76.2	19.1	2.3	2.3	100.0	291
Mary	69.4	21.1	6.1	3.3	100.0	205
Residence						
Urban	66.2	24.8	2.3	6.7	100.0	211
Rural	70.7	22.5	4.7	2.2	100.0	804
Education of household head						
None/primary/ secondary	69.8	23.8	3.9	2.5	100.0	751
Secondary vocational/ professional (special)	67.1	20.3	5.6	7.0	100.0	155
Higher	72.9	21.3	4.2	1.6	100.0	107
Wealth index quintiles						
Poorest	73.0	20.1	4.7	2.2	100.0	291
Second	68.3	23.8	4.5	3.4	100.0	291
Middle	65.5	28.0	4.1	2.4	100.0	235
Fourth	73.3	19.6	3.1	4.0	100.0	165
Richest	(65.6)	(20.7)	(3.4)	(10.3)	100.0	32
Language						
Turkmen	70.7	22.7	4.3	2.3	100.0	850
Uzbek	71.1	17.1	2.5	9.3	100.0	87
Russian	(*)	(*)	(*)	(*)	100.0	4
Other	58.8	30.5	5.4	5.4	100.0	74
Total	**69.7**	**23.0**	**4.2**	**3.1**	**100.0**	**1014**

Table EN.5: Use of sanitary means of excreta disposal

Percent distribution of household members according to type of toilet facility used by the household, and the percentage of household members using sanitary means of excreta disposal, Turkmenistan, 2006

	Type of toilet facility used by household										
	Improved sanitation facility					Unimproved sanitation facility					
	Flush/pour flush to:										
	Piped sewer system	Septic tank	Pit latrine	Ventilated improved pit latrine	Pit latrine with slab	Flush/ pour flush to some-where else	Pit latrine without slab/ open pit	Other	Total	Percentage of population using improved sanitary means of excreta disposal*	Number of household members
Region											
Ashgabat city	74.3	3.9	8.3	8.3	5.2	0.0	0.0	0.0	100.0	100.0	2639
Ahal	5.6	0.9	3.1	22.1	68.1	0.1	0.0	0.0	100.0	99.9	3751
Balkan	38.1	1.4	1.4	22.0	36.3	0.2	0.5	0.1	100.0	99.2	1941
Dashoguz	8.4	0.1	0.1	7.0	82.0	0.9	1.3	0.1	100.0	97.6	5302
Lebap	13.6	0.6	0.3	20.8	63.0	1.7	0.0	0.0	100.0	98.3	5525
Mary	10.3	0.0	0.0	19.8	68.4	1.4	0.1	0.0	100.0	98.4	6205
Residence											
Urban	48.9	2.1	3.2	20.0	25.6	0.1	0.1	0.0	100.0	99.8	9676
Rural	0.1	0.0	0.5	14.6	82.8	1.5	0.5	0.0	100.0	98.0	15688
Education of household head											
None/primary/secondary	12.7	0.5	1.6	15.0	68.7	1.0	0.5	0.1	100.0	98.5	16388
Secondary vocational/professional (special)	28.6	0.9	1.0	15.7	52.5	1.1	0.2	0.0	100.0	98.7	4871
Higher	31.2	1.9	1.8	24.3	40.0	0.7	0.1	0.0	100.0	99.2	4091
Wealth index quintiles											
Poorest	0.0	0.0	0.0	6.4	91.8	1.2	0.6	0.0	100.0	98.2	5073
Second	0.0	0.0	0.2	6.6	91.7	1.1	0.4	0.0	100.0	98.5	5073
Middle	0.0	0.0	0.2	20.6	77.1	1.4	0.7	0.1	100.0	97.8	5072
Fourth	5.7	1.7	5.1	43.4	43.1	1.0	0.1	0.0	100.0	98.9	5074
Richest	87.8	2.3	2.2	6.3	1.4	0.0	0.0	0.0	100.0	100.0	5071
Language											
Turkmen	15.2	0.8	1.6	17.8	63.2	0.9	0.4	0.0	100.0	98.7	21307
Uzbek	12.2	0.4	0.3	11.5	75.4	0.3	0.0	0.0	100.0	99.7	1898
Russian	89.1	1.6	1.9	3.6	3.8	0.0	0.0	0.0	100.0	100.0	1137
Other	25.0	0.1	1.9	16.7	52.0	3.2	1.2	0.0	100.0	95.6	1022
Total	**18.7**	**0.8**	**1.5**	**16.6**	**61.0**	**0.9**	**0.4**	**0.0**	**100.0**	**98.7**	**25364**

*** MICS indicator 12; MDG indicator 31**

Table EN.6: Use of improved water sources and improved sanitation

Percentage of household population using both improved drinking water sources and sanitary means of excreta disposal, Turkmenistan, 2006

	Percentage of household population:			
	Using improved sources of drinking water*	Using sanitary means of excreta disposal**	Using improved sources of drinking water and using sanitary means of excreta disposal	Number of household members
Region				
Ashgabat city	95.0	100.0	95.0	2639
Ahal	60.8	99.9	60.7	3751
Balkan	72.6	99.2	72.0	1941
Dashoguz	82.9	97.6	80.6	5302
Lebap	89.5	98.3	88.5	5525
Mary	39.0	98.4	38.9	6205
Residence				
Urban	91.1	99.8	91.0	9676
Rural	58.2	98.0	57.1	15688
Education of household head				
None/primary/secondary	67.7	98.5	66.8	16388
Secondary vocational/professional (special)	76.1	98.7	75.5	4871
Higher	76.7	99.2	76.3	4091
Wealth index quintiles				
Poorest	61.0	98.2	59.5	5073
Second	59.2	98.5	58.2	5073
Middle	63.5	97.8	62.4	5072
Fourth	71.9	98.9	71.8	5074
Richest	98.3	100.0	98.2	5071
Language				
Turkmen	68.3	98.7	67.4	21307
Uzbek	89.0	99.7	88.7	1898
Russian	99.4	100.0	99.4	1137
Other	57.9	95.6	56.9	1022
Total	**70.8**	**98.7**	**70.0**	**25364**

*** MICS indicator 11; MDGS indicator 30**

**** MICS indicator 12; MDG indicator 31**

Table RH.1: Use of contraception

Percentage of married or in union women aged 15-49 who are using (or whose partner is using) a contraceptive method, Turkmenistan, 2006

		Percent of women (currently married or in union) who are using:														
	Not using any method	Pill	IUD	Injections	Implants	Condom	Female condom	Diaph-ragm/ foam/ jelly	LAM	Periodic abstin-ence	With-drawal	Other	Any modern method	Any tradi-tional method	Any method *	Number of women currently married or in union
Region																
Ashgabat city	46.3	5.1	41.7	0.6	0.0	4.0	0.3	0.2	0.4	1.1	0.0	0.3	51.9	1.9	53.7	397
Ahal	55.0	2.3	39.5	0.9	0.4	0.3	0.0	0.0	1.3	0.1	0.1	0.0	43.4	1.6	45.0	590
Balkan	62.4	1.6	32.3	0.0	0.2	1.7	0.7	0.0	0.0	0.5	0.4	0.2	36.4	1.2	37.6	302
Dashoguz	52.5	0.5	45.9	0.4	0.1	0.0	0.0	0.0	0.0	0.3	0.3	0.0	47.0	0.5	47.5	775
Lebap	56.7	1.1	35.5	0.9	0.1	0.7	0.0	0.0	1.9	0.0	2.6	0.5	38.3	5.0	43.3	895
Mary	44.8	1.3	51.3	0.6	0.0	0.5	0.0	0.1	0.9	0.0	0.4	0.1	53.8	1.4	55.2	1002
Residence																
Urban	53.1	3.1	39.4	0.5	0.0	2.0	0.1	0.0	0.6	0.5	0.3	0.3	45.2	1.7	46.9	1529
Rural	51.3	0.7	44.4	0.7	0.2	0.2	0.0	0.1	1.1	0.0	1.1	0.1	46.3	2.3	48.7	2432
Age																
15–19	94.5	0.9	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.0	5.5	74
20–24	77.6	1.7	17.1	0.0	0.0	0.4	0.0	0.0	2.7	0.2	0.3	0.0	19.3	3.1	22.4	469
25–29	58.4	2.1	35.1	0.1	0.2	1.1	0.1	0.0	1.8	0.1	0.9	0.1	38.7	2.9	41.6	741
30–34	42.5	1.4	51.9	0.8	0.0	0.8	0.2	0.0	1.0	0.1	1.3	0.1	55.0	2.4	57.5	702
35–39	35.9	2.1	56.9	1.3	0.3	1.2	0.2	0.1	0.2	0.2	1.0	0.7	62.0	2.1	64.1	703
40–44	42.3	2.2	51.6	1.1	0.0	1.0	.1	0.2	0.2	0.6	0.4	0.2	56.2	1.4	57.7	674
45–49	59.6	0.4	38.1	0.2	0.4	0.5	0.0	0.0	0.0	0.1	0.8	0.0	39.5	0.9	40.4	599
Number of living children**																
0	98.6	0.4	0.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	1.4	346
1	72.7	2.9	20.2	0.1	0.0	1.2	0.0	0.0	2.5	0.1	0.2	0.1	24.4	2.9	27.3	629
2	42.9	2.0	50.8	0.3	0.1	1.0	0.3	0.0	0.9	0.2	1.1	0.4	54.5	2.6	57.1	1020
3	36.9	1.7	57.1	0.9	0.2	1.2	0.0	0.1	0.7	0.4	0.8	0.0	61.2	1.9	63.1	884
4 and more	45.9	1.0	48.9	1.1	0.2	0.5	0.1	0.1	0.4	0.3	1.1	0.2	52.0	2.0	54.1	1082
Education																
None/primary/secondary	53.7	1.3	41.4	0.6	0.1	0.6	0.1	0.0	1.1	0.1	0.8	0.1	44.1	2.1	46.3	3120
Secondary vocational/professional (special)	46.4	2.2	46.6	1.1	0.2	1.5	0.2	0.1	0.2	0.4	0.7	0.3	51.9	1.6	53.6	592
Higher	43.5	4.4	46.0	0.3	0.0	2.7	0.2	0.0	0.0	1.2	0.8	0.9	53.6	2.8	56.5	250
Wealth index quintiles																
Poorest	54.1	0.5	40.6	0.9	0.1	0.5	0.0	0.0	1.9	0.1	1.4	0.0	42.5	3.4	45.9	791
Second	52.6	0.7	43.9	0.7	0.3	0.2	0.0	0.0	0.8	0.0	0.7	0.2	45.8	1.6	47.4	788
Middle	51.5	1.6	43.5	0.8	0.1	0.2	0.2	0.2	0.7	0.1	1.0	0.0	46.7	1.8	48.5	783
Fourth	49.9	1.1	46.1	0.3	0.2	0.5	0.1	0.0	0.8	0.4	0.4	0.2	48.3	1.8	50.1	788
Richest	51.9	4.4	38.4	0.4	0.0	2.9	0.1	0.1	0.3	0.5	0.5	0.6	46.2	1.9	48.1	812
Language																
Turkmen	52.4	1.2	42.6	0.7	0.2	0.6	0.1	0.1	1.0	0.2	0.9	0.1	45.3	2.3	47.6	3370
Uzbek	48.1	1.8	48.2	0.4	0.0	0.5	0.0	0.0	0.0	0.3	0.7	0.0	50.9	1.0	51.9	311
Russian	45.5	11.8	34.1	0.5	0.0	5.0	0.8	0.0	0.0	0.5	0.0	1.9	52.2	2.3	54.5	145
Other	58.4	2.0	36.9	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	41.6	0.0	41.6	135
Total	**52.0**	**1.7**	**42.5**	**0.6**	**0.1**	**0.9**	**0.1**	**0.1**	**0.9**	**0.2**	**0.8**	**0.2**	**45.9**	**2.1**	**48.0**	**3961**

***** MICS indicator **21;** MDG indicator **19C**

Table RH.2: Unmet need for contraception

Percentage of women aged 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Turkmenistan, 2006

		Unmet need for contraception					
	Current use of contraception*	For spacing	For limiting	Total**	Number of women currently married or in union	Percentage of demand for contraception satisfied***	Number of women currently married or in union with need for contraception
Region							
Ashgabat city	53.7	4.6	8.7	13.3	397	80.1	266
Ahal	45.0	7.6	10.7	18.3	590	71.1	373
Balkan	37.6	5.1	11.3	16.4	302	69.6	163
Dashoguz	47.5	9.4	8.3	17.6	775	72.9	505
Lebap	43.3	5.7	13.0	18.7	895	69.8	554
Mary	55.2	4.8	6.7	11.5	1002	82.7	669
Residence							
Urban	46.9	5.8	10.9	16.6	1529	73.8	972
Rural	48.7	6.7	8.8	15.5	2432	75.9	1560
Age							
15-19	(*)	(*)	(*)	(*)	(*)	(*)	20
20-24	22.4	19.1	3.5	22.6	469	49.8	211
25-29	41.6	12.5	5.2	17.7	741	70.1	439
30-34	57.5	6.3	7.9	14.3	702	80.1	504
35-39	64.1	1.2	14.1	15.3	703	80.7	558
40-44	57.7	0.0	13.5	13.5	674	81.0	479
45-49	40.4	0.0	13.1	13.1	599	75.5	320
Education							
None/primary/ secondary	46.3	6.7	9.8	16.4	3120	73.8	1956
Secondary vocational/ professional (special)	53.6	4.6	9.6	14.2	592	79.0	401
Higher	56.5	6.0	7.3	13.3	250	80.9	174
Wealth index quintiles							
Poorest	45.9	6.9	9.4	16.3	791	73.8	492
Second	47.4	7.4	8.3	15.6	788	75.2	496
Middle	48.5	5.9	9.5	15.4	783	75.9	500
Fourth	50.1	6.2	9.2	15.4	788	76.5	516
Richest	48.1	5.3	11.4	16.8	812	74.2	527
Language							
Turkmen	47.6	6.1	9.5	15.6	3370	75.3	2131
Uzbek	51.9	8.2	9.7	17.9	311	74.3	218
Russian	54.5	6.0	9.5	15.4	145	77.9	102
Other	41.6	8.5	10.3	18.8	135	68.9	81
Total	**48.0**	**6.3**	**9.6**	**15.9**	**3961**	**75.1**	**2532**

*** MICS indicator 21; MDG indicator 19C**

**** MICS indicator 98**

***** MICS indicator 99**

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, Turkmenistan, 2006

	Person providing antenatal care							
	Medical doctor	Nurse/ midwife	Traditional birth attendant	Other	No antenatal care received	Total	Any skilled personnel*	Number of women who gave birth in the preceding two years
Region								
Ashgabat city	100.0	0.0	0.0	0.0	0.0	100.0	100.0	72
Ahal	95.6	4.4	0.0	0.0	0.0	100.0	100.0	108
Balkan	88.3	6.9	0.7	0.0	4.1	100.0	95.2	71
Dashoguz	95.7	3.6	0.0	0.0	0.6	100.0	99.4	172
Lebap	92.3	6.9	0.0	0.8	0.0	100.0	99.2	229
Mary	98.8	0.6	0.0	0.0	0.6	100.0	99.4	218
Residence								
Urban	96.6	2.2	0.2	0.6	0.5	100.0	98.8	327
Rural	94.5	4.8	0.0	0.0	0.7	100.0	99.3	543
Age								
15-19	(95.5)	(4.5)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	29
20-24	96.0	3.8	0.0	0.0	0.2	100.0	99.8	281
25-29	96.3	2.9	0.0	0.6	0.2	100.0	99.2	302
30-34	94.7	4.0	0.3	0.0	1.0	100.0	98.7	161
35-39	91.2	6.1	0.0	0.0	2.7	100.0	97.3	73
40-44	(91.8)	(5.7)	(0.0)	(0.0)	(2.5)	100.0	(97.5)	23
45-49	(*)	(*)	(*)	(*)	(*)	100.0	(*)	1
Education								
None/primary/secondary	95.2	4.2	0.1	0.0	0.6	100.0	99.4	745
Secondary vocational/professional (special)	95.0	1.5	0.0	2.2	1.2	100.0	96.5	86
Higher	(98.6)	(1.4)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	38
Wealth index quintiles								
Poorest	91.8	6.2	0.0	0.0	2.0	100.0	98.0	183
Second	94.6	5.4	0.0	0.0	0.0	100.0	100.0	182
Middle	96.6	3.4	0.0	0.0	0.0	100.0	100.0	176
Fourth	96.4	3.3	0.3	0.0	0.0	100.0	99.7	178
Richest	97.6	0.0	0.0	1.3	1.1	100.0	97.6	151
Language								
Turkmen	94.9	4.2	0.1	0.3	0.6	100.0	99.1	728
Uzbek	97.3	1.5	0.0	0.0	1.2	100.0	98.8	88
Russian	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	21
Other	(96.1)	(3.9)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	32
Total	**95.3**	**3.8**	**0.1**	**0.2**	**0.6**	**100.0**	**99.1**	**869**

*** MICS indicator 20**

Table RH.4: Antenatal care

Percentage of pregnant women receiving antenatal 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, Turkmenistan, 2006

		Percent of pregnant women who had::								
	Percent of pregnant women receiving ANC one or more times during pregnancy	Blood test taken*	Blood pressure measured*	Urine specimen taken*	Blood group identified*	Gynaecological examination conducted*	Pregnancy term determined *	Ultrasonic examination conducted *	Weight measured*	Number of women who gave birth in two years preceding Survey
Region										
Ashgabat city	100.0	100.0	100.0	100.0	99.0	91.4	99.0	99.0	100.0	72
Ahal	100.0	98.5	100.0	99.3	99.2	98.5	97.7	89.5	97.0	108
Balkan	95.9	92.7	91.1	94.2	86.6	88.8	95.9	80.7	89.7	71
Dashoguz	99.4	96.9	80.5	92.0	82.9	98.1	94.5	71.1	86.9	172
Lebap	100.0	100.0	100.0	98.8	98.2	98.2	94.7	78.4	97.1	229
Mary	99.4	98.7	98.1	97.9	93.7	92.9	98.1	64.2	76.7	218
Residence										
Urban	99.5	98.5	96.6	97.3	96.0	95.3	97.8	89.6	95.4	327
Rural	99.3	98.2	94.0	96.9	91.7	95.7	95.5	68.9	86.1	543
Age										
15–19	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(79.2)	(100.0)	29
20–24	99.8	98.7	94.2	97.7	89.4	96.7	97.2	78.4	90.5	281
25–29	99.8	98.7	95.7	98.4	95.2	93.8	96.0	72.1	88.0	302
30–34	99.0	97.8	93.4	94.2	95.0	97.5	94.9	76.3	87.4	161
35–39	97.3	95.9	96.5	95.9	94.1	94.6	96.2	85.7	91.0	73
40–44	(97.5)	(97.5)	(97.5)	(89.5)	(97.5)	(89.5)	(97.5)	(85.6)	(97.5)	23
45–49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	1
Education										
None/primary/secondary	99.4	98.2	94.3	96.8	92.5	95.4	96.0	75.1	89.1	745
Secondary vocational/professional (special)	98.8	98.8	98.8	98.8	97.8	96.5	98.8	83.5	90.8	86
Higher	(100.0)	(100.0)	(100.0)	(97.2)	(100.0)	(96.8)	(97.2)	(92.9)	(97.2)	38
Wealth index quintiles										
Poorest	98.0	96.0	96.3	95.8	92.0	95.2	93.4	65.7	85.6	183
Second	100.0	99.4	92.2	97.9	90.1	96.6	98.9	66.7	84.9	182
Middle	100.0	99.2	92.2	96.8	92.8	95.9	94.3	73.9	88.3	176
Fourth	100.0	99.6	97.3	98.0	95.6	93.8	97.3	85.5	94.9	178
Richest	98.9	97.1	97.1	96.4	96.7	96.5	98.2	94.9	95.3	151
Language										
Turkmen	99.4	98.5	98.2	96.9	96.0	95.4	96.2	74.7	89.2	728
Uzbek	98.8	96.4	65.6	96.4	68.0	96.1	95.2	89.2	90.1	88
Russian	(100.0)	(97.5)	(97.5)	(97.5)	(97.5)	(94.3)	(100.0)	(100.0)	(86.3)	21
Other	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(97.9)	(100.0)	(70.9)	(100.0)	32
Total	**99.4**	**98.3**	**95.0**	**97.0**	**93.3**	**95.6**	**96.3**	**76.7**	**89.6**	**869**

***** MICS indicator **44**

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, Turkmenistan, 2006

	Person assisting at delivery								Number of women who gave birth in preceding two years
	Medical doctor	Nurse/ midwife	Traditional birth attendant	Other	No attendant	Total	Any skilled personnel *	Delivered in health facility**	
Region									
Ashgabat city	87.3	12.7	0.0	0.0	0.0	100.0	100.0	99.1	72
Ahal	88.9	11.1	0.0	0.0	0.0	100.0	100.0	100.0	108
Balkan	68.9	28.6	0.0	0.8	1.6	100.0	97.5	91.3	71
Dashoguz	93.8	6.2	0.0	0.0	0.0	100.0	100.0	95.7	172
Lebap	82.2	17.3	0.6	0.0	0.0	100.0	99.4	98.2	229
Mary	95.1	4.3	0.6	0.0	0.0	100.0	99.4	99.4	218
Residence									
Urban	85.3	14.7	0.0	0.0	0.0	100.0	100.0	98.7	327
Rural	89.5	9.7	0.5	0.1	0.2	100.0	99.2	97.2	543
Age									
15-19	(86.5)	(13.5)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	(100.0)	29
20-24	88.5	11.5	0.0	0.0	0.0	100.0	100.0	99.6	281
25-29	89.1	9.8	0.9	0.0	0.2	100.0	98.9	96.6	302
30-34	86.3	13.3	0.0	0.0	0.4	100.0	99.6	95.7	161
35-39	83.7	15.5	0.0	0.8	0.0	100.0	99.2	98.4	73
40-44	(90.2)	(9.8)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	(100.0)	23
45-49	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	1
Education									
None/primary/secondary	87.5	11.9	0.4	0.1	0.2	100.0	99.4	97.4	745
Secondary vocational/professional (special)	87.7	12.3	0.0	0.0	0.0	100.0	100.0	100.0	86
Higher	(95.9)	(4.1)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	(100.0)	38
Wealth index quintiles									
Poorest	86.7	12.3	0.0	0.3	0.6	100.0	99.0	97.0	183
Second	90.3	8.3	1.4	0.0	0.0	100.0	98.6	97.6	182
Middle	87.4	12.6	0.0	0.0	0.0	100.0	100.0	95.8	176
Fourth	86.6	13.4	0.0	0.0	0.0	100.0	100.0	98.7	178
Richest	88.5	11.5	0.0	0.0	0.0	100.0	100.0	100.0	151
Language									
Turkmen	87.4	12.2	0.2	0.1	0.2	100.0	99.6	98.0	728
Uzbek	93.9	6.1	0.0	0.0	0.0	100.0	100.0	96.0	88
Russian	(88.4)	(11.6)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	(100.0)	21
Other	(82.0)	(14.0)	(4.0)	(0.0)	(0.0)	100.0	(96.0)	(96.0)	32
Total	**87.9**	**11.6**	**0.3**	**0.1**	**0.1**	**100.0**	**99.5**	**97.8**	**869**

*** MICS indicator 4; MDG indicator 17**

**** MICS indicator 5**

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, Turkmenistan, 2006

	Percentage 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 engaged in with the child	Living in a household without their natural father	Number of children aged 0-59 months
Sex						
Male	80.7	4.6	62.8	1.2	5.6	1050
Female	78.3	4.5	60.0	1.1	7.0	1025
Region						
Ashgabat city	87.6	5.1	62.2	1.2	16.5	178
Ahal	82.0	4.7	75.9	1.5	3.5	281
Balkan	82.3	4.6	63.5	1.3	10.4	158
Dashoguz	87.3	4.8	71.2	1.4	4.1	407
Lebap	79.9	4.5	54.8	1.1	7.0	517
Mary	68.3	4.2	51.9	0.8	4.1	534
Residence						
Urban	79.1	4.6	60.0	1.2	12.8	718
Rural	79.7	4.5	62.1	1.1	2.8	1357
Age						
0-23 months	63.1	3.8	55.2	1.0	5.3	864
24-59 months	91.2	5.1	65.8	1.3	7.0	1211
Mother's education						
None/primary/ secondary	78.8	4.5	61.0	1.1	4.9	1753
Secondary vocational/ professional (special)	81.4	4.8	63.1	1.4	12.7	232
Higher	89.1	5.2	65.3	1.4	16.0	90
Father's education						
None/primary/ secondary	78.4	4.5	64.2	1.2	na	1453
Secondary vocational/ professional (special)	78.1	4.7	65.9	1.3	na	269
Higher	82.8	4.9	73.6	1.5	na	223
Father not in HH	88.6	5.0	na	na	na	130
Wealth index quintiles						
Poorest	81.1	4.5	62.5	1.1	3.3	485
Second	76.7	4.5	59.5	1.1	4.4	414
Middle	78.8	4.5	63.7	1.1	2.7	435
Fourth	76.6	4.5	63.3	1.3	5.4	389
Richest	84.6	4.9	57.2	1.2	18.1	351
Language						
Turkmen	77.7	4.5	60.6	1.1	5.0	1759
Uzbek	92.4	4.8	76.1	1.4	5.3	193
Russian	89.2	5.3	38.4	1.1	47.4	54
Other	81.4	4.4	59.4	1.1	10.1	69
Total	**79.5**	**4.6**	**61.4**	**1.2**	**6.3**	**2075**

*** MICS indicator 46**

**** MICS indicator 47**

Table CD.2: Learning materials

Percentage of children aged 0-59 months living in households containing learning materials, Turkmenistan, 2006

	Children living in households with:		Child has:		Child plays with:						
	3 or more non-child-ren's books*	Median number of non-child-ren's books	**3** or more child-ren's books**	Median number of child-ren's books	House-hold objects	Objects and materials found outside the home	Home made toys	Toys that came from a store	No play-things mentioned	Three or more types of play-things***	Number of children aged 0–59 months
Sex											
Male	59.6	5	39.8	2	16.5	41.2	39.4	91.7	3.6	24.3	1050
Female	57.2	5	44.1	2	22.5	32.3	38.5	91.9	3.6	23.1	1025
Region											
Ashgabat city	90.5	10	79.0	10	27.2	22.5	24.1	91.9	2.3	15.4	178
Ahal	77.2	7	66.4	4	33.1	44.5	54.8	95.6	1.2	39.1	281
Balkan	40.0	0	27.2	0	41.3	44.8	39.4	86.2	5.5	37.3	158
Dashoguz	62.1	6	49.8	2	6.9	38.7	53.9	92.7	4.1	22.6	407
Lebap	59.5	5	28.7	0	15.6	38.0	22.8	90.4	3.8	17.2	517
Mary	39.6	0	28.0	0	16.5	32.5	39.6	92.1	4.1	21.5	534
Residence											
Urban	68.7	10	56.3	3	23.3	32.5	26.5	91.7	4.2	19.5	718
Rural	53.0	3	34.3	0	17.4	39.0	45.5	91.8	3.3	26.0	1357
Age											
0-23 months	55.3	5	38.3	0	17.3	17.7	25.3	89.6	8.0	12.2	864
24-59 months	60.7	5	44.6	2	20.9	50.4	48.7	93.3	0.4	31.9	1211
Mother's education											
None/primary/ secondary	54.4	4	37.5	1	19.0	37.6	40.4	91.4	3.8	24.4	1753
Secondary vocational/ professional (special)	74.3	10	61.5	4	20.2	32.5	34.4	93.3	2.8	19.7	232
Higher	95.4	10	78.5	10	26.3	32.4	21.7	94.6	2.0	20.2	90
Wealth index quintiles											
Poorest	46.5	1	23.7	0	17.2	42.6	44.0	90.7	2.8	26.7	485
Second	50.7	3	34.4	1	15.3	31.6	49.7	90.6	3.9	21.8	414
Middle	61.4	5	40.2	2	19.0	43.4	42.2	93.0	3.5	27.2	435
Fourth	66.1	8	53.7	3	22.7	33.5	36.8	90.7	4.5	22.9	389
Richest	72.0	10	65.3	6	24.2	30.5	17.6	94.2	3.4	18.2	351
Language											
Turkmen	57.3	5	39.8	2	21.3	37.7	38.3	91.7	3.6	25.1	1759
Uzbek	70.9	10	54.1	3	4.0	33.0	49.9	95.7	2.7	15.7	193
Russian	87.2	10	93.2	10	28.5	25.5	11.3	95.1	2.3	18.5	54
Other	31.0	0	22.6	0	7.5	31.8	46.2	79.2	7.6	15.0	69
Total	**58.4**	**5**	**42.0**	**2**	**19.4**	**36.8**	**38.9**	**91.8**	**3.6**	**23.7**	**2075**

*** MICS indicator 49**

**** MICS indicator 48**

***** MICS indicator 50**

Table CD.3: Children left alone or with other children

Percentage of children aged 0-59 months left in the care of other children under the age of 10 years or left alone in the past week, Turkmenistan, 2006

	Percentage of children aged 0-59 months			
	Left in the care of 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	15.1	3.6	15.2	1050
Female	15.2	4.1	15.7	1025
Region				
Ashgabat city	13.9	1.1	13.9	178
Ahal	26.0	6.5	26.8	281
Balkan	20.1	6.4	20.5	158
Dashoguz	8.3	0.5	8.3	407
Lebap	9.6	1.1	9.6	517
Mary	19.0	7.8	19.5	534
Residence				
Urban	16.0	4.0	16.4	718
Rural	14.7	3.8	14.9	1357
Age				
0-23 months	9.6	2.5	9.7	864
24-59 months	19.2	4.8	19.5	1211
Mother's education				
None/primary/secondary	15.8	4.1	16.1	1753
Secondary vocational/professional (special)	12.6	3.2	12.6	232
Higher	10.0	0.7	10.7	90
Wealth index quintiles				
Poorest	17.9	4.5	17.9	485
Second	14.2	4.1	14.8	414
Middle	16.1	3.1	16.4	435
Fourth	16.3	4.6	16.5	389
Richest	10.1	2.6	10.2	351
Language				
Turkmen	15.9	4.1	16.2	1759
Uzbek	10.4	0.5	10.4	193
Russian	7.1	3.3	8.3	54
Other	15.3	6.1	15.3	69
Total	**15.2**	**3.8**	**15.4**	**2075**

*** MICS indicator 51**

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 preschool, Turkmenistan, 2006

	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 programme in previous year**	Number of children attending first grade
Sex				
Male	23.2	421	34.9	166
Female	25.8	374	29.7	161
Region				
Ashgabat city	67.3	67	90.0	28
Ahal	23.2	113	43.7	38
Balkan	35.5	60	(29.7)	17
Dashoguz	10.5	168	13.4	90
Lebap	20.9	188	27.9	73
Mary	22.5	199	32.4	80
Residence				
Urban	52.4	261	64.3	106
Rural	10.8	534	16.9	221
Age				
36–47 months	22.7	429	na	na
48–59 months	26.4	366	na	na
7 years	na	na	32.3	327
Mother's education				
None/primary/secondary	19.5	661	27.7	243
Secondary vocational/professional (special)	49.3	97	46.1	61
Higher	(46.4)	37	(44.5)	22
Wealth index quintiles				
Poorest	10.2	198	16.0	69
Second	7.9	156	14.2	70
Middle	19.3	175	20.1	76
Fourth	32.7	137	37.3	53
Richest	64.3	129	84.0	59
Language				
Turkmen	23.8	678	31.5	266
Uzbek	21.8	69	(23.2)	42
Russian	(61.8)	21	(*)	12
Other	(*)	26	(*)	7
Total	**24.4**	**795**	**32.3**	**327**

*** MICS indicator 52**

**** MICS indicator 53**

Table ED.2: Primary school entry

Percentage of children of primary school entry age attending grade 1, Turkmenistan, 2006

	Percentage of children of primary school entry age currently attending grade 1*	Number of children of primary school entry age
Sex		
Male	95.8	270
Female	97.7	234
Region		
Ashgabat city	96.6	45
Ahal	91.5	69
Balkan	94.8	32
Dashoguz	98.4	131
Lebap	97.4	107
Mary	97.7	119
Residence		
Urban	96.7	165
Rural	96.7	338
Child's age at the beginning of school year		
7 years	96.7	503
Mother's education		
None/primary/secondary	97.1	381
Secondary vocational/professional (special)	94.4	93
Higher	(97.9)	29
Wealth index quintiles		
Poorest	96.0	107
Second	96.6	113
Middle	98.1	113
Fourth	96.3	79
Richest	96.2	91
Language		
Turkmen	96.9	420
Uzbek	(97.9)	52
Russian	(*)	17
Other	(*)	14
Total	**96.7**	**503**

*** MICS indicator 54**

Table ED.3: Primary school net attendance ratio

Percentage of children of primary school age attending primary or secondary school (NAR), Turkmenistan, 2006**

	Male		Female		Total	
	Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
Region						
Ashgabat city	100.0	83	97.1	74	98.6	157
Ahal	99.3	114	98.0	116	98.6	230
Balkan	97.6	47	100.0	46	98.8	93
Dashoguz	100.0	186	98.8	174	99.4	360
Lebap	99.3	214	100.0	160	99.6	374
Mary	98.1	212	99.2	171	98.6	383
Residence						
Urban	99.1	303	98.9	262	99.0	566
Rural	99.1	553	98.9	479	99.0	1031
Age at the beginning of school year						
7 years	97.7	270	97.7	234	97.7	503
8 years	100.0	271	99.2	247	99.6	518
9 years	99.6	315	99.7	260	99.6	575
Mother's education						
None/primary/secondary	99.1	636	98.9	556	99.0	1192
Secondary vocational/professional (special)	99.1	147	98.7	134	98.9	282
Higher	99.2	73	100.0	51	99.5	123
Wealth index quintiles						
Poorest	99.3	179	98.7	163	99.0	342
Second	99.6	193	98.0	145	98.9	337
Middle	99.0	177	99.5	163	99.2	340
Fourth	99.1	150	99.5	129	99.3	279
Richest	98.7	158	99.0	141	98.8	298
Language						
Turkmen	99.4	737	99.0	636	99.2	1373
Uzbek	100.0	68	98.2	60	99.2	128
Russian	(*)	19	(97.0)	21	96.9	40
Other	(91.6)	31	(*)	24	(95.3)	55
Total	**99.1**	**856**	**98.9**	**741**	**99.0**	**1597**

*** MICS indicator 55; MDG indicator 6**

Table ED.4: Secondary school net attendance ratio

Percentage of children of secondary school age attending secondary school or higher (NAR), Turkmenistan, 2006

	Male		Female		Total	
	Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
Region						
Ashgabat city	95.2	178	96.5	180	95.9	359
Ahal	96.1	296	94.2	320	95.1	616
Balkan	96.1	148	95.7	118	95.9	266
Dashoguz	93.9	406	94.9	397	94.4	803
Lebap	94.3	427	97.0	421	95.6	848
Mary	95.2	466	94.0	460	94.6	925
Residence						
Urban	95.7	707	95.7	716	95.7	1423
Rural	94.5	1215	94.9	1180	94.7	2394
Age at the beginning of school year						
10 years	95.3	305	98.3	296	96.8	601
11 years	98.5	327	98.9	334	98.7	662
12 years	99.6	335	100.0	339	99.8	673
13 years	98.5	315	99.8	324	99.1	639
14 years	100.0	319	98.2	283	99.2	602
15 years	77.6	321	76.2	320	76.9	641
Mother's education						
None/primary/secondary	94.9	1421	94.7	1429	94.8	2850
Secondary vocational/professional (special)	96.3	342	97.5	297	96.8	639
Higher	92.6	124	97.1	135	95.0	259
Mother not in HH	(91.5)	34	(91.5)	36	91.5	70
Wealth index quintiles						
Poorest	94.2	409	95.5	382	94.8	791
Second	95.1	373	94.1	379	94.6	751
Middle	94.5	386	96.0	389	95.2	774
Fourth	95.5	404	94.8	409	95.1	813
Richest	95.6	350	95.9	337	95.7	687
Language						
Turkmen	95.6	1648	95.8	1648	95.7	3297
Uzbek	93.4	135	92.0	139	92.7	275
Russian	89.8	52	97.1	46	93.3	98
Other	87.5	86	87.1	62	87.3	148
Total	**94.9**	**1922**	**95.2**	**1896**	**95.1**	**3817**

*** MICS indicator 56**

Table ED.5. **Secondary school-age children attending primary school**

Percentage of children of secondary school age attending primary school, Turkmenistan, 2006

	Male		Female		Total	
	Percent attending primary school	Number of children	Percent attending primary school	Number of children	Percent attending primary school	Number of children
Region						
Ashgabat city	2.0	178	0.4	180	1.2	359
Ahal	0.8	296	0.5	320	0.7	616
Balkan	0.8	148	0.0	118	0.4	266
Dashoguz	0.3	406	0.0	397	0.1	803
Lebap	1.0	427	0.3	421	0.7	848
Mary	0.9	466	0.3	460	0.6	925
Residence						
Urban	0.9	707	0.1	716	0.5	1423
Rural	0.9	1215	0.4	1180	0.6	2394
Age at the beginning of school year						
10 years	4.3	305	1.7	296	3.0	601
11 years	1.1	327	0.0	334	0.6	662
12 years	0.0	335	0.0	339	0.0	673
13 years	0.0	315	0.0	324	0.0	639
14 years	0.0	319	0.0	283	0.0	602
15 years	0.0	321	0.0	320	0.0	641
Mother's education						
None/primary/secondary	0.9	1421	0.4	1429	0.6	2850
Secondary vocational/professional (special)	0.4	342	0.0	297	0.2	639
Higher	1.6	124	0.0	135	0.8	259
Mother not in HH	(0.0)	34	(0.0)	36	0.0	70
Wealth index quintiles						
Poorest	1.2	409	0.3	382	0.8	791
Second	0.7	373	0.4	379	0.5	751
Middle	0.2	386	0.2	389	0.2	774
Fourth	0.9	404	0.0	409	0.5	813
Richest	1.4	350	0.4	337	0.9	687
Language						
Turkmen	0.8	1648	0.3	1648	0.6	3297
Uzbek	1.1	135	0.0	139	0.5	275
Russian	1.3	52	1.4	46	1.4	98
Other	0.7	86	0.0	62	0.4	148
Total	**0.9**	**1922**	**0.3**	**1896**	**0.6**	**3817**

Table ED.6: Children reaching grade 5

Percentage of children entering first grade of primary school who eventually reach grade 5, Turkmenistan, 2006

	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 who reach grade 5 of those who enter 1st grade*
Sex					
Male	100.0	100.0	100.0	100.0	100.0
Female	100.0	100.0	100.0	99.8	99.8
Region					
Ashgabat city	100.0	100.0	100.0	99.0	99.0
Ahal	100.0	100.0	100.0	100.0	100.0
Balkan	100.0	100.0	100.0	100.0	100.0
Dashoguz	100.0	100.0	100.0	100.0	100.0
Lebap	100.0	100.0	100.0	100.0	100.0
Mary	100.0	100.0	100.0	100.0	100.0
Residence					
Urban	100.0	100.0	100.0	99.8	99.8
Rural	100.0	100.0	100.0	100.0	100.0
Mother's education					
None/primary/secondary	100.0	100.0	100.0	100.0	100.0
Secondary vocational/professional (special)	100.0	100.0	100.0	100.0	100.0
Higher	100.0	100.0	100.0	100.0	100.0
Wealth index quintiles					
Poorest	100.0	100.0	100.0	100.0	100.0
Second	100.0	100.0	100.0	100.0	100.0
Middle	100.0	100.0	100.0	100.0	100.0
Fourth	100.0	100.0	100.0	100.0	100.0
Richest	100.0	100.0	100.0	99.5	99.5
Language					
Turkmen	100.0	100.0	100.0	99.9	99.9
Uzbek	100.0	100.0	100.0	100.0	100.0
Russian	100.0	100.0	100.0	100.0	100.0
Other	100.0	100.0	100.0	100.0	100.0
Total	**100.0**	**100.0**	**100.0**	**99.9**	**99.9**

*** MICS indicator 57; MDG indicator 7**

Table ED.7: Primary school completion and transition to secondary education

Primary school completion rate and transition rate to secondary education, Turkmenistan, 2006

	Net primary school completion rate*	Number of children of primary school completion age	Transition rate to secondary education**	Number of children who were in the last grade of primary school the previous year
Sex				
Male	98.8	305	100.0	316
Female	99.6	296	99.5	277
Region				
Ashgabat city	98.5	56	97.7	60
Ahal	99.1	102	100.0	92
Balkan	98.7	41	100.0	36
Dashoguz	100.0	120	100.0	128
Lebap	99.0	135	100.0	137
Mary	99.1	147	100.0	141
Residence				
Urban	99.4	234	99.4	223
Rural	99.0	367	100.0	370
Mother's education				
None/primary/secondary	99.1	447	99.7	440
Secondary vocational/professional (special)	100.0	125	100.0	124
Higher	(97.0)	29	(100.0)	29
Wealth index quintiles				
Poorest	99.0	132	100.0	137
Second	100.0	120	100.0	131
Middle	100.0	109	100.0	104
Fourth	98.1	115	100.0	108
Richest	98.9	126	98.8	115
Language				
Turkmen	99.3	526	100.0	508
Uzbek	(100.0)	(38)	(100.0)	44
Russian	(*)	(*)	(*)	21
Other	(*)	(*)	(*)	21
Total	**99.2**	**601**	**99.8**	**594**

*** MICS indicator 59; MDG indicator 7b**

**** MICS indicator 58**

Table ED.8: Education gender parity

Ratio of girls to boys attending primary education and ratio of girls to boys attending secondary education, Turkmenistan, 2006

	Primary school net attendance ratio (NAR), girls	Primary school net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school NAR*	Secondary school net attendance ratio (NAR), girls	Secondary school net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school NAR*
Region						
Ashgabat city	97.1	100.0	0.97	96.5	95.2	1.01
Ahal	98.0	99.3	0.99	94.2	96.1	0.98
Balkan	100.0	97.6	1.02	95.7	96.1	1.00
Dashoguz	98.8	100.0	0.99	94.9	93.9	1.01
Lebap	100.0	99.3	1.01	97.0	94.3	1.03
Mary	99.2	98.1	1.01	94.0	95.2	0.99
Residence						
Urban	98.9	99.1	1.00	95.7	95.7	1.00
Rural	98.9	99.1	1.00	94.9	94.5	1.00
Mother's education						
None/primary/secondary	98.9	99.1	1.00	94.7	94.9	1.00
Secondary vocational/professional (special)	98.7	99.1	1.00	97.5	96.3	1.01
Higher	100.0	99.2	1.01	97.1	92.6	1.05
Mother not in HH	-	-	-	91.5	91.5	1.00
Wealth index quintiles						
Poorest	98.7	99.3	0.99	95.5	94.2	1.01
Second	98.0	99.6	0.98	94.1	95.1	0.99
Middle	99.5	99.0	1.01	96.0	94.5	1.02
Fourth	99.5	99.1	1.00	94.8	95.5	0.99
Richest	99.0	98.7	1.00	95.9	95.6	1.00
Language						
Turkmen	99.0	99.4	1.00	95.8	95.6	1.00
Uzbek	98.2	100.0	0.98	92.0	93.4	0.99
Russian	97.0	96.9	1.00	97.1	89.8	1.08
Other	100.0	91.6	1.09	87.1	87.5	1.00
Total	**98.9**	**99.1**	**1.00**	**95.2**	**94.9**	**1.00**

*** MICS indicator 61; MDG indicator 9**

Table ED.9: Adult literacy

Percentage of women aged 15-24 years who are literate, Turkmenistan, 2006

	Percentage literate*	Percentage not known	Number of women aged 15-24 years
Region			
Ashgabat city	99.5	0.0	246
Ahal	98.8	0.0	398
Balkan	99.1	0.6	207
Dashoguz	99.5	0.0	583
Lebap	100.0	0.0	627
Mary	98.5	0.9	752
Residence			
Urban	99.1	0.0	955
Rural	99.3	0.4	1858
Mother's education			
None/primary/secondary	99.2	0.3	2658
Secondary vocational/professional (special)	100.0	0.0	116
Higher	(100.0)	(0.0)	39
Age			
15-19	99.6	0.1	1472
20-24	98.8	0.5	1341
Wealth index quintiles			
Poorest	98.5	0.7	579
Second	99.4	0.4	576
Middle	99.7	0.2	602
Fourth	99.4	0.0	592
Richest	99.0	0.0	464
Language			
Turkmen	99.6	0.0	2460
Uzbek	99.4	0.0	177
Russian	99.1	0.0	70
Other	90.4	6.2	106
Total	**99.2**	**0.3**	**2813**

*** MICS indicator 60; MDG indicator 8**

Table CP.1: Birth registration

Percent distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, Turkmenistan, 2006

			Birth is not registered because:							
	Birth is registered*	Number of children aged 0-59 months	Must travel too far	Didn't know child should be registered	Doesn't know where to register	Other	Don't know	Missed	Total	Number of children aged 0-59 months without birth registration
Sex										
Male	95.2	1050	(2.4)	(2.9)	(7.6)	(75.7)	(10.1)	(1.3)	100.0	44
Female	95.8	1025	(0.0)	(7.8)	(2.9)	(74.5)	(10.8)	(4.0)	100.0	35
Region										
Ashgabat city	97.5	178	(*)	(*)	(*)	(*)	(*)	(*)	100.0	4
Ahal	96.2	281	(*)	(*)	(*)	(*)	(*)	(*)	100.0	8
Balkan	95.3	158	(*)	(*)	(*)	(*)	(*)	(*)	100.0	6
Dashoguz	98.5	407	(*)	(*)	(*)	(*)	(*)	(*)	100.0	6
Lebap	94.1	517	(*)	(*)	(*)	(*)	(*)	(*)	100.0	25
Mary	93.5	534	(0.0)	(0.0)	(0.0)	(78.9)	(16.3)	(4.8)	100.0	29
Residence										
Urban	95.8	718	(0.0)	(2.6)	(0.0)	(86.5)	(10.9)	(0.0)	100.0	27
Rural	95.3	1357	(2.0)	(6.4)	(8.3)	(69.4)	(10.2)	(3.8)	100.0	53
Age										
0-11 months	**86.5**	459	1.9	6.1	2.4	75.6	11.5	2.6	100.0	54
12-23 months	97.0	406	(*)	(*)	(*)	(*)	(*)	(*)	100.0	10
24-35 months	99.1	416	(*)	(*)	(*)	(*)	(*)	(*)	100.0	3
36-47 months	97.0	429	(*)	(*)	(*)	(*)	(*)	(*)	100.0	10
48-59 months	99.2	366	(*)	(*)	(*)	(*)	(*)	(*)	100.0	3
Mother's education										
None/primary/ secondary	94.9	1753	1.4	4.4	4.5	76.0	11.1	2.7	100.0	74
Secondary vocational /professional (special)	97.9	232	(*)	(*)	(*)	(*)	(*)	(*)	100.0	5
Higher	100.0	90	-	-	-	-	-	-	-	-
Wealth index quintiles										
Poorest	93.7	485	(*)	(*)	(*)	(*)	(*)	(*)	100.0	22
Second	96.0	414	(*)	(*)	(*)	(*)	(*)	(*)	100.0	16
Middle	95.5	435	(*)	(*)	(*)	(*)	(*)	(*)	100.0	20
Fourth	95.9	389	(*)	(*)	(*)	(*)	(*)	(*)	100.0	13
Richest	96.8	351	(*)	(*)	(*)	(*)	(*)	(*)	100.0	9
Language										
Turkmen	95.9	1759	1.7	6.6	2.1	72.9	13.5	3.3	100.0	61
Uzbek	95.5	193	(*)	(*)	(*)	(*)	(*)	(*)	100.0	6
Russian	96.9	54	(*)	(*)	(*)	(*)	(*)	(*)	100.0	1
Other	82.4	69	(*)	(*)	(*)	(*)	(*)	(*)	100.0	11
Total	**95.5**	**2075**	**1.3**	**5.1**	**5.5**	**75.2**	**10.4**	**2.5**	**100.0**	**79**

*** MICS indicator 62**

Table CP.2: Child discipline

Percentage of children aged 2-14 years according to method of disciplining the child, Turkmenistan, 2006

	Percentage of children 2-14 years of age who experience:				
	Took away privileges, forbade something the child likes or did not allow to leave house	Explained why something (behaviour) was wrong	No discipline or punishment	Mother/care taker believes that the child needs to be physically punished	Number of children aged 2-14 years
Sex					
Male	64.6	88.0	10.4	20.1	1733
Female	59.1	84.8	13.4	13.1	1601
Region					
Ashgabat city	61.9	92.2	7.6	9.8	364
Ahal	61.9	88.2	9.3	29.4	488
Balkan	54.8	78.2	17.7	13.0	260
Dashoguz	63.7	91.9	7.6	14.4	649
Lebap	76.0	82.8	14.5	11.8	745
Mary	50.2	84.4	14.4	19.8	827
Residence					
Urban	60.2	86.3	12.8	13.4	1366
Rural	63.1	86.5	11.2	19.1	1967
Age					
2-4 years	62.7	84.5	13.4	15.2	672
5-9 years	62.2	87.5	11.3	19.6	1125
10-14 years	61.5	86.5	11.6	15.4	1537
Mother's education					
None/primary/secondary	61.2	86.1	12.1	17.8	2494
Secondary vocational/professional (special)	64.5	87.0	11.3	14.4	587
Higher	62.9	88.3	11.1	12.2	253
Wealth index quintiles					
Poorest	66.1	84.3	12.9	17.4	659
Second	63.0	87.3	11.5	17.3	653
Middle	63.2	86.2	11.5	20.4	637
Fourth	58.1	84.9	13.7	17.8	628
Richest	59.6	89.0	10.0	11.8	756
Mother's language					
Turkmen	61.5	85.1	13.0	16.9	2821
Uzbek	61.3	94.7	3.6	14.0	248
Russian	65.4	92.7	7.3	13.0	137
Other	69.0	92.7	6.7	22.7	127
Total	**61.9**	**86.4**	**11.9**	**16.8**	**3334**

Table CP.3: 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, percentage of women aged 15-19 years currently married or in union, Turkmenistan, 2006

	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 married/in union**	Number of women aged 15-49 years currently married/in union
Region						
Ashgabat city	0.6	769	6.7	631	5.1	138
Ahal	0.2	1040	5.4	808	4.1	232
Balkan	0.4	556	6.8	447	5.6	109
Dashoguz	0.4	1498	7.3	1206	2.2	292
Lebap	0.4	1529	8.6	1181	8.3	347
Mary	0.3	1769	4.9	1415	4.6	355
Residence						
Urban	0.6	2794	7.4	2249	5.8	545
Rural	0.2	4366	6.1	3439	4.6	927
Age						
15-19	0.0	1472	na	na	5.0	1472
20-24	0.6	1341	7.3	1341	na	na
25-29	0.5	1088	7.3	1088	na	na
30-34	0.5	901	7.7	901	na	na
35-39	0.7	843	5.5	843	na	na
40-44	0.2	781	5.0	781	na	na
45-49	0.4	734	6.0	734	na	na
Education						
None/primary/secondary	0.4	5890	7.3	4464	5.1	1425
Secondary vocational/professional (special)	0.2	889	5.0	847	4.7	42
Higher	0.0	381	1.6	377	(*)	4
Wealth index quintiles						
Poorest	0.5	1369	8.4	1068	7.6	301
Second	0.1	1409	5.8	1136	3.8	273
Middle	0.3	1415	5.8	1104	2.9	311
Fourth	0.3	1461	5.0	1134	5.2	327
Richest	0.7	1506	8.0	1247	5.7	259
Language						
Turkmen	0.3	6082	5.5	4781	4.5	1301
Uzbek	0.2	505	10.4	427	7.6	79
Russian	1.2	306	13.5	269	(3.6)	38
Other	1.6	266	14.4	212	(15.8)	54
Total	**0.4**	**7160**	**6.6**	**5688**	**5.0**	**1472**

*** MICS indicator 67**

**** MICS indicator 68**

Table CP.4: Spousal age difference

Percent distribution of currently married/in union women aged 15-19 and 20-24 years, according to the age difference with their husband or partner, Turkmenistan, 2006

	Percentage of currently married/in union women aged 15-19 years whose husband or partner is:					Number of women aged 15-19 years currently married/ in union	Percentage of currently married/in union women aged 20-24 years whose husband or partner is:						Number of women aged 20-24 years currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older*	Total		Younger	0-4 years older	5-9 years older	10+ years older*	Husband /partner's age unknown	Total	
Region													
Ashgabat city	(*)	(*)	(*)	(*)	100.0	7	7.5	64.3	25.0	3.2	0.0	100.0	39
Ahal	(*)	(*)	(*)	(*)	100.0	10	15.0	64.2	19.4	1.4	0.0	100.0	59
Balkan	(*)	(*)	(*)	(*)	100.0	6	11.6	59.1	23.5	2.1	3.8	100.0	30
Dashoguz	(*)	(*)	(*)	(*)	100.0	6	5.3	65.1	22.6	7.1	0.0	100.0	79
Lebap	(*)	(*)	(*)	(*)	100.0	29	9.3	64.7	21.2	4.8	0.0	100.0	130
Mary	(*)	(*)	(*)	(*)	100.0	16	12.4	64.6	20.7	2.3	0.0	100.0	132
Residence													
Urban	(1.8)	(62.1)	(32.0)	(4.1)	100.0	32	8.1	65.4	23.0	3.2	0.3	100.0	163
Rural	(12.5)	(46.6)	(37.8)	(3.1)	100.0	42	11.3	63.7	20.7	4.0	0.2	100.0	306
Education													
None/primary/secondary	8.1	52.7	35.5	3.6	100.0	72	10.1	63.9	21.7	4.0	0.3	100.0	443
Secondary vocational/professional (special)	(*)	(*)	(*)	(*)	100.0	2	(*)	(*)	(*)	(*)	(*)	100.0	19
Higher	-	-	-	-	-	-	(*)	(*)	(*)	(*)	(*)	100.0	7
Wealth index quintiles													
Poorest	(*)	(*)	(*)	(*)	100.0	23	12.0	56.2	27.1	4.1	0.6	100.0	104
Second	(*)	(*)	(*)	(*)	100.0	10	13.0	65.8	16.9	4.4	0.0	100.0	102
Middle	(*)	(*)	(*)	(*)	100.0	9	13.1	67.4	16.2	3.3	0.0	100.0	107
Fourth	(*)	(*)	(*)	(*)	100.0	17	3.6	75.2	19.8	1.4	0.0	100.0	79
Richest	(*)	(*)	(*)	(*)	100.0	15	6.8	57.7	29.4	5.4	0.7	100.0	76
Language													
Turkmen	7.9	54.7	34.0	3.4	100.0	58	10.1	65.8	20.2	3.6	0.3	100.0	392
Uzbek	(*)	(*)	(*)	(*)	100.0	6	(7.9)	(60.3)	(29.5)	(2.3)	(0.0)	100.0	47
Russian	(*)	(*)	(*)	(*)	100.0	1	(*)	(*)	(*)	(*)	(*)	100.0	12
Other	(*)	(*)	(*)	(*)	100.0	9	(*)	(*)	(*)	(*)	(*)	100.0	17
Total	**7.9**	**53.2**	**35.3**	**3.5**	**100.0**	**74**	**10.2**	**64.3**	**21.5**	**3.7**	**0.2**	**100.0**	**469**

*** MICS indicator 69**

Table CP.5: Attitudes toward domestic violence

Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Turkmenistan, 2006

	Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner:						
	When she goes out without telling him	When she neglects the children	When she argues with him	When she refuses sex with him	When she burns the food	For any of these reasons*	Number of women aged 15-49 years who have ever been married/in union
Region							
Ashgabat city	5.9	7.4	5.0	1.1	0.8	10.0	514
Ahal	20.8	30.0	57.2	15.5	16.5	61.8	648
Balkan	7.9	7.7	9.4	4.6	2.2	13.7	346
Dashoguz	24.6	22.5	42.5	6.5	20.7	50.8	846
Lebap	7.9	9.9	20.0	6.3	4.1	23.7	1015
Mary	19.6	29.1	38.1	13.3	12.0	47.0	1086
Residence							
Urban	10.0	13.1	17.8	4.7	4.8	23.5	1885
Rural	19.7	24.1	41.6	11.6	14.6	48.1	2571
Age							
15-19	14.3	16.8	31.8	13.5	11.9	36.8	76
20-24	19.1	17.1	33.2	11.2	9.4	39.0	491
25-29	15.9	20.7	35.0	10.6	12.2	41.6	795
30-34	15.0	18.3	31.1	8.8	9.4	37.7	804
35-39	13.0	19.9	28.9	6.5	9.7	35.7	810
40-44	15.3	19.6	29.7	8.4	9.6	35.9	756
45-49	16.8	20.5	31.9	6.8	12.0	36.8	722
Marital/union status							
Currently married/in union	16.4	20.6	33.4	9.1	11.2	40.0	3961
Formerly married/in union	9.2	10.4	16.7	5.2	4.1	19.7	494
Education							
None/primary/secondary	17.2	21.4	35.6	9.9	11.6	41.3	3409
Secondary vocational/professional (special)	10.7	14.0	19.9	5.0	7.2	28.5	735
Higher	9.1	10.5	14.8	3.7	5.4	20.1	312
Wealth index quintiles							
Poorest	17.9	22.7	36.7	8.4	12.0	43.0	842
Second	23.9	26.6	42.6	12.7	16.6	50.3	844
Middle	19.4	26.5	43.1	11.4	16.3	50.2	830
Fourth	14.0	18.2	31.6	9.1	8.5	38.1	873
Richest	5.4	6.8	9.6	3.2	1.4	13.6	1067
Language							
Turkmen	14.7	20.6	31.7	8.6	10.9	37.4	3706
Uzbek	29.1	13.9	49.4	10.2	12.8	57.2	351
Russian	1.9	2.2	2.7	0.6	1.4	5.8	231
Other	25.4	29.9	30.0	18.0	7.3	47.4	167
Total	**15.6**	**19.4**	**31.5**	**8.7**	**10.5**	**37.7**	**4455**

*** MICS indicator 100**

Table HA.1: Knowledge of preventing HIV transmission

Percentage of women aged 15-49 years who know the main ways of preventing HIV transmission, Turkmenistan, 2006

		Percentage who know transmission can be prevented by:						
	Heard of AIDS	Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	Doesn't know any way	Number of women
Region								
Ashgabat city	67.5	44.9	33.2	20.6	13.6	52.8	47.2	769
Ahal	44.4	32.6	28.3	25.0	19.9	37.2	62.8	1040
Balkan	46.1	17.3	17.5	11.0	4.2	27.2	72.8	556
Dashoguz	66.7	36.4	22.8	36.0	13.5	48.5	51.5	1498
Lebap	71.1	40.9	31.7	25.1	14.4	50.5	49.5	1529
Mary	33.9	16.1	17.2	16.7	6.8	25.7	74.3	1769
Residence								
Urban	65.4	37.2	30.7	23.3	13.5	46.9	53.1	2794
Rural	48.0	27.4	21.1	24.0	11.5	36.4	63.6	4366
Age								
15-19	33.8	13.9	10.3	12.6	5.5	20.3	79.7	1472
20-24	49.4	26.1	18.9	20.1	9.3	34.3	65.7	1341
25-29	60.9	35.1	30.0	26.4	14.7	45.2	54.8	1088
30-34	64.9	39.4	31.7	28.9	15.4	50.2	49.8	901
35-39	65.9	40.6	33.2	30.9	15.5	52.8	47.2	843
40-44	65.7	42.2	33.2	29.5	16.5	52.2	47.8	781
45-49	60.7	36.9	30.3	27.9	15.5	46.8	53.2	734
Education								
None/primary/secondary	47.8	25.2	19.5	20.4	9.9	33.5	66.5	5890
Secondary vocational/professional (special)	84.3	54.8	45.6	37.7	20.5	69.2	30.8	889
Higher	92.9	68.8	59.1	43.0	30.1	80.6	19.4	381
Wealth index quintiles								
Poorest	44.7	23.0	15.6	18.9	8.0	30.5	69.5	1369
Second	51.3	30.4	22.8	25.3	11.9	39.1	60.9	1409
Middle	53.4	29.5	23.8	25.8	12.5	40.3	59.7	1415
Fourth	51.2	29.3	26.1	24.6	14.3	38.5	61.5	1461
Richest	72.0	42.9	34.9	23.7	14.4	52.9	47.1	1506
Language								
Turkmen	51.4	28.9	22.7	22.6	11.1	37.9	62.1	6082
Uzbek	80.5	41.8	31.7	32.2	19.5	52.6	47.4	505
Russian	87.6	61.6	54.8	33.8	22.9	72.9	27.1	306
Other	45.0	28.1	26.3	21.3	12.4	38.2	61.8	266
Total	**54.8**	**31.2**	**24.8**	**23.7**	**12.3**	**40.5**	**59.5**	**7160**

Table HA.2: Identifying misconceptions about HIV/AIDS

Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, Turkmenistan, 2006

	Percent who know that:				Percent who know that:		
	HIV cannot be transmitted by:						
	Option 1: Supernatural means	Option 2: Mosquito bites	A healthy-looking person can be infected	Reject two most common misconceptions and know a healthy-looking person can be infected	Option 3: HIV cannot be transmitted by sharing food	Option 4: HIV can be transmitted by sharing needles	Number of women
Region							
Ashgabat city	62.7	46.8	40.4	28.8	47.7	61.3	769
Ahal	36.9	25.7	30.6	18.6	26.1	38.4	1040
Balkan	27.7	18.6	19.7	7.7	19.7	37.7	556
Dashoguz	44.6	34.7	35.3	14.6	27.9	59.6	1498
Lebap	56.3	43.1	31.1	19.8	34.1	60.4	1529
Mary	25.8	16.7	18.7	8.1	15.3	31.5	1769
Residence							
Urban	51.5	39.2	36.4	21.9	38.2	57.8	2794
Rural	35.9	25.4	24.2	11.7	20.4	42.1	4366
Age							
15-19	23.7	17.2	15.5	7.3	13.8	28.8	1472
20-24	36.8	27.1	23.8	11.3	23.2	43.2	1341
25-29	47.2	35.6	31.6	17.1	30.2	53.1	1088
30-34	50.1	36.2	37.6	20.5	34.1	57.2	901
35-39	53.4	38.8	39.0	23.5	37.8	59.4	843
40-44	49.5	36.6	38.0	21.4	32.2	58.0	781
45-49	49.3	35.6	29.7	17.5	32.1	55.0	734
Education							
None/primary/ secondary	34.5	24.9	23.2	10.9	20.8	41.3	5890
Secondary vocational/professional (special)	72.5	53.6	50.8	33.2	53.0	77.7	889
Higher	85.8	67.6	66.7	48.8	68.0	86.5	381
Wealth index quintiles							
Poorest	32.1	25.9	19.1	9.9	18.2	39.2	1369
Second	40.7	28.1	24.8	12.3	22.8	44.6	1409
Middle	38.8	26.0	29.0	12.9	22.4	46.1	1415
Fourth	37.9	26.7	29.1	15.4	27.5	45.0	1461
Richest	59.1	46.1	41.6	27.0	44.4	64.9	1506
Language							
Turkmen	38.7	28.0	26.0	13.8	24.3	44.9	6082
Uzbek	59.0	45.6	41.4	17.8	39.0	71.5	505
Russian	81.5	63.5	65.3	47.1	69.5	84.2	306
Other	38.2	27.6	30.4	19.0	26.3	39.5	266
Total	**42.0**	**30.8**	**29.0**	**15.7**	**27.3**	**48.2**	**7160**

Table HA.3: Comprehensive knowledge of HIV/AIDS transmission

Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, Turkmenistan, 2006

	Know 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				
Ashgabat city	28.3	28.8	16.9	769
Ahal	25.1	18.6	15.1	1040
Balkan	11.0	7.7	3.4	556
Dashoguz	18.5	14.6	8.0	1498
Lebap	26.1	19.8	9.7	1529
Mary	11.0	8.1	3.5	1769
Residence				
Urban	24.3	21.9	12.1	2794
Rural	16.8	11.7	6.8	4366
Age				
15–19	8.2	7.3	4.0	1472
20–24	14.9	11.3	5.7	1341
15–24	11.4	9.2	4.8	2813
25–29	24.1	17.1	10.2	1088
30–34	25.0	20.5	11.2	901
35–39	25.7	23.5	13.3	843
40–44	26.4	21.4	12.7	781
45–49	24.5	17.5	10.4	734
Education				
None/primary/secondary	15.3	10.9	6.0	5890
Secondary vocational/professional (special)	36.2	33.2	18.3	889
Higher	49.5	48.8	31.6	381
Wealth index quintiles				
Poorest	12.6	9.9	5.1	1369
Second	18.3	12.3	6.1	1409
Middle	17.8	12.9	7.1	1415
Fourth	20.6	15.4	10.5	1461
Richest	28.5	27.0	14.9	1506
Language				
Turkmen	17.9	13.8	7.8	6082
Uzbek	25.4	17.8	9.7	505
Russian	46.9	47.1	28.4	306
Other	18.5	19.0	10.0	266
Total	**19.7**	**15.7**	**8.9**	**7160**

*** MICS indicator 82; MDG indicator 19b**

Table HA.4: Knowledge of mother-to-child HIV transmission

Percentage of women aged 15-49 years who correctly identify means of HIV transmission from mother to child, Turkmenistan, 2006

	Know AIDS can be transmitted from mother to child	Percent who know AIDS can be transmitted: During pregnancy	At delivery	Through breastmilk	All three ways*	Did not know any specific way	Number of women
Region							
Ashgabat city	54.7	47.7	40.7	42.5	31.7	12.8	769
Ahal	37.2	27.2	29.3	21.8	10.6	7.1	1040
Balkan	32.3	29.5	29.6	26.2	24.0	13.8	556
Dashoguz	45.1	28.4	14.9	32.1	10.3	21.7	1498
Lebap	60.1	58.6	48.6	38.7	33.2	11.0	1529
Mary	26.3	24.4	17.9	17.2	13.3	7.6	1769
Residence							
Urban	50.4	43.5	37.7	36.2	26.8	14.9	2794
Rural	37.5	30.9	23.1	24.4	14.6	10.5	4366
Age							
15-19	21.2	16.5	13.2	13.3	8.1	12.6	1472
20-24	34.5	28.8	22.5	21.0	13.9	14.9	1341
25-29	49.1	41.3	33.1	34.5	22.9	11.8	1088
30-34	53.0	44.9	34.9	38.1	24.4	11.9	901
35-39	55.2	48.1	41.1	38.4	28.4	10.7	843
40-44	53.5	44.1	37.8	37.7	24.6	12.2	781
45-49	51.1	45.1	34.2	35.4	24.4	9.6	734
Education							
None/primary/secondary	35.2	29.1	22.6	23.2	14.5	12.6	5890
Secondary vocational/professional (special)	72.2	63.7	55.4	51.8	40.2	12.2	889
Higher	86.5	74.6	63.2	64.8	45.8	6.5	381
Wealth index quintiles							
Poorest	33.6	29.6	22.6	20.6	14.5	11.0	1369
Second	39.9	32.8	23.1	25.6	14.7	11.4	1409
Middle	40.5	32.4	24.0	27.2	15.8	12.8	1415
Fourth	38.0	31.1	29.0	27.4	18.5	13.2	1461
Richest	59.4	52.1	44.2	42.9	32.3	12.6	1506
Language							
Turkmen	39.4	33.7	27.7	27.1	18.6	12.0	6082
Uzbek	62.9	43.7	24.1	39.1	14.5	17.7	505
Russian	77.5	68.2	62.6	53.5	43.0	10.1	306
Other	34.8	31.3	25.5	24.4	17.6	10.2	266
Total	**42.5**	**35.8**	**28.8**	**29.0**	**19.3**	**12.2**	**7160**

*** MICS indicator 89**

Table HA.5: Attitudes toward people living with HIV/AIDS

Percentage of women aged 15-49 years who have heard of AIDS and who express a discriminatory attitude towards people living with HIV/AIDS, Turkmenistan, 2006

	Percent of women who:						
	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*	Number of women who have heard of AIDS
Region							
Ashgabat city	7.1	70.3	42.0	68.9	91.8	8.2	519
Ahal	11.7	50.3	48.7	74.7	90.3	9.7	461
Balkan	25.3	45.5	52.3	73.3	88.7	11.3	256
Dashoguz	15.6	46.7	77.8	90.9	98.1	1.9	999
Lebap	9.5	60.5	61.5	79.2	95.2	4.8	1087
Mary	27.2	37.7	55.0	87.1	92.7	7.3	599
Residence							
Urban	15.0	52.5	55.5	76.0	92.3	7.7	1827
Rural	14.5	52.7	63.9	85.6	95.6	4.4	2095
Age							
15-19	14.5	55.0	56.5	78.9	94.8	5.2	498
20-24	14.2	54.3	58.9	80.5	93.5	6.5	662
25-29	13.4	54.8	60.7	81.4	93.8	6.2	663
30-34	14.5	54.3	61.6	83.0	94.8	5.2	585
35-39	17.1	48.6	62.0	81.4	94.8	5.2	555
40-44	15.5	49.9	62.0	81.5	95.0	5.0	513
45-49	14.4	50.0	57.3	80.9	91.9	8.1	446
Education							
None/primary/secondary	14.4	51.0	62.1	82.2	94.0	6.0	2818
Secondary vocational/professional (special)	16.9	55.4	57.1	78.6	94.1	5.9	750
Higher	13.0	59.3	48.8	77.8	95.0	5.0	354
Wealth index quintiles							
Poorest	13.7	47.5	65.8	84.2	93.4	6.6	611
Second	11.9	54.3	66.2	86.1	96.2	3.8	723
Middle	17.5	50.4	64.9	85.1	96.2	3.8	755
Fourth	20.8	47.3	63.5	83.2	94.4	5.6	748
Richest	11.0	59.6	46.7	71.7	91.4	8.6	1085
Language							
Turkmen	15.6	49.6	59.8	82.1	94.1	5.9	3127
Uzbek	15.7	60.3	84.3	90.7	98.4	1.6	407
Russian	3.7	71.7	30.3	60.4	89.4	10.6	268
Other	13.5	61.6	47.7	69.7	89.9	10.1	120
Total	**14.7**	**52.6**	**60.0**	**81.1**	**94.1**	**5.9**	**3922**

*** MICS indicator 86**

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, percentage who have been told the result, Turkmenistan, 2006

	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					
Ashgabat city	32.3	18.3	769	84.2	141
Ahal	23.9	9.2	1040	81.5	95
Balkan	17.2	5.0	556	(71.3)	28
Dashoguz	31.0	3.9	1498	85.4	58
Lebap	43.0	25.4	1529	67.7	389
Mary	15.1	9.2	1769	94.2	163
Residence					
Urban	33.9	13.2	2794	79.6	369
Rural	23.7	11.6	4366	77.1	504
Age					
15-19	10.7	1.6	1472	(*)	23
20-24	23.5	9.8	1341	74.0	131
25-29	33.3	17.4	1088	73.8	190
30-34	36.8	18.6	901	76.1	168
35-39	37.1	16.3	843	83.0	137
40-44	34.7	15.9	781	87.4	124
45-49	31.6	13.7	734	75.8	101
Education					
None/primary/secondary	22.0	9.5	5890	73.5	559
Secondary vocational/professional (special)	51.4	23.2	889	85.7	206
Higher	59.8	28.4	381	87.9	108
Wealth index quintiles					
Poorest	21.4	10.9	1369	62.7	149
Second	27.5	11.0	1409	74.1	155
Middle	25.7	11.3	1415	80.7	160
Fourth	24.7	10.9	1461	83.9	159
Richest	38.3	16.6	1506	84.4	250
Language					
Turkmen	26.6	12.4	6082	76.8	751
Uzbek	26.3	5.1	505	(*)	26
Russian	56.3	23.7	306	85.6	73
Other	22.2	8.9	266	(88.8)	24
Total	**27.7**	**12.2**	**7160**	**78.1**	**874**

*** MICS indicator 87**

**** MICS indicator 88**

Table HA.7: HIV testing and counselling 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 counselling with their antenatal care, Turkmenistan, 2006

	Percent of women who:				
	Received antenatal care from a health care 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**	Number of women who gave birth in the 2 years preceding the Survey
Region					
Ashgabat city	100.0	31.3	37.7	24.2	72
Ahal	100.0	31.2	20.6	16.5	108
Balkan	95.2	18.1	9.0	6.7	71
Dashoguz	99.4	28.8	12.8	10.4	172
Lebap	99.2	55.1	54.7	31.6	229
Mary	99.4	29.0	30.9	28.7	218
Residence					
Urban	98.8	33.8	31.8	20.3	327
Rural	99.3	36.3	30.7	23.3	543
Age					
15–19	(100.0)	(26.2)	(26.3)	(16.7)	29
20–24	99.8	34.5	28.6	20.2	281
25–29	99.2	37.0	33.6	24.6	302
30–34	98.7	32.6	31.7	25.3	161
35–49	97.4	40.3	30.9	16.7	97
Education					
None/primary/secondary	99.4	32.2	28.4	20.6	745
Secondary vocational/professional (special)	96.5	51.3	43.7	29.6	86
Higher	(100.0)	(60.8)	(54.6)	(35.6)	38
Wealth index quintiles					
Poorest	98.0	36.5	33.9	21.2	183
Second	100.0	33.4	25.5	17.6	182
Middle	100.0	35.3	28.5	22.9	176
Fourth	99.7	36.5	29.6	22.5	178
Richest	97.6	35.2	39.2	27.7	151
Language					
Turkmen	99.1	37.5	34.4	24.4	728
Uzbek	98.8	26.8	5.4	3.5	88
Russian	(100.0)	(25.7)	(43.2)	(33.5)	21
Other	(100.0)	(18.0)	(19.7)	(15.5)	32
Total	**99.1**	**35.4**	**31.1**	**22.2**	**869**

*** MICS indicator 90**

**** MICS indicator 91**

Table HA.8: 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, Turkmenistan, 2006

		Living with neither parent				Living with mother only		Living with father only						
	Living with both parents	Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead	Impossible to determine	Total	Not living with a biological parent*	One or both parents dead**	Number of children
Sex														
Male	86.7	0.0	0.1	0.9	0.5	5.2	4.1	0.6	1.4	0.5	100.0	1.5	6.1	4950
Female	86.2	0.1	0.1	1.0	0.4	5.4	4.0	0.4	1.8	0.7	100.0	1.6	6.4	4743
Region														
Ashgabat city	76.0	0.0	0.4	0.9	0.7	12.2	6.6	0.6	0.7	1.9	100.0	2.0	8.4	881
Ahal	88.6	0.1	0.2	0.3	0.7	3.0	4.9	0.2	1.4	0.6	100.0	1.2	7.3	1462
Balkan	86.0	0.0	0.1	1.0	0.0	6.2	4.0	1.2	1.0	0.5	100.0	1.1	5.1	679
Dashoguz	87.8	0.2	0.1	1.2	0.7	4.4	2.8	0.3	2.5	0.1	100.0	2.2	6.3	2051
Lebap	86.2	0.0	0.0	1.2	0.2	6.5	3.7	0.5	1.5	0.2	100.0	1.5	5.4	2251
Mary	88.3	0.1	0.1	0.8	0.2	3.5	4.0	0.6	1.6	0.8	100.0	1.1	6.0	2369
Residence														
Urban	79.5	0.0	0.2	1.4	0.4	10.4	5.7	0.6	1.0	0.8	100.0	2.0	7.3	3523
Rural	90.4	0.1	0.1	0.7	0.5	2.4	3.1	0.5	1.9	0.4	100.0	1.3	5.6	6170
Age														
0–4 years	93.0	0.0	0.0	0.5	0.0	4.3	.9	0.2	0.6	0.5	100.0	0.5	1.5	2178
5–9 years	87.0	0.1	0.2	1.0	0.3	5.8	3.2	0.8	1.2	0.4	100.0	1.6	5.0	2491
10–14 years	85.0	0.0	0.1	0.7	0.5	6.1	4.7	0.5	1.7	0.6	100.0	1.4	7.1	3145
15–17 years	80.6	0.2	0.2	1.6	0.9	4.4	7.7	0.5	3.0	0.9	100.0	2.9	12.0	1879
Wealth index quintiles														
Poorest	90.2	0.0	0.0	0.5	0.4	2.9	2.7	1.0	1.9	0.5	100.0	1.0	5.0	2102
Second	89.1	0.1	0.2	0.6	0.5	3.2	3.7	0.2	2.1	0.3	100.0	1.4	6.6	1937
Middle	90.0	0.0	0.1	0.9	0.3	2.8	3.1	0.5	1.9	0.5	100.0	1.3	5.4	1991
Fourth	87.4	0.3	0.1	1.3	0.6	4.1	4.4	0.2	1.1	0.4	100.0	2.3	6.5	1898
Richest	74.2	0.0	0.1	1.4	0.4	14.7	6.7	0.6	0.9	1.1	100.0	1.9	8.1	1765
Language														
Turkmen	87.8	0.1	0.1	0.9	0.5	4.2	3.9	0.3	1.7	0.5	100.0	1.5	6.3	8316
Uzbek	88.3	0.0	0.0	1.6	0.3	6.1	2.3	0.4	1.0	0.0	100.0	1.9	3.6	773
Russian	45.0	0.0	0.3	0.8	0.5	33.9	13.1	1.6	0.7	4.1	100.0	1.6	14.6	254
Other	80.7	0.0	0.0	0.7	0.0	8.6	4.3	3.9	1.2	0.6	100.0	0.7	5.5	350
Total	**86.5**	**0.1**	**0.1**	**0.9**	**0.4**	**5.3**	**4.1**	**0.5**	**1.6**	**0.6**	**100.0**	**1.5**	**6.2**	**9693**

*** MICS indicator 78**

**** MICS indicator 75**

Table HA.9: Orphaned children school attendance

School attendance by orphaned status among children aged 10-14 years, Turkmenistan, 2006

	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	Orphans to non-orphans school attendance ratio*	Total number of children aged 10-14 years
Sex						
Male	0.5	100.0	91.4	99.4	1.01	1600
Female	0.6	100.0	91.8	99.8	1.00	1545
Region						
Ashgabat city	0.5	100.0	87.6	99.8	1.00	293
Ahal	0.8	100.0	91.7	100.0	1.00	509
Balkan	-	-	93.4	100.0	-	210
Dashoguz	1.3	100.0	91.5	100.0	1.00	656
Lebap	0.2	100.0	93.0	99.6	1.00	710
Mary	0.2	100.0	91.4	98.8	1.01	766
Residence						
Urban	0.2	100.0	90.1	99.9	1.00	1180
Rural	0.7	100.0	92.5	99.4	1.01	1965
Wealth index quintiles						
Poorest	0.7	100.0	93.9	99.3	1.01	650
Second	0.5	100.0	91.7	99.7	1.00	646
Middle	0.7	100.0	91.0	99.5	1.00	611
Fourth	0.4	100.0	92.4	99.5	1.01	647
Richest	0.3	100.0	88.7	100.0	1.00	590
Language						
Turkmen	0.5	100.0	91.8	99.8	1.00	2705
Uzbek	0.9	100.0	92.8	100.0	1.00	240
Russian	0.8	100.0	82.6	100.0	1.00	75
Other	-	-	89.3	94.0	-	125
Total	**0.5**	**100.0**	**91.5**	**99.6**	**1.00**	**3145**

*** MICS indicator 77; MDG indicator 20**

Appendix A. Sample Design

The major features of sample design are described in this appendix. Sample design features include target sample size, sample allocation, sample frame and listing, choice of domains, sampling stages, stratification, and the calculation of sample weights.

The primary objective of the sample design for the Turkmenistan Multiple Indicator Cluster Survey was to produce statistically reliable estimates of most indicators, at the national level, for urban and rural areas, and for the six regions of the country: the capital city of Ashgabat and the *velayats* (provinces) of Ahal, Balkan, Dashoguz, Lebap and Mary. Urban and rural areas in each of the six regions were defined as the sampling domains.

A multi-stage, stratified cluster sampling approach was used for the selection of the Survey sample.

Sample Size and Sample Allocation

The target sample size for the Turkmenistan MICS was calculated as 5,208 households. For the calculation of the sample size, the key indicator used was the underweight prevalence among children aged 18-29 months who were covered by immunization. The following formula was used to estimate the required sample size for these indicators:

$$n = \frac{[\,4\,(r)\,(1\text{-}r)\,(f)\,(k)\,]}{[\,(0.06r)^2\,(p)\,(n_h)\,]}$$

where

- n is the required sample size, expressed as number of households
- 4 is a factor to achieve the 95 percent level of confidence
- r is the predicted or anticipated prevalence (coverage rate) of the indicator
- k is the factor necessary to raise the sample size by 10 percent for non-response
- f is the shortened symbol for *deff* (design effect)
- $0.06r$ is the margin of error to be tolerated for a region
- p is the proportion of the total population upon which the indicator r is based
- n_h is the average household size.

For the calculation, r (immunization coverage) was assumed to be 94 percent. The value of *deff* (design effect) was taken as 1.5 based on estimates from previous surveys, p (percentage of children aged 18-29 months in the total population) was taken as 2.5 percent, and n_h (average household size) was taken as 5.3 (population census 1995).

The resulting number of households from this exercise was 840 households, which is the sample size needed in each region with the account for non-response (k) equal to 1.05. The number of households for Ashgabat city was 1,008, with the account for non-response (k) equal to 1.25. The average cluster size in the Turkmenistan MICS was determined as 20 households in the five regions (Ahal, Balkan, Dashoguz, Lebap and Mary *velayats*) and 24 households in Ashgabat, based on a number of considerations, including the budget available and the time needed per team to complete one cluster.

Dividing the total number of households by the number of households per cluster, the number of clusters needed in each region was calculated. Therefore, 42 clusters were allocated to each region, with the final sample size calculated at 5,208 households: in the five regions (Ahal, Balkan, Dashoguz, Lebap and Mary *velayats*) – 4,200 households (42 clusters * 5 regions * 20 households per cluster), and in Ashgabat city – 1,008 households (42 clusters * 24 households per cluster). In each region, the clusters (primary sampling units) were distributed to urban and rural domains, proportional to the size of urban and rural populations in that region. The table below shows the allocation of clusters to the sampling domains.

Table SD.1: Allocation of Sample Clusters (Primary Sampling Units) to Sampling Domains

Region	Number of Clusters		
	Total	Urban	Rural
Ashgabat city	42	42	-
Ahal	42	15	27
Balkan	42	34	8
Dashoguz	42	12	30
Lebap	42	17	25
Mary	42	10	32
Total	252	130	122

Sampling Frame and Selection of Clusters

The 2005 family doctors' area lists were used for the selection of clusters. The family doctors' areas were defined as primary sampling units (PSUs) and were selected from each of the sampling domains by using systematic pps (probability proportional to size) sampling procedures, based on the estimated sizes of the family doctor's areas. The first stage of sampling was thus completed by selecting the required number of the family doctors' areas from each of the six regions by urban and rural areas separately.

Listing Activities

Household lists in all selected family doctors' areas were updated before the selection of households. For this purpose listing teams were formed, who visited each enumeration area and listed the occupied households. This work was completed in each region in April-May 2006.

Selection of Households

Lists of households were prepared by the listing teams in the field for each enumeration area. The households were then sequentially numbered from 1 to n (the total number of households in each enumeration area) at the National Institute of State Statistics and Information of Turkmenistan (Turkmenmillihasabat), where selection of 20 households in each enumeration area (24 households for Ashgabat) was carried out using systematic selection procedures.

Calculation of Sample Weights

The Turkmenistan Multiple Indicator Cluster Survey sample is not self-weighted. Essentially, by allocating equal numbers of households to each of the regions, different sampling fractions were used in each region because the size of the regions varied. For this reason, sample weights were calculated, and these were used in the subsequent analyses of the survey data.

The major component of the weight is the reciprocal of the sampling fraction employed in selecting the number of sample households in that particular sampling domain:

$$W_h = 1 / f_h$$

The term *fh*, the sampling fraction at the *h-th* stratum, is the product of probabilities of selection at every stage in each sampling domain:

$$f_h = P_{1h} * P_{2h} * P_{3h}$$

where P_{ih} is the probability of selection of the sampling unit in the *i-th* stage for the *h-th* sampling domain.

Because the estimated numbers of households per enumeration area before first-stage selection (selection of primary sampling units) and the updated number of households per enumeration area were different, individual sampling fractions for households in each enumeration area (cluster) were calculated. The sampling fractions for households in each enumeration area (cluster) therefore included the probability of selection of the enumeration area in that particular sampling domain and the probability of selection of a household in the sample enumeration area (cluster).

A second component that must be taken into account in the calculation of sample weights is the level of non-response for the household and individual interviews. The adjustment for household non-response is equal to the inverse value of:

$$RR = \textit{Number of interviewed households / Number of occupied households listed}$$

After the completion of fieldwork, response rates were calculated for each sampling domain. These were used to adjust the sample weights calculated for each cluster. Response rates in the Turkmenistan Multiple Indicator Cluster Survey are shown in Table HH.1 in this report.

Similarly, the adjustment for non-response at the individual level (women and under-5 children) is equal to the inverse value of:

RR = Completed women's (or under-5's) questionnaires / Eligible women (or under-5s)

Numbers of eligible women and under-5 children were obtained from the household listing in the Household Questionnaire in households where interviews were completed.

The unadjusted weights for the households were calculated by multiplying the above factors for each enumeration area. These weights were then normalized (or standardized), one purpose of which is to make the sum of the interviewed sample units equal the total sample size at the national level. Normalization is performed by multiplying the aforementioned unadjusted weights by the ratio of the number of completed households to the total unadjusted weighted number of households. A similar standardization procedure was followed in obtaining standardized weights for the women's and under-5s questionnaires. Adjusted (normalized) weights varied between 0.5 and 1.9 in the 252 enumeration areas (clusters).

Sample weights were appended to all data sets and analyses were performed by weighting each household, woman or under-5 with these sample weights.

Appendix B. List of Personnel Involved in the Survey

Project Director

Amanniyazova L.D.	The First Deputy Director of the National Institute of State Statistics and Information of Turkmenistan (Turkmenmillihasabat), Dr. of Economic Science, Honoured Economist of Turkmenistan

Technical Coordinator

Magerramova R.	Head of the Social Statistics Department, Turkmenmillihasabat

Sampling Specialist

Agaeva G.A.

Data Processing Specialist

Krzhivitskaya L.L.

Regional/Field Coordinators

Jennelov M.	Ashgabat city
Rejepov M.	Ahal *velayat*
Ataev A.	Balkan *velayat*
Chajekov G.	Dashoguz *velayat*
Guvanjov H.	Lebap *velayat*
Akgaev M.	Mary *velayat*

Appendix C. Estimates of Sampling Errors

The sample of respondents selected in the Turkmenistan 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 statistic 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, eight 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.10 show the calculated sampling errors.

Table SE.1: Indicators selected for sampling error calculations
List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Turkmenistan, 2006

MICS Indicator		Base Population
	HOUSEHOLDS	
41	Iodized salt consumption	All households
	HOUSEHOLD MEMBERS	
11	Use of improved drinking water sources	All household members
12	Use of improved sanitation facilities	All household members
55	Net primary school attendance rate	Children of primary school age
56	Net secondary school attendance rate	Children of secondary school age
59	Primary completion rate	Children of primary school completion age
75	Prevalence of orphans	Children aged under 18
	WOMEN	
4	Skilled attendant at delivery	Women aged 15-49 years with a live birth in the last 2 years
20	Antenatal care	Women aged 15-49 years with a live birth in the last 2 years
21	Contraceptive prevalence	Women aged 15-49 currently married/in union
60	Adult literacy	Women aged 15-24 years
67	Marriage before age 18	Women aged 20-49 years
82	Comprehensive knowledge about HIV prevention among young people	Women aged 15-24 years
86	Attitude towards people with HIV/AIDS	Women aged 15-49 years
88	Women who have been tested for HIV	Women aged 15-49 years
89	Knowledge of mother- to-child transmission of HIV	Women aged 15-49 years
	UNDER-5s	
6	Underweight prevalence	Children under age 5
25	Tuberculosis immunization coverage	Children aged 18-29 months
26	Polio immunization coverage	Children aged 18-29 months
27	Immunization coverage for DPT	Children aged 18-29 months
28	Measles immunization coverage	Children aged 18-29 months
31	Fully immunized children	Children aged 18-29 months
-	Acute respiratory infection in last two weeks	Children under age 5
22	Antibiotic treatment of suspected pneumonia	Children under age 5 with suspected pneumonia in the last 2 weeks
-	Diarrhoea in last two weeks	Children under age 5
35	Received ORT or increased fluids and continued feeding	Children under age 5 with diarrhoea in the last 2 weeks
46	Support for learning	Children under age 5
62	Birth registration	Children under age 5

Table SE.2. Sampling errors: Total sample

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.865	0.009	0.010	3.532	1.879	5030	5024	0.847	0.883
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.708	0.015	0.021	27.442	5.239	25364	24915	0.678	0.738
Use of improved sanitation facilities	EN.5	0.987	0.004	0.004	33.537	5.791	25364	24915	0.978	0.995
Net primary school attendance rate	ED.3	0.990	0.002	0.002	0.742	0.861	1597	1540	0.986	0.995
Net secondary school attendance rate	ED.4	0.951	0.005	0.005	1.719	1.311	3817	3727	0.941	0.960
Primary completion rate	ED.7	0.992	0.004	0.004	1.067	1.033	601	586	0.984	1.000
Prevalence of orphans	HA.8	0.062	0.004	0.060	2.288	1.513	9693	9390	0.055	0.070
WOMEN										
Skilled attendant at delivery	RH.5	0.995	0.003	0.003	1.402	1.184	869	846	0.989	1.000
Antenatal care	RH.3	0.991	0.004	0.004	1.631	1.277	869	846	0.983	0.999
Contraceptive prevalence	RH.1	0.480	0.010	0.021	1.583	1.258	3961	3933	0.460	0.500
Adult literacy	ED.9	0.992	0.002	0.002	2.028	1.424	2813	2757	0.987	0.997
Marriage before age 18	CP.3	0.066	0.005	0.071	2.031	1.425	5688	5704	0.057	0.076
Comprehensive knowledge about HIV prevention among young people	HA.3	0.089	0.009	0.099	6.894	2.626	7160	7160	0.071	0.106
Attitude towards people with HIV/AIDS	HA.5	0.059	0.006	0.104	2.673	1.635	3922	3928	0.047	0.071
Women who have been tested for HIV	HA.6	0.122	0.008	0.069	4.680	2.163	7160	7160	0.105	0.139
Knowledge of mother-to-child transmission of HIV	HA.4	0.193	0.009	0.049	4.089	2.022	7160	7160	0.175	0.212
UNDER-5s										
Underweight prevalence	NU.1	0.110	0.009	0.081	1.638	1.280	2009	2007	0.092	0.128
Tuberculosis immunization coverage	CH.2	0.998	0.002	0.002	0.648	0.805	413	418	0.995	1.000
Polio immunization coverage	CH.2	0.991	0.004	0.004	0.767	0.876	413	418	0.982	0.999
Immunization coverage for DPT	CH.2	0.999	0.000	0.000	0.000	0.022	411	415	0.999	0.999
Measles immunization coverage	CH.2	0.986	0.006	0.006	1.186	1.089	412	416	0.973	0.998
Fully immunized children	CH.2	0.973	0.007	0.007	0.777	0.882	411	416	0.959	0.987
Acute respiratory infection in last two weeks	CH.5	0.013	0.004	0.291	2.365	1.538	2075	2075	0.006	0.021
Antibiotic treatment of suspected pneumonia	CH.6	0.504	0.030	0.059	0.098	0.313	28	29	0.445	0.563
Diarrhoea in last two weeks	CH.3	0.055	0.006	0.113	1.541	1.241	2075	2075	0.042	0.067
Received ORT or increased fluids and continued feeding	CH.4	0.252	0.020	0.078	0.232	0.482	113	114	0.213	0.291
Support for learning	CD.1	0.795	0.012	0.015	1.809	1.345	2075	2075	0.771	0.819
Birth registration	CP.1	0.955	0.006	0.006	1.817	1.348	2075	2075	0.942	0.967

Table SE.3. Sampling errors: Urban areas

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.835	0.012	0.014	2.746	1.657	2280	2596	0.811	0.859
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.911	0.013	0.014	22.576	4.751	9676	11037	0.885	0.937
Use of improved sanitation facilities	EN.5	0.998	0.001	0.001	4.249	2.061	9676	11037	0.997	1.000
Net primary school attendance rate	ED.3	0.990	0.004	0.004	0.978	0.989	566	632	0.983	0.998
Net secondary school attendance rate	ED.4	0.957	0.005	0.006	1.124	1.060	1423	1589	0.947	0.968
Primary completion rate	ED.7	0.994	0.004	0.004	0.785	0.886	234	256	0.985	1.000
Prevalence of orphans	HA.8	0.073	0.006	0.084	2.201	1.484	3523	3945	0.061	0.085
WOMEN										
Skilled attendant at delivery	RH.5	1.000	0.000	0.000	.	.	327	368	1.000	1.000
Antenatal care	RH.3	0.988	0.007	0.007	1.538	1.240	327	368	0.973	1.000
Contraceptive prevalence	RH.1	0.469	0.014	0.031	1.453	1.205	1529	1760	0.441	0.498
Adult literacy	ED.9	0.991	0.003	0.003	1.441	1.200	955	1108	0.984	0.998
Marriage before age 18	CP.3	0.074	0.007	0.088	1.622	1.274	2249	2609	0.061	0.087
Comprehensive knowledge about HIV prevention among young people	HA.3	0.121	0.013	0.107	5.124	2.264	2794	3237	0.095	0.147
Attitude towards people with HIV/AIDS	HA.5	0.077	0.009	0.123	2.587	1.609	1827	2045	0.058	0.096
Women who have been tested for HIV	HA.6	0.132	0.011	0.084	3.510	1.874	2794	3237	0.110	0.154
Knowledge of mother-to-child transmission of HIV	HA.4	0.268	0.015	0.057	3.835	1.958	2794	3237	0.237	0.298
UNDER-5s										
Underweight prevalence	NU.1	0.094	0.011	0.120	1.208	1.099	694	811	0.071	0.116
Tuberculosis immunization coverage	CH.2	0.996	0.004	0.004	0.740	0.860	165	192	0.988	1.000
Polio immunization coverage	CH.2	0.989	0.006	0.006	0.531	0.729	165	192	0.978	1.000
Immunization coverage for DPT	CH.2	0.997	0.000	0.000	0.001	0.029	164	190	0.997	0.997
Measles immunization coverage	CH.2	0.977	0.013	0.014	1.469	1.212	164	190	0.950	1.000
Fully immunized children	CH.2	0.959	0.015	0.016	1.101	1.049	165	191	0.929	0.989
Acute respiratory infection in last two weeks	CH.5	0.009	0.003	0.378	1.034	1.017	718	843	0.002	0.015
Antibiotic treatment of suspected pneumonia	CH.6	0.636	0.000	0.000	0.000	0.000	6	8	0.636	0.636
Diarrhoea in last two weeks	CH.3	0.057	0.010	0.182	1.685	1.298	718	843	0.036	0.077
Received ORT or increased fluids and continued feeding	CH.4	0.314	0.028	0.090	0.174	0.417	41	48	0.258	0.371
Support for learning	CD.1	0.791	0.018	0.023	1.652	1.285	718	843	0.755	0.827
Birth registration	CP.1	0.958	0.007	0.007	0.990	0.995	718	843	0.945	0.972

Table SE.4. Sampling errors: Rural areas

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.890	0.013	0.015	4.313	2.077	2750	2428	0.864	0.916
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.582	0.023	0.039	30.153	5.491	15688	13878	0.536	0.628
Use of improved sanitation facilities	EN.5	0.980	0.007	0.007	31.918	5.650	15688	13878	0.966	0.993
Net primary school attendance rate	ED.3	0.990	0.003	0.003	0.625	0.791	1031	908	0.985	0.995
Net secondary school attendance rate	ED.4	0.947	0.007	0.007	1.913	1.383	2394	2138	0.933	0.960
Primary completion rate	ED.7	0.990	0.006	0.006	1.123	1.060	367	330	0.979	1.000
Prevalence of orphans	HA.8	0.056	0.005	0.085	2.338	1.529	6170	5445	0.047	0.066
WOMEN										
Skilled attendant at delivery	RH.5	0.992	0.005	0.005	1.243	1.115	543	478	0.983	1.000
Antenatal care	RH.3	0.993	0.005	0.005	1.775	1.332	543	478	0.983	1.000
Contraceptive prevalence	RH.1	0.487	0.014	0.028	1.610	1.269	2432	2173	0.459	0.514
Adult literacy	ED.9	0.993	0.003	0.003	2.307	1.519	1858	1649	0.986	0.999
Marriage before age 18	CP.3	0.061	0.006	0.106	2.266	1.505	3439	3095	0.048	0.074
Comprehensive knowledge about HIV prevention among young people	HA.3	0.068	0.012	0.175	8.799	2.966	4366	3923	0.044	0.092
Attitude towards people with HIV/AIDS	HA.5	0.044	0.008	0.187	3.002	1.733	2095	1883	0.027	0.060
Women who have been tested for HIV	HA.6	0.116	0.012	0.102	5.312	2.305	4366	3923	0.092	0.139
Knowledge of mother-to-child transmission of HIV	HA.4	0.146	0.012	0.085	4.820	2.195	4366	3923	0.121	0.171
UNDER-5s										
Underweight prevalence	NU.1	0.119	0.012	0.103	1.711	1.308	1315	1196	0.095	0.144
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	248	226	1.000	1.000
Polio immunization coverage	CH.2	0.992	0.006	0.006	0.937	0.968	248	226	0.980	1.000
Immunization coverage for DPT	CH.2	1.000	0.000	0.000	.	.	247	225	1.000	1.000
Measles immunization coverage	CH.2	0.991	0.006	0.006	0.962	0.981	248	226	0.979	1.000
Fully immunized children	CH.2	0.983	0.006	0.006	0.484	0.696	247	225	0.971	0.995
Acute respiratory infection in last two weeks	CH.5	0.016	0.006	0.358	2.536	1.592	1357	1232	0.004	0.027
Antibiotic treatment of suspected pneumonia	CH.6	0.466	0.038	0.081	0.115	0.340	21	21	0.390	0.542
Diarrhoea in last two weeks	CH.3	0.054	0.008	0.144	1.450	1.204	1357	1232	0.038	0.069
Received ORT or increased fluids and continued feeding	CH.4	0.217	0.028	0.130	0.304	0.551	73	66	0.161	0.273
Support for learning	CD.1	0.797	0.016	0.019	1.837	1.355	1357	1232	0.766	0.828
Birth registration	CP.1	0.953	0.009	0.009	2.062	1.436	1357	1232	0.936	0.970

Table SE.5. Sampling errors: Ashgabat City

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.835	0.023	0.027	3.410	1.847	655	920	0.789	0.880
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.950	0.016	0.017	19.784	4.448	2639	3699	0.918	0.982
Use of improved sanitation facilities	EN.5	1.000	0.000	0.000	.	.	2639	3699	1.000	1.000
Net primary school attendance rate	ED.3	0.986	0.008	0.008	0.989	0.995	157	220	0.971	1.000
Net secondary school attendance rate	ED.4	0.959	0.008	0.009	0.865	0.930	359	499	0.942	0.975
Primary completion rate	ED.7	0.985	0.015	0.015	1.071	1.035	56	76	0.955	1.000
Prevalence of orphans	HA.8	0.084	0.013	0.160	2.860	1.691	881	1228	0.057	0.110
WOMEN										
Skilled attendant at delivery	RH.5	1.000	0.000	0.000	.	.	72	103	1.000	1.000
Antenatal care	RH.3	1.000	0.000	0.000	.	.	72	103	1.000	1.000
Contraceptive prevalence	RH.1	0.537	0.026	0.048	1.511	1.229	397	564	0.486	0.589
Adult literacy	ED.9	0.995	0.005	0.005	1.739	1.319	246	350	0.985	1.000
Marriage before age 18	CP.3	0.067	0.008	0.123	0.981	0.990	631	900	0.051	0.084
Comprehensive knowledge about HIV prevention among young people	HA.3	0.169	0.024	0.140	4.360	2.088	769	1094	0.122	0.216
Attitude towards people with HIV/AIDS	HA.5	0.082	0.023	0.287	5.423	2.329	519	741	0.035	0.128
Women who have been tested for HIV	HA.6	0.183	0.028	0.154	5.800	2.408	769	1094	0.127	0.239
Knowledge of mother-to-child transmission of HIV	HA.4	0.317	0.027	0.086	3.719	1.928	769	1094	0.263	0.372
UNDER-5s										
Underweight prevalence	NU.1	0.044	0.012	0.272	0.845	0.919	171	252	0.020	0.067
Tuberculosis immunization coverage	CH.2	0.986	0.014	0.014	0.915	0.957	45	66	0.958	1.000
Polio immunization coverage	CH.2	0.985	0.015	0.015	0.990	0.995	45	66	0.954	1.000
Immunization coverage for DPT	CH.2	1.000	0.000	0.000	.	.	45	66	1.000	1.000
Measles immunization coverage	CH.2	0.967	0.024	0.025	1.196	1.094	45	66	0.918	1.000
Fully immunized children	CH.2	0.937	0.032	0.034	1.120	1.058	45	66	0.873	1.000
Acute respiratory infection in last two weeks	CH.5	0.022	0.010	0.434	1.101	1.049	178	261	0.003	0.041
Antibiotic treatment of suspected pneumonia	CH.6	1.000	0.000	0.000	.	.	4	5	1.000	1.000
Diarrhoea in last two weeks	CH.3	0.092	0.024	0.262	1.821	1.349	178	261	0.044	0.141
Received ORT or increased fluids and continued feeding	CH.4	0.343	0.061	0.178	0.363	0.603	16	23	0.221	0.465
Support for learning	CD.1	0.876	0.028	0.032	1.883	1.372	178	261	0.820	0.932
Birth registration	CP.1	0.975	0.014	0.014	2.088	1.445	178	261	0.947	1.000

Table SE.6. Sampling errors: Ahal *velayat*

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.950	0.009	0.009	1.394	1.181	683	832	0.932	0.968
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.608	0.048	0.079	44.628	6.680	3751	4557	0.511	0.705
Use of improved sanitation facilities	EN.5	0.999	0.001	0.001	5.233	2.288	3751	4557	0.997	1.000
Net primary school attendance rate	ED.3	0.986	0.005	0.005	0.476	0.690	230	277	0.976	0.996
Net secondary school attendance rate	ED.4	0.951	0.007	0.008	0.887	0.942	616	744	0.936	0.966
Primary completion rate	ED.7	0.992	0.009	0.009	1.086	1.042	102	123	0.974	1.000
Prevalence of orphans	HA.8	0.073	0.009	0.120	2.010	1.418	1462	1771	0.055	0.090
WOMEN										
Skilled attendant at delivery	RH.5	1.000	0.000	0.000	.	.	108	134	1.000	1.000
Antenatal care	RH.3	1.000	0.000	0.000	.	.	108	134	1.000	1.000
Contraceptive prevalence	RH.1	0.450	0.028	0.062	2.291	1.514	590	730	0.394	0.506
Adult literacy	ED.9	0.988	0.005	0.005	1.232	1.110	398	493	0.977	0.999
Marriage before age 18	CP.3	0.054	0.008	0.151	1.300	1.140	808	1003	0.038	0.070
Comprehensive knowledge about HIV prevention among young people	HA.3	0.151	0.046	0.302	20.992	4.582	1040	1289	0.060	0.243
Attitude towards people with HIV/AIDS	HA.5	0.097	0.019	0.195	2.350	1.533	461	578	0.059	0.135
Women who have been tested for HIV	HA.6	0.092	0.024	0.265	9.136	3.023	1040	1289	0.043	0.140
Knowledge of mother-to-child transmission of HIV	HA.4	0.107	0.019	0.177	4.818	2.195	1040	1289	0.069	0.144
UNDER-5s										
Underweight prevalence	NU.1	0.183	0.023	0.125	1.196	1.094	271	344	0.137	0.228
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	53	67	1.000	1.000
Polio immunization coverage	CH.2	1.000	0.000	0.000	.	.	53	67	1.000	1.000
Immunization coverage for DPT	CH.2	1.000	0.000	0.000	.	.	53	67	1.000	1.000
Measles immunization coverage	CH.2	1.000	0.000	0.000	.	.	52	66	1.000	1.000
Fully immunized children	CH.2	1.000	0.000	0.000	.	.	52	66	1.000	1.000
Acute respiratory infection in last two weeks	CH.5	0.017	0.004	0.232	0.338	0.581	281	356	0.009	0.025
Antibiotic treatment of suspected pneumonia	CH.6	0.326	0.166	0.509	0.626	0.791	5	6	0.000	0.657
Diarrhoea in last two weeks	CH.3	0.060	0.016	0.261	1.543	1.242	281	356	0.029	0.091
Received ORT or increased fluids and continued feeding	CH.4	0.424	0.049	0.116	0.199	0.447	17	21	0.326	0.523
Support for learning	CD.1	0.820	0.029	0.035	1.962	1.401	281	356	0.762	0.877
Birth registration	CP.1	0.962	0.006	0.007	0.394	0.628	281	356	0.949	0.975

Table SE.7. Sampling errors: Balkan *velayat*

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.853	0.026	0.030	4.177	2.044	454	794	0.802	0.904
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.726	0.046	0.064	36.534	6.044	1941	3421	0.634	0.818
Use of improved sanitation facilities	EN.5	0.992	0.004	0.004	6.140	2.478	1941	3421	0.984	0.999
Net primary school attendance rate	ED.3	0.988	0.008	0.008	0.952	0.976	93	165	0.972	1.000
Net secondary school attendance rate	ED.4	0.959	0.009	0.009	0.928	0.963	266	473	0.942	0.977
Primary completion rate	ED.7	0.987	0.013	0.013	0.909	0.953	41	73	0.961	1.000
Prevalence of orphans	HA.8	0.051	0.007	0.136	1.196	1.093	679	1197	0.037	0.065
WOMEN										
Skilled attendant at delivery	RH.5	0.975	0.024	0.025	3.111	1.764	71	127	0.926	1.000
Antenatal care	RH.3	0.952	0.034	0.036	3.163	1.779	71	127	0.884	1.000
Contraceptive prevalence	RH.1	0.376	0.026	0.069	1.534	1.239	302	541	0.324	0.428
Adult literacy	ED.9	0.991	0.006	0.006	1.697	1.303	207	370	0.978	1.000
Marriage before age 18	CP.3	0.068	0.013	0.196	2.237	1.496	447	799	0.041	0.094
Comprehensive knowledge about HIV prevention among young people	HA.3	0.034	0.008	0.246	2.097	1.448	556	993	0.017	0.050
Attitude towards people with HIV/AIDS	HA.5	0.113	0.023	0.200	2.313	1.521	256	453	0.068	0.159
Women who have been tested for HIV	HA.6	0.050	0.010	0.201	2.101	1.449	556	993	0.030	0.070
Knowledge of mother-to-child transmission of HIV	HA.4	0.240	0.028	0.115	4.150	2.037	556	993	0.185	0.295
UNDER-5s										
Underweight prevalence	NU.1	0.050	0.016	0.316	1.436	1.198	151	277	0.018	0.081
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	33	61	1.000	1.000
Polio immunization coverage	CH.2	0.966	0.020	0.021	0.715	0.846	33	61	0.926	1.000
Immunization coverage for DPT	CH.2	0.985	0.001	0.001	0.002	0.050	32	59	0.983	0.986
Measles immunization coverage	CH.2	0.950	0.036	0.038	1.654	1.286	33	60	0.877	1.000
Fully immunized children	CH.2	0.902	0.043	0.047	1.235	1.111	33	61	0.817	0.987
Acute respiratory infection in last two weeks	CH.5	0.008	0.008	0.990	2.218	1.489	158	291	0.000	0.023
Antibiotic treatment of suspected pneumonia	CH.6	0.000	0.000	.	.	.	1	2	0.000	0.000
Diarrhoea in last two weeks	CH.3	0.032	0.009	0.291	0.805	0.897	158	291	0.013	0.050
Received ORT or increased fluids and continued feeding	CH.4	0.327	0.113	0.346	0.466	0.682	5	9	0.101	0.554
Support for learning	CD.1	0.823	0.036	0.044	2.638	1.624	158	291	0.750	0.896
Birth registration	CP.1	0.953	0.014	0.014	1.198	1.094	158	291	0.926	0.980

Table SE.8. Sampling errors: Dashoguz *velayat*

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 se	*r+ 2 se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.962	0.008	0.008	1.539	1.241	904	840	0.946	0.979
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.829	0.030	0.037	32.000	5.657	5302	4931	0.768	0.889
Use of improved sanitation facilities	EN.5	0.977	0.013	0.014	37.830	6.151	5302	4931	0.950	1.000
Net primary school attendance rate	ED.3	0.994	0.004	0.004	1.044	1.022	360	335	0.986	1.000
Net secondary school attendance rate	ED.4	0.944	0.012	0.012	1.860	1.364	803	746	0.921	0.967
Primary completion rate	ED.7	1.000	0.000	0.000	.	.	120	112	1.000	1.000
Prevalence of orphans	HA.8	0.063	0.008	0.124	1.956	1.399	2051	1907	0.047	0.078
WOMEN										
Skilled attendant at delivery	RH.5	1.000	0.000	0.000	.	.	172	163	1.000	1.000
Antenatal care	RH.3	0.994	0.006	0.006	1.047	1.023	172	163	0.981	1.000
Contraceptive prevalence	RH.1	0.475	0.023	0.049	1.611	1.269	775	735	0.429	0.522
Adult literacy	ED.9	0.995	0.003	0.003	1.036	1.018	583	552	0.988	1.000
Marriage before age 18	CP.3	0.073	0.008	0.113	1.153	1.074	1206	1143	0.057	0.090
Comprehensive knowledge about HIV prevention among young people	HA.3	0.080	0.019	0.239	7.018	2.649	1498	1419	0.042	0.118
Attitude towards people with HIV/AIDS	HA.5	0.019	0.004	0.222	0.906	0.952	999	950	0.011	0.027
Women who have been tested for HIV	HA.6	0.039	0.009	0.235	3.161	1.778	1498	1419	0.021	0.057
Knowledge of mother-to-child transmission of HIV	HA.4	0.103	0.019	0.185	5.599	2.366	1498	1419	0.065	0.142
UNDER-5s										
Underweight prevalence	NU.1	0.114	0.019	0.166	1.367	1.169	400	389	0.076	0.151
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	74	72	1.000	1.000
Polio immunization coverage	CH.2	0.972	0.020	0.020	1.000	1.000	74	72	0.933	1.000
Immunization coverage for DPT	CH.2	1.000	0.000	0.000	.	.	74	72	1.000	1.000
Measles immunization coverage	CH.2	0.986	0.014	0.014	0.974	0.987	74	72	0.959	1.000
Fully immunized children	CH.2	0.958	0.013	0.014	0.304	0.552	74	72	0.932	0.985
Acute respiratory infection in last two weeks	CH.5	0.030	0.016	0.515	3.242	1.801	407	395	0.000	0.061
Antibiotic treatment of suspected pneumonia	CH.6	0.251	0.000	0.000	0.000	0.000	12	12	0.251	0.251
Diarrhoea in last two weeks	CH.3	0.063	0.017	0.272	1.968	1.403	407	395	0.029	0.098
Received ORT or increased fluids and continued feeding	CH.4	0.081	0.003	0.039	0.003	0.057	26	25	0.075	0.088
Support for learning	CD.1	0.873	0.022	0.025	1.661	1.289	407	395	0.830	0.916
Birth registration	CP.1	0.985	0.009	0.009	1.915	1.384	407	395	0.968	1.000

Table SE.9. Sampling errors: Lebap *velayat*

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 se	*r+ 2 se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.783	0.030	0.038	4.337	2.083	1117	815	0.723	0.843
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.895	0.022	0.025	21.578	4.645	5525	4068	0.850	0.939
Use of improved sanitation facilities	EN.5	0.983	0.009	0.009	18.750	4.330	5525	4068	0.965	1.000
Net primary school attendance rate	ED.3	0.996	0.004	0.004	1.098	1.048	374	280	0.988	1.000
Net secondary school attendance rate	ED.4	0.956	0.009	0.009	1.172	1.082	848	634	0.939	0.974
Primary completion rate	ED.7	0.990	0.010	0.010	1.031	1.015	135	102	0.970	1.000
Prevalence of orphans	HA.8	0.054	0.009	0.176	2.944	1.716	2251	1668	0.035	0.073
WOMEN										
Skilled attendant at delivery	RH.5	0.994	0.006	0.006	0.891	0.944	229	168	0.983	1.000
Antenatal care	RH.3	0.992	0.008	0.008	1.418	1.191	229	168	0.975	1.000
Contraceptive prevalence	RH.1	0.433	0.020	0.045	1.033	1.016	895	666	0.394	0.472
Adult literacy	ED.9	1.000	0.000	0.000	.	.	627	466	1.000	1.000
Marriage before age 18	CP.3	0.086	0.014	0.159	2.077	1.441	1181	878	0.059	0.113
Comprehensive knowledge about HIV prevention among young people	HA.3	0.097	0.015	0.156	2.949	1.717	1529	1137	0.067	0.127
Attitude towards people with HIV/AIDS	HA.5	0.049	0.015	0.316	4.061	2.015	1087	800	0.018	0.079
Women who have been tested for HIV	HA.6	0.254	0.028	0.110	4.661	2.159	1529	1137	0.199	0.310
Knowledge of mother-to-child transmission of HIV	HA.4	0.332	0.026	0.079	3.501	1.871	1529	1137	0.279	0.384
UNDER-5s										
Underweight prevalence	NU.1	0.103	0.016	0.160	1.124	1.060	507	384	0.070	0.136
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	107	80	1.000	1.000
Polio immunization coverage	CH.2	1.000	0.000	0.000	.	.	107	80	1.000	1.000
Immunization coverage for DPT	CH.2	1.000	0.000	0.000	.	.	106	79	1.000	1.000
Measles immunization coverage	CH.2	1.000	0.000	0.000	.	.	107	80	1.000	1.000
Fully immunized children	CH.2	1.000	0.000	0.000	.	.	106	79	1.000	1.000
Acute respiratory infection in last two weeks	CH.5	0.000	0.000	.	.	.	517	392	0.000	0.000
Antibiotic treatment of suspected pneumonia	CH.6	.	.	.	.	.	.	0	.	.
Diarrhoea in last two weeks	CH.3	0.043	0.011	0.260	1.197	1.094	517	392	0.021	0.066
Received ORT or increased fluids and continued feeding	CH.4	0.351	0.054	0.154	0.204	0.452	22	17	0.243	0.459
Support for learning	CD.1	0.800	0.018	0.022	0.777	0.881	517	392	0.764	0.835
Birth registration	CP.1	0.941	0.013	0.014	1.203	1.097	517	392	0.915	0.967

Table SE.10. Sampling errors: Mary *velayat*

Standard errors, coefficients of variations, design effects (*deff*), square root of design effects (*deft*) and confidence intervals for selected indicators, Turkmenistan, 2006

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2 *se*	*r*+ 2 *se*
HOUSEHOLDS										
Iodized salt consumption	NU.5	0.841	0.018	0.022	2.043	1.429	1217	823	0.805	0.878
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.390	0.041	0.106	30.490	5.522	6205	4239	0.307	0.473
Use of improved sanitation facilities	EN.5	0.985	0.010	0.010	28.490	5.338	6205	4239	0.964	1.000
Net primary school attendance rate	ED.3	0.986	0.005	0.005	0.498	0.705	383	263	0.976	0.996
Net secondary school attendance rate	ED.4	0.946	0.013	0.014	2.017	1.420	925	631	0.920	0.972
Primary completion rate	ED.7	0.991	0.009	0.009	0.912	0.955	147	100	0.973	1.000
Prevalence of orphans	HA.8	0.060	0.007	0.125	1.603	1.266	2369	1619	0.045	0.075
WOMEN										
Skilled attendant at delivery	RH.5	0.994	0.006	0.006	0.834	0.913	218	151	0.983	1.000
Antenatal care	RH.3	0.994	0.006	0.006	0.992	0.996	218	151	0.981	1.000
Contraceptive prevalence	RH.1	0.552	0.023	0.042	1.503	1.226	1002	697	0.506	0.598
Adult literacy	ED.9	0.985	0.008	0.008	2.179	1.476	752	526	0.970	1.000
Marriage before age 18	CP.3	0.049	0.011	0.220	2.467	1.571	1415	981	0.028	0.071
Comprehensive knowledge about HIV prevention among young people	HA.3	0.035	0.005	0.139	0.864	0.930	1769	1228	0.025	0.045
Attitude towards people with HIV/AIDS	HA.5	0.073	0.011	0.146	0.685	0.828	599	406	0.052	0.095
Women who have been tested for HIV	HA.6	0.092	0.009	0.098	1.190	1.091	1769	1228	0.074	0.110
Knowledge of mother-to-child transmission of HIV	HA.4	0.133	0.017	0.127	3.022	1.738	1769	1228	0.099	0.167
UNDER-5s										
Underweight prevalence	NU.1	0.117	0.024	0.209	2.078	1.441	508	361	0.068	0.166
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	101	72	1.000	1.000
Polio immunization coverage	CH.2	1.000	0.000	0.000	.	.	101	72	1.000	1.000
Immunization coverage for DPT	CH.2	1.000	0.000	0.000	.	.	101	72	1.000	1.000
Measles immunization coverage	CH.2	0.983	0.018	0.018	1.312	1.146	101	72	0.947	1.000
Fully immunized children	CH.2	0.983	0.018	0.018	1.312	1.146	101	72	0.947	1.000
Acute respiratory infection in last two weeks	CH.5	0.010	0.008	0.789	2.391	1.546	534	380	0.000	0.026
Antibiotic treatment of suspected pneumonia	CH.6	1.000	0.000	0.000	.	.	5	4	1.000	1.000
Diarrhoea in last two weeks	CH.3	0.051	0.012	0.239	1.151	1.073	534	380	0.026	0.075
Received ORT or increased fluids and continued feeding	CH.4	0.156	0.035	0.225	0.168	0.410	27	19	0.086	0.226
Support for learning	CD.1	0.683	0.033	0.048	1.898	1.378	534	380	0.617	0.749
Birth registration	CP.1	0.935	0.017	0.018	1.870	1.368	534	380	0.901	0.970

Appendix D. Data Quality Tables

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex (weighted), Turkmenistan, 2006

	Males		Females			Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	233	1.9	255	2.0	41	140	1.1	171	1.3
1	226	1.8	199	1.5	42	164	1.3	151	1.2
2	205	1.7	232	1.8	43	148	1.2	160	1.2
3	242	2.0	204	1.6	44	141	1.1	152	1.2
4	197	1.6	184	1.4	45	146	1.2	174	1.3
5	249	2.0	246	1.9	46	139	1.1	149	1.1
6	245	2.0	228	1.7	47	142	1.2	163	1.2
7	245	2.0	249	1.9	48	121	1.0	157	1.2
8	275	2.2	224	1.7	49	119	1.0	105	0.8
9	270	2.2	262	2.0	50	99	0.8	144	1.1
10	320	2.6	251	1.9	51	103	0.8	124	1.0
11	303	2.5	308	2.4	52	115	0.9	122	0.9
12	317	2.6	326	2.5	53	92	0.8	102	0.8
13	345	2.8	355	2.7	54	87	0.7	93	0.7
14	314	2.6	304	2.3	55	66	0.5	106	0.8
15	321	2.6	286	2.2	56	86	0.7	109	0.8
16	333	2.7	331	2.5	57	58	0.5	65	0.5
17	309	2.5	298	2.3	58	63	0.5	81	0.6
18	154	1.3	274	2.1	59	64	0.5	69	0.5
19	153	1.2	310	2.4	60	30	0.2	56	0.4
20	255	2.1	286	2.2	61	31	0.2	44	0.3
21	264	2.2	329	2.5	62	30	0.2	35	0.3
22	246	2.0	257	2.0	63	56	0.5	46	0.3
23	261	2.1	258	2.0	64	52	0.4	54	0.4
24	263	2.1	236	1.8	65	50	0.4	47	0.4
25	254	2.1	245	1.9	66	42	0.3	59	0.5
26	237	1.9	224	1.7	67	55	0.4	55	0.4
27	231	1.9	216	1.7	68	45	0.4	62	0.5
28	210	1.7	209	1.6	69	39	0.3	53	0.4
29	213	1.7	217	1.7	70	31	0.2	49	0.4
30	186	1.5	186	1.4	71	35	0.3	36	0.3
31	184	1.5	214	1.6	72	21	0.2	44	0.3
32	195	1.6	176	1.3	73	26	0.2	36	0.3
33	139	1.1	175	1.3	74	22	0.2	33	0.2
34	169	1.4	168	1.3	75	20	0.2	32	0.2
35	169	1.4	180	1.4	76	19	0.2	30	0.2
36	158	1.3	184	1.4	77	29	0.2	24	0.2
37	174	1.4	165	1.3	78	17	0.1	26	0.2
38	145	1.2	186	1.4	79	10	0.1	16	0.1
39	121	1.0	143	1.1	80+	48	0.4	95	0.7
40	163	1.3	161	1.2					
					Total	12294	100.0	13070	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, Turkmenistan, 2006

	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
	Number	Number	Percent	
Age				
10-14	1545	na	na	na
15-19	1499	1496	20.5	99.8
20-24	1366	1364	18.7	99.8
25-29	1111	1106	15.2	99.6
30-34	920	916	12.6	99.5
35-39	858	856	11.8	99.8
40-44	795	794	10.9	99.8
45-49	748	747	10.3	99.8
50-54	585	na	na	na
15-49	7297	7278	100.0	99.7

na: not applicable
Note: Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.

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, Turkmenistan, 2006

	Household population of children age 0-7	Interviewed children age 0-4		Percentage of eligible children interviewed
	Number	Number	Percent	
Age				
0	488	485	22.4	99.3
1	425	424	19.6	99.8
2	437	433	20.0	99.0
3	447	447	20.7	100.0
4	380	374	17.3	98.3
5	494	na	na	na
6	472	na	na	na
7	494	na	na	na
0-4	2178	2162	100.0	99.3

na: not applicable
Note: Weights for both household population of children and interviewed children are household weights. Age is based on the household schedule.

Table DQ.4: Age distribution of under-5 children

Age distribution of under-5 children by three-month groups (weighted), Turkmenistan, 2006

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Age in months						
0-2	59	5.6	70	6.9	130	6.2
3-5	50	4.8	62	6.1	112	5.4
6-8	48	4.6	44	4.3	92	4.4
9-11	62	5.9	63	6.2	125	6.0
12-14	51	4.8	48	4.6	98	4.7
15-17	58	5.5	59	5.8	117	5.6
18-20	43	4.1	31	3.0	74	3.6
21-23	65	6.1	52	5.1	116	5.6
24-26	49	4.6	75	7.3	123	5.9
27-29	45	4.3	54	5.3	100	4.8
30-32	40	3.8	45	4.4	85	4.1
33-35	59	5.7	48	4.7	107	5.2
36-38	58	5.6	48	4.7	107	5.1
39-41	66	6.3	43	4.2	109	5.2
42-44	54	5.1	52	5.1	106	5.1
45-47	58	5.5	49	4.8	107	5.2
48-50	45	4.3	50	4.9	95	4.6
51-53	51	4.8	47	4.6	98	4.7
54-56	42	4.0	41	4.0	83	4.0
57-59	48	4.6	43	4.2	91	4.4
Total	1050	100.0	1025	100.0	2075	100.0

Table DQ.5: Heaping on ages and periods

Age and period ratios at boundaries of eligibility by type of information collected (weighted), Turkmenistan, 2006

	Age and period ratios*			Eligibility boundary	
	Males	Females	Total	(lower-upper)	Module or questionnaire
Age in household questionnaire					
1	1.02	0.87	0.94		
2	0.91	1.10	1.00	Lower	Child discipline
3	1.13	0.99	1.06		
4	0.86	0.87	0.86	Upper	Under-5 questionnaire
5	1.08	1.12	1.10	Lower	Education
6	0.99	0.95	0.97		
13	1.06	1.08	1.07		
14	0.96	0.97	0.96	Upper	Child discipline
15	1.00	0.93	0.96	Lower	Women's questionnaire
16	1.04	1.09	1.06		
17	1.16	0.99	1.07	Upper	Orphaned children
18	1.50	1.01	1.22		
23	1.02	1.03	1.02		
24	1.01	0.96	0.99	Upper	Education
25	1.01	1.04	1.03		
48	0.95	1.11	1.03		
49	1.05	0.78	0.90	Upper	Women's questionnaire
50	0.93	1.16	1.05		
Months since last birth in women's questionnaire					
6-11	na	1.00	na		
12-17	na	1.04	na		
18-23	na	0.90	na	Upper	Maternal and child health
24-29	na	1.13	na		
30-35	na	0.85	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), Turkmenistan, 2006

Questionnaire and Subject	Reference group	Percent with missing information*	Number of cases
Household			
Salt testing	All households surveyed	0.0	5042
Women			
Date of Birth	All women aged 15-49		
Month only		0.0	7160
Month and year missing		0.0	7160
Date of first birth	All women aged 15-49 with at least one live birth		
Month only		0.7	4102
Month and year missing		0.1	4102
Completed years since first birth	All women age 15-49 with at least one live birth	0.0	2
Date of last birth	All women aged 15-49 with at least one live birth		
Month only		0.1	4102
Month and year missing		0.0	4102
Date of first marriage/union	All ever-married women age 15-49		
Month only		1.5	4455
Month and year missing		1.0	4455
Age at first marriage/union	All ever-married women age 15-49	0.2	4455
Under-5			
Date of Birth	All under-5 children surveyed		
Month only		0.0	2075
Month and year missing		0.0	2075
Anthropometry	All under-5 children surveyed		
Height		1.7	2075
Weight		1.7	2075
Height or Weight		1.7	2075

* 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), Turkmenistan, 2006

	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	Father interviewed	Other adult female interviewed		
Age							
0	99.7	0.0	0.0	0.0	0.3	100.0	488
1	99.2	0.0	0.3	0.3	0.2	100.0	425
2	96.0	0.3	0.0	0.0	3.7	100.0	437
3	98.7	0.0	0.0	0.4	0.9	100.0	447
4	98.0	0.0	0.0	0.0	2.0	100.0	380
Total	98.4	0.1	0.1	0.1	1.4	100.0	2178

Table DQ.8: School attendance by single age

Distribution of household population aged 5-24, by educational level and grade attended in the current year (weighted), Turkmenistan, 2006

		Primary school				Secondary school								Vocational school	Higher	Not attending school	Total	Number
	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11					
Age																		
5	32.6	0.1	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	67.3	100.0	460
6	27.8	29.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.9	100.0	485
7	0.5	64.9	31.8	.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	100.0	503
8	0.3	4.7	62.1	30.8	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	100.0	518
9	0.0	0.4	3.3	65.6	0.1	29.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	100.0	575
10	0.0	0.0	0.5	2.4	0.1	63.4	31.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	100.0	601
11	0.0	0.0	0.0	0.6	0.0	4.6	62.4	30.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	100.0	662
12	0.0	0.0	0.0	0.0	0.0	0.1	4.3	65.0	28.6	1.8	0.0	0.0	0.0	0.0	0.0	0.2	100.0	673
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	66.3	26.9	0.2	0.0	0.0	0.0	0.0	0.9	100.0	639
14	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	4.3	67.9	26.6	0.0	0.0	0.0	0.0	0.8	100.0	602
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.1	71.6	0.2	0.0	0.6	0.0	23.1	100.0	641
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	13.7	0.3	0.1	3.1	0.3	82.1	100.0	632
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.5	0.0	1.5	0.5	95.3	100.0	473
18	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	1.3	2.6	96.1	100.0	448
19	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	0.4	3.1	96.5	100.0	534
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.7	1.5	97.7	100.0	601
21	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	0.2	1.2	98.6	100.0	498
22	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	0.4	1.2	98.3	100.0	514
23	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	0.4	1.2	98.3	100.0	505
24	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	100.0	100.0	79

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), Turkmenistan, 2006

	Children Ever Born			Children Living			Children deceased			
	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	Number of women
Age										
15-19	18	15	1.19	18	15	1.19	-	-	-	1472
20-24	278	261	1.06	261	254	1.03	17	7	2.52	1341
25-29	733	642	1.14	686	607	1.13	46	35	1.34	1088
30-34	1028	927	1.11	938	887	1.06	91	39	2.29	901
35-39	1326	1170	1.13	1195	1105	1.08	130	65	2.01	843
40-44	1512	1381	1.10	1369	1282	1.07	144	99	1.45	781
45-49	1563	1466	1.07	1385	1361	1.02	178	105	1.69	734
Total	6458	5862	1.10	5852	5512	1.06	606	350	1.73	7160

Note: Sex ratios are calculated as number of males/ number of females

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), Turkmenistan, 2006

	Months since last birth				
	Number	Percent		Number	Percent
0	41	3.5	18	23	1.9
1	42	3.6	19	18	1.6
2	53	4.5	20	25	2.1
3	39	3.4	21	25	2.1
4	38	3.2	22	40	3.4
5	40	3.4	23	36	3.1
6	39	3.3	24	26	2.2
7	31	2.6	25	35	3.0
8	30	2.6	26	33	2.8
9	35	3.0	27	29	2.5
10	47	4.0	28	30	2.5
11	52	4.4	29	24	2.1
12	28	2.4	30	16	1.4
13	37	3.2	31	22	1.9
14	34	2.9	32	13	1.1
15	33	2.8	33	22	1.9
16	39	3.4	34	28	2.4
17	41	3.5	35	24	2.1
			Total	1168	100.0

Appendix E. MICS Indicators: Numerators and Denominators

INDICATOR		NUMERATOR	DENOMINATOR
1	Under-5 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 5 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 5 that were weighed
7	Stunting prevalence	Number of children under age 5 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 5 measured
8	Wasting prevalence	Number of children under age 5 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 5 weighed and measured
9	Low-birth-weight infants	Number of last live births in the 2 years preceding the Survey weighing below 2500 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
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
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

INDICATOR		NUMERATOR	DENOMINATOR
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 18-29 months receiving BCG vaccine before their first birthday	Total number of children aged 18-29 months surveyed
26	Polio immunization coverage	Number of children aged 18-29 months receiving OPV3 vaccine before their first birthday	Total number of children aged 18-29 months surveyed
27	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	Number of children aged 18-29 months receiving DPT3 vaccine before their first birthday	Total number of children aged 18-29 months surveyed
28	Measles immunization coverage	Number of children aged 18-29 months receiving measles vaccine within first 18 months of life	Total number of children aged 18-29 months surveyed
29	Hepatitis B immunization coverage	Number of children aged 18-29 months immunized against hepatitis before their first birthday	Total number of children aged 18-29 months surveyed
31	Fully immunized children	Number of children aged 18-29 months receiving DPT1-3, OPV-1-3, BCG and measles vaccines within first 18 months of life	Total number of children aged 18-29 months surveyed
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
41	Iodized salt consumption	Number of households with salt testing 15 parts per million or more of iodine/iodate	Total number of households surveyed
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	Total number of children aged 0-59 months

INDICATOR		NUMERATOR	DENOMINATOR
		learning and school readiness in the past 3 days	
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 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 5	Proportion of children entering the first grade of primary school that eventually reach grade 5	
58	Transition rate to secondary school	Number of children that were in the last grade of primary school during the previous school year that attend secondary school	Total number of children that were in the last grade of primary school during the previous school year surveyed
59	Primary completion rate	Number of children (of any age) attending the last grade of primary school (excluding repeaters)	Total number of children of primary school completion age (age appropriate to final grade of primary school) surveyed
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 and secondary education	Proportion of boys in primary and 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

INDICATOR		NUMERATOR	DENOMINATOR
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
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
96	Source of supplies	Number of children (or households) for whom supplies were obtained from public providers, presented separately for each type of supply: oral rehydration salts	Total number of children (or households) for whom supplies were obtained
98	Unmet need for family planning	Number of women that are currently married or in union that are fecund and want to space their births or limit the number of children they have and that are not currently using contraception	Total number of women interviewed that are currently married or in union
99	Demand satisfied for family planning	Number of women currently married or in union that are currently using contraception	Number of women currently married or in union that have an unmet need for contraception or that are currently using contraception
100	Attitudes towards domestic violence	Number of women that consider that a husband/partner is justified in hitting or beating his wife in at least one of the following circumstances: (1) she goes out without telling him, (2) she neglects the children, (3) she argues with him, (4) she refuses sex with him, (5) she burns the food	Total number of women surveyed

Appendix F. Questionnaires

NATIONAL INSTITUTE OF STATE STATISTICS AND INFORMATION OF TURKMENISTAN

HOUSEHOLD QUESTIONNAIRE

WE ARE FROM ***NIS*** . WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. 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: *Ashgabat city*.....1 *Ahal velayat*.....2 *Balkan velayat*.....3 *Dashoguz velayat*.....4 *Lebap velayat*.....5 *Mary velayat*.....6
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.....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. Number of the data entry clerk: ___ ___	
HH 16A. Name and number of editor Name	Date edited and signature:

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:		
	WOMEN'S INTERVIEW	UNDER-5 INTERVIEW	*For children **age 0-17 years** ask HL9-HL12*

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.	HL5A DATE OF BIRTH *(SPECIFY MONTH AND YEAR OF BIRTH)* 98=DK MONTH 9998=DK YEAR	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	DD.MM.YY	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.	HL5A DATE OF BIRTH *(SPECIFY MONTH AND YEAR OF BIRTH)* 98=DK MONTH 9998=DK YEAR	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	DD.MM.YY	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		___ ___	11	___ ___	1 2 8	___ ___	1 2 8	___ ___
16		___ ___	1 2		___ ___	12	___ ___	1 2 8	___ ___	1 2 8	___ ___
17		___ ___	1 2		___ ___	13	___ ___	1 2 8	___ ___	1 2 8	___ ___
18		___ ___	1 2		___ ___	14	___ ___	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.*											
Totals						Women 15-49 ___ ___	Under 5 ___ ___				

** 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
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*	ED1B *AGE*	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/KINDERGARDEN 1 PRIMARY 2 SECONDARY 3 PROFESSIONAL TRAINING 4. HIGHER 8 DK GRADE: 98 DK *If less than 1 grade, enter 00.*	ED4. DURING THE *(2005-2006)* SCHOOL YEAR, DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME? 1 YES 2 NO ⇨ ED7	ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (*name*) ATTENDING? LEVEL: 0 PRE SCHOOL KINDERGARDEN 1 PRIMARY 2 SECONDARY 3 PROFESSIONAL TRAINING 4. HIGHER 8 DK *98 dk*	ED7. DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR, THAT IS (*2004-2005*)? 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 PRE SCHOOL KINDERGARDEN 1 PRIMARY 2 SECONDARY 3 PROFESSIONAL TRAINING 4. HIGHER 8 DK GRADE: 98 DK

LINE	NAME	AGE	YES	NO	LEVEL	GRADE	YES	NO	LEVEL	GRADE	Y	N	DK	LEVEL	GRADE
01		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
02		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
03		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
04		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
05		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
06		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
07		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
08		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
09		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
10		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___

For household members age 5 and above	*For household members age 5-24 years*

ED1. *Line no.*	ED1A *NAME*	ED1B *AGE*	ED2. HAS (*name*) EVER ATTENDED SCHOOL OR PRESCHOOL?	ED3. WHAT IS THE HIGHEST LEVEL OF SCHOOL (*name*) ATTENDED? WHAT IS THE HIGHEST GRADE (*name*) COMPLETED AT THIS LEVEL?	ED4. DURING THE *(2005-2006)* SCHOOL YEAR, DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME?	ED6. DURING THIS/THAT SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (*name*) ATTENDING?	ED7. DID (*name*) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME DURING THE PREVIOUS SCHOOL YEAR, THAT IS (*2004-2005*)?	ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (*name*) ATTEND?
			1 YES ⇨ ED3 2 NO ↘ NEXT LINE	LEVEL: 0 PRE-SCHOOL/KINDERGARDEN 1 PRIMARY 2 SECONDARY 3 PROFESSIONAL TRAINING 4. HIGHER 8 DK GRADE: 98 DK *If less than 1 grade, enter 00.*	1 YES 2 NO ⇨ ED7	LEVEL: 0 PRE SCHOOL KINDERGARDEN 1 PRIMARY 2 SECONDARY 3 PROFESSIONAL TRAINING 4. HIGHER 8 DK *98 dk*	1 YES 2 NO ↘ NEXT LINE 8 DK ↘ NEXT LINE	LEVEL: 0 PRE SCHOOL KINDERGARDEN 1 PRIMARY 2 SECONDARY 3 PROFESSIONAL TRAINING 4. HIGHER 8 DK GRADE: 98 DK

LINE	NAME	AGE	YES	NO	LEVEL	GRADE	YES	NO	LEVEL	GRADE	Y	N	DK	LEVEL	GRADE
11		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
12		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
13		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
14		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
15		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
16		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
17		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
18		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
19		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
20		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
21		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
22		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
23		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 8	___ ___
24		___ ___	1	2⇨NEXT LINE	0 1 2 3 4 8	___ ___	1	2	0 1 2 3 4 8	___ ___	1	2	8	0 1 2 3 4 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 Tanker-truck (auto) ..... 61 Cart with small tank/drum ..... 71 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 Tanker-truck (auto) ..... 61 Cart with small tank/drum ..... 71 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 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
HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	*Turkmen* ..... 1 Other language (*specify*) _____ 6	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	No. of rooms ..... __ __	
HC3. Main material of the dwelling floor: *Record observation.*	Rudimentary floor Wood planks ..... 21 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips..... 32 Ceramic tiles ..... 33 Carpet ..... 35 Other (*specify*) _____ 96	
HC4. Main material of the roof. *Record observation.*	Rudimentary Roofing Wood planks ..... 23 Finished roofing Metal ..... 31 Wood..... 32 Calamine/cement fiber ..... 33 Cement..... 35 Other (*specify*) _____ 96	
HC5. Main material of the walls. *Record observation.*	Rudimentary walls Stone with mud ..... 22 Reused wood ..... 26 Finished walls Cement..... 31 Stone with lime/cement..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe..... 35 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 Natural gas..... 03 Kerosene..... 05 Coal / Lignite ..... 06 Wood..... 08 Other (*specify*) _____ 96	01⇨HC8 02⇨HC8 03⇨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 Other (*specify*) _____ 6	
HC9. DOES YOUR HOUSEHOLD HAVE:	Yes No	
ELECTRICITY?	Electricity 1 2	
GAS ELECTRIC STOVE?	Gas or electric stove 1 2	
A RADIO?	Radio 1 2	
A TELEVISION?	Television 1 2	
TUNER?	Tuner 1 2	
SATELLITE DISH?	Satellite Dish 1 2	
A MOBILE TELEPHONE?	Mobile Telephone 1 2	
A NON-MOBILE TELEPHONE?	Non-Mobile Telephone 1 2	
A REFRIGERATOR?	Refrigerator 1 2	
AIR CONDITIONER?	Air conditioner 1 2	
MIRROR?	Mirror 1 2	
WASHING MACHINE?	Washing machine 1 2	
VACUUM CLEANER?	Vacuum cleaner 1 2	
AUDIO PLAYER?	Audio player 1 2	
VIDEO PLAYER?	Video player 1 2	
HOME FURNITURE SET(NO LESS THAN 3 PIECES)?	Home furniture set 1 2	
SOWING, KNITTING MACHINE?	Sowing, knitting machine 1 2	
CARPET?	Carpet 1 2	
HC10. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN: A WATCH?	 Yes No Watch 1 2	
A BICYCLE?	Bicycle 1 2	
A MOTORCYCLE OR SCOOTER?	Motorcycle/Scooter 1 2	
A TRAILER?	Trailer 1 2	
A CAR OR TRUCK?	Car/Truck 1 2	
A COMPUTER?	Computer 1 2	
A TRACTOR/COMBINE?	Tractor/Combine 1 2	

ADDITIONAL HOUSEHOLD CHARACTERISTICS

HC11. DOES ANY MEMBER OF THIS HOUSEHOLD OWN ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes ..... 1 No 2	2⇨HC13
1. HC12. How many hectares of agricultural land do members of this household own? 2. *If 1 he or more, circle "1" and record number of hectares* *If more than 97 hectares, record '97'.* *If less than 1 he, circle "2" and record number of hundred parts* *If unknown, record '998'.*	If >= 1 he, Hectares ..... 1, ___ ___ If < = 1 he, Hundred parts ..... 2, ___ ___ Unknown 998	
HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OR FARM ANIMALS?	Yes ..... 1 No 2	2⇨NEXT MODULE
HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE? MILK COWS OR BULLS? CAMELS? HORSES, DONKEYS, OR MULES? GOATS? SHEEP? CHICKENS/OTHER BIRDS? RABBITS? PIGS? *If none, record '00'.* *If more than 97, record '97'.* *If unknown, record '98'.*	Milk cows or bulls ..... ___ ___ Camels ..... ___ ___ Horses, donkeys, or mules ..... ___ ___ Goats ..... ___ ___ Sheep ..... ___ ___ Chickens/other birds ..... ___ ___ Rabbits ..... ___ ___ Pigs ..... ___ ___	

CHILD DISCIPLINE MODULE

TABLE 1: CHILDREN AGED 2-14 YEARS ELIGIBLE FOR CHILD DISCIPLINE QUESTIONS

Review the household listing and list each of the children aged 2-14 years below in order according to their line number (HL1). Do not include other household members outside of the age range 2-14 years. Record the line number, name, sex, age, and the line number of the mother or caretaker for each child. Then record the total number of children aged 2-14 in the box provided (CD7).

CD1. Rank no.	CD2. Line no. from HL1.	CD3. Name from HL2.	CD4. Sex from HL4.	CD5. Age from HL5.	CD6. Line no. of mother/ caretaker from HL7 or HL8.
LINE	LINE	NAME	M F	AGE	MOTHER
01	__ __		1 2	___ ___	___ ___
02	__ __		1 2	___ ___	___ ___
03	__ __		1 2	___ ___	___ ___
04	__ __		1 2	___ ___	___ ___
05	__ __		1 2	___ ___	___ ___
06	__ __		1 2	___ ___	___ ___
07	__ __		1 2	___ ___	___ ___
08	__ __		1 2	___ ___	___ ___
CD7.	TOTAL CHILDREN AGED 2-14 YEARS				___ ___

If there is only one child age 2-14 years in the household, then skip table 2 and go to CD9; write down the rank number of the child and continue with CD11.

TABLE 2: SELECTION OF RANDOM CHILD FOR CHILD DISCIPLINE QUESTIONS

Use this table to select one child between the ages of 2 and 14 years, if there is more than one child in that age range in the household. Look for the last digit of the household number from the cover page. This is the number of the row you should go to in the table below. Check the total number of eligible children (2-14) in CD7 above. This is the number of the column you should go to. Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number of the child about whom the questions will be asked. Record the rank number in CD9 below. Finally, record the line number and name of the selected child in CD11 on the next page. Then, find the mother or primary caretaker of that child, and ask the questions, beginning with CD12.

CD8.	**TOTAL NUMBER OF ELIGIBLE CHILDREN IN THE HOUSEHOLD**							
Last digit of the questionnaire number	1	2	3	4	5	6	7	8+
0	1	2	2	4	3	6	5	4
1	1	1	3	1	4	1	6	5
2	1	2	1	2	5	2	7	6
3	1	1	2	3	1	3	1	7
4	1	2	3	4	2	4	2	8
5	1	1	1	1	3	5	3	1
6	1	2	2	2	4	6	4	2
7	1	1	3	3	5	1	5	3
8	1	2	1	4	1	2	6	4
9	1	1	2	1	2	3	7	5

CD9. Record the rank number of the selected child from Table 2	Rank number of child ..... __ __

CHILD DISCIPLINE MODULE		**CD**
Identify eligible child aged 2 to 14 in the household using the tables on the preceding page, according to your instructions. Ask to interview the mother or primary caretaker of the selected child (identified by the line number in CD6).		
CD11. Write name and line no. of the child selected for the module from CD3 and CD2, based on the rank number in CD9.	Name _____ Line number ..... __ __	
CD12. ALL ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED AND I WANT YOU TO TELL ME IF *YOU OR ANYONE ELSE IN YOUR HOUSEHOLD* HAS USED THIS METHOD WITH *(name)* IN THE PAST MONTH.		
CD12A. TOOK AWAY PRIVILEGES, FORBADE SOMETHING *(name)* LIKED OR DID NOT ALLOW HIM/HER TO LEAVE HOUSE).	Yes ..... 1 No 2	
CD12B. EXPLAINED WHY SOMETHING (THE BEHAVIOR) WAS WRONG.	Yes ..... 1 No 2	
CD13. DO YOU THINK THAT IN ORDER TO RAISE *(name)* PROPERLY HE/SHE NEEDS TO BE PHYSICALLY PUNISHED?	Yes ..... 1 No ..... 2 DK/no opinion 8	

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	

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.

NATIONAL INSTITUTE OF STATE STATISTICS AND INFORMATION OF TURKMENISTAN

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 Other (*specify*) _____ 6
WM7A. Name and number of Editor: Name_____ ___ ___	Date edited and signature: _____ _____

Repeat greeting if not already read to this woman:

WE ARE FROM NIS. WE ARE WORKING ON A PROJECT CONCERNED WITH FAMILY HEALTH AND EDUCATION. I WOULD LIKE TO TALK TO YOU ABOUT THIS. 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, SECONDARY PROFESSIONAL, OR HIGHER?	Primary ..... 1 Secondary ..... 2 Secondary professional training ..... 3 Higher 4	
WM12. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL?	Grade ..... __ __	
WM13. *Check WM11:* ☐ *Secondary, secondary professional or higher.* ⇨ *Go to Next Module* ☐ *Primary* ⇨ *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. I love my children.* *2. A new theatre was built in our city recently.* *3. My children do their homework independently.* *4. Each person has to plant at least one tree during lifetime.*	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	

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 ID DEAD OR WAS FATHERED BY A MAN YOU ARE NOT LIVING WITH NOW. *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 ..... __ __/__ __/__ __ __ __	
CM11A.SOMETIMES PREGNANCY IS NOT COMPLETED WITH A LIVE BIRTH. IN OTHER WORDS, PREGNANCY MAY BE TERMINATED BY ABORTION, MISCARRIAGE OR STILLBIRTH. NOW I WANT TO ASK YOU ABOUT EACH OF THESE SEPARATELY. HOW MANY ABORTIONS DID YOU HAVE? *IF NO ABORTIONS, RECORD "00"*	Total abortions……___ ____	
CM11B. HOW MANY MISCARRIAGES? *IF NO, RECORD "00"*	Total miscarriages……___ ____	
CM11C. HOW MANY STILLBIRTHS? *IF NO, RECORD "00"*	Total stillbirths……___ ____	
CM12. *Check CM11: Did the woman's last birth occur within the last 2 years, that is, since (day and month of interview in 2004)?* *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	

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.

MN1. IN THE FIRST TWO MONTHS AFTER YOUR LAST BIRTH [THE BIRTH OF *NAME*], DID YOU RECEIVE A VITAMIN A DOSE LIKE THIS? *Show 200,000 IU capsule or dispenser.*	Yes ..... 1 No ..... 2 DK 8	
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: Doctor ..... A Nurse/midwife ..... B Other person Traditional birth attendant ..... F Relative/friend ..... H Other (*specify*) _____ X No one ..... Y	Y⇨MN6A
MN3. AS PART OF YOUR ANTENATAL CARE, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE?	Yes No	
MN3A. WERE YOU WEIGHED?	Weight 1 2	
MN3B. WAS YOUR BLOOD PRESSURE MEASURED?	Blood pressure 1 2	
MN3C. DID YOU GIVE A URINE SAMPLE?	Urine sample 1 2	
MN3D. DID YOU GIVE A BLOOD SAMPLE?	Blood sample 1 2	
MN3E. WAS THE TYPE OF BLOOD DETERMINED?	Blood type 1 2	
MN3F. DID YOU HAVE A GINACOLIGICAL CHECK?	Gynecological check 1 2	
MN3G. WAS YOU PREGNANCY TERM CALCULATED?	Pregnancy term 1 2	
MN3H. DID YOU HAVE AN ULTRASOUND?	Ultrasound 1 2	
MN4A. DURING ANY OF THE ANTENATAL VISITS FOR THE PREGNANCY, WERE YOU GIVEN OR PURCHASED ANY IRON TABS OR SYROPE?	Yes, given ..... 1 Yes, purchased ..... 2 No ..... 3 DK 8	
MN4B. DURING THE PREGNANCYM HAW MANY DAYS DID YOU TAKE IRON TABS?	Number of days 8	
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⇨MN6A 8⇨MN6A
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 ..... B Other person Local birth attendant ..... F 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 Private clinic ..... 32 Private maternity home ..... 33 Other private medical (*specify*) _____ 36 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 (grams) __ . __ __ __ From recall ..... 2 (grams) __ . __ __ __ 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	
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	 ⇨NEXT MODULE
MA3A. *Check MA3:* ☐ *No ⇨ Skip to HIV/AIDS Module* ☐ *Yes, was married or Yes, lived with a man ⇨ Continue to MA4*		
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 ..... __ __	

CONTRACEPTION AND UNMET NEED **To be administered only to married women**		**CP**
I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING – AND YOUR REPRODUCTIVE HEALTH.		
CP0A. SOME PEOPLE USE VARIOUS METHODS TO DELAY OR AVOID A PREGNANCY. WHICH METHODS HAVE YOU HEARD ABOUT? *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 None specified Y	
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⇨CP4A
CP3. WHICH METHOD ARE YOU USING? *Do not prompt.* *If more than one method is mentioned, circle each one.*	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	

CP4A. NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN? CP4B. *If currently pregnant:* NOW I WOULD LIKE TO ASK SOME QUESTIONS ABOUT THE FUTURE. AFTER THE CHILD YOU ARE NOW EXPECTING, WOULD YOU LIKE TO HAVE ANOTHER CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?	Have (a/another) child 1 No more/none 2 Says she cannot get pregnant 3 Undecided/don't know 8	2⇨CP4D 3⇨NEXT MODULE 8⇨CP4D
CP4C. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD?	Months 1 __ __ Years 2 __ __ Soon/now 993 Says she cannot get pregnant 994 After marriage 995 Other 996 Don't know 998	994⇨NEXT MODULE
CP4D. Check CP1: ☐ *Currently pregnant? ⇨ Go to Next Module* ☐ *Not currently pregnant or unsure? ⇨ Continue with CP4E*		
CP4E. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes 1 No 2 DK 8	

ATTITUDES TOWARD DOMESTIC VIOLENCE — DV

DV1. SOMETIMES A HUSBAND IS ANNOYED OR ANGERED BY THINGS THAT HIS WIFE DOES. IN YOUR OPINION, IS A HUSBAND JUSTIFIED IN HITTING OR BEATING HIS WIFE IN THE FOLLOWING SITUATIONS:

	DK	Yes	No
DV1A. IF SHE GOES OUT WITHOUT TELLING HIM? Goes out without telling	1	2	8
DV1B. IF SHE NEGLECTS THE CHILDREN? Neglects children	1	2	8
DV1C. IF SHE ARGUES WITH HIM? Argues	1	2	8
DV1D. IF SHE REFUSES SEX WITH HIM? Refuses sex	1	2	8
DV1E. IF SHE BURNS THE FOOD? Burns food	1	2	8

DV2 *Check MA1 in MARRIAGE/UNION Module weather the woman is officially married or lives permanently with a man.*

☐ *Yes.* ⇨ *Continue with DV2A*

☐ *No* ⇨ *Go to Next Module*

	Respondent	Husband/Partner	Respondent with husband/partner	Someone else	Other
DV2A. WHO USUALLY MAKES DECISION ABOUT HEALTHCARE SERVICES PROVIDED TO YOU: MOSTLY YOU, MOSTLY YOUR HUSBAND/PARTNER, YOU WITH YOUR HUSBAND/PARTNER, OR SOMEONE ELSE? Healthcare needs	1	2	3	4	6
DV2B. WHO USUALLY MAKES DECISION ABOUT MAJOR FAMILY PURCHASES? Major purchases	1	2	3	4	6
DV2C. WHO USUALLY MAKES DECISION ABOUT EVERYDAY FAMILY PURCHASES? Everyday purchases	1	2	3	4	6
DV2D. WHO USUALLY MAKES DECISION ABOUT VISITING YOUR FAMILY OR RELATIVES? Visits to relatives	1	2	3	4	6

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	
HA7A. CAN PEOPLE GET THE AIDS VIRUS BY GETTING INJECTIONS WITH A NEEDLE THAT WAS ALREADY USED BY SOMEONE ELSE?	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	 2⇨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	

Follow instructions in your Interviewer's Manual.

TUBERCULOSIS MODULE		TB
TB1. HAVE YOU EVER HEARD OF AN ILLNESS CALLED TUBERCULOSIS?	Yes ..... 1 No 2	2⇨ NEXT MODULE
TB2. IS TUBERCULOSIS CURABLE?	Yes ..... 1 No ..... 2 DK 8	
TB3. HAVE YOU OR YOUR FAMILY MEMBERS EVER HAD TUBERCULOSIS?	Yes ..... 1 No ..... 2 DK 8	
TB4. BESIDES YOUR FAMILY MEMBERS, ARE THERE PERSONS YOU CONTACT OFTEN (NEIGHBOURS, COLLEAGUES OR CLOSE FRIENDS) WHICH HAVE BEEN ILL WITH TUBERCULOSIS?	Yes ..... 1 No ..... 2 DK 8	
TB5. WHAT SIGNS AND SYMPTOMS INDICATE THAT A PERSON IS SICK WITH TUBERCULOSIS? OTHERS? *Record all answers*	Cough ..... A Phlegmy cough ..... B Continuous cough for more than 3 weeks .. C Fever ..... D Bloody sputum ..... E Loss of appetite ..... F Night perspirations ..... G Chest pains ..... H Languor/exhaustion ..... I Weight loss ..... J Lethargy/inertia ..... K Other _____ (specify) .... X No signs/symptoms mentioned ..... Y	
TB6. WHAT SIGNS OR SYMPTOMS OF TUBERCULOSIS REQUIRE IMMEDIATE REFERRAL FOR MEDICAL HELP? OTHERS? *Record all answers*	Cough ..... A Phlegmy cough ..... B Continuous cough for more than 3 weeks .. C Fever ..... D Bloody sputum ..... E Loss of appetite ..... F Night perspirations ..... G Chest pains ..... H Languor/exhaustion ..... I Weight loss ..... J Lethargy/inertia ..... K Other _____ (specify) .... X No signs/symptoms mentioned ..... Y	
TB7. WHEN A PERSON FINDS OUT THAT HE/SHE HAS TUBERCULOSIS, HOW SHOULD HE/SHE BE INITIALLY TREATED: IN HOSPITAL, AT HOME, OR BOTH?	In hospital ..... 1 At home ..... 2 Initially in hospital, then at home ..... 3 Other (specify)_____ 6 DK 8	

TB 8. HOW TUBERCULOSIS IS PERSON-TO-PERSON TRANSMITTED? ANY OTHER WAY? *Record all answers*	Through air when coughing .....A Sharing things .....B By touching a sick person .....C Sharing food.....D Through sex contacts.....E Mosquito bites.....F inherited ..... G Other_____.....X (specify) DK .....Z	
TB9. WHERE WOULD YOU GO TO GET HELP IF YOU THINK THAT YOU OR YOUR CHILD HAVE TUBERCULOSIS? OTHER? *Record all answers*	*Public sector* Hospital .....A Health center/Polyclinics.....B Family doctor/Physician .....C Tuberculosis prophylactic center .....D Other public _____ .....E (specify) *Private sector* Private hospital/clinic .....F Private doctor..... G Other private _____ .....H (specify) Traditional practitioner……I Mullah/priest..... J Other _____.....X (specify) DK .....Z	
TB10. AFTER TREATMENT OF A MEMBER OF YOUR FAMILY FOR TUBERCULOSIS IN A HOSPITAL, WOULD YOU BE WILLING TO CARE FOR HIM/HER IN YOUR HOUSEHOLD?	Yes ..... 1 No 2	
TB10A. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH TUBERCULOSIS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes, keep it secret ..... 1 No ..... 2 DK/not sure 8	

Follow instructions in your Interviewer's Manual.

QUESTIONNAIRE FOR CHILDREN UNDER 5

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 Other (specify) _____ 6

Repeat greeting if not already read to this respondent:

WE ARE FROM NIS. 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 (***number***) 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 ZAGS?	Yes ..... 1 No ..... 2 DK 8	1⇨BR5 8⇨BR4
BR3. WHY IS (*name's*) BIRTH NOT REGISTERED?	Must travel too far ..... 2 Did not know it should be registered ..... 3 Does not know where to register ..... 5 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 and 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.*	Y N DK	
BF3A. VITAMIN, MINERAL SUPPLEMENTS OR MEDICINE?	A. Vitamin supplements 1 2 8	
BF3B. PLAIN WATER?	B. Plain water 1 2 8	
BF3C. SWEETENED, FLAVOURED WATER OR FRUIT JUICE OR TEA OR INFUSION?	C. Sweetened water or juice 1 2 8	
BF3D. ORAL REHYDRATION SOLUTION (ORS)?	D. ORS 1 2 8	
BF3E. INFANT FORMULA?	E. Infant formula 1 2 8	
BF3F. TINNED, POWDERED OR FRESH MILK?	F. Milk 1 2 8	
BF3G. ANY OTHER LIQUIDS?	G. Other liquids 1 2 8	
BF3H. SOLID OR SEMI-SOLID (MUSHY) FOOD?	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.*	Yes No DK	
CA2A. A FLUID MADE FROM A SPECIAL ORS PACKET CALLED REHYDRON OR APECTRAL?	A. Fluid from ORS packet 1 2 8	
CA2B. GOVERNMENT-RECOMMENDED HOMEMADE FLUID?	B. Fluids recommended by the Ministry of Health and Medical Industry 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	
CA4A. *Check CA2A: ORS packet used?* ☐ *Yes.⇨ Continue with CA4B* ☐ *No.⇨ Go to CA5*		
CA4B. WHERE DID YOU GET THE *REHYDRON* OR *APECTRAL*?	Public sector Govt. pharmacy ..... 10 Govt. hospital ..... 11 Govt. health centre ..... 12 Govt. health post ..... 13 Village health worker ..... 14 Mobile/outreach clinic ..... 15 Other public (*specify*) _____ 16 Private medical sector Private hospital/clinic ..... 21 Private physician ..... 22 Private pharmacy ..... 23 Mobile clinic ..... 24 Other private medical (*specify*) _____ 26 Other source Relative or friend ..... 31 Shop ..... 32 Traditional practitioner ..... 33 Other (*specify*) _____ 96 DK 98	

CA4C. HOW MUCH DID YOU PAY FOR THE REHYDRON OR APECTRAL?	Thousand manats ..... __ __ __ __ Free ..... 9996 DK 9998	
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 ..... C Village health worker ..... D Mobile/outreach clinic ..... E pharmacy ..... F Other public (*specify*) _____ H Private medical sector Private hospital/clinic ..... I Private physician ..... J Private pharmacy ..... K Mobile clinic ..... L Other private medical (*specify*) _____ O Other source Relative or friend ..... P Shop ..... Q Traditional practitioner ..... R Religious leader ..... S 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 ..... A Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibupropfen ..... R Other (*specify*) _____ X DK ..... Z	

CA11A. *Check CA11: Antibiotic given?* ☐ *Yes.* ⇨ *Continue with CA11B* ☐ *No.* ⇨ *Go to CA12*		
CA11B. WHERE DID YOU GET THE ANTIBIOTIC?	Public sector Govt. pharmacy ..... 10 Govt. hospital ..... 11 Govt. health centre ..... 12 Govt. health post ..... 13 Village health worker ..... 14 Mobile/outreach clinic ..... 15 Other public (*specify*) _____ 16 Private medical sector Private hospital/clinic ..... 21 Private physician ..... 22 Private pharmacy ..... 23 Mobile clinic ..... 24 Other private medical (*specify*) _____ 26 Other source Relative or friend ..... 31 Shop ..... 32 Traditional practitioner ..... 33 Other (*specify*) _____ 96 DK 98	
CA11C. HOW MUCH DID YOU PAY FOR THE ANTIBIOTIC?	Thousand manats ..... __ __ __ __ Free ..... 9996 DK 9998	
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	

IMMUNIZATION MODULE — IM

If an immunization card is available, copy the dates in IM2-IM8 for each type of immunization or vitamin A dose recorded on the card. IM10-IM18 are for recording vaccinations that are not recorded on the card. IM10-IM18 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		
IM3A. POLIO AT BIRTH	OPV 0		
IM3B. POLIO 1	OPV 1		
IM3C. POLIO 2	OPV 2		
IM3D. POLIO 3	OPV 3		
IM3E. POLIO 4	OPV 4		
IM4A. DPT1	DPT1		
IM4B. DPT2	DPT2		
IM4C. DPT3	DPT3		
IM4D. DPT4	DPT4		
IM5A. HEPB1	HEPB1		
IM5B. HEPB2	HEPB2		
IM5C. HEPB3	HEPB3		
IM6. MEASLES (OR MMR)	MEASLES		
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⇨IM20A 8⇨IM20A
IM11. HAS (*name*) EVER BEEN GIVEN A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER?		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
IM13. HOW OLD WAS HE/SHE WHEN THE FIRST DOSE WAS GIVEN – JUST AFTER BIRTH (WITHIN TWO WEEKS) OR LATER?		Just after birth (within two weeks) ..... 1 Later 2	

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⇨IM16A 8⇨IM16A
IM16. HOW MANY TIMES?	No. of times ..... __ __	
IM16A. HAS (*name*) EVER BEEN GIVEN "HEPB VACCINATION INJECTIONS" – THAT IS, AN INJECTION IN THE THIGH OR BUTTOCKS – TO PREVENT HIM/HER FROM GETTING HEPATITIS B? (SOMETIMES GIVEN AT THE SAME TIME AS DPT AND POLIO)	Yes ..... 1 No ..... 2 DK 8	 2⇨IM17 8⇨IM17
IM16B. 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	

IM20A *Obtain all information needed to identify the child's individual card in the healthcare facility. After interview visit the healthcare facility and complete the Immunization Module by healthcare data.*

Full name of child: ……. Address: .....
Address of the healthcare facility which keeps the child's individual card, including immunization records

……

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 __ __ __ . __	
AN2A. MEASURE OF UPPER ARM CIRCUMFERERNCE (MUAC).	MUAC (sm) ..... ___ ___ . ___	
AN3. Measurer's identification code.	Measurer code ..... __ __	
AN4. Result of measurement.	Measured ..... 1 Not present ..... 2 Refused ..... 3 Other (*specify*) _____ 6	

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.

IMMUNIZATION MODULE BY HEALTHCARE FACILITY DATA											IMF
IMF1A. *Check IM20A. Information of the immunization record-keeping healthcare facility obtained?*		Yes ..... 1 No 2									2⇨IMF7
IMF1B. *Healthcare facility visited*?		Yes ..... 1 No 2									2⇨IMF7
IMF1c. *Healthcare facility keeps immunization records for (name)*?		Yes ..... 1 No 2									2⇨IM F7
(c) Copy dates for each vaccination from the card. *(d) Write '44' in day column if card shows that vaccination was given but no date recorded.*		Date of Immunization DAY		MONTH		YEAR					
IMF2. BCG	BCG										
IMF3A. POLIO AT BIRTH	OPV 0										
IMF3B. POLIO 1	OPV 1										
IMF3C. POLIO 2	OPV 2										
IMF3D. POLIO 3	OPV 3										
IMF3E. POLIO 4	OPV 4										
IMF4A. DPT1	DPT1										
IMF4B. DPT2	DPT2										
IMF4C. DPT3	DPT3										
IMF4D. DPT4	DPT4										
IMF5A. HEPB1	HEPB1										
IMF5B. HEPB2	HEPB2										
IMF5C. HEPB3	HEPB3										
IMF6. MEASLES (OR MMR)	MEASLES										

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