



Turkmenistan

Multiple Indicator Cluster Survey 2015-2016

Final Report

January, 2017



The 2015-2016 Turkmenistan Multiple Indicator Cluster Survey (MICS) was carried out in 2015-2016 by the State Committee of Statistics of Turkmenistan, as part of the global MICS programme. Technical support was provided by the United Nations Children's Fund (UNICEF). Financial costs of the survey were covered by the Government of Turkmenistan and UNICEF with additional support of the United Nations Population Fund (UNFPA).

The global MICS programme was developed by UNICEF in the 1990s as an international household survey programme to support countries in the collection of internationally comparable data on a wide range of indicators on the situation of children and women. MICS surveys measure key indicators that allow countries to generate data for use in policies and programmes, and to monitor progress towards the Millennium Development Goals (MDGs) and other internationally agreed upon commitments. Also, MICS data can be used as a baseline to monitor progress towards the Sustainable Development Goals (SDGs).

The State Committee of Statistics of Turkmenistan and UNICEF. 2016. *2015-2016 Turkmenistan Multiple Indicator Cluster Survey, Final Report*. Ashgabat, Turkmenistan: The State Committee of Statistics of Turkmenistan and UNICEF.

This material may be reprinted, quoted or otherwise reproduced, providing that the source is properly acknowledged.

State Committee of Statistics of Turkmenistan
72 Magtumguly Street
Ashgabat city, Turkmenistan, 744000
Tel.: (+993 12) 942465
Fax: (+993 12) 942608
Internet: www.stat.gov.tm

United Nations Children's Fund (UNICEF) in Turkmenistan
UN House, 40 Galkynysh Street
Ashgabat city, Turkmenistan, 744013
Tel.: (+996 12) 425681/82/85/86
Fax: (+996 12) 420830
Internet: www.unicef.org

Summary Table of Survey Implementation and the Survey Population, Turkmenistan, 2015-2016

Survey implementation			
Sample frame	Population census 2012	Questionnaires	Household
Updated	June – July 2015		Women (age 15-49)
			Children under five
			Form for Immunization Records at Health Facility
Interviewer training	August – September 2015	Fieldwork	September 2015 – January 2016
Survey sample			
Households		Children under five	
Sampled	6,101	Eligible	3,785
Occupied	5,974	Mothers/caretakers interviewed	3,765
Interviewed	5,861	Response rate (percent)	99.5
Response rate (percent)	98.1		
Women			
Eligible for interviews	7,693		
Interviewed	7,618		
Response rate (percent)	99.0		

Survey population			
Average household size	5.1	Percentage of population living in	
Percentage of population under:		Urban areas	39.1
Age 5	13.3	Rural areas	60.9
Age 18	36.4	Ashgabat city	12.1
Percentage of women age 15-49 years with at least one live birth in the last 2 years	19.4	Ahal velayat	13.3
		Balkan velayat	6.7
		Dashoguz velayat	23.6
		Lebap velayat	19.4
		Mary velayat	24.8

Housing characteristics	
Percentage of households with	
Electricity	100.0
Finished floor	97.1
Finished roofing	99.0
Finished walls	99.8
Mean number of persons per room used for sleeping	1.96

Household or personal assets	
Percentage of households that own	
Any type of television	99.7
A refrigerator	99.4
Farm animals/livestock	55.3
Percentage of households that have agricultural land	59.7
Percentage of households where at least a member has or owns a	
Mobile phone	98.6
Passenger car	54.5

Summary Table of Findings¹

Multiple Indicator Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Turkmenistan, 2015-2016

CHILD MORTALITY			
Early childhood mortality^{a, b}			
MICS Indicator	Indicator	Description	Value
1.1	Neonatal mortality rate	Probability of dying within the first month of life	13
1.2	MDG 4.2 Infant mortality rate	Probability of dying between birth and the first birthday	21
1.3	Post-neonatal mortality rate	Difference between infant and neonatal mortality rates	8
1.4	Child mortality rate	Probability of dying between the first and the fifth birthdays	6
1.5	MDG 4.1 Under-five mortality rate	Probability of dying between birth and the fifth birthday	27
^a Rates refer to the 5-year period preceding the survey.			
^b See the discussion on quality of mortality data in the corresponding chapter.			

NUTRITION			
Nutritional status			
MICS Indicator	Indicator	Description	Value
2.1a	MDG 1.8 Underweight prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below (a) minus two standard deviations (moderate and severe)	3.2
2.1b		(b) minus three standard deviations (severe) of the median weight for age of the WHO standard	0.7
2.2a	Stunting prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below (a) minus two standard deviations (moderate and severe)	11.5
2.2b		(b) minus three standard deviations (severe) of the median height for age of the WHO standard	2.7
2.3a	Wasting prevalence (a) Moderate and severe (b) Severe	Percentage of children under age 5 who fall below (a) minus two standard deviations (moderate and severe)	4.2
2.3b		(b) minus three standard deviations (severe) of the median weight for height of the WHO standard	1.1
2.4	Overweight prevalence	Percentage of children under age 5 who are above two standard deviations of the median weight for height of the WHO standard	5.9
Breastfeeding and infant feeding			
2.5	Children ever breastfed	Percentage of women with a live birth in the last 2 years who breastfed their last live-born child at any time	98.5
2.6	Early initiation of breastfeeding	Percentage of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	73.4
2.7	Exclusive breastfeeding under 6 months	Percentage of infants under 6 months of age who are exclusively breastfed	58.9
2.8	Predominant breastfeeding under 6 months	Percentage of infants under 6 months of age who received breast milk as the predominant source of nourishment during the previous day	81.4
2.9	Continued breastfeeding at 1 year	Percentage of children age 12-15 months who received breast milk during the previous day	64.1
2.10	Continued breastfeeding at 2 years	Percentage of children age 20-23 months who received breast milk during the previous day	19.5

¹ See Appendix E for a detailed description of MICS indicators

2.11	Median duration of breastfeeding	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day	16.1
2.12	Age-appropriate breastfeeding	Percentage of children age 0-23 months appropriately fed during the previous day	56.9
2.13	Introduction of solid, semi-solid or soft foods	Percentage of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	82.3
2.14	Milk feeding frequency for non-breastfed children	Percentage of non-breastfed children age 6-23 months who received at least 2 milk feedings during the previous day	91.0
2.15	Minimum meal frequency	Percentage of children age 6-23 months who received solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum number of times or more during the previous day	92.5
2.16	Minimum dietary diversity	Percentage of children age 6-23 months who received foods from 4 or more food groups during the previous day	85.2
2.17a	Minimum acceptable diet	(a) Percentage of breastfed children age 6-23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day	73.3
2.17b		(b) Percentage of non-breastfed children age 6-23 months who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day	82.9
2.18	Bottle feeding	Percentage of children age 0-23 months who were fed with a bottle during the previous day	21.8
Salt iodization			
2.19	Iodized salt consumption	Percentage of households with salt testing 15 parts per million or more of iodide or iodate	96.7
Low-birthweight			
2.20	Low-birthweight infants	Percentage of most recent live births in the last 2 years weighing below 2,500 grams at birth	3.3
2.21	Infants weighed at birth	Percentage of most recent live births in the last 2 years who were weighed at birth	99.3

CHILD HEALTH

Vaccinations

MICS Indicator	Indicator	Description	Value
3.1	Tuberculosis immunization coverage	Percentage of children age 12-23 months who received BCG vaccine by their first birthday	99.9
3.2	Polio immunization coverage	Percentage of children age 12-23 months who received the third dose of OPV vaccine (OPV3) by their first birthday	97.9
3.3	Diphtheria, pertussis and tetanus (DPT) immunization coverage	Percentage of children age 12-23 months who received the third dose of DPT vaccine (DPT3) by their first birthday	98.0
3.4	MDG 4.3 Measles immunization coverage	Percentage of children age 24-35 months who received measles vaccine by their second birthday	99.3
3.5	Hepatitis B immunization coverage	Percentage of children age 12-23 months who received the third dose ² of Hepatitis B vaccine (HepB3 ²) by their first birthday	98.0
3.6	Haemophilus influenzae type B (Hib) immunization coverage	Percentage of children age 12-23 months who received the third dose of Hib vaccine (Hib3) by their first birthday	98.0
3.8	Full immunization coverage	Percentage of children age 24-35 months who received all ³ vaccinations recommended in the national immunization schedule by their first birthday (measles by second birthday)	95.3

² Corresponds to HepB4 according to the national calendar as the birth dose is labeled as HepB1 in Turkmenistan.

³ Full vaccination includes the following: one dose of BCG, four doses of the Polio and HepB vaccines (the birth dose and doses 1-3), three doses of the DPT and Hib vaccines by 12 months of age, and one dose of the measles vaccine (administered as MMR) by 24 months of age.

Diarrhoea			
-	Children with diarrhoea	Percentage of children under age 5 with diarrhoea in the last 2 weeks	1.9
3.10	Care-seeking for diarrhoea	Percentage of children under age 5 with diarrhoea in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	51.4
3.11	Diarrhoea treatment with oral rehydration salts (ORS) and zinc	Percentage of children under age 5 with diarrhoea in the last 2 weeks who received ORS and zinc	6.6
3.S1 ⁴	Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding ⁵	Percentage of children under age 5 with diarrhoea in the last 2 weeks who received ORT (ORS packet or increased fluids) and continued feeding during the episode of diarrhoea	39.4
Acute Respiratory Infection (ARI) symptoms			
-	Children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks	0.4
3.13	Care-seeking for children with ARI symptoms ⁶	Percentage of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	(*)
3.14	Antibiotic treatment for children with ARI symptoms	Percentage of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	(*)
(*) Figures that are based on fewer than 25 unweighted cases.			
Solid fuel use			
3.15	Use of solid fuels for cooking	Percentage of household members in households that use solid fuels as the primary source of domestic energy to cook	0.0
Fever			
MICS Indicator	Indicator	Description	Value
-	Children with fever	Percentage of children under age 5 with fever in the last 2 weeks	5.6
3.20	Care-seeking for fever	Percentage of children under age 5 with fever in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	59.3

WATER AND SANITATION			
MICS Indicator	Indicator	Description	Value
4.1	MDG 7.8 Use of improved drinking water sources	Percentage of household members using improved sources of drinking water	82.8
4.2	Water treatment	Percentage of household members in households using unimproved drinking water who use an appropriate treatment method	69.2
4.3	MDG 7.9 Use of improved sanitation	Percentage of household members using improved sanitation facilities which are not shared	98.6
4.4	Safe disposal of child's faeces	Percentage of children age 0-2 years whose last stools were disposed of safely	60.5

⁴ The indicator numbering system #.S# denotes a survey specific indicator calculated by the introduction of a non-standard module or question(s) to this survey that is not part of the global MICS5 Questionnaires or by applying a non-standard calculation method that is not included in the global MICS5 Tabulation Plan.

⁵ This is comparable to MICS Indicator 3.12 "Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding" with the exception that recommended homemade fluids are not included as part of the institutional approach in Turkmenistan.

⁶ The indicators 3.13 and 3.14 are not presented in a table in the report because of low number of unweighted cases.

WATER AND SANITATION

MICS Indicator	Indicator	Description	Value
4.5	Place for handwashing	Percentage of households with a specific place for hand washing where water and soap are present	99.4
4.6	Availability of soap ⁷	Percentage of households with soap	99.9

REPRODUCTIVE HEALTH

Contraception and unmet need

MICS Indicator	Indicator	Description	Value
-	Total fertility rate	Total fertility rate for women age 15-49 years	3.2
5.1	MDG 5.4 Adolescent birth rate	Age-specific fertility rate for women age 15-19 years	28
5.2	Early childbearing	Percentage of women age 20-24 years who had at least one live birth before age 18	1.4
5.3	MDG 5.3 Contraceptive prevalence rate	Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	50.2
5.4	MDG 5.6 Unmet need	Percentage of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception	12.1

Maternal and newborn health

5.5a	MDG 5.5	Antenatal care coverage	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth (a) at least once by skilled health personnel (b) at least four times by any provider	99.9
5.5b	MDG 5.5			96.4
5.6		Content of antenatal care	Percentage of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	99.4
5.51		Content of antenatal care (includes ultrasound)	Percentage of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured, gave urine and blood samples and had an ultrasound during the last pregnancy that led to a live birth	97.9
5.7	MDG 5.2	Skilled attendant at delivery	Percentage of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	100.0
5.8		Institutional deliveries	Percentage of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	99.5
5.9		Caesarean section	Percentage of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	6.3

Post-natal health checks

5.10		Post-partum stay in health facility	Percentage of women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years	99.8
5.11		Post-natal health check for the newborn	Percentage of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	99.8

⁷The indicator name has been changed from the standard "MICS indicator 4.6 - Availability of soap or other cleansing agent" since other cleansing agents such as ash, mud or sand are not applicable for Turkmenistan.

5.12	Post-natal health check for the mother	Percentage of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	99.8
------	--	--	------

CHILD DEVELOPMENT

MICS Indicator	Indicator	Description	Value
6.1	Attendance to early childhood education	Percentage of children age 36-59 months who are attending an early childhood education programme	42.8
6.2	Support for learning	Percentage of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the last 3 days	94.4
6.3	Father's support for learning	Percentage of children age 36-59 months whose biological father has engaged in four or more activities to promote learning and school readiness in the last 3 days	14.8
6.4	Mother's support for learning	Percentage of children age 36-59 months whose biological mother has engaged in four or more activities to promote learning and school readiness in the last 3 days	80.6
6.5	Availability of children's books	Percentage of children under age 5 who have three or more children's books	48.0
6.6	Availability of playthings	Percentage of children under age 5 who play with two or more types of playthings	53.0
6.7	Inadequate care	Percentage of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the last week	0.8
6.8	Early child development index	Percentage of children age 36-59 months who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning	90.9

LITERACY AND EDUCATION^{8, A}

MICS Indicator	Indicator	Description	Value
7.1 MDG 2.3	Literacy rate among young women	Percentage of young women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education	99.6
7.2	School readiness	Percentage of children in first grade of primary school who attended pre-school during the previous school year	44.1
7.3	Net intake rate in primary education	Percentage of children of school-entry age who enter the first grade of primary school ⁹	94.2
7.4 MDG 2.1	Primary school ^B net attendance ratio (adjusted)	Percentage of children of primary school age currently attending primary or secondary school	98.1
7.5	Secondary school ^C net attendance ratio (adjusted)	Percentage of children of secondary school age currently attending secondary school or higher	98.4
7.6 MDG 2.2	Children reaching last grade of primary	Percentage of children entering the first grade of primary school who eventually reach last grade	100.0

⁸ Education indicators, wherever applicable, are based on information on reported school attendance (at any time during the school year), as a proxy for enrolment.

⁹ In accordance with the Law on Education of Turkmenistan from 4th May 2013, starting from the 2013/2014 school year school-entry age is 6 years (previously 7 years). When calculating this indicator the age of the child was calculated on the basis of the year of birth (without months) in order to reflect timely admission of children to school, in accordance with Article 21, Paragraph 3 of the Law.

7.7		Primary completion rate	Number of children attending the last grade of primary school (excluding repeaters) divided by number of children of primary school completion age (age appropriate to final grade of primary school)	102.8
7.8		Transition rate to secondary school	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year divided by number of children attending the last grade of primary school during the previous school year	99.8
7.9	MDG 3.1	Gender parity index (primary school)	Primary school net attendance ratio (adjusted) for girls divided by primary school net attendance ratio (adjusted) for boys	0.99
7.10	MDG 3.1	Gender parity index (secondary school)	Secondary school net attendance ratio (adjusted) for girls divided by secondary school net attendance ratio (adjusted) for boys	1.00
<p>^A Data collected during the 2015/2016 school year.</p> <p>^B Primary school consists of grades 1-3.</p> <p>^C Secondary school consists of grades 4-11.</p>				

CHILD PROTECTION			
Birth registration			
MICS Indicator	Indicator	Description	Value
8.1	Birth registration	Percentage of children under age 5 whose births are reported registered	99.6
Child labour			
8.2	Child labour	Percentage of children age 5-17 years who are involved in child labour	0.3
Child discipline			
8.3	Violent discipline	Percentage of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month ¹⁰	36.6
Early marriage and polygyny			
8.4	Marriage before age 15	Percentage of women age 15-49 years who were first married or in union before age 15	0.2
8.5	Marriage before age 18	Percentage of women age 20-49 years who were first married or in union before age 18	5.9
8.6	Young women age 15-19 years currently married or in union	Percentage of young women age 15-19 years who are married or in union	6.0
8.8a	Spousal age difference	Percentage of young women who are married or in union and whose spouse is 10 or more years older,	(a) among women age 15-19 years,
8.8b			(b) among women age 20-24 years

¹⁰ See the notes on the quality of child disciplining data in the corresponding chapter.

Attitudes towards domestic violence			
8.12	Attitudes towards domestic violence	Percentage of women age 15-49 years who state that a husband 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	26.3
8.S1	Attitudes towards domestic violence (including additional circumstance)	Percentage of women age 15-49 years who state that a husband 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, (6) she does not respect her husband's parents	35.0
Children's living arrangements			
8.13	Children's living arrangements	Percentage of children age 0-17 years living with neither biological parent	1.2
8.14	Prevalence of children with one or both parents dead	Percentage of children age 0-17 years with one or both biological parents dead	3.5
8.15	Children with at least one parent living abroad	Percentage of children 0-17 years with at least one biological parent living abroad	0.9

HIV/AIDS			
HIV/AIDS knowledge and attitudes			
MICS Indicator	Indicator	Description	Value
-	Have heard of AIDS	Percentage of women age 15-49 years who have heard of AIDS	80.7
9.1 MDG 6.3	Knowledge about HIV prevention among young women	Percentage of young women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV, and who reject major misconceptions about HIV transmission	25.4
9.2	Knowledge of mother-to-child transmission of HIV	Percentage of women age 15-49 years who correctly identify all three means of mother-to-child transmission of HIV	65.3
9.3	Accepting attitudes towards people living with HIV	Percentage of women age 15-49 years expressing accepting attitudes on all four questions toward people living with HIV	1.0
HIV testing			
9.4	Women who know where to be tested for HIV	Percentage of women age 15-49 years who state knowledge of a place to be tested for HIV	64.1
9.5	Women who have been tested for HIV and know the results	Percentage of women age 15-49 years who have been tested for HIV in the last 12 months and who know their results	10.3
9.7	HIV counselling during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	74.6
9.8	HIV testing during antenatal care	Percentage of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they were offered and accepted an HIV test during antenatal care and received their results	55.6

Orphans

9.16	MDG 6.4	Ratio of school attendance of orphans to school attendance of non-orphans ¹¹	Proportion attending school among children age 10-14 years who have lost both parents divided by proportion attending school among children age 10-14 years whose parents are alive and who are living with one or both parents	(*)
------	----------------	---	---	-----

(*) Figures that are based on fewer than 25 unweighted cases.

ACCESS TO MASS MEDIA AND ICT

Access to mass media

MICS Indicator	Indicator	Description	Value
10.1	Exposure to mass media	Percentage of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	20.7

Use of information/communication technology

10.2	Use of computers	Percentage of young women age 15-24 years who used a computer during the last 12 months	57.5
10.3	Use of internet	Percentage of young women age 15-24 years who used the internet during the last 12 months	39.3

¹¹ This indicator is not presented in a table in the report because of the low number of unweighted cases.

Table of Contents

Summary Table of Survey Implementation and the Survey Population, Turkmenistan, 2015-2016	iii
Summary Table of Findings.....	iv
Table of Contents.....	xii
List of Tables	xiv
List of Figures	xviii
List of Abbreviations	xix
Acknowledgements.....	xx
Executive Summary.....	xxii
I. Introduction.....	1
Background	1
Survey Objectives	2
How to read tables.....	3
II. Sample and Survey Methodology.....	4
Sample Design	4
Questionnaires	4
Training and Fieldwork.....	6
Data Collection and Data Processing.....	6
III. Sample Coverage and the Characteristics of Households and Respondents	7
Sample Coverage.....	7
Characteristics of Households	9
Characteristics of Female and Male Respondents 15-49 Years of Age and Children Under-5.....	13
Housing characteristics, asset ownership, and wealth quintiles.....	17
IV. Child Mortality	21
V. Nutrition	29
Low Birth Weight.....	29
Nutritional Status	31
Breastfeeding and Infant and Young Child Feeding	35
Salt Iodization.....	46
VI. Child Health.....	48
Vaccinations	48
Care of Illness	55
VII. Water and Sanitation.....	70
Use of Improved Water Sources	70
Use of Improved Sanitation.....	78
Handwashing.....	85
VIII. Reproductive Health	88
Fertility	88
Contraception.....	93
Unmet Need	97
Antenatal Care	100
Assistance at Delivery.....	105
Place of Delivery	107
Post-natal Health Checks.....	109

IX. Early Childhood Development	120
Early Childhood Care and Education	120
Quality of Care	122
Developmental Status of Children	128
X. Literacy and Education	131
Literacy among Young Women	131
School Readiness.....	132
Primary and Secondary School Participation	133
XI. Child Protection	144
Birth Registration	144
Child Labour	146
Child Discipline	153
Early Marriage.....	154
Attitudes toward Domestic Violence	159
Children’s Living Arrangements	161
XII. HIV/AIDS	164
Knowledge about HIV Transmission and Misconceptions about HIV	164
Accepting Attitudes toward People Living with HIV.....	169
Knowledge of a Place for HIV Testing, Counselling and Testing during Antenatal Care	171
HIV Indicators for Young Women.....	175
XIII. Access to Mass Media and Use of Information/Communication Technology	178
Access to Mass Media	178
Use of Information/Communication Technology.....	180
Appendix A. Sample Design	182
Sample Size and Sample Allocation.....	182
Sampling Frame and Selection of Clusters	184
Listing Activities.....	184
Selection of Households.....	185
Calculation of Sample Weights.....	186
Appendix B. List of Personnel Involved in the Survey	188
Appendix C. Estimates of Sampling Errors	190
Appendix D. Data Quality Tables	202
Appendix E. 2015-2016 Turkmenistan MICS5 Indicators: Numerators and Denominators	215
Appendix F1. Household Questionnaire	226
Appendix F2. Questionnaire for Individual Women	243
Appendix F3. Questionnaire for Children Under Five	269
Appendix F4. Questionnaire Form for Immunization Records at Health Facility	288
Appendix G. Primary school entry (calculated by age until 1 September 2015)	290

List of Tables

Table HH.1: Results of household, women's and under-5 interviews.....	8
Table HH.2: Age distribution of household population by sex	9
Table HH.3: Household composition	12
Table HH.4: Women's background characteristics	14
Table HH.5: Under-5's background characteristics.....	16
Table HH.6: Housing characteristics	17
Table HH.7: Household and personal assets.....	19
Table HH.8: Wealth quintiles	20
Table CM.1: Early childhood mortality rates	22
Table CM.2: Early childhood mortality rates by socioeconomic characteristics	23
Table CM.3: Early childhood mortality rates by demographic characteristics	24
Table NU.1: Low birth weight infants	30
Table NU.2: Nutritional status of children	33
Table NU.3: Initial breastfeeding	37
Table NU.4: Breastfeeding	39
Table NU.5: Duration of breastfeeding.....	41
Table NU.6: Age-appropriate breastfeeding.....	42
Table NU.7: Introduction of solid, semi-solid, or soft foods.....	42
Table NU.8: Infant and young child feeding (IYCF) practices.....	44
Table NU.9: Bottle feeding.....	45
Table NU.10: Iodized salt consumption	46
Table CH.1: Vaccinations in the first years of life	50
Table CH.2: Vaccinations by background characteristics	53
Table CH.2A: Coverage of the DPT-HepB-Hib combination vaccine.....	54
Table CH.3: Reported disease episodes.....	56
Table CH.4: Care-seeking during diarrhoea	57
Table CH.5: Feeding practices during diarrhoea.....	58
Table CH.6: Oral rehydration solutions and zinc	59
Table CH.7: Oral rehydration therapy with continued feeding and other treatments	60
Table CH.8: Source of ORS and zinc	62
Table CH.9: Knowledge of the two danger signs of pneumonia.....	64
Table CH.10: Care-seeking during fever.....	66
Table CH.11: Treatment of children with fever	67

Table CH.12: Solid fuel use.....	69
Table WS.1: Use of improved water sources.....	71
Table WS.2: Household water treatment.....	74
Table WS.3: Time to source of drinking water.....	76
Table WS.4: Person collecting water.....	77
Table WS.5: Types of sanitation facilities.....	79
Table WS.6: Use and sharing of sanitation facilities.....	80
Table WS.7: Drinking water and sanitation ladders.....	82
Table WS.8: Disposal of child's faeces.....	84
Table WS.9: Water and soap at place for handwashing.....	86
Table WS.10: Availability of soap.....	87
Table RH.1: Fertility rates.....	88
Table RH.2: Adolescent birth rate and total fertility rate.....	90
Table RH.3: Early childbearing.....	91
Table RH.4: Trends in early childbearing.....	92
Table RH.4A: Knowledge of specific contraceptive methods.....	93
Table RH.4B: Knowledge of contraceptive methods.....	94
Table RH.5: Use of contraception.....	95
Table RH.6: Unmet need for contraception.....	98
Table RH.7: Antenatal care coverage.....	101
Table RH.8: Number of antenatal care visits and timing of first visit.....	102
Table RH.9: Content of antenatal care.....	104
Table RH.10: Assistance during delivery and caesarian section.....	106
Table RH.11: Place of delivery.....	108
Table RH.12: Post-partum stay in health facility.....	110
Table RH.13: Post-natal health checks for newborns.....	112
Table RH.14: Post-natal care visits for newborns within the first week following discharge from health facility.....	114
Table RH.15: Post-natal health checks for mothers.....	116
Table RH.16: Post-natal care visits for mothers within the first week following discharge from health facility.....	118
Table RH.17: Post-natal health checks for mothers and newborns.....	119
Table CD.1: Early childhood education.....	121
Table CD.2: Support for learning.....	123
Table CD.3: Learning materials.....	125
Table CD.4: Inadequate care.....	127

Table CD.5: Early child development index	129
Table ED.1: Literacy.....	131
Table ED.2: School readiness	132
Table ED.3: Primary school entry.....	134
Table ED.4: Primary school attendance and out of school children.....	135
Table ED.5: Secondary school attendance and out of school children.....	137
Table ED.6: Children reaching last grade of primary school.....	138
Table ED.7: Primary school completion and transition to secondary school	140
Table ED.8: Education gender parity	141
Table ED.9: Out of school gender parity.....	142
Table CP.1: Birth registration	145
Table CP.2: Children's involvement in economic activities.....	148
Table CP.3: Children's involvement in household chores.....	150
Table CP.4: Child labour	152
Table CP.5: Early marriage	155
Table CP.6: Trends in early marriage	156
Table CP.7: Spousal age difference.....	158
Table CP.8: Attitudes toward domestic violence.....	160
Table CP.9: Children's living arrangements and orphanhood	162
Table CP.10: Children with parents living abroad.....	163
Table HA.1: Knowledge about HIV transmission, misconceptions about HIV, and comprehensive knowledge about HIV transmission	165
Table HA.2: Knowledge of mother-to-child HIV transmission	168
Table HA.3: Accepting attitudes toward people living with HIV.....	170
Table HA.4: Knowledge of a place for HIV testing	172
Table HA.5: HIV counselling and testing during antenatal care	174
Table HA.6: Key HIV and AIDS indicators	176
Table MT.1: Exposure to mass media	179
Table MT.2: Use of computers and internet.....	181
Table SD.1. The base information for sample size calculation and expected outputs for base sub-populations	183
Table SD.2: The sample allocation of sample segments (clusters) and households by region/urban-rural strata	184
Table SE.1: Indicators selected for sampling error calculations	192
Table SE.2: Sampling errors: Total sample.....	193
Table SE.3: Sampling errors: Urban	194
Table SE.4: Sampling errors: Rural.....	195

Table SE.5: Sampling errors: Ashgabat city.....	196
Table SE.6: Sampling errors: Ahal velayat.....	197
Table SE.7: Sampling errors: Balkan velayat	198
Table SE.8: Sampling errors: Dashoguz velayat	199
Table SE.9: Sampling errors: Lebap velayat	200
Table SE.10: Sampling errors: Mary velayat	201
Table DQ.1: Age distribution of household population	202
Table DQ.2: Age distribution of eligible and interviewed women.....	203
Table DQ.3: Age distribution of children in household and under-5 questionnaires	204
Table DQ.4: Birth date reporting: Household population	204
Table DQ.5: Birth date and age reporting: Women	205
Table DQ.6: Birth date and age reporting: Under-5s.....	205
Table DQ.7: Birth date reporting: Children, adolescents and young people.....	205
Table DQ.8: Birth date reporting: First and last births	206
Table DQ.9: Completeness of reporting	206
Table DQ.10: Completeness of information for anthropometric indicators: Underweight	206
Table DQ.11: Completeness of information for anthropometric indicators: Stunting.....	207
Table DQ.12: Completeness of information for anthropometric indicators: Wasting	207
Table DQ.13: Heaping in anthropometric measurements.....	207
Table DQ.14: Observation of birth certificates	208
Table DQ.15: Observation of vaccination cards at home and in health facility	209
Table DQ.16: Observation of places for handwashing	210
Table DQ.17: Respondent to the under-5 questionnaire	210
Table DQ.18: School attendance by single age.....	211
Table DQ.19: Sex ratio at birth among children ever born and living	212
Table DQ.20: Births by periods preceding the survey	212
Table DQ.21: Reporting of age at death in days	213
Table DQ.22: Reporting of age at death in months	214
Table ED.3A: Primary school entry	290

List of Figures

Figure HH.1: Age and sex distribution of household population.....	10
Figure HH.2: Population distribution by age groups.....	11
Figure CM.1: Early childhood mortality rates	22
Figure CM.2: Under-5 mortality rates (for the 0-4 year period preceding the survey) by area and regions.....	25
Figure CM.3: Trend in under-5 mortality rates according to different sources	26
Figure CM.4: Ratios of infant to under-five mortality, neonatal to infant mortality and neonatal to under-five mortality	27
Figure CM.5: Model life tables and 2015-2016 Turkmenistan MICS and 2000 Turkmenistan DHS estimates.....	28
Figure NU.1: Underweight, stunted, wasted and overweight children under age 5 (moderate and severe).....	34
Figure NU.2: Initiation of breastfeeding	38
Figure NU.3: Infant feeding patterns by age.....	40
Figure NU.4: Consumption of iodized salt	47
Figure CH.1: Vaccinations by age 12 months (measles by 24 months)	52
Figure WS.1: Percent distribution of household members by source of drinking water	72
Figure WS.2: Use of improved drinking water sources and improved sanitation facilities by household members	83
Figure RH.1: Age-specific fertility rates by area.....	89
Figure RH.2: Differentials in contraceptive use	96
Figure ED.1: Education indicators by sex.....	143
Figure CP.1: Early marriage among women.....	157
Figure HA.1: Women with comprehensive knowledge of HIV transmission	167
Figure HA.2: Accepting attitudes toward people living with HIV/AIDS	171
Figure DQ.1: Household population by single ages	203
Figure DQ.2: Weight and height/length measurements by digits reported for the decimal points ..	208

List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infection
ASFR	Age-specific fertility rates
BCG	Bacillus Calmette-Guérin (Tuberculosis)
CAPI	Computer-Assisted Personal Interviewing
CBR	Crude birth rate
CEECIS	Central and Eastern Europe and the Commonwealth of Independent States
CRC	Convention on the Rights of the Child
CSPRO	Census and Survey Processing System
DPT	Diphtheria Pertussis Tetanus
DHS	Demographic and Health Survey
ECDI	Early Child Development Index
EPI	Expanded Programme on Immunization
GAPPD	Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea
GARPR	Global AIDS Response Progress Reporting
GFR	General Fertility Rate
GPI	Gender Parity Index
Hib	<i>Haemophilus influenzae</i> type b
HIV	Human Immunodeficiency Virus
HepB	Hepatitis B
IDD	Iodine Deficiency Disorders
ILO	International Labour Organisation
IMCI	Integrated Management of Childhood Illness
IMR	Infant Mortality Rate
IUD	Intrauterine Device
IYCF	Infant and Young Child Feeding
JMP	WHO / UNICEF Joint Monitoring Programme
LAM	Lactational Amenorrhea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MICSS	Fifth global round of Multiple Indicator Clusters Surveys programme
MMR	Measles, Mumps, and Rubella antigens
NN	Neonatal Mortality
NMR	Neonatal Mortality Rate
OPV	Oral polio vaccine
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Treatment
ppm	Parts Per Million
PNC	Post-natal Care
PNHC	Post-natal Health Checks
PNN	Post-neonatal Mortality
PPS	Probability proportional to size
PSU	Primary Sampling Units
RHF	Recommended home fluid
SDG	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
TFR	Total Fertility Rate
Turkmenstat	State Committee of Statistics of Turkmenistan
UN	United Nations
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
U5MR	Under-5 Mortality Rate
WHO	World Health Organization

Acknowledgements

In 2016, Turkmenistan will be celebrating the 25-th anniversary of its independence. Our country, where it is declared at the constitutional level, that the person is the main value of the society, is one of the fastest growing, prosperous and peaceful nations of the world. That can be seen through the rapid pace of reforms, followed by large-scale international cooperation, and one of the clearest indicators is a close and constructive partnership with the United Nations.

Based on the decision of the Government of Turkmenistan and with the support of UNICEF and UNFPA, the Multi Indicator Cluster Survey (MICS) was conducted in 2015-2016 which covered more than 6,000 households. This Survey was conducted with the purpose of monitoring the situation of women and children and measuring key indicators, which allow to trace progress in achieving UN Millennium Development Goals and other international commitments. Turkmenistan is the first country in the CIS and Eastern European region to have held the 5-th round of the MICS on tablets (CAPI).

The State Committee of Statistics of Turkmenistan expresses profound gratitude to the Government of Turkmenistan (Cabinet of Ministers of Turkmenistan, Ministry of Foreign Affairs of Turkmenistan), to representatives of national and local administrative bodies for assistance provided in conducting the Survey.

We express our profound gratitude to the Representative in the UNICEF Country Office in Turkmenistan – Ms. Shaheen Nilofer and Ms. Oyunsaihan Dendevnorov, ex- Representative of UNICEF Country Office in Turkmenistan; to the Deputy Representative in the UNICEF Country Office in Turkmenistan Ms. Alyona Salchonak, to UNICEF specialists Mr. Shohrat Orazov and Ms. Dilyara Ayazova for efficient resolution of evolving challenges and assistance in organizing and conducting the Survey. A great contribution to the work was made by the UNICEF international consultant Ms. Tatjana Karaulac who has consulted the project from the beginning to its completion. Contribution in the organisation of the training and during the fieldwork was also made by the national consultant Mr. Hoshgelder Halnazarov.

We express profound gratitude to Mr. Atila Hancioglu (UNICEF, New-York), the MICS Global Coordinator and in his name to dozens of UNICEF staff members all around the world who had held a number of training workshops, developed standard questionnaires and programs for data entry and data processing and who provided general management for this global Survey programme, in particular, to Mr. Siraj Mahmudlu (UNICEF, Geneva), MICS Regional Coordinator at the UNICEF Regional Office who provided maximum assistance to the State Committee of Statistics (Turkmenstat) employees in preparing and conducting this Survey in Turkmenistan.

Special gratitude shall be accorded to Ivana Bjelic – Statistics Specialist (data processing), UNICEF, New-York; Turgay Unalan, Statistics Specialist (Household Surveys), UNICEF New York; Yadigar Coskun, Statistics and Monitoring Specialist, UNICEF New York; Ana Abdelbasit – Regional Household Survey Consultant (UNICEF, Geneva); to Ikhtier Kholmatov – Regional Data Processing Consultant (UNICEF, Geneva) for assistance in preparing and conducting this computer assisted Survey (CAPI). Methodological assistance in sampling for MICS from Mr. Ahmet Sinan Turkyilmaz, Regional Sampling Consultant, deserves a special mention.

We extend our thanks to UNFPA for providing co-financing during MICS fieldwork.

Employees of the Ministry of Health and Medical Industry of Turkmenistan played an important role in conducting the Survey. We extend my thanks to them as well.

We express profound gratitude to all heads of velayats/city Departments of Statistics, to supervisors, interviewers and those individuals who were doing measurements of children.

In conclusion we thank all persons involved in this Survey, who directly or indirectly rendered assistance in conducting this work: residents of Turkmenistan (household members), who kindly agreed to provide information in the questionnaires on the basis of confidentiality. This information will be useful for administrative bodies in making decisions aimed at further improving the situation of women and children of the country in the long term.

Executive Summary

This Final Report is based on the findings of the 2015-2016 Turkmenistan Multiple Indicator Cluster Survey (MICS), conducted between September 2015 and January 2016 by the State Committee of Statistics of Turkmenistan. Financial support was provided by the Government of Turkmenistan and United Nations Children’s Fund (UNICEF), with additional support of the United Nations Population Fund (UNFPA). Technical support was provided by UNICEF.

The 2015-2016 Turkmenistan MICS is a nationally representative survey of 6,101 households, of which 5,974 were found to be occupied. Of these, 5,861 were successfully interviewed for a household response rate of 98 percent. In the interviewed households 7,693 women (age 15-49 years) were identified and 3,785 children under age five. Individual questionnaires were completed for 7,618 women and for 3,765 children. The sample allows for the estimation of some key indicators at the national level, for urban and rural areas, and for 6 regions (Ashgabat city and 5 velayats).

The 2015-2016 Turkmenistan MICS is expected to contribute to the evidence base of several important policies and strategies as well as to form part of the baseline data for the post-2015 era, in particular for monitoring progress towards the Sustainable Development Goals (SDGs).

Low Birth Weight

Overall, 99 percent of babies were weighed at birth and approximately 3 percent of infants are estimated to weigh less than 2,500 grams at birth.

Nutritional Status

In Turkmenistan, 3 percent of children under the age of five are underweight and 1 percent are classified as severely underweight. 12 percent of children are stunted or too short for their age and 4 percent are wasted or too thin for their height. 6 percent of children are overweight or too heavy for their height.

Breastfeeding and Infant and Young Child Feeding

In Turkmenistan, 73 percent of babies are breastfed for the first time within one hour of birth, while 94 percent of newborns start breastfeeding within one day of birth. Approximately 59 percent of children age less than six months are exclusively breastfed and 81 percent predominantly breastfed.

93 percent of the children age 6-23 months receive solid, semi-solid and soft foods the minimum number of times and 85 percent of children receive the minimum dietary diversity, or foods from at least 4 food groups. Almost all older (18-23 month old) children (98 percent) achieve the minimum dietary diversity compared to younger (6-8 month old) children (44 percent). The overall assessment using the indicator of minimum acceptable diet revealed that 77 percent of children age 6-23 months benefit from a diet sufficient in both diversity and frequency.

Salt Iodization

In almost all interviewed 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. It was found that

97 percent of household consume sufficiently iodized salt, i.e. salt which was found to contain 15 parts per million (ppm) or more of iodine.

Vaccinations

The vaccination coverage estimates are predominantly based on vaccination records from health facilities, and to a smaller degree on vaccination cards/passports kept at home and the mother's report of vaccinations received by the child. Since in Turkmenistan all children should receive vaccines for free, there is very high level of coverage regardless of household wealth. The percentage of children age 24-35 months who had all the recommended vaccinations by their first birthday (MMR by their second birthday) is 95 percent.

Care of Illness

Overall, 2 percent of children under five were reported to have had diarrhoea in the two weeks preceding the survey, less than 1 percent symptoms of ARI, and 6 percent an episode of fever.

Overall, 67 percent of children with diarrhoea received ORS (oral rehydration salts) or increased fluids. 39 percent of children received recommended treatment (ORT with continued feeding). Only 2 percent of children did not receive any treatment or drug.

Less than half of mother/caretakers (47 percent) know at least one of the two danger signs of pneumonia – fast and/or difficult breathing.

Water and Sanitation

Overall, 83 percent of the population uses an improved source of drinking water – 98 percent in urban areas and 73 percent in rural areas. More than half of the population (54 percent) uses piped water, 21 percent use source drinking water from a tube-well/bore-hole and 16 percent from a tanker truck (an unimproved source).

The entire population of Turkmenistan use improved sanitation. In rural areas, the population primarily uses ventilated improved pit latrines (68 percent), or pit latrines with slab (28 percent). In contrast, the most common facilities in urban areas are flush toilets/pour flush toilets (59 percent).

Fertility

The total fertility rate for the three years preceding the 2015-2016 Turkmenistan MICS, is 3.2 births per woman, this number is slightly higher in rural areas (3.3 births per woman) than in urban areas (3.0 births per woman). The age-specific fertility rate for women age 15-19 years is 28 births per 1,000 women.

Contraception and Unmet Need

Almost all currently married/in-union women have heard of a method of contraception and the mean number of methods known by women is 6 (of 14 methods). While the majority are familiar with the most common traditional and modern methods of contraception, there are modern methods they are less familiar with (12 percent for diaphragm, 12 percent for implants, 16 percent for female condom and 20 percent for emergency contraception).

Current use of contraception was reported by half of all (50 percent) women currently married or in union. 12 percent of women age 15-49 years currently married or in union, have an unmet need for contraception.

Antenatal Care, Assistance at Delivery and Post-natal Health Checks

In Turkmenistan, practically all women receive antenatal care (100 percent). The majority of antenatal care is provided by medical doctors (99 percent).

All births (100 percent) occurring in the two years preceding the MICS survey were delivered by skilled personnel, which tells about universal access to skilled care during the birth in Turkmenistan. Doctors assisted with the delivery of 99 percent of births and nurses or midwives assisted with 1 percent. All mothers (100%) received health checks following birth while in the medical facility or at home.

Almost all newborns in Turkmenistan receive a health check following birth while in a facility or at home, as well as a health check following discharge.

Early Childhood Care and Education

In Turkmenistan, 43 percent of children age 36-59 months are attending an organised early childhood education programme. This figure is 70 percent in urban areas, compared to 29 percent in rural areas.

With the majority (94 percent) of children age 36-59 months, an adult household member engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey. The mean number of activities that adults engaged with children was 5.6. Almost half of children (48 percent) age 0-59 months live in households where at least 3 children's books are present for the child.

In Turkmenistan, 91 percent of children age 36-59 months are developmentally on track.

School Readiness

Overall, 44 percent of children who are currently attending the first grade of primary school were attending pre-school the previous year. Almost 74 percent of the children in first grade in urban areas had attended pre-school the previous year compared to 26 percent of children living in rural areas.

Primary and Secondary School Participation

Of children who are of primary school entry age (age 6) in Turkmenistan, 94 percent are attending the first grade of primary school. The percentage of children of primary school age that are attending school is very high (98 percent). In Turkmenistan, of all children starting grade one, all will eventually reach grade 3.

The percentage of children of secondary school age (10-17 years) attending secondary school or higher is more than 98 percent. Gender parity for primary school is 0.99 and 1.00 for secondary school.

Birth Registration

The births of almost all children under five years in Turkmenistan have been registered, indicating equal chances for birth registration.

Child Labour

In Turkmenistan, among children age 5-11 years less than 1 percent are involved in an economic activity for at least one hour. Among children age 12-14 years, 4 percent are involved in an economic activity for less than 14 hours, while less than 1 percent are involved for 14 hours or more. 7 percent of children age 15-17 years are involved in an economic activity for less than 43 hours while there are no children involved in economic activity for 43 hours or more. Involvement of children in household chores, for all age groups, is below the age-specific threshold that classifies it as child labour. The overall percentage of children age 5-17 years involved in child labour is less than 1 percent.

Early Marriage

In Turkmenistan, the percentage of women age 15-49 years who were married/in union before age 15 is less than 1 percent. 6 percent of women age 20-49 years were married/in union before age 18.

Attitudes toward Domestic Violence

Overall, 26 percent of women age 15-49 years in Turkmenistan feel that a husband is justified in hitting or beating his wife in at least one of five situations. Women who justify a husband's violence, in most cases agree and justify violence in instances when a wife neglects the children (20 percent), or argues with him (12 percent) or if she demonstrates her autonomy, exemplified by going out without telling her husband (8 percent). Around 3 percent of women believe that wife-beating is justified if the wife refuses to have sex with the husband and a similar percentage, if she burns the food.

Children's Living Arrangements

In Turkmenistan, 89 percent of children age 0-17 years live with both their parents, 8 percent live with their mothers only and 2 percent live with their fathers only. 1 percent of children live with neither of their biological parents while both of them are alive.

In Turkmenistan, only 1 percent of children age 0-17 have one or both parents living abroad.

HIV/AIDS

In Turkmenistan, 81 percent of the women age 15-49 years have heard of AIDS. However, the percentage of women who know of both main ways of preventing HIV transmission – having only one faithful uninfected partner and using a condom every time – is only 56 percent.

The prevalence of comprehensive knowledge of HIV prevention methods and transmission is 35 percent among women age 15-49 years and 25 percent among women age 15-24 years.

The percentage of women age 15-49 years who know all three ways of mother-to-child transmission of HIV is 65 percent. 64 percent of women know where to be tested for HIV.

Access to Mass Media and Use of Information/Communication Technology

41 percent of women in Turkmenistan read a newspaper or magazine, 32 percent listen to the radio, and 99 percent watch television at least once a week. Overall, less than 1 percent do not have regular exposure to any of the three media, while almost 100 percent are exposed to at least one and 21 to all the three types of media on a weekly basis.

The survey showed, 86 percent of 15-24 year old women ever used a computer, 58 percent used a computer during the last year and 45 percent used at least once a week during the last month. Overall, 47 percent of women age 15-24 ever used the internet, while 39 percent used during the last year.

I. Introduction

Background

This report is based on the 2015-2016 Turkmenistan Multiple Indicator Cluster Survey (MICS), conducted in 2015-2016 by the State Committee of Statistics of Turkmenistan, as part of the global MICS programme and with technical support of the United Nations Children’s Fund (UNICEF). Financial costs of the survey were covered by the Government of Turkmenistan and UNICEF with additional support of the United Nations Population Fund (UNFPA). The survey provides statistically sound and internationally comparable data essential for developing evidence-based policies and programmes, and for monitoring progress toward national goals and global commitments. Among these global commitments are those emanating from the World Fit for Children Declaration and Plan of Action, the goals of the United Nations General Assembly Special Session on HIV/AIDS, the Education for All Declaration and the Millennium Development Goals (MDGs).

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 of the World Fit for Children (paragraph 61) also calls for the specific involvement of UNICEF in the preparation of periodic progress reports:

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

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

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

The 2015-2016 Turkmenistan MICS results are expected to form part of the baseline data for the post-2015 era, in particular for monitoring progress towards the Sustainable Development Goals (SDGs).

Improving the standard of living of the population has been a priority of the public policy during the entire period of country independence. Social orientation of economic reforms in the country especially intensified in recent years.

The National Strategy of Economic, Political and Cultural Development of Turkmenistan for the Period until 2020 (endorsed in 2003), provided high dynamics of diversification of economy and socially oriented reforms. The National Program for the Socio-Economic Development of Turkmenistan for 2011-2030 was adopted in May 2010 and the medium-term Programme of the Socio-Economic Development of Turkmenistan for 2012-2016 was adopted in February 2012. These programmes among the main areas of the future socio-economic development of the country provides large investments in the development of a healthy and highly intellectual human capital.

The Government of Turkmenistan in its policy of sustainable socio-economic development gives increasing importance to the issues faced by children and to the implementation of commitments included in related international documents. Long-term programmes and plans of actions for children designed to comprehensively address and resolve children's issues are developed and being implemented. The system of legal protection of children's interests is practically anew created and constantly improved with regard to the new socio-economic condition, taking into account national characteristics and traditions. In particular, the Law "On State Guarantees of Children's Rights" (since May 2014), "On guarantees of the rights of young people at work" (2005), "On protection of the health of the citizens" (2002, new edition since 2005), Code of Turkmenistan "On social protection of the population" (2007), "On the protection and promotion of breastfeeding and requirements for children's food" (2009), "On quality and safety of food products" (2009), "Health Code of Turkmenistan" (2009), "The Labour Code of Turkmenistan", and others. The Convention on the Rights of the Child, the World Declaration and Plan of Action adopted at the World Summit for Children, as well as the MDGs were and remain one of the main benchmarks in the development of the social and economic policies of the Government of Turkmenistan.

The 2015-2016 Turkmenistan MICS is expected to contribute to the evidence base of several other important initiatives, including Committing to Child Survival: A Promise Renewed, a global movement to end child deaths from preventable causes, and the accountability framework proposed by the Commission on Information and Accountability for the Global Strategy for Women's and Children's Health.

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

Survey Objectives

The 2015-2016 Turkmenistan MICS has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Turkmenistan;
- To generate data for the critical assessment of the progress made in various areas, and to put additional efforts in those areas that require more attention;
- To furnish data needed for monitoring progress toward goals established in the Millennium Declaration and other internationally agreed upon goals, as a basis for future action;

- To collect disaggregated data for the identification of disparities, to allow for evidence based policy-making aimed at social inclusion of the most vulnerable;
- To contribute to the generation of baseline data for the post-2015 agenda;
- To validate data from other sources and the results of focused interventions.

How to read tables

The tables of this report present data collected through this survey in a standard way, intuitively easy to understand. However, the reader should be aware of the following remarks.

Values in parenthesis indicate that the percentage or proportion is based on only 25–49 unweighted cases and should be treated with caution. An asterisk in tables indicates that the percentage or proportion has been suppressed because it is based on fewer than 25 unweighted cases while a dash denotes 0 unweighted cases. 0.0 indicates no cases of an occurrence or an insignificant value.

Age groups presented in this report also include those persons that had reached the full age indicated by the upper limit for an age group; for instance, respondents age 15–49 include persons who had fully reached 49 years of age. Similarly, the age group of children age 20–23 months includes those who had fully reached 23 months.

The education category “None” is based on fewer than 25 unweighted cases and is therefore not shown in the tables.

Also, in the tables and throughout the report, mother's education refers to educational attainment of mothers as well as caretakers of children under 5, who are the respondents to the under-5 questionnaire if the mother is deceased or is living elsewhere.

II. Sample and Survey Methodology

Sample Design

The sample for the 2015-2016 Turkmenistan Multiple Indicator Cluster Survey was designed to provide estimates for a large number of indicators on the situation of children and women at the national level, for urban and rural areas, and for 6 regions: Ahal, Balkan, Dashoguz, Lebap and Mary velayat and Ashgabat city. The urban and rural areas within each region were identified as the main sampling strata and the sample was selected in two stages. Within each stratum, a specified number of census enumeration areas were selected systematically with probability proportional to size. In order to have a total target sample of 6,200 households, a sample of 310 enumeration areas was selected at the first sampling stage. After a household listing was carried out within the selected enumeration areas, a systematic sample of 20 households was drawn in each sample enumeration area. Five of the selected enumeration areas were not visited because they were inaccessible due to demolition of buildings during the fieldwork period, leading to a sample size of 6,100 households.¹².

The sample was stratified by region, urban and rural areas, and is not self-weighting. For reporting all survey results, sample weights are used. The sampling procedures take into account the administrative and territorial changes that occurred in 2013 in Ashgabat city and Ahal velayat. A more detailed description of the sample design can be found in Appendix A, Sample Design.

Questionnaires

Four sets of questionnaires were used in the survey: 1) a household questionnaire which was used to collect basic demographic information on all *de jure* household members (usual residents), the household, and the dwelling; 2) a questionnaire for individual women administered in each household to all women age 15-49 years; and 3) an under-5 questionnaire, administered to mothers (or caretakers) for all children under 5 living in the household, including a questionnaire form for immunization records at health facility for children under 3. The questionnaires included the following modules:

The Household Questionnaire included the following modules:

- List of Household Members
- Education
- Child Labour
- Child Discipline
- Household Characteristics
- Water and Sanitation
- Handwashing
- Salt Iodization

The Questionnaire for Individual Women was administered to all women age 15-49 years living in the households, and included the following modules:

¹² The final sample size was 6,101 households due to one additional household being found in a dwelling unit that was visited during fieldwork.

- Woman’s Background
- Access to Mass Media and Use of Information/Communication Technology
- Fertility/Birth History
- Desire for Last Birth
- Maternal and Newborn Health
- Post-natal Health Checks
- Illness Symptoms
- Marriage/Union¹³
- Contraception
- Unmet Need
- Attitudes Toward Domestic Violence
- HIV/AIDS

The Questionnaire for Children Under Five was administered to mothers (or caretakers) of children under 5 years of age¹⁴ living in the households. Normally, the questionnaire was administered to mothers of under-5 children; in cases when the mother was not listed in the household roster, a primary caretaker for the child was identified and interviewed. The questionnaire included the following modules:

- Age
- Birth Registration
- Early Childhood Development
- Breastfeeding and Dietary Intake
- Immunization
- Care of Illness
- Anthropometry

For all children age 0-2 years with a completed Questionnaire for Children Under Five an additional form, the Questionnaire Form For Immunization Records At Health Facility, was used to record vaccinations from the registers at health facilities.

The questionnaires are based on the MICS5 model questionnaire¹⁵. From the MICS5 model English and Russian version, the questionnaires were customised and translated into the Turkmen language and were pre-tested. A pre-test of the paper version of questionnaires in Russian and Turkmen languages (first pre-test, 12 days) was conducted in Ahal velayat (rural area) and Ashgabat city in July 2015. 200 households were interviewed – 100 using the Turkmen language questionnaires and 100 using Russian language questionnaires. A second pre-test was conducted in August 2015 in 100 households using tablets with revised questionnaires. Based on the results of the pre-tests, modifications were made to the wording and translation of the questionnaires as well as in the application for tablets. A copy of the 2015-2016 Turkmenistan MICS questionnaires is provided in Appendices F1 to F4.

¹³ Part of the Marriage/Union module and the modules on Contraception and Unmet Need were administered only to those women who have ever been married/in union.

¹⁴ The terms “children under 5”, “children age 0-4 years”, and “children age 0-59 months” are used interchangeably in this report.

¹⁵ The model MICS5 questionnaires can be found at <http://mics.unicef.org/tools>

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

Training and Fieldwork

Training for the fieldwork was conducted for 30 working days in the period August-September 2015. Training was divided into 2 phases. In the first phase (2 weeks), training was conducted using paper questionnaires and in the second phase using tablets. Training included lectures on interviewing techniques and the contents of the questionnaires, and conducting interviews between trainees to gain practice in asking questions, practical work on tablets, such as assigning households by supervisors, sending and receiving assigned households, data collection, error solving. Towards the end of the training period (September 2015), trainees spent two days in practice interviewing in Ashgabat city (urban area) and Ahal velayat (rural area) and one day on the anthropometric measurement in the preschool institutions in Ashgabat city.

The data were collected by 6 teams; each was comprised of 4 interviewers (1 reserve), two drivers, one measurer and a supervisor. Fieldwork began in September 2015 and concluded in January 2016.

Data Collection and Data Processing

Data were entered using the CPro software, Version 5.0. Data collection was carried out on tablets by 37 interviewers and 6 supervisors. Using a tablets facilitated many tasks related to control and management, including:

- assigning households to the interviewers,
- receiving collected data from the interviewers,
- checking household questionnaires and individual questionnaires,
- finalising the cluster,
- preparing the data files to be sent to the Central Office.

Procedures and standard programs developed under the global MICS programme and adapted to the 2015-2016 Turkmenistan MICS questionnaire were used throughout. Data processing began simultaneously with data collection in September 2015 and was completed in January 2016. Data were analysed using the Statistical Package for Social Sciences (SPSS) software, Version 21. Model syntax and tabulation plans developed by UNICEF were customized and used for this purpose.

Regular monitoring of the data collection and other relevant processes was carried out by UNICEF staff, consultants (both national and international) as well as by management and staff of the State Committee of Statistics (Turkmenstat) responsible for implementation of the 2015-2016 Turkmenistan MICS.

III. Sample Coverage and the Characteristics of Households and Respondents

Sample Coverage

Of the 6,100¹⁶ households selected for the sample, one dwelling unit was found to be occupied by two households, leading to a total of 6,101 households in the final sample. Of the 6,101 households, 5,974 were found to be occupied. Of these, 5,861 were successfully interviewed for a household response rate of 98 percent.

In the interviewed households 7,693 women (age 15-49 years) were identified. Of these, 7,618 were successfully interviewed, yielding a response rate of 99 percent within the interviewed households.

There were 3,785 children under age five listed in the household questionnaires. Questionnaires were completed for 3,765 of these children, which corresponds to a response rate of almost 100 percent within interviewed households.

Overall response rates of 97 and 98 percent are calculated for the individual interviews of women and under-5s, respectively (Table HH.1).

¹⁶ A total target sample of 6,200 households from 310 enumeration areas were selected. Five of the selected enumeration areas were not visited because they were inaccessible due to demolition of buildings during the fieldwork period, leading to a sample size of 6,100 households.

Table HH.1: Results of household, women's and under-5 interviews

Number of households, women, and children under 5 by interview results, and household, women's and under-5's response rates, Turkmenistan, 2015-2016

	Area			Region					
	Total	Urban	Rural	Ashgabat city	Ahal velayat	Balkan velayat	Dashoguz velayat	Lebap velayat	Mary velayat
Households									
Sampled	6101	3400	2701	1160	900	1240	880	961	960
Occupied	5974	3288	2686	1083	900	1229	877	946	939
Interviewed	5861	3183	2678	990	899	1224	873	940	935
Household response rate	98.1	96.8	99.7	91.4	99.9	99.6	99.5	99.4	99.6
Women									
Eligible	7693	3726	3967	1131	1403	1252	1306	1337	1264
Interviewed	7618	3668	3950	1086	1401	1251	1299	1317	1264
Women's response rate	99.0	98.4	99.6	96.0	99.9	99.9	99.5	98.5	100.0
Women's overall response rate	97.2	95.3	99.3	87.8	99.7	99.5	99.0	97.9	99.6
Children under 5									
Eligible	3785	1652	2133	451	813	511	696	721	593
Mothers/caretakers interviewed	3765	1634	2131	433	813	511	696	719	593
Under-5's response rate	99.5	98.9	99.9	96.0	100.0	100.0	100.0	99.7	100.0
Under-5's overall response rate	97.6	95.8	99.6	87.8	99.9	99.6	99.5	99.1	99.6

Some small differences were observed in household response rates by region and area of residence. Overall, household response rate in urban areas (97 percent) was slightly lower than in rural areas (almost 100 percent) mainly due to the response rate in the capital - Ashgabat city, where the response rate was 91 percent. In the other five regions, household response rates were almost 100 percent.

Characteristics of Households

The weighted age and sex distribution of the survey population is provided in Table HH.2. The distribution is also used to produce the population pyramid in Figure HH.1. In the 5,861 households successfully interviewed in the survey, 29,871 household members were listed. Of these, 14,635 were males, and 15,237 were females.

Table HH.2: Age distribution of household population by sex

Percent and frequency distribution of the household population by five-year age groups, dependency age groups, and by child (age 0-17 years) and adult populations (age 18 or more), by sex, Turkmenistan, 2015-2016

	Total		Males		Females	
	Number	Percent	Number	Percent	Number	Percent
Total	29871	100.0	14635	100.0	15237	100.0
Age						
0-4	3979	13.3	2097	14.3	1882	12.4
5-9	3015	10.1	1531	10.5	1484	9.7
10-14	2347	7.9	1174	8.0	1173	7.7
15-19	2335	7.8	1079	7.4	1256	8.2
20-24	2861	9.6	1386	9.5	1475	9.7
25-29	2816	9.4	1394	9.5	1422	9.3
30-34	2370	7.9	1200	8.2	1170	7.7
35-39	1901	6.4	907	6.2	995	6.5
40-44	1763	5.9	883	6.0	879	5.8
45-49	1606	5.4	795	5.4	811	5.3
50-54	1599	5.4	734	5.0	865	5.7
55-59	1383	4.6	611	4.2	772	5.1
60-64	857	2.9	406	2.8	451	3.0
65-69	441	1.5	187	1.3	255	1.7
70-74	223	0.7	101	0.7	121	0.8
75-79	224	0.8	95	0.7	129	0.8
80-84	89	0.3	39	0.3	50	0.3
85+	58	0.2	15	0.1	43	0.3
Missing/DK	2	0.0	1	0.0	2	0.0
Dependency age groups						
0-14	9341	31.3	4802	32.8	4540	29.8
15-64	19492	65.3	9395	64.2	10097	66.3
65+	1036	3.5	437	3.0	599	3.9
Missing/DK	2	0.0	1	0.0	2	0.0
Child and adult populations						
Children age 0-17 years	10865	36.4	5599	38.3	5266	34.6
Adults age 18+ years	19005	63.6	9035	61.7	9969	65.4
Missing/DK	2	0.0	1	0.0	2	0.0

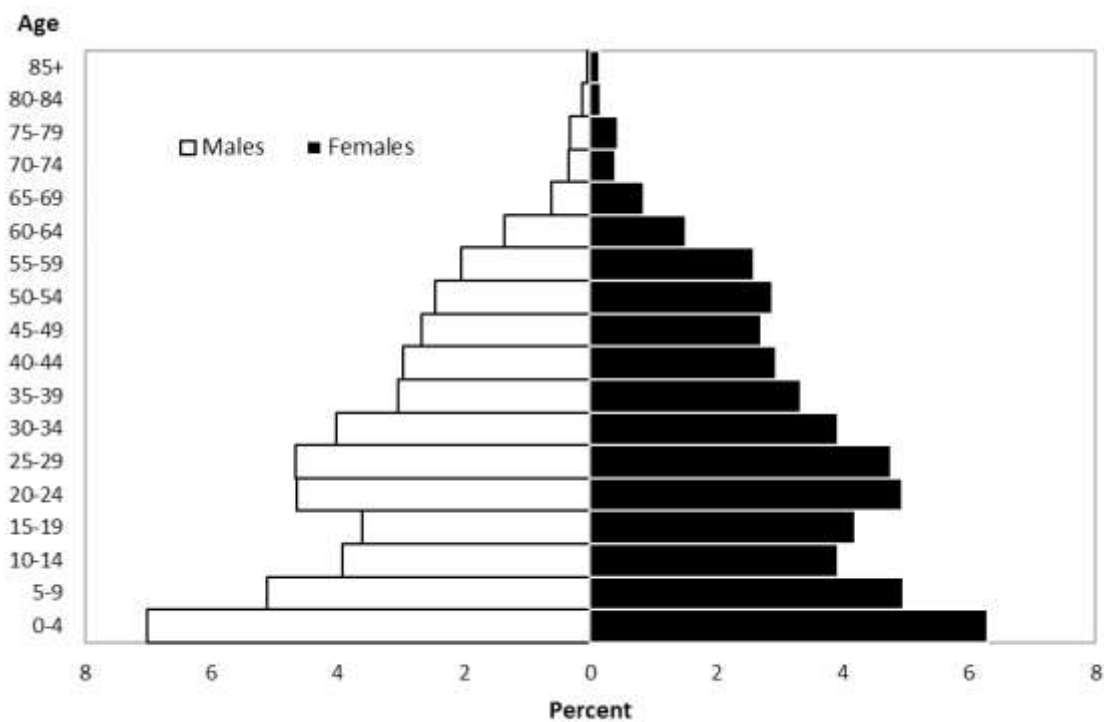
The current shape of the age pyramid indicates extended type of reproduction of the population in a country with a high percentage of young population and a low percentage of the elderly.

Age group 0-4 years is the largest age group in the population distribution by five-year age groups (13 percent). This is due to noticeable increase of the birth rate over the last few years most probably linked to the adoption of the Code of Turkmenistan “On social protection of the population” in 2007 – lump sum payment on the birth and monthly benefits for child care from birth until six months. The Law of Turkmenistan “On Amendments to the Code of Turkmenistan “On social protection of the Population”” (March 6, 2009) introduced increased child allowance (at birth and for child care) and payment period – from six months to three years.

There is a disproportion in relation between males and females in the age group 15-19 years (Figure DQ.1 in Appendix D. Data Quality Tables). The percentage of males in this age group is lower due to the used definition for household members – males aged 18-19 years who are in the service of National Armed Forces were not included in household listing (not considered as household members, and service starts at age 18). This affected the overall ratio between the male and female population.

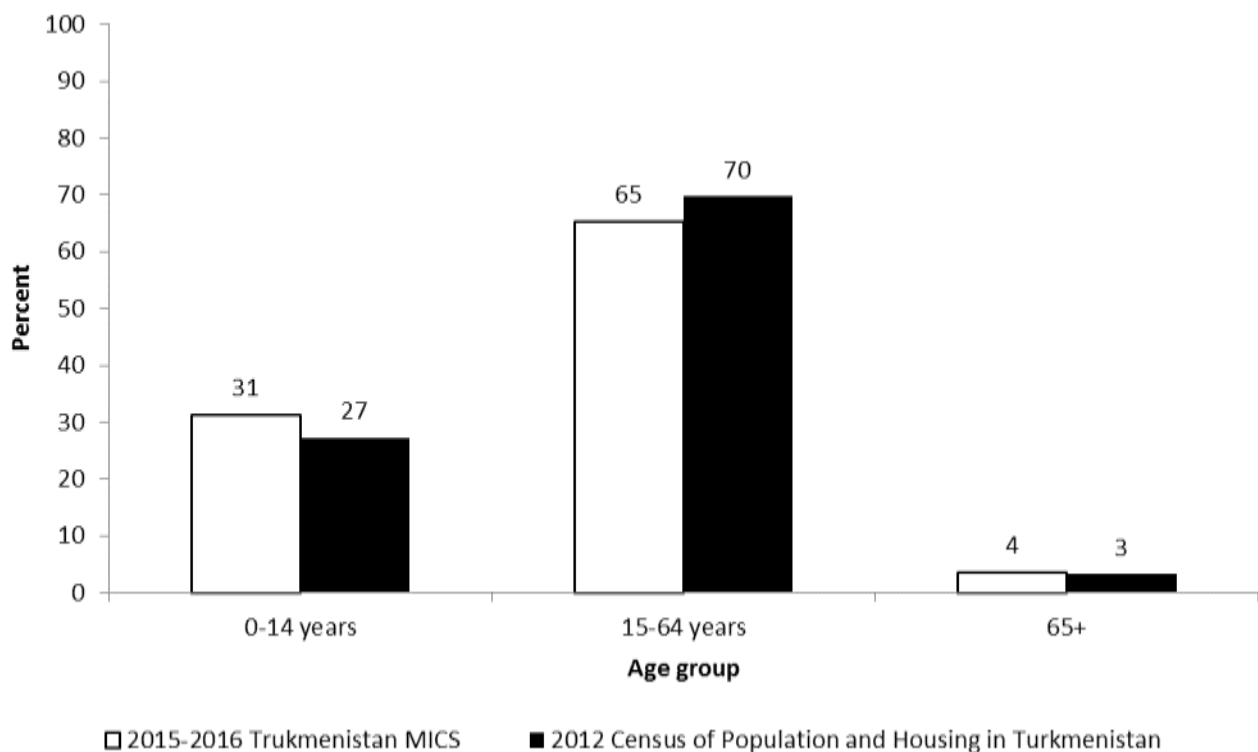
The proportion of children age 0-17 years in total population is 36 percent. It is noted that there is a slight predominance of males in this age group which is associated with a higher proportion of male births.

Figure HH.1: Age and sex distribution of household population, Turkmenistan, 2015 – 2016



There are some differences when comparing data from the 2015-2016 Turkmenistan MICS and data from the 2012 Census of Population and Housing in Turkmenistan. According to MICS data the percentage of the population under the age of 15 years was 31 percent and 21 percent according to Census data (Figure HH.2). This is expected due to the progressive rise in the birth rate in the country in recent years. Percentage of population age 15-64 years is slightly different, 65 percent from survey data and 70 percent in the 2012 Census, and the lowest difference is for the age group 65+ years (3 percent and 4 percent, respectively).

Figure HH.2: Population distribution by age groups, Turkmenistan



Tables HH.3, HH.4 and HH.5 provide basic information on the households, female respondents age 15-49, and children under-5. Both unweighted and weighted numbers are presented. Such information is essential for the interpretation of findings presented later in the report and provide background information on the representativeness of the survey sample. The remaining tables in this report are presented only with weighted numbers.¹⁷

Table HH.3 provides basic background information on the households, including the sex of the household head, region, area, number of household members, education of household head, and language¹⁸ of the household head are shown in the table. These background characteristics are used in subsequent tables in this report; the figures in the table are also intended to show the numbers of observations by major categories of analysis in the report.

¹⁷ See Appendix A: Sample Design, for more details on sample weights.

¹⁸ This was determined by asking: What is the mother tongue/native language of the head of this household?

Table HH.3: Household composition

Percent and frequency distribution of households by selected characteristics, Turkmenistan, 2015-2016

	Weighted percent	Number of households	
		Weighted	Unweighted
Total	100.0	5861	5861
Sex of household head			
Male	76.0	4457	4348
Female	24.0	1404	1513
Region			
Ashgabat city	15.1	883	990
Ahal velayat	11.5	674	899
Balkan velayat	8.5	497	1224
Dashoguz velayat	21.1	1236	873
Lebap velayat	18.4	1079	940
Mary velayat	25.4	1491	935
Area			
Urban	44.9	2634	3183
Rural	55.1	3227	2678
Number of household members			
1	5.0	291	340
2	7.7	450	512
3	11.9	700	734
4	18.5	1086	1078
5	19.9	1165	1163
6	14.9	872	840
7	9.0	526	507
8	4.8	284	260
9	2.7	159	143
10+	5.6	329	284
Education of household head			
None	0.1	3	3
Primary	0.6	33	28
Secondary	61.4	3598	3538
Primary vocational	7.2	422	386
Secondary vocational	15.2	889	936
Higher	15.6	915	970
Language of household head			
Turkmen	82.8	4853	4871
Uzbek	8.1	473	356
Russian	7.3	426	512
Other	1.9	110	122
Mean household size	5.1	5861	5861

The weighted and unweighted total number of households are equal, since sample weights were normalized. The table also shows the weighted mean household size estimated by the survey.

The percentages of households in rural areas is higher (55 percent) than in urban areas (45 percent). There are differences in percentage distribution of households by regions - from 9 percent in Balkan

velayat 25 to percent in Mary velayat. A largest proportion of household heads are male (76 percent). The distribution of households by number of household members shows that the highest percentages of households consisted of four and five persons (19 percent and 20 percent respectively) followed by households consisting of six persons (15 percent). In 83 percent of households, the Turkmen language is the mother tongue/native language of the household head.

Characteristics of Female and Male Respondents 15-49 Years of Age and Children Under-5

Tables HH.4 and HH.5 provide information on the background characteristics of female respondents 15-49 years of age and of children under age 5. In all three tables, the total numbers of weighted and unweighted observations are equal, since sample weights have been normalized (standardized). In addition to providing useful information on the background characteristics of women and children under age five, the tables are also intended to show the numbers of observations in each background category. These categories are used in the subsequent tabulations of this report.

Table HH.4: Women's background characteristics

Percent and frequency distribution of women age 15-49 years by selected background characteristics, Turkmenistan, 2015-2016

	Weighted percent	Number of women	
		Weighted	Unweighted
Total	100.0	7618	7618
Region			
Ashgabat city	12.8	975	1086
Ahal velayat	13.2	1007	1401
Balkan velayat	6.3	482	1251
Dashoguz velayat	23.4	1779	1299
Lebap velayat	19.1	1455	1317
Mary velayat	25.2	1920	1264
Area			
Urban	39.5	3006	3668
Rural	60.5	4612	3950
Age			
15-19	15.7	1197	1165
20-24	18.4	1400	1401
25-29	17.7	1351	1333
30-34	14.7	1117	1117
35-39	12.4	946	960
40-44	11.0	835	838
45-49	10.1	772	804
Marital/Union status			
Currently married/in union	64.2	4887	4861
Widowed	1.6	123	146
Divorced	4.1	312	319
Separated	0.7	56	62
Never married/in union	29.4	2240	2230
Motherhood and recent births			
Never gave birth	35.5	2708	2686
Ever gave birth	64.5	4910	4932
Gave birth in last two years	19.4	1476	1467
No birth in last two years	45.1	3435	3465
Education			
None	0.1	8	6
Primary	0.1	8	6
Secondary	79.9	6088	6030
Primary vocational	7.9	601	595
Secondary vocational	6.9	527	547
Higher	5.1	387	434
Wealth index quintile			
Poorest	20.0	1521	1139
Second	19.7	1502	1253
Middle	19.6	1495	1485
Fourth	19.6	1490	1738
Richest	21.1	1610	2003
Language of household head			
Turkmen	86.1	6563	6641
Uzbek	8.2	623	482
Russian	4.1	315	375
Other	1.5	117	120

Table HH.4 provides background characteristics of female respondents, age 15-49 years. The table includes information on the distribution of women according to region, area, age, marital/union status, motherhood status, births in last two years, education¹⁹, wealth index quintiles^{20, 21}, and language of the household head.

39 percent of interviewed women age 15-49 years live in urban areas and 61 percent in rural areas. Similar to the household distribution by regions, regional differences in the population of women age 15-49 years are notable – the highest percent of women is found in Mary and Dashoduz velayats (25 percent and 23 percent respectively) and the lowest in the Balkan velayat (6 percent). Half of all women age 15-49 years belong to the optimal age for giving birth – from 20 to 35 years. Around two-thirds of women (64 percent) are currently married/in union, 5 percent are divorced or separated, and 2 percent are widowed. 29 percent of women age 15-49 years never married. 60 percent of women this age have ever gave birth and of those, every fifth woman (19 percent) gave birth in the last two years. The majority of women age 15-49 years (80 percent) have secondary education, 8 percent have primary vocational, 7 percent have secondary vocational and 5 percent have higher education. 86 percent of women lives in the households where Turkmen language is the mother tongue/native language of the household head.

¹⁹ Throughout this report, unless otherwise stated, “education” refers to highest educational level ever attended by the respondent when it is used as a background variable.

²⁰ The wealth index is a composite indicator of wealth. To construct the wealth index, principal components analysis is performed by using information on the ownership of consumer goods, dwelling characteristics, water and sanitation, and other characteristics that are related to the household’s wealth, to generate weights (factor scores) for each of the items used. First, initial factor scores are calculated for the total sample. Then, separate factor scores are calculated for households in urban and rural areas. Finally, the urban and rural factor scores are regressed on the initial factor scores to obtain the combined, final factor scores for the total sample. This is carried out to minimize the urban bias in the wealth index values.

Each household in the total sample is then assigned a wealth score based on the assets owned by that household and on the final factor scores obtained as described above. The survey household population is then ranked according to the wealth score of the household they are living in, and is finally divided into 5 equal parts (quintiles) from lowest (poorest) to highest (richest).

In 2015-2016 Turkmenistan MICS, the following assets were used in these calculations: source of drinking water; location of water source; number of rooms used for sleeping; main material of dwelling roof and exterior walls; type of household fuel; presence in the household of radio, a television (not plasma and not monomorphic, and LCD), non-mobile phone, refrigerator, air conditioner, washing machine, vacuum cleaner, computer/notebook, video recorder or DVD, cassette player or CD player, sewing machine, factory carpet, handmade carpet (wool or silk), sofa, sideboard, embroidery machine; presence in the household of a watch, mobile phone, bicycle, motorcycle/scooter, passenger car, truck, tractor/combine harvester, tablet; possession of a bank account; ownership of livestock: cattle, mule, goats, sheep, chickens, other poultry, pigs, camels and rabbits; and water present at handwashing place in the dwelling.

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. The wealth scores calculated are applicable for only the particular data set they are based on.

Further information on the construction of the wealth index can be found in Filmer, D and Pritchett, L. 2001. *Estimating wealth effects without expenditure data – or tears: An application to educational enrolments in states of India*.

Demography 38(1): 115-132; Rutstein, SO and Johnson, K. 2004. *The DHS Wealth Index*. DHS Comparative Reports No. 6; and Rutstein, SO. 2008. *The DHS Wealth Index: Approaches for Rural and Urban Areas*. DHS Working Papers No. 60.

²¹ When describing survey results by wealth quintiles, appropriate terminology is used when referring to individual household members, such as for instance “women in the richest population quintile”, which is used interchangeably with “women in the wealthiest survey population”, “women living in households in the richest population wealth quintile”, and similar.

Background characteristics of children under 5 are presented in Table HH.5. These include the distribution of children by several attributes: sex, region and area, age in months, respondent type, mother's (or caretaker's) education, wealth, and language.

Of the total number of children under 5 years, 53 percent are boys and 47 percent are girls. 65 percent of all children this age live in rural areas and 35 percent live in urban areas. The highest proportion of children under five is in Dashoguz and Mary velayats (25 percent and 23 percent respectively) and the lowest in Balkan velayat (5 percent). The distribution of children under 5 by single age is almost uniform. 87 percent of children have a mother with secondary education.

Table HH.5: Under-5's background characteristics

Percent and frequency distribution of children under five years of age by selected characteristics, Turkmenistan, 2015-2016

	Weighted percent	Number of under-5 children	
		Weighted	Unweighted
Total	100.0	3765	3765
Sex			
Male	52.7	1984	1982
Female	47.3	1781	1783
Region			
Ashgabat city	10.2	385	433
Ahal velayat	15.3	576	813
Balkan velayat	5.2	195	511
Dashoguz velayat	25.2	950	696
Lebap velayat	20.7	780	719
Mary velayat	23.3	879	593
Area			
Urban	35.2	1324	1634
Rural	64.8	2441	2131
Age			
0-5 months	9.1	343	342
6-11 months	10.1	380	382
12-23 months	20.7	778	787
24-35 months	19.8	746	736
36-47 months	20.1	758	760
48-59 months	20.2	760	758
Respondent to the under-5 questionnaire			
Mother	99.0	3725	3724
Other primary caretaker	1.0	40	41
Mother's education^a			
None	0.0	1	1
Primary	0.2	8	6
Secondary	86.4	3252	3206
Primary vocational	6.7	251	265
Secondary vocational	3.4	128	144
Higher	3.3	124	143
Wealth index quintile			
Poorest	21.9	826	628
Second	21.2	799	686
Middle	21.1	793	784
Fourth	19.6	737	878
Richest	16.2	610	789
Language of household head			
Turkmen	87.4	3291	3360
Uzbek	8.8	333	259
Russian	2.0	74	87
Other	1.8	68	59

^a In this table and throughout the report, mother's education refers to educational attainment of mothers as well as caretakers of children under 5, who are the respondents to the under-5 questionnaire if the mother is deceased or is living elsewhere.

Housing characteristics, asset ownership, and wealth quintiles

Tables HH.6, HH.7 and HH.8 provide further details on household level characteristics. HH.6 presents characteristics of housing, disaggregated by area and region, distributed by whether the dwelling has electricity, the main materials of the flooring, roof, and exterior walls, as well as the number of rooms used for sleeping.

All households in Turkmenistan have electricity (100 percent). The majority of households have a finished floor (97 percent). In Ashgabat city, Dashoguz and Mary velayats the percentage of households with a finished floor is 99 percent. The percentages are slightly lower in other regions: in Ahal and Balkan velayats at 96 percent and in Lebap velayat at 82 percent. Almost all households have finished exterior walls. The percentage of households with a finished roof is also very high (99 percent).

The mean number of persons per room used for sleeping is 1.96. In rural areas this number is higher than in urban areas (2.06 and 1.84 respectively). Furthermore, there are some differences by region. The mean number of persons per room used for sleeping in Ahal velayat is 2.18 compared to 1.57 in Balkan velayat and 1.79 in Ashgabat city. In other regions, this number is somewhat similar (ranging from 1.96 to 2.06).

Table HH.6: Housing characteristics									
Percent distribution of households by selected housing characteristics, according to area of residence and regions, Turkmenistan, 2015-2016									
	Area			Region					
	Total	Urban	Rural	Ashgabat city	Ahal velayat	Balkan velayat	Dashoguz velayat	Lebap velayat	Mary velayat
Electricity									
Yes	100.0	99.9	100.0	99.9	100.0	100.0	100.0	99.9	100.0
No	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flooring									
Rudimentary floor	1.7	1.4	1.9	0.6	0.2	3.6	0.9	4.5	1.0
Finished floor	97.1	98.1	96.3	99.3	95.9	96.4	99.1	92.0	98.8
Other	1.2	0.4	1.8	0.1	3.9	0.0	0.0	3.5	0.2
Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Roof									
Rudimentary roofing	0.4	0.0	0.7	0.0	0.0	0.0	1.5	0.3	0.0
Finished roofing	99.0	99.7	98.4	100.0	100.0	99.9	98.5	96.2	100.0
Other	0.7	0.3	1.0	0.0	0.0	0.1	0.0	3.5	0.0
Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exterior walls									
Rudimentary walls	0.1	0.1	0.1	0.0	0.0	0.2	0.1	0.1	0.0
Finished walls	99.8	99.9	99.7	99.8	99.7	99.8	99.9	99.4	100.0
Other	0.2	0.1	0.2	0.2	0.3	0.0	0.0	0.4	0.0
Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rooms used for sleeping									
1	10.4	15.4	6.3	18.8	7.2	13.0	7.8	9.4	9.1
2	33.8	38.7	29.9	42.2	31.6	27.9	33.0	31.6	34.3
3 or more	55.7	45.8	63.7	39.0	61.2	59.0	59.3	58.7	56.7
Missing/DK	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.3	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	5861	2634	3227	883	674	497	1236	1079	1491
Mean number of persons per room used for sleeping	1.96	1.84	2.06	1.79	2.18	1.57	2.06	2.03	1.96

In Table HH.7 households are distributed according to ownership of assets by households and by individual household members. This also includes ownership of dwelling.

Almost every household has a television (100 percent), factory carpet (100 percent) and refrigerator (99 percent). Possession of mobile phone by at least one household member is also very high (99 percent).

Most households have a sideboard (84 percent), video recorder or DVD (79 percent), washing machine (75 percent), air conditioner and vacuum cleaner (each 74 percent), sewing machine (72 percent). Approximately every second household owns a passenger car (55 percent), a non-mobile phone (51 percent) and bicycle (48 percent).

There are differences by area of residence and regions. The greatest difference by area of residence were found in the presence of a non-mobile phone (85 percent in urban and 22 percent in rural areas). In urban areas every second household has a computer/notebook (51 percent), as does one in three households in rural areas (35 percent). Availability of air conditioner, washing machine and vacuum cleaner is more characteristic for urban areas (from 87 to 90 percent), whereas the presence of these items in rural areas varies from 60 to 64 percent. Households in Dashoguz velayat compared with other regions are the least likely to have an air conditioner (35 percent), washing machine and vacuum cleaner (each 52 percent), whereas the availability of these items in Ashgabat city is very high (from 94 to 98 percent). A handmade carpet (wool or silk) was found in 44 percent of households.

60 percent of households have land that can be used for agriculture and 55 percent have farm animals/livestock. Use of agricultural land and presence of livestock is typical for households in rural areas (89 and 82 percent respectively) while those are around 23 percent each in urban areas. 83 percent of households inhabit a dwelling owned by a household member.

Table HH.7: Household and personal assets

Percentage of households by ownership of selected household and personal assets, and percent distribution by ownership of dwelling, according to area of residence and regions, Turkmenistan, 2015-2016

	Area			Region					
	Total	Urban	Rural	Ashgabat city	Ahal velayat	Balkan velayat	Dashoguz velayat	Lebap velayat	Mary velayat
Percentage of households that own a									
Radio	15.1	13.3	16.6	13.8	31.5	7.7	9.5	9.4	19.8
Any type of television	99.7	99.8	99.7	99.7	99.9	99.9	100.0	99.6	99.5
Television (not plasma and not mesomorphic)	72.4	56.3	85.5	35.0	74.9	53.5	86.1	78.3	84.2
Plasma or mesomorphic (LCD) television	57.7	69.8	47.8	81.3	72.4	71.7	49.9	43.4	49.1
Non-mobile telephone	50.5	85.0	22.3	93.5	52.6	92.3	28.1	53.7	26.3
Refrigerator	99.4	99.7	99.1	99.9	99.6	99.6	99.0	99.0	99.6
Air Conditioner	73.9	90.6	60.3	98.2	99.1	99.2	35.4	66.9	76.8
Washing machine	74.5	87.3	64.0	94.4	82.0	87.4	51.7	78.7	71.0
Vacuum cleaner	73.7	87.1	62.8	94.3	90.8	93.7	52.0	63.2	72.8
Computer / Notebook	41.2	50.6	33.5	53.7	33.6	46.4	37.1	49.8	32.8
Video recorder or DVD	78.9	80.3	77.8	81.9	93.4	76.8	74.1	71.2	80.7
Cassette player or CD player	30.8	28.5	32.6	26.0	37.6	23.3	23.5	31.2	38.8
Sewing machine	71.5	64.1	77.6	58.1	93.3	80.2	49.0	75.8	82.3
Factory carpet	99.6	99.6	99.7	99.4	99.5	99.6	100.0	99.6	99.6
Handmade carpet (wool or silk)	44.3	42.9	45.5	36.3	49.5	74.2	46.2	33.9	42.9
Sofa	59.3	69.2	51.2	66.1	68.0	62.5	51.3	66.0	51.9
Sideboard	83.9	86.2	82.0	85.1	94.8	95.0	86.7	71.6	81.2
Embroidery machine	13.3	11.5	14.9	13.7	28.1	17.1	6.8	8.0	14.5
Percentage of households that own									
Agricultural land	59.7	23.3	89.4	12.1	87.7	26.9	57.0	68.8	81.7
Farm animals/Livestock	55.3	22.8	81.8	8.8	78.6	38.7	60.7	64.6	66.6
Percentage of households where at least one member owns or has a									
Watch	51.8	61.0	44.4	67.8	56.8	70.8	56.5	35.9	41.5
Mobile telephone	98.6	98.1	99.0	97.5	99.7	96.3	99.3	99.0	98.6
Bicycle	47.5	34.7	57.9	27.5	52.8	26.2	38.7	63.2	59.8
Motorcycle or scooter	13.5	4.5	20.8	0.9	22.3	16.3	9.5	21.9	13.2
Passenger car	54.5	52.9	55.8	54.1	67.7	52.2	53.4	51.6	52.5
Truck	5.3	3.6	6.7	3.2	9.3	6.8	4.7	5.7	4.5
Tractor / Combine harvester	3.2	0.9	5.1	1.5	2.0	0.4	5.3	3.8	3.5
Tablet	9.8	15.3	5.3	22.0	20.2	12.5	3.5	6.0	5.1
Bank account	37.0	50.6	25.9	51.4	40.2	58.6	32.0	34.9	25.6
Ownership of dwelling									
Owned by a household member	82.8	67.7	95.2	63.7	86.0	70.9	88.7	82.9	91.8
Not owned	17.2	32.3	4.8	36.3	14.0	29.1	11.3	17.1	8.2
Rented	17.2	32.3	4.8	36.3	14.0	29.1	11.3	17.1	8.2
Rented from a private individual	1.8	3.5	0.4	4.5	0.8	3.3	0.7	2.1	0.7
Rented from the State or State Institution	15.4	28.7	4.5	31.7	13.1	25.9	10.6	14.8	7.5
Other	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0
Missing/DK	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of households	5861	2634	3227	883	674	497	1236	1079	1491

Table HH.8 shows how the household populations in areas and regions are distributed according to household wealth quintiles.

It should be noted that the information provided in this table is not equivalent to information about the level of income of the population and is related to the availability of different items to the household members (described in tables HH.6 and HH.7).

The distribution of population by Wealth index quintiles is extremely uneven depending on area of residence and region. Half of the household population in urban areas (51 percent) belongs to the fifth (richest) wealth index quintile while there are no such households in rural areas. Among the regions, the most favourable situation is in Ashgabat city and Balkan velayat where most of the household population (99 and 77 percent respectively) belong to the fourth and fifth quintiles. Distributions by region and area of residence are closely related – all households in Ashgabat city and 82 percent in Balkan velayat are found in urban areas (data calculated separately, not presented in Tables in the Report).

Table HH.8: Wealth quintiles							
Percent distribution of the household population by wealth index quintile, according to area of residence and regions, Turkmenistan, 2015-2016							
	Wealth index quintile					Total	Number of household members
	Poorest	Second	Middle	Fourth	Richest		
Total	20.0	20.0	20.0	20.0	20.0	100.0	29871
Area							
Urban	3.0	2.0	4.3	39.6	51.2	100.0	11666
Rural	30.9	31.6	30.1	7.5	0.0	100.0	18206
Region							
Ashgabat city	0.0	0.2	0.5	20.6	78.8	100.0	3613
Ahal velayat	3.3	17.7	43.4	26.5	9.2	100.0	3967
Balkan velayat	3.0	5.6	14.2	36.3	41.0	100.0	2013
Dashoguz velayat	48.7	21.2	8.7	14.9	6.5	100.0	7058
Lebap velayat	17.1	27.7	21.0	18.0	16.3	100.0	5799
Mary velayat	18.2	27.8	28.5	18.4	7.1	100.0	7421

IV. Child Mortality

One of the overarching goals of the Millennium Development Goals (MDGs) was to reduce infant and under-five mortality. Specifically, the MDGs called for the reduction of under-five mortality by two-thirds between 1990 and 2015. Monitoring progress towards this goal is an important but challenging objective. The importance of continuing and accelerating progress in reducing child mortality has been reflected in the newly agreed Sustainable Development Goals (SDG), which call upon ending preventable deaths of newborns and children under 5 years of age by 2030. The SDGs specify that all countries should aim to reduce the neonatal mortality rate to at least as low as 12 deaths per 1,000 live births and under-five mortality to at least as low as 25 deaths per 1,000 live births.

Mortality rates presented in this chapter are calculated from information collected in the birth histories of the Women's Questionnaires. All interviewed women were asked whether they had ever given birth, and if yes, they were asked to report the number of sons and daughters who live with them, the number who live elsewhere, and the number who have died. In addition, they were asked to provide a detailed birth history of live births of children in chronological order starting with the firstborn. Women were asked whether births were single or multiple, the sex of the children, the date of birth (month and year), and survival status. Further, for children still alive, they were asked the current age of the child and, if not alive, the age at death. Childhood mortality rates are expressed by conventional age categories and are defined as follows:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Post-neonatal mortality (PNN): the probability of dying after the first month of life but before the first birthday (the difference between infant and neonatal mortality rates)
- Infant mortality (${}_1q_0$): the probability of dying between birth and the first birthday
- Child mortality (${}_4q_1$): the probability of dying between the first and the fifth birthdays
- Under-five mortality (${}_5q_0$): the probability of dying between birth and the fifth birthday

Rates are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one.

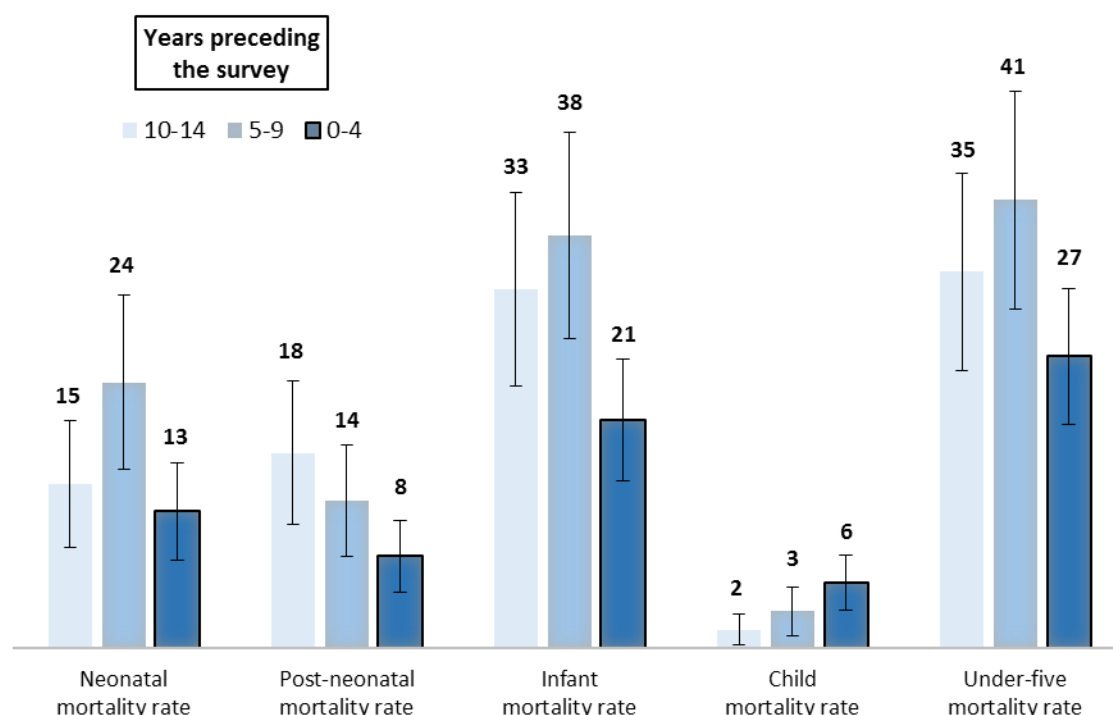
Table CM.1: Early childhood mortality rates

Neonatal, post-neonatal, Infant, child and under-five mortality rates for five year periods preceding the survey, Turkmenistan, 2015-2016

	Neonatal mortality rate ¹	Post-neonatal mortality rate ^{2, a}	Infant mortality rate ³	Child mortality rate ⁴	Under-five mortality rate ⁵
Years preceding the survey					
0-4	13	8	21	6	27
5-9	24	14	38	3	41
10-14	15	18	33	2	35
¹ MICS indicator 1.1 - Neonatal mortality rate ² MICS indicator 1.3 - Post-neonatal mortality rate ³ MICS indicator 1.2; MDG indicator 4.2 - Infant mortality rate ⁴ MICS indicator 1.4 - Child mortality rate ⁵ MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate					
^a Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates					

Table CM.1 and Figure CM.1 present neonatal, post-neonatal, infant, child, and under-five mortality rates for the three most recent five-year periods before the survey. Neonatal mortality in the most recent 5-year period is estimated at 13 per 1,000 live births, while the post-neonatal mortality rate is estimated at 8 per 1,000 live births.

Figure CM.1: Early childhood mortality rates, Turkmenistan, 2015-2016



Note: Indicator values are per 1,000 live births

The infant mortality rate in the five years preceding the survey is 21 per 1,000 live births and under-five mortality is 27 deaths per 1,000 live births for the same period, indicating that 78 percent of under-five deaths are infant deaths.

The table and figure also show the mortality trends at the national level, during the last 15 years. Under-five mortality was 35 per 1,000 during the 10-14 year period preceding the survey, 41 per 1,000 during the 5-9 year period preceding the survey and 27 per 1,000 live births during the most recent 5-year period, roughly referring to the years 2011-2015.

Table CM.2: Early childhood mortality rates by socioeconomic characteristics

Neonatal, post-neonatal, infant, child and under-five mortality rates for the five year period preceding the survey, by socioeconomic characteristics^a, Turkmenistan, 2015-2016

	Neonatal mortality rate ¹	Post-neonatal mortality rate ^{2, b}	Infant mortality rate ³	Child mortality rate ⁴	Under-five mortality rate ⁵
Total	13	8	21	6	27
Region					
Ashgabat city	(18)	(7)	(25)	(6)	(31)
Ahal velayat	14	8	22	8	30
Balkan velayat	2	14	16	(0)	(16)
Dashoguz velayat	16	5	21	(4)	(25)
Lebap velayat	7	9	16	8	24
Mary velayat	13	11	24	(6)	(30)
Area					
Urban	7	9	17	5	22
Rural	15	8	23	7	30
Wealth index quintile					
Poorest	23	11	33	(9)	(42)
Second	13	6	19	6	24
Middle	12	9	21	7	28
Fourth	5	9	14	4	19
Richest	7	7	14	4	18

¹ MICS indicator 1.1 - Neonatal mortality rate

² MICS indicator 1.3 - Post-neonatal mortality rate

³ MICS indicator 1.2; MDG indicator 4.2 - Infant mortality rate

⁴ MICS indicator 1.4 - Child mortality rate

⁵ MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate

^a Due to the low number of unweighted cases, the background characteristics "Mother's education" and "Language of household head" are not shown.

^b Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates

() Figures that are based on 250-499 unweighted cases of children exposed.

Table CM.3: Early childhood mortality rates by demographic characteristics

Neonatal, post-neonatal, infant, child and under-five mortality rates for the five year period preceding the survey, by demographic characteristics, Turkmenistan, 2015-2016

	Neonatal mortality rate ¹	Post-neonatal mortality rate ^{2, a}	Infant mortality rate ³	Child mortality rate ⁴	Under-five mortality rate ⁵
Total	13	8	21	6	27
Sex of child					
Male	17	10	27	7	33
Female	8	7	15	5	20
Mother's age at birth					
Less than 20	(*)	(*)	(*)	(*)	(*)
20-34	13	8	21	5	26
35-49	(12)	(13)	(25)	(*)	(*)
Birth order					
1	12	6	18	7	25
2-3	13	9	22	5	27
4-6	13	8	22	(7)	(28)
7+	(*)	(*)	(*)	(*)	(*)
Previous birth interval^b					
< 2 years	14	9	22	7	30
2 years	15	12	27	(7)	(33)
3 years	(8)	(6)	(14)	(*)	(*)
4+ years	9	11	20	2	22
¹ MICS indicator 1.1 - Neonatal mortality rate					
² MICS indicator 1.3 - Post-neonatal mortality rate					
³ MICS indicator 1.2; MDG indicator 4.2 - Infant mortality rate					
⁴ MICS indicator 1.4 - Child mortality rate					
⁵ MICS indicator 1.5; MDG indicator 4.1 - Under-five mortality rate					
^a Post-neonatal mortality rates are computed as the difference between the infant and neonatal mortality rates					
^b Excludes first order births					
() Figures that are based on 250-499 unweighted cases of children exposed.					
(*) Figures that are based on fewer than 250 unweighted cases of children exposed.					

Tables CM.2 and CM.3 provide estimates of child mortality by socioeconomic and demographic characteristics. At the national level, under-5 mortality rate for boys was 33 per 1,000 live births and 20 per 1,000 live births for girls in 2011-2015. There are no statistically significant differences by regions and area of residence (see Tables SE.2 – SE.10 in Appendix C). Figure CM.2 provides a graphical presentation of these estimates with corresponding 95percent confidence intervals.

Figure CM.2: Under-5 mortality rates (for the 0-4 year period preceding the survey) by area and regions, Turkmenistan, 2015-2016

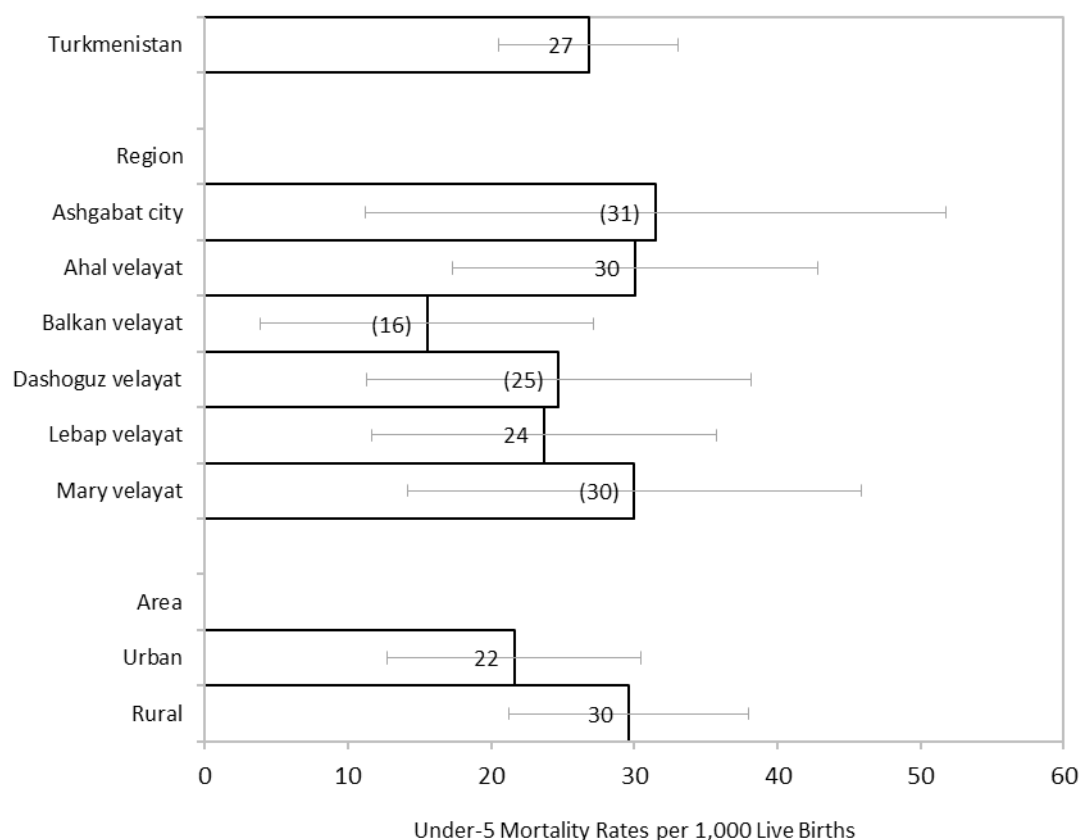
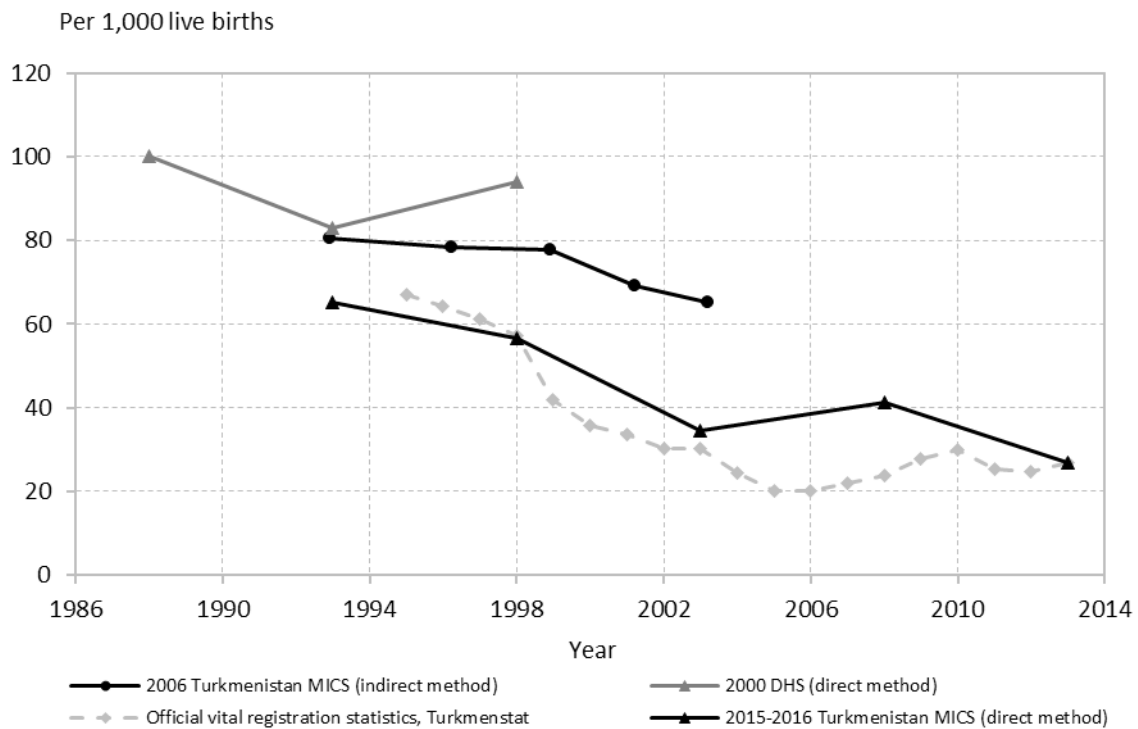


Figure CM.3 compares the findings of 2015-2016 Turkmenistan MICS on under-5 mortality rates with those from other data sources. The most recent data from the 2015-2016 Turkmenistan MICS for under-5 mortality rate (direct method) corresponds with data from the official statistics report of State Committee of Statistics (Turkmenstat) for 2013 based on data from the Civil Registry Office (27 per 1,000 live births). The 2015-2016 Turkmenistan MICS results are lower than previous data and data from other sources which can be associated with potential under-reporting of deaths by respondents.

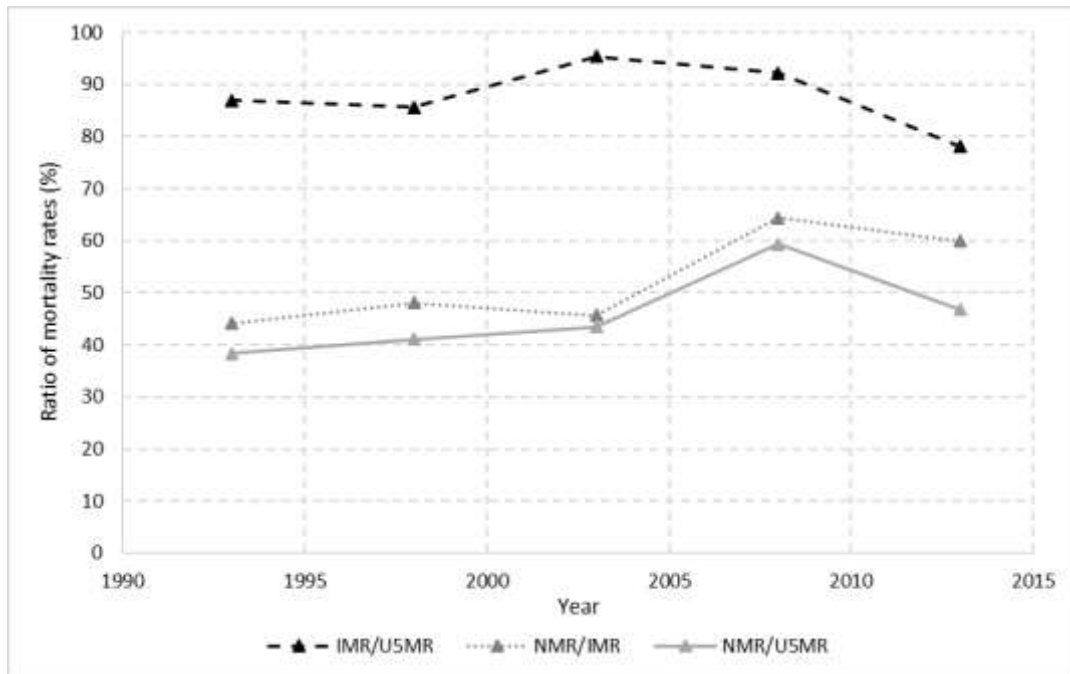
Figure CM.3: Trend in under-5 mortality rates according to different sources, Turkmenistan



In addition to inconsistencies between different data sources shown in Figure CM.3, preliminary assessment of mortality data from the 2015-2016 Turkmenistan MICS shows some unusual patterns, a few examples of which are described below.

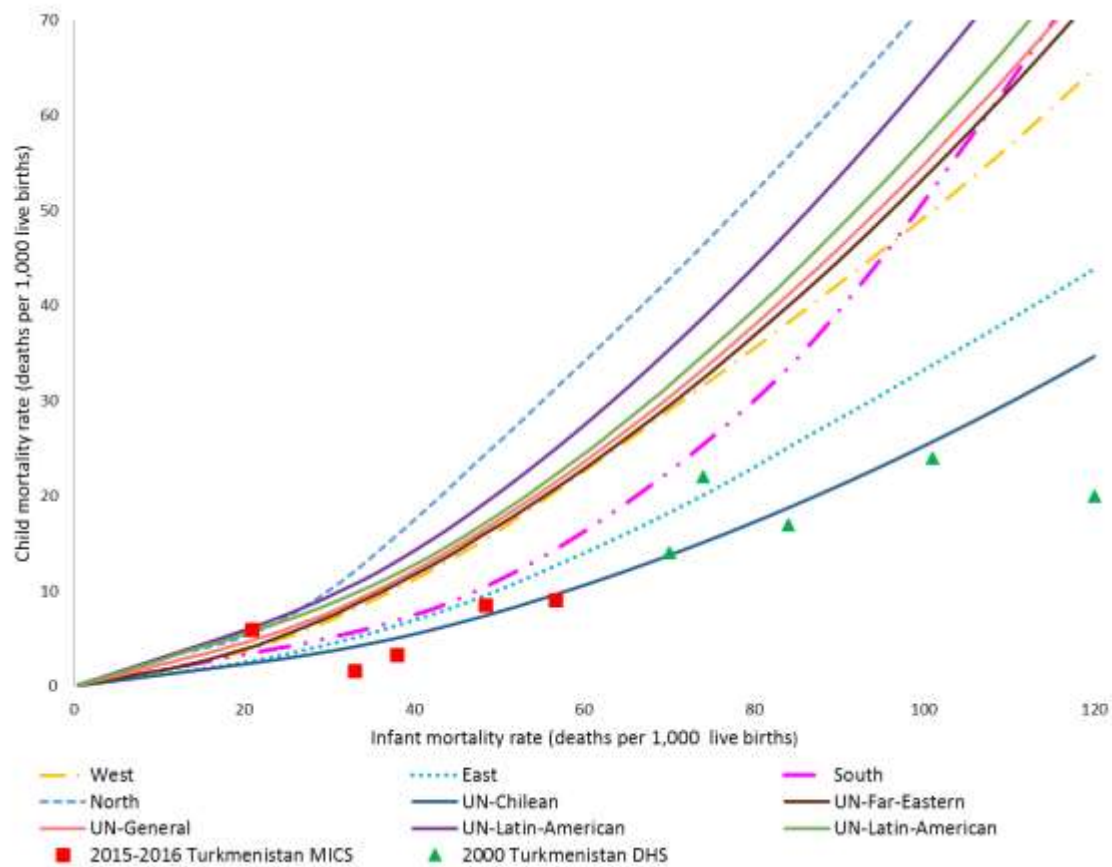
Ratios of infant mortality to under-five mortality for 2008 and 2003 are high, given the under-five mortality level (Figure CM.4), and the ratio of infant mortality to under-five mortality for 2013 is lower than the ratios for 1998 and 1993 (Figure CM.4).

Figure CM.4: Ratios of infant to under-five mortality, neonatal to infant mortality and neonatal to under-five mortality, Turkmenistan, 2015-2016



The age pattern of mortality for the most recent period when comparing the survey data to model life tables is not expected for the Turkmenistan model (Figure CM.5). Namely, the age patterns of mortality from the 2000 Turkmenistan DHS and the 2015-2016 Turkmenistan MICS are close to the UN Chilean life table model in general. The observation of the 2015-2016 MICS for the most recent period is closer to the North model, while the patterns of mortality for previous periods, also estimated by this survey, are very much in line with the East Model expected for Turkmenistan. Further characterization of these apparent differences as well as its determinants should be taken up in a more detailed and separate analysis.

Figure CM.5: Model life tables and 2015-2016 Turkmenistan MICS and 2000 Turkmenistan DHS estimates



The findings of the preliminary data quality assessment of the mortality data from the 2015-2016 Turkmenistan MICS data might suggest potential data quality issues, including underreporting of deaths. It is recommended therefore that the child mortality estimates from the survey are to be used with caution and are used to inform policy and program decisions only in conjunction with data from other sources.

V. Nutrition

Low Birth Weight

Weight at birth is a good indicator not only of a mother's health and nutritional status but also the newborn's chances for survival, growth, long-term health and psychosocial development. Low birth weight (defined as less than 2,500 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 days, months and years. Those who survive may 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 with low birth weight also risk 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 most impact: the mother's poor nutritional status before conception, short stature (due mostly to under nutrition and infections during her childhood), and poor nutrition during pregnancy. Inadequate weight gain during pregnancy is particularly important since 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 a higher risk of bearing low birth weight babies.

One of the major challenges in measuring the incidence of low birth weight is that more than half of infants in the developing world are not weighed at birth. 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 for 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, the reported birth weights usually cannot be used to estimate the prevalence of low birth weight among all children. Therefore, the percentage of births weighing 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.²²

²² For a detailed description of the methodology, see Boerma, JT et al. 1996. *Data on Birth Weight in Developing Countries: Can Surveys Help?* Bulletin of the World Health Organization 74(2): 209-16.

Table NU.1: Low birth weight infants

Percentage of last live-born children in the last two years that are estimated to have weighed below 2,500 grams at birth and percentage of live births weighed at birth, Turkmenistan, 2015-2016

	Percent distribution of births by mother's assessment of size at birth					Percentage of live births:		Number of last live-born children in the last two years	
	Very small	Smaller than average	Average	Larger than average or very large	DK	Total	Below 2,500 grams ¹		Weighed at birth ²
Total	0.8	6.5	76.2	16.2	0.3	100.0	3.3	99.3	1476
Mother's age at birth									
Less than 20 years	1.3	10.4	71.4	16.9	0.0	100.0	4.5	100.0	56
20-34 years	0.8	6.5	76.3	16.0	0.3	100.0	3.3	99.2	1305
35-49 years	0.0	4.1	77.3	18.6	0.0	100.0	2.1	100.0	115
Birth order									
1	0.3	10.1	74.6	15.0	0.0	100.0	3.6	99.2	440
2-3	0.9	4.6	77.3	16.7	0.5	100.0	3.0	99.1	823
4-5	1.4	6.7	73.1	18.8	0.0	100.0	3.8	100.0	178
6+	(0.0)	(5.5)	(87.5)	(7.0)	(0.0)	100.0	(2.5)	(100.0)	35
Region									
Ashgabat city	1.3	9.1	76.1	13.5	0.0	100.0	4.2	100.0	160
Ahal velayat	0.3	2.3	87.6	9.7	0.0	100.0	2.1	100.0	226
Balkan velayat	0.0	5.7	85.8	7.3	1.1	100.0	2.5	99.0	75
Dashoguz velayat	1.4	10.0	80.1	7.7	0.8	100.0	4.6	99.2	395
Lebap velayat	1.1	5.5	64.0	29.3	0.0	100.0	3.2	98.9	300
Mary velayat	0.0	4.9	72.6	22.5	0.0	100.0	2.2	99.0	320
Area									
Urban	0.8	5.9	74.8	18.3	0.2	100.0	3.1	99.5	529
Rural	0.8	6.8	77.0	15.0	0.3	100.0	3.3	99.2	947
Mother's education^a									
Primary	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	1
Secondary	0.9	6.8	77.1	15.0	0.3	100.0	3.4	99.4	1265
Primary vocational	0.0	4.3	68.9	26.4	0.3	100.0	2.1	97.8	112
Secondary vocational	0.0	5.8	73.5	20.7	0.0	100.0	2.4	100.0	50
Higher	0.0	5.4	72.5	22.1	0.0	100.0	2.3	100.0	46
Missing/DK	(*)	(*)	(*)	(*)	(*)	100.0	-	-	0
Wealth index quintile									
Poorest	1.3	10.0	74.5	13.3	1.0	100.0	4.4	99.5	322
Second	1.1	5.9	75.9	17.1	0.0	100.0	3.4	99.4	313
Middle	0.0	3.4	79.9	16.7	0.0	100.0	2.0	98.6	313
Fourth	0.3	6.4	75.1	17.8	0.3	100.0	2.9	99.9	270
Richest	1.3	6.6	75.4	16.7	0.0	100.0	3.7	99.2	259
Language of household head									
Turkmen	0.6	6.5	76.3	16.3	0.3	100.0	3.1	99.4	1301
Uzbek	2.1	6.2	80.2	11.4	0.0	100.0	4.4	100.0	124
Russian	(0.0)	(8.2)	(67.6)	(24.2)	(0.0)	100.0	(2.9)	(100.0)	27
Other	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	24
Missing/DK	(*)	(*)	(*)	(*)	(*)	100.0	-	-	0

¹ MICS indicator 2.20 - Low-birthweight infants² MICS indicator 2.21 - Infants weighed at birth^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"- " denotes 0 unweighted case in that cell or in the denominator.

All medical institutions in Turkmenistan that are providing prenatal and postnatal care are technically equipped for weighing infants. Overall, 99 percent of babies were weighed at birth and approximately 3 percent of infants are estimated to weigh less than 2500 grams at birth (Table NU.1).

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.

Undernutrition is associated with more than half of all child deaths worldwide. Undernourished children are more likely to die from common childhood ailments, and for those who survive, have recurring sicknesses and faltering growth. Three-quarters of children who die from causes related to malnutrition were only mildly or moderately malnourished – showing no outward sign of their vulnerability. The Millennium Development Goal target is to reduce by half the proportion of people who suffer from hunger between 1990 and 2015. A reduction in the prevalence of malnutrition will also assist in the goal to reduce child mortality.

In a well-nourished population, there is a reference distribution of height and weight for children under age five. Under-nourishment in a population can be gauged by comparing children to a reference population. The reference population used in this report is based on the WHO growth standards²³. Each of the three nutritional status indicators – weight-for-age, height-for-age, and weight-for-height - 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.

Weight-for-height can be used to assess wasting and overweight status. 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 classified as *severely wasted*. Wasting is usually the result of a recent nutritional deficiency. The indicator of wasting may exhibit significant seasonal shifts associated with changes in the availability of food or disease prevalence.

²³ http://www.who.int/childgrowth/standards/technical_report

Children whose weight-for-height is more than two standard deviations above the median reference population are classified as moderately or severely overweight.

In MICS, weights and heights of all children under 5 years of age were measured using the anthropometric equipment recommended²⁴ by UNICEF. Findings in this section are based on the results of these measurements.

Table NU.2 shows percentages of children classified into each of the above described categories, based on the anthropometric measurements that were taken during fieldwork. Additionally, the table includes mean z-scores for all three anthropometric indicators.

²⁴ See MICS Supply Procurement Instructions: <http://mics.unicef.org/tools>

Table NU.2: Nutritional status of children

Percentage of children under age 5 by nutritional status according to three anthropometric indices: weight for age, height for age, and weight for height, Turkmenistan, 2015-2016

	Weight for age				Height for age				Weight for height				
	Underweight		Mean Z-Score (SD)	Number of children under age 5	Stunted		Mean Z-Score (SD)	Number of children under age 5	Wasted		Overweight		Number of children under age 5
	Percent below - 2 SD ¹	- 3 SD ²			Percent below - 2 SD ³	- 3 SD ⁴			Percent below - 2 SD ⁵	- 3 SD ⁶	Percent above + 2 SD ⁷	Mean Z-Score (SD)	
Total	3.2	0.7	-0.1	3718	11.5	2.7	-0.4	3713	4.2	1.1	5.9	0.2	3706
Sex													
Male	3.2	0.8	-0.1	1963	11.5	2.7	-0.4	1958	4.4	1.3	6.0	0.2	1953
Female	3.2	0.7	-0.2	1756	11.4	2.7	-0.4	1755	3.9	1.0	5.7	0.1	1753
Region													
Ashgabat city	2.4	0.5	0.1	364	7.0	1.3	-0.1	362	2.4	0.7	5.0	0.2	361
Ahal velayat	1.6	0.5	0.3	576	8.2	3.0	0.0	575	5.0	1.4	14.4	0.4	574
Balkan velayat	3.7	0.0	-0.4	194	12.9	1.3	-0.5	193	1.8	0.6	2.2	-0.1	193
Dashoguz velayat	3.2	0.5	-0.2	936	15.5	3.7	-0.6	936	5.2	1.4	4.8	0.2	930
Lebap velayat	3.7	1.8	-0.2	772	12.8	3.4	-0.7	771	2.6	0.7	5.1	0.3	771
Mary velayat	3.9	0.6	-0.4	877	9.6	1.5	-0.5	876	5.2	1.4	3.4	-0.2	877
Area													
Urban	4.1	1.2	-0.1	1292	12.2	3.0	-0.4	1288	4.0	1.2	6.1	0.2	1285
Rural	2.7	0.5	-0.2	2426	11.1	2.5	-0.5	2425	4.3	1.1	5.8	0.2	2421
Age													
0-5 months	9.0	3.2	-0.2	340	10.4	3.3	0.1	339	15.4	5.3	6.7	-0.4	335
6-11 months	4.4	0.5	0.0	376	6.0	2.4	0.2	376	6.0	1.5	4.4	0.0	376
12-17 months	2.2	0.2	0.0	416	8.2	2.8	-0.2	415	3.0	0.0	5.3	0.1	415
18-23 months	1.8	0.9	0.0	350	10.9	1.1	-0.5	349	2.1	0.7	6.6	0.4	349
24-35 months	3.2	0.8	-0.2	741	12.3	3.8	-0.6	740	3.4	0.8	4.7	0.2	741
36-47 months	2.7	0.7	-0.2	747	17.0	2.8	-0.8	747	3.3	0.8	7.7	0.3	747
48-59 months	1.5	0.0	-0.2	748	10.4	1.8	-0.7	748	1.4	0.6	5.6	0.3	743
Mother's education^a													
Primary	(*)	(*)	(*)	8	(*)	(*)	(*)	8	(*)	(*)	(*)	(*)	8
Secondary	3.0	0.7	-0.2	3217	11.7	2.8	-0.5	3214	4.1	1.0	6.1	0.2	3206
Primary vocational	3.7	1.5	-0.1	247	9.1	1.8	-0.3	247	5.7	1.6	3.9	0.1	247
Secondary vocational	4.0	0.8	-0.1	123	10.6	0.8	-0.3	122	2.8	2.8	5.8	0.0	122
Higher	4.3	0.8	0.0	121	10.1	3.8	-0.1	121	4.5	0.0	4.5	0.2	121
Wealth index quintile													
Poorest	4.4	0.4	-0.3	815	15.5	4.1	-0.7	815	5.2	1.5	4.8	0.1	814
Second	1.9	0.6	-0.2	793	9.7	1.6	-0.5	793	3.2	0.6	6.1	0.2	790
Middle	2.1	0.6	-0.1	791	9.7	2.1	-0.3	790	4.3	1.2	7.3	0.2	790
Fourth	3.1	1.0	-0.1	723	10.8	2.2	-0.4	721	4.1	1.5	5.7	0.2	719
Richest	4.6	1.4	-0.1	596	11.4	3.4	-0.3	595	3.8	0.9	5.4	0.1	593
Language of household head													
Turkmen	3.1	0.7	-0.1	3258	11.1	2.5	-0.4	3254	4.0	1.1	5.8	0.2	3249
Uzbek	3.4	1.1	-0.2	322	15.5	5.0	-0.7	322	5.8	1.2	6.2	0.2	320
Russian	3.4	1.4	0.3	71	8.8	1.1	0.0	70	2.1	1.5	7.0	0.4	70
Other	4.8	0.0	-0.4	68	11.7	0.0	-0.3	68	8.3	2.1	4.9	-0.3	68

¹ MICS indicator 2.1a and MDG indicator 1.8 - Underweight prevalence (moderate and severe)

² MICS indicator 2.1b - Underweight prevalence (severe)

³ MICS indicator 2.2a - Stunting prevalence (moderate and severe)

⁴ MICS indicator 2.2b - Stunting prevalence (severe)

⁵ MICS indicator 2.3a - Wasting prevalence (moderate and severe)

⁶ MICS indicator 2.3b - Wasting prevalence (severe)

⁷ MICS indicator 2.4 - Overweight prevalence

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

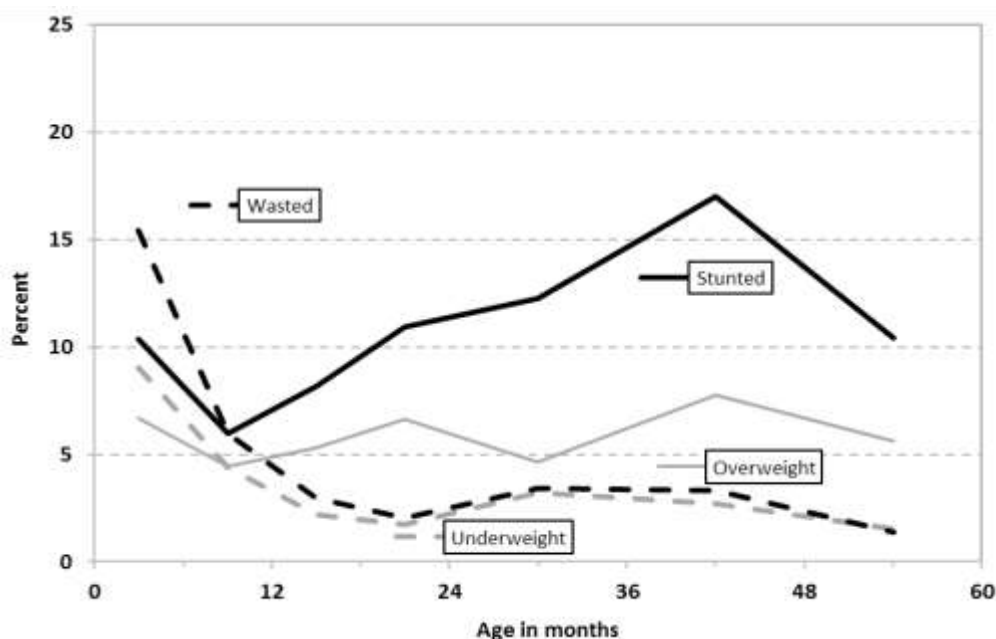
(*) Figures that are based on fewer than 25 unweighted cases.

Children whose measurements are outside a plausible range are excluded from Table NU.2. Children are excluded from one or more of the anthropometric indicators when their weights and heights have not been measured. For example, if a child has been weighed but his/her height has not been measured, the child is included in underweight calculations, but not in the calculations for stunting and wasting. Percentages of children by age and reasons for exclusion are shown in the data quality Tables DQ.10, DQ.11, and DQ.12 in Appendix D. The tables show that due to implausible measurements, and/or missing weight and/or height, 1 percent of children have been excluded from calculations of the weight-for-age indicator, 1 percent from the height-for-age indicator, and 2 percent for the weight-for-height indicator. There is no evidence of heaping on age or out-transference of children under-5 that would affect to some extent the representativeness of the anthropometric results (Tables DQ.3 and DQ.6), however Table DQ.13 shows some evidence that measurers had a tendency in some cases to avoid rounding both weight and height/length measurements to decimal digits 0 and 5.

Around 3 percent of children under the age of five in Turkmenistan are underweight and 1 percent are classified as severely underweight (Table NU.2). 12 percent of children are stunted or too short for their age and 4 percent are wasted or too thin for their height. 6 percent of children are overweight or too heavy for their height.

Among child nutrition indicators, the largest regional differences are found in the prevalence of stunting and overweight. The prevalence of stunted children ranges from 7 percent in Ashgabat city to 16 percent in Dashoguz velayat. The percentage of overweighted children is highest in Ahal velayat. Notable differences in the prevalence of underweight or wasted children by mother's education, area of residence or regions are not observed. The age pattern shows that a higher percentage of children age 0-5 months are underweight and wasted (9 and 15 percent respectively) in comparison to children who are older (Figure NU.1).

Figure NU.1: Underweight, stunted, wasted and overweight children under age 5 (moderate and severe), Turkmenistan, 2015-2016



Breastfeeding and Infant and Young Child Feeding

Proper feeding of infants and young children can increase their chances of survival; it can also promote optimal growth and development, especially in the critical window from birth to 2 years of age. 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 don't start to breastfeed early enough, do not breastfeed exclusively for the recommended 6 months or stop breastfeeding too soon. There are often pressures to switch to infant formula, which can contribute to growth faltering and micronutrient malnutrition and can be unsafe if hygienic conditions, including safe drinking water are not readily available. Studies have shown that, in addition to continued breastfeeding, consumption of appropriate, adequate and safe solid, semi-solid and soft foods from the age of 6 months onwards leads to better health and growth outcomes, with potential to reduce stunting during the first two years of life.²⁵

UNICEF and WHO recommend that infants be breastfed within one hour of birth, breastfed exclusively for the first six months of life and continue to be breastfed up to 2 years of age and beyond.²⁶ Starting at 6 months, breastfeeding should be combined with safe, age-appropriate feeding of solid, semi-solid and soft foods.²⁷ A summary of key guiding principles^{28, 29} for feeding 6-23 month olds is provided in the table below along with proximate measures for these guidelines collected in this survey.

The guiding principles for which proximate measures and indicators exist are:

- continued breastfeeding;
- appropriate frequency of meals (but not energy density); and
- appropriate nutrient content of food.

Feeding frequency is used as proxy for energy intake, requiring children to receive a minimum number of meals/snacks (and milk feeds for non-breastfed children) for their age. Dietary diversity is used to ascertain the adequacy of the nutrient content of the food (not including iron) consumed. For dietary diversity, seven food groups were created for which a child consuming at least four of these is considered to have a better quality diet. In most populations, consumption of at least four food groups means that the child has a high likelihood of consuming at least one animal-source food and at least one fruit or vegetable, in addition to a staple food (grain, root or tuber).³⁰

These three dimensions of child feeding are combined into an assessment of the children who received appropriate feeding, using the indicator of "minimum acceptable diet". To have a minimum acceptable diet in the previous day, a child must have received:

- the appropriate number of meals/snacks/milk feeds;
- food items from at least 4 food groups; and
- breastmilk or at least 2 milk feeds (for non-breastfed children).

²⁵ Bhuta, Z. et al. 2013. *Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?* The Lancet June 6, 2013.

²⁶ WHO. 2003. *Implementing the Global Strategy for Infant and Young Child Feeding*. Meeting Report Geneva, 3-5 February, 2003.

²⁷ WHO. 2003. *Global Strategy for Infant and Young Child Feeding*.

²⁸ PAHO. 2003. *Guiding principles for complementary feeding of the breastfed child*.

²⁹ WHO. 2005. *Guiding principles for feeding non-breastfed children 6-24 months of age*.

³⁰ WHO. 2008. *Indicators for assessing infant and young child feeding practices. Part 1: Definitions*.

Guiding Principle (age 6-23 months)	Proximate measures	Table
Continue frequent, on-demand breastfeeding for two years and beyond	Breastfed in the last 24 hours	NU.4
Appropriate frequency and energy density of meals	<p>Breastfed children Depending on age, two or three meals/snacks provided in the last 24 hours</p> <p>Non-breastfed children Four meals/snacks <u>and/or milk feeds</u> provided in the last 24 hours</p>	NU.6
Appropriate nutrient content of food	Four food groups ³¹ eaten in the last 24 hours	NU.6
Appropriate amount of food	No standard indicator exists	na
Appropriate consistency of food	No standard indicator exists	na
Use of vitamin-mineral supplements or fortified products for infant and mother	No standard indicator exists	na
Practice good hygiene and proper food handling	While it was not possible to develop indicators to fully capture programme guidance, one standard indicator does cover part of the principle: Not feeding with a bottle with a nipple	NU.9
Practice responsive feeding, applying the principles of psycho-social care	No standard indicator exists	na

In Turkmenistan, a national program “For the protection and support of breastfeeding in Turkmenistan” has been operating since 1998. New WHO breastfeeding approaches were introduced in the practice of all medical institutions: antenatal preparation of pregnant women on lactation issues, early initiation of breastfeeding, avoiding use of baby formula and bottles with nipples, mother and child staying in the same room, on-demand breastfeeding and supporting the continuation of exclusive breastfeeding. As a result of the implementation of those principles in practice, 87 percent of maternity wards in the country received the international certificate “Baby friendly hospital”. A consistent continuation of the policy in the area of correct and rational infant feeding is the Law of Turkmenistan “On the protection and promotion of breastfeeding and requirements for children’s food” (2009) and the Law of Turkmenistan “On the promotion and support of breastfeeding” (2016), which are aimed at providing optimal nutrition, growth and development of children, prevention of diseases and improvement of the health of infants and young children by improving their nutrition. Active promotion of breastfeeding is conducted among the population, and every year in the first week of September “National Breastfeeding Week” is celebrated in the country.

³¹ Food groups used for assessment of this indicator are 1) Grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables.

Table NU.3: Initial breastfeeding

Percentage of last live-born children in the last two years who were ever breastfed, breastfed within one hour of birth, and within one day of birth, and percentage who received a prelacteal feed, Turkmenistan, 2015-2016

	Percentage who were ever breastfed ¹	Percentage who were first breastfed:		Percentage who received a prelacteal feed	Number of last live-born children in the last two years
		Within one hour of birth ²	Within one day of birth		
Total	98.5	73.4	94.4	2.3	1476
Region					
Ashgabat city	97.3	79.6	89.7	3.6	160
Ahal velayat	98.2	47.1	96.2	2.3	226
Balkan velayat	99.4	77.5	99.0	0.5	75
Dashoguz velayat	99.7	66.6	95.4	2.3	395
Lebap velayat	99.6	87.9	95.8	3.3	300
Mary velayat	96.5	82.7	91.9	1.0	320
Area					
Urban	98.7	75.7	91.8	3.9	529
Rural	98.4	72.1	95.9	1.3	947
Months since last birth					
0-11 months	98.6	71.3	94.2	2.5	730
12-23 months	98.4	75.4	94.6	2.1	746
Assistance at delivery					
Skilled attendant	98.5	73.4	94.4	2.3	1476
Place of delivery					
Home	(*)	(*)	(*)	(*)	8
Health facility	98.5	73.2	94.4	2.3	1468
Public	98.5	73.2	94.4	2.3	1466
Private	(*)	(*)	(*)	(*)	2
Mother's education^a					
Primary	(*)	(*)	(*)	(*)	1
Secondary	98.4	72.9	95.1	1.9	1265
Primary vocational	99.6	75.9	89.3	5.7	112
Secondary vocational	98.1	80.4	90.0	3.6	50
Higher	98.0	72.9	91.3	2.7	46
Wealth index quintile					
Poorest	98.0	75.2	96.0	1.2	322
Second	99.0	73.8	94.8	1.6	313
Middle	97.6	70.6	95.0	1.5	313
Fourth	98.7	74.1	95.5	1.7	270
Richest	99.3	73.4	90.0	5.9	259
Language of household head					
Turkmen	98.4	73.6	94.5	2.2	1301
Uzbek	100.0	69.9	97.1	1.9	124
Russian	(95.1)	(67.1)	(78.4)	(9.1)	27
Other	(*)	(*)	(*)	(*)	24

¹ MICS indicator 2.5 - Children ever breastfed

² MICS indicator 2.6 - Early initiation of breastfeeding

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

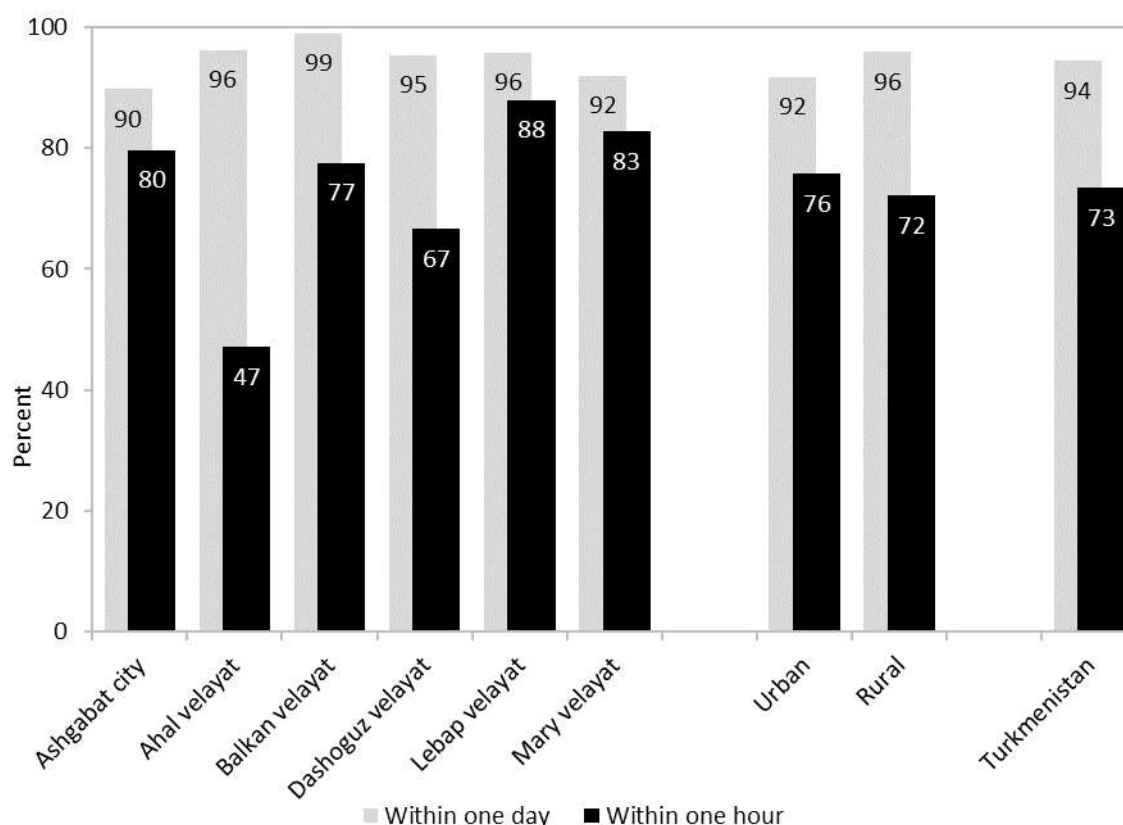
Table NU.3 is based on mothers' reports of what their last-born child, born in the last two years, was fed in the first few days of life. It indicates the proportion who were ever breastfed, those who were first breastfed within one hour and one day of birth, and those who received a prelacteal feed.³²

In Turkmenistan, 73 percent of babies are breastfed for the first time within one hour of birth, while 94 percent of newborns start breastfeeding within one day of birth. The findings are presented in Figure NU.2 by region and area.

³² Prelacteal feed refers to the provision any liquid or food, other than breastmilk, to a newborn during the period when breastmilk flow is generally being established (estimated here as the first 3 days of life).

There are no differences in the percentage of children breastfed within one hour by background characteristics with the exception of regions. The percentage of children who are breastfed for the first time within one hour of birth in Ahal velayat (47 percent) is much lower than in other regions.

Figure NU.2: Initiation of breastfeeding, Turkmenistan, 2015-2016



The set of Infant and Young Child Feeding indicators reported in tables NU.4 through NU.8 are based on the mother’s report of consumption of food and fluids during the day or night prior to being interviewed. Data are subject to a number of limitations, some related to the respondent’s ability to provide a full report on the child’s liquid and food intake due to recall errors as well as lack of knowledge in cases where the child was fed by other individuals.

In Table NU.4, breastfeeding status is presented for both *Exclusively breastfed* and *Predominantly breastfed*; referring to infants age less than 6 months who are breastfed, distinguished by *the former* only allowing vitamins, mineral supplements, and medicine and *the latter* allowing also plain water and non-milk liquids. The table also shows continued breastfeeding of children at 12-15 and 20-23 months of age.

Table NU.4: Breastfeeding

Percentage of living children according to breastfeeding status at selected age groups, Turkmenistan, 2015-2016

	Children age 0-5 months			Children age 12-15 months		Children age 20-23 months	
	Percent exclusively breastfed ¹	Percent predominantly breastfed ²	Number of children	Percent breastfed (Continued breastfeeding at 1 year) ³	Number of children	Percent breastfed (Continued breastfeeding at 2 years) ⁴	Number of children
Total	58.9	81.4	343	64.1	268	19.5	234
Sex							
Male	61.0	81.3	190	65.7	145	19.9	114
Female	56.3	81.6	153	62.2	122	19.2	120
Region							
Ashgabat city	(41.3)	(60.5)	34	(33.0)	28	(2.3)	30
Ahal velayat	57.8	72.0	61	53.4	39	(6.9)	32
Balkan velayat	(75.6)	(100.0)	14	(71.7)	13	(20.2)	16
Dashoguz velayat	56.9	85.0	106	70.9	81	(14.5)	58
Lebap velayat	63.4	84.7	66	75.3	59	(44.6)	42
Mary velayat	(64.4)	(88.3)	63	(63.9)	47	(22.3)	55
Area							
Urban	54.7	80.2	131	54.3	97	16.4	97
Rural	61.5	82.1	212	69.7	171	21.8	137
Mother's education^a							
Primary	(*)	(*)	1	-	0	-	0
Secondary	58.9	81.4	301	64.1	238	19.4	195
Primary vocational	(*)	(*)	21	(*)	16	(16.0)	24
Secondary vocational	(*)	(*)	11	(*)	7	(*)	7
Higher	(*)	(*)	7	(*)	6	(*)	8
Wealth index quintile							
Poorest	(58.4)	(79.1)	67	(82.0)	54	(26.4)	50
Second	57.5	86.4	71	(71.3)	47	(19.9)	49
Middle	62.5	80.5	70	63.3	61	(22.4)	45
Fourth	64.8	88.4	72	61.9	59	22.7	43
Richest	50.5	71.4	64	40.3	47	6.3	47
Language of household head							
Turkmen	59.7	79.9	296	65.5	227	20.4	208
Uzbek	(57.6)	(96.9)	40	(*)	30	(*)	15
Russian	(*)	(*)	3	(*)	4	(*)	7
Other	(*)	(*)	4	(*)	6	(*)	4
	¹ MICS indicator 2.7 - Exclusive breastfeeding under 6 months						
	² MICS indicator 2.8 - Predominant breastfeeding under 6 months						
	³ MICS indicator 2.9 - Continued breastfeeding at 1 year						
	⁴ MICS indicator 2.10 - Continued breastfeeding at 2 years						
	^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.						
	() Figures that are based on 25–49 unweighted cases.						
	(*) Figures that are based on fewer than 25 unweighted cases.						
	"–" denotes 0 unweighted case in that cell or in the denominator.						

Approximately 59 percent of children age less than six months are exclusively breastfed and 81 percent are predominantly breastfed. By age 12-15 months, 64 percent of children are breastfed and by age 20-23 months 20 percent are breastfed.

Figure NU.3 shows the detailed pattern of breastfeeding by the child's age in months. At the age 0-1 months, the proportion of children exclusively breastfed is 83 percent while at age 4-5 months the percentage decreases to 37 percent at which point breastfeeding is increasingly being supplemented with plain water and milk/formula. Only about 15 percent of children are receiving breast milk at age 2 years.

Figure NU.3: Infant feeding patterns by age, Turkmenistan, 2015-2016

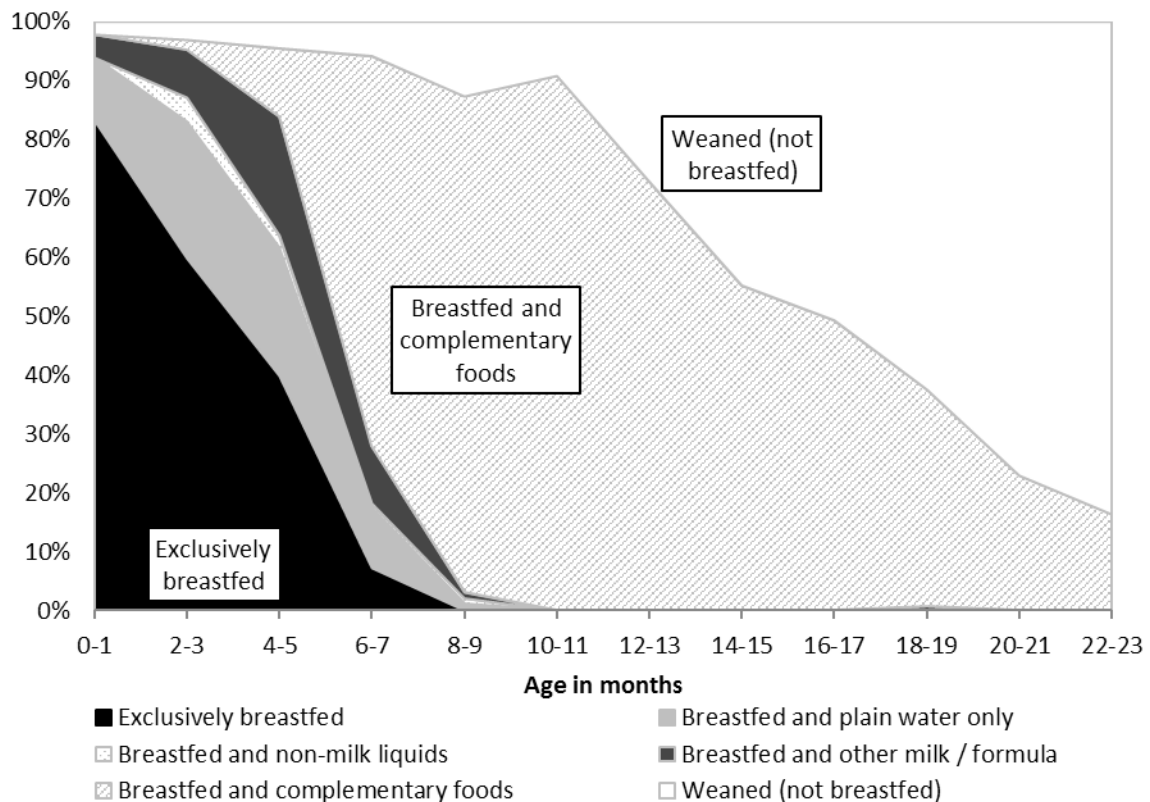


Table NU.5 shows the median duration of breastfeeding by selected background characteristics. Among children under age 3, the median duration is 16.1 months for any breastfeeding, 3.3 months for exclusive breastfeeding, and 5.0 months for predominant breastfeeding. The median duration of any breastfeeding in Ashgabat city is 11.4 months, while children are breastfed longer in other regions: from 14.4 months in Ahal velayat to 19.5 months in Lebap velayat.

Table NU.5: Duration of breastfeeding				
Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children age 0-35 months, Turkmenistan, 2015-2016				
	Median duration (in months) of:			Number of children age 0-35 months
	Any breastfeeding ¹	Exclusive breastfeeding	Predominant breastfeeding	
Median	16.1	3.3	5.0	2247
Sex				
Male	16.0	3.3	4.9	1201
Female	16.3	3.1	5.0	1046
Region				
Ashgabat city	11.4	2.1	3.3	237
Ahal velayat	14.4	3.2	4.6	353
Balkan velayat	17.2	4.1	5.6	113
Dashoguz velayat	17.8	3.3	5.3	593
Lebap velayat	19.5	3.6	5.1	456
Mary velayat	15.4	3.5	5.3	496
Area				
Urban	15.4	2.9	5.1	806
Rural	16.4	3.4	4.9	1441
Mother's education^a				
Primary	-	-	-	5
Secondary	16.0	3.3	5.0	1951
Primary vocational	15.4	3.7	5.2	155
Secondary vocational	21.2	2.8	3.7	68
Higher	16.6	2.6	4.1	66
Wealth index quintile				
Poorest	18.2	3.2	4.7	483
Second	15.5	3.1	5.0	473
Middle	16.7	3.7	5.1	478
Fourth	16.0	3.6	5.6	441
Richest	12.9	2.5	4.4	372
Language of household head				
Turkmen	15.9	3.3	4.9	1965
Uzbek	19.6	3.7	5.5	197
Russian	11.7	-	2.4	45
Other	(13.8)	(3.9)	(3.9)	41
Mean	16.4	3.5	4.9	2247
¹ MICS indicator 2.11 - Duration of breastfeeding				
^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown. () Figures that are based on 25–49 unweighted cases. "-" denotes 0 unweighted case in that cell or in the denominator.				

The age-appropriateness of breastfeeding of children under age 24 months is provided in Table NU.6. Different criteria of feeding are used depending on the age of the child. For infants age 0-5 months, exclusive breastfeeding is considered as age-appropriate feeding, while children age 6-23 months are considered to be appropriately fed if they are receiving breastmilk and solid, semi-solid or soft food. As a result of feeding patterns, 56 percent of children age 6-23 months are being appropriately breastfed and age-appropriate breastfeeding among all children age 0-23 months is at same level (57 percent).

Approximately a third of all children (36 percent) age 0-23 months in Ashgabat city are appropriately breastfed, whereas values of this indicator are higher in other regions and vary from 54 to 65 percent. Among children age 6-23 months there is correlation with wealth index, 66 percent of the children from the poorest quintile were appropriately breastfed and only 41 percent of children from the richest wealth quintile.

Table NU.6: Age-appropriate breastfeeding

Percentage of children age 0-23 months who were appropriately breastfed during the previous day, Turkmenistan, 2015-2016

	Children age 0-5 months		Children age 6-23 months		Children age 0-23 months	
	Percent exclusively breastfed ¹	Number of children	Percent currently breastfeeding and receiving solid, semi-solid or soft foods	Number of children	Percent appropriately breastfed ²	Number of children
Total	58.9	343	56.2	1158	56.9	1501
Sex						
Male	61.0	190	56.5	593	57.5	783
Female	56.3	153	56.0	565	56.1	718
Region						
Ashgabat city	(41.3)	34	34.5	124	36.0	158
Ahal velayat	57.8	61	52.9	172	54.2	233
Balkan velayat	(75.6)	14	57.3	64	60.5	77
Dashoguz velayat	56.9	106	61.0	309	59.9	415
Lebap velayat	63.4	66	65.0	240	64.6	306
Mary velayat	(64.4)	63	54.8	249	56.8	312
Area						
Urban	54.7	131	49.0	399	50.4	531
Rural	61.5	212	60.1	759	60.4	971
Mother's education^a						
Primary	(*)	1	(*)	2	(*)	3
Secondary	58.9	301	56.4	1001	57.0	1303
Primary vocational	(*)	21	51.6	84	54.1	104
Secondary vocational	(*)	11	(62.7)	36	60.5	47
Higher	(*)	7	(56.0)	35	55.2	42
Wealth index quintile						
Poorest	(58.4)	67	66.3	262	64.7	329
Second	57.5	71	59.5	249	59.1	320
Middle	62.5	70	55.0	247	56.7	316
Fourth	64.8	72	54.9	212	57.4	283
Richest	50.5	64	41.0	189	43.4	252
Language of household head						
Turkmen	59.7	296	56.0	1022	56.8	1318
Uzbek	(57.6)	40	65.6	93	63.2	133
Russian	(*)	3	(42.3)	22	(36.8)	25
Other	(*)	4	(*)	21	(*)	25

¹ MICS indicator 2.7 - Exclusive breastfeeding under 6 months² MICS indicator 2.12 - Age-appropriate breastfeeding^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Overall, 82 percent of infants age 6-8 months received solid, semi-solid, or soft foods at least once during the previous day (Table NU.7).

Table NU.7: Introduction of solid, semi-solid, or soft foods

Percentage of infants age 6-8 months who received solid, semi-solid, or soft foods during the previous day, Turkmenistan, 2015-2016

	Currently breastfeeding		Currently not breastfeeding		All	
	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods	Number of children age 6-8 months	Percent receiving solid, semi-solid or soft foods ¹	Number of children age 6-8 months
Total	81.4	169	(*)	16	82.3	185
Sex						
Male	81.2	92	(*)	8	82.6	100
Female	81.8	77	(*)	8	82.0	85
Area						
Urban	81.1	55	(*)	11	84.3	66
Rural	81.6	114	(*)	5	81.3	119

¹ MICS indicator 2.13 - Introduction of solid, semi-solid or soft foods

(*) Figures that are based on fewer than 25 unweighted cases.

93 percent of the children age 6-23 months were receiving solid, semi-solid and soft foods the minimum number of times (Table NU.8). The proportion of children receiving the minimum dietary diversity, or foods from at least 4 food groups, was lower (85 percent) than that for minimum meal frequency. Almost all older (18-23 month old) children (98 percent) were achieving the minimum dietary diversity compared to younger (6-8 month old) children (44 percent). The overall assessment using the indicator of minimum acceptable diet revealed that 77 percent were benefitting from a diet with a minimum diversity and frequency. The proportion of children age 6-23 months receiving minimum acceptable diet increases with household wealth, ranging from 72 percent of children from the first quintile (poorest) to 85 percent of children from fifth quintile (richest).

Table NU.8: Infant and young child feeding (IYCF) practices

Percentage of children age 6-23 months who received appropriate liquids and solid, semi-solid, or soft foods the minimum number of times or more during the previous day, by breastfeeding status, Turkmenistan, 2015-2016

	Currently breastfeeding				Currently not breastfeeding				All				
	Percent of children who received:			Number of children age 6-23 months	Percent of children who received:			Number of children age 6-23 months	Percent of children who received:			Number of children age 6-23 months	
	Minimum dietary diversity ^a	Minimum meal frequency ^b	Minimum acceptable diet ^{1, c}		Minimum dietary diversity ^a	Minimum meal frequency ^b	Minimum acceptable diet ^{2, c}		At least 2 milk feeds ³	Minimum dietary diversity ^{4, a}	Minimum meal frequency ^{5, b}		Minimum acceptable diet ^c
Total	77.3	89.1	73.3	684	96.6	97.6	82.9	91.0	457	85.2	92.5	77.1	1158
Sex													
Male	75.9	89.7	72.3	353	96.1	99.4	83.7	91.3	233	84.1	93.6	76.8	593
Female	78.9	88.4	74.3	331	97.2	95.7	82.1	90.7	224	86.3	91.4	77.5	565
Age													
6-8 months	44.3	77.7	43.6	169	(*)	(*)	(*)	(*)	15	43.6	78.7	42.7	185
9-11 months	80.6	92.1	77.2	175	(*)	(*)	(*)	(*)	18	81.9	92.9	76.6	194
12-17 months	91.0	93.3	84.3	247	98.4	98.0	82.8	90.3	165	94.1	95.1	83.7	420
18-23 months	95.1	93.3	90.8	93	99.0	97.6	86.7	91.6	260	98.0	96.5	87.8	359
Region													
Ashgabat city	73.9	88.3	68.3	46	95.6	97.6	86.4	95.4	76	87.7	94.1	79.6	124
Ahal velayat	69.5	95.6	69.5	95	98.1	100.0	89.0	95.0	76	82.3	97.6	78.2	172
Balkan velayat	83.5	92.6	80.8	38	100.0	100.0	92.7	92.7	25	90.2	95.5	85.5	64
Dashoguz velayat	78.2	84.6	70.5	196	96.5	92.7	81.5	94.2	109	85.0	87.5	74.4	309
Lebap velayat	85.9	89.0	84.6	168	96.9	98.6	84.4	88.9	69	89.3	91.8	84.6	240
Mary velayat	70.7	90.5	65.9	142	95.4	100.0	73.9	82.4	101	80.9	94.4	69.2	249
Area													
Urban	81.8	92.2	79.2	206	97.1	97.2	86.5	93.1	188	89.2	94.6	82.7	399
Rural	75.4	87.8	70.7	478	96.3	97.9	80.4	89.6	268	83.1	91.4	74.2	759
Mother's education													
Primary	(*)	(*)	(*)	1	(*)	(*)	(*)	(*)	1	(*)	(*)	(*)	2
Secondary	76.5	88.8	72.2	591	97.4	97.3	83.3	90.7	395	85.0	92.2	76.7	1001
Primary vocational	(87.2)	(95.6)	(85.1)	44	(92.5)	(100.0)	(76.1)	(89.0)	38	89.8	97.6	80.9	84
Secondary vocational	(75.8)	(79.8)	(70.7)	26	(*)	(*)	(*)	(*)	9	(76.2)	(85.1)	(70.2)	36
Higher	(*)	(*)	(*)	20	(*)	(*)	(*)	(*)	13	(88.1)	(97.2)	(87.6)	35
Wealth index quintile													
Poorest	73.4	88.9	68.7	178	96.8	96.5	78.2	88.1	78	81.0	91.2	71.6	262
Second	77.8	88.8	72.2	153	95.7	96.9	80.0	89.0	93	84.8	91.9	75.2	249
Middle	75.7	86.1	72.5	149	96.3	100.0	85.1	94.2	93	83.3	91.4	77.3	247
Fourth	79.8	90.6	76.2	123	96.5	96.5	82.7	88.3	87	86.8	93.1	78.9	212
Richest	84.5	93.4	82.2	80	97.6	97.9	87.3	94.5	106	92.1	96.0	85.1	189
Language of household head													
Turkmen	77.0	88.5	72.8	603	96.2	98.1	82.5	90.5	405	84.8	92.3	76.7	1022
Uzbek	(77.5)	(93.8)	(75.0)	62	(*)	(*)	(*)	(*)	28	85.0	92.5	78.1	93
Russian	(*)	(*)	(*)	9	(*)	(*)	(*)	(*)	11	(95.9)	(95.3)	(80.1)	22
Other	(*)	(*)	(*)	9	(*)	(*)	(*)	(*)	12	(*)	(*)	(*)	21

¹ MICS indicator 2.17a - Minimum acceptable diet (breastfed)

² MICS indicator 2.17b - Minimum acceptable diet (non-breastfed)

³ MICS indicator 2.14 - Milk feeding frequency for non-breastfed children

⁴ MICS indicator 2.16 - Minimum dietary diversity

⁵ MICS indicator 2.15 - Minimum meal frequency

^a Minimum dietary diversity is defined as receiving foods from at least 4 of 7 food groups: 1) Grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables.

^b Minimum meal frequency among currently breastfeeding children is defined as children who also received solid, semi-solid, or soft foods 2 times or more daily for children age 6-8 months and 3 times or more daily for children age 9-23 months. For non-breastfeeding children age 6-23 months it is defined as receiving solid, semi-solid or soft foods, or milk feeds, at least 4 times.

^c The minimum acceptable diet for breastfed children age 6-23 months is defined as receiving the minimum dietary diversity and the minimum meal frequency, while it for non-breastfed children further requires at least 2 milk feedings and that the minimum dietary diversity is achieved without counting milk feeds.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

The continued practice of bottle-feeding is a concern because of the possible contamination due to unsafe water and lack of hygiene in preparation. Table NU.9 shows that, in Turkmenistan, prevalence of bottle-feeding to the greatest extent depends on the region. Overall, 22 percent of children under 24 months are fed using a bottle with a nipple. The majority of children in Ashgabat city (65 percent) are fed using a bottle with a nipple, while such feeding practice is notably less common in other regions. Bottle-feeding is almost two times more common in urban than in rural areas (31 and 17 percent respectively). Percentages increase with the level of mother's education and wealth index.

Table NU.9: Bottle feeding		
Percentage of children age 0-23 months who were fed with a bottle with a nipple during the previous day, Turkmenistan, 2015-2016		
	Percentage of children age 0-23 months fed with a bottle with a nipple ¹	Number of children age 0-23 months
Total	21.8	1501
Sex		
Male	21.1	783
Female	22.5	718
Age		
0-5 months	16.7	343
6-11 months	29.9	380
12-23 months	20.0	778
Region		
Ashgabat city	65.1	158
Ahal velayat	30.8	233
Balkan velayat	15.4	77
Dashoguz velayat	10.2	415
Lebap velayat	15.1	306
Mary velayat	16.6	312
Area		
Urban	30.6	531
Rural	16.9	971
Mother's education^a		
Primary	(*)	3
Secondary	20.2	1303
Primary vocational	25.7	104
Secondary vocational	40.4	47
Higher	39.6	42
Wealth index quintile		
Poorest	10.3	329
Second	15.8	320
Middle	23.3	316
Fourth	20.4	283
Richest	43.9	252
Language of household head		
Turkmen	22.4	1318
Uzbek	7.4	133
Russian	(65.6)	25
Other	(*)	25
¹ MICS indicator 2.18 - Bottle feeding		
^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown. () Figures that are based on 25–49 unweighted cases. (*) Figures that are based on fewer than 25 unweighted cases.		

Salt Iodization

Iodine Deficiency Disorders (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. It also 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 indicator is the percentage of households consuming adequately iodized salt (≥ 15 parts per million).

In order to strengthen the monitoring system for production, distribution and transportation of iodized salt, order №61 was issued by the Ministry of Health and Medical Industry of Turkmenistan on May 6, 2012 "On permanent implementation of laboratory control and monitoring of the quality of iodized salt". In 2013, with the participation of international experts, a nationally representative survey was conducted, and in 2014 Turkmenistan was the first of the CEECIS countries and fourth in the world that, on behalf of UNICEF, WHO and the International Council for Control of Iodine Deficiency Disorder, was awarded the International Certificate for achieving optimal iodine nutrition in the population through salt iodization and sustained elimination of iodine deficiency disorders.

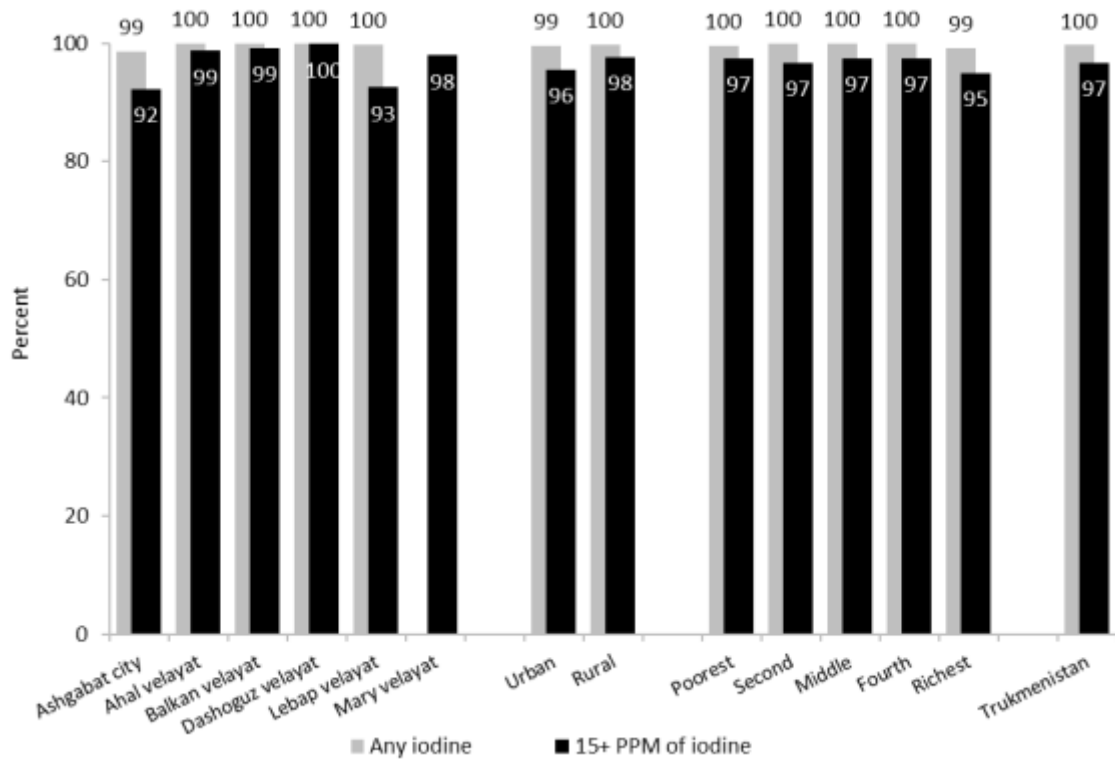
Table NU.10: Iodized salt consumption								
Percent distribution of households by consumption of iodized salt, Turkmenistan, 2015-2016								
	Percentage of households in which salt was tested	Number of households	Percent of households with:				Total	Number of households in which salt was tested or with no salt
			Salt test result					
			No salt	Not iodized >0 and <15 PPM	15+ PPM ¹			
Total	99.8	5861	0.2	0.2	3.0	96.7	100.0	5857
Region								
Ashgabat city	99.2	883	0.8	0.6	6.5	92.2	100.0	879
Ahal velayat	100.0	674	0.0	0.1	1.2	98.7	100.0	674
Balkan velayat	100.0	497	0.0	0.0	0.8	99.2	100.0	497
Dashoguz velayat	99.9	1236	0.1	0.0	0.0	99.9	100.0	1236
Lebap velayat	99.9	1079	0.1	0.1	7.3	92.5	100.0	1079
Mary velayat	99.9	1491	0.1	0.1	1.8	98.0	100.0	1491
Area								
Urban	99.7	2634	0.3	0.2	4.0	95.5	100.0	2630
Rural	99.9	3227	0.1	0.1	2.2	97.6	100.0	3227
Wealth index quintile								
Poorest	99.8	1155	0.2	0.2	2.2	97.4	100.0	1155
Second	100.0	1055	0.0	0.1	3.2	96.7	100.0	1055
Middle	100.0	1031	0.0	0.0	2.6	97.4	100.0	1031
Fourth	99.9	1212	0.1	0.0	2.5	97.4	100.0	1211
Richest	99.5	1408	0.5	0.4	4.2	94.9	100.0	1404

¹ MICS indicator 2.19 - Iodized salt consumption

In almost all households (100 percent), 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.10 shows that in less than 1 percent of households, there was no salt available. These households are included in the denominator of the indicator. In 97 percent of households, salt was found to contain 15 parts per million (ppm) or more of iodine. Use of iodized salt was lowest in Ashgabat city (92 percent) and highest in Dashoguz velayat (100 percent). There are no differences in consumption of iodized salt by area of residence (urban, rural) and wealth index.

The consumption of adequately iodized salt is graphically presented in Figure NU.4 together with the percentage of salt containing less the 15 ppm.

Figure NU.4: Consumption of iodized salt, Turkmenistan, 2015-2016



VI. Child Health

Vaccinations

The Millennium Development Goal (MDG) 4 is to reduce child mortality by two thirds between 1990 and 2015. Immunization plays a key part in this goal. In addition, the Global Vaccine Action Plan (GVAP) was endorsed by the 194 Member States of the World Health Assembly in May 2012 to achieve the Decade of Vaccines vision by delivering universal access to immunization. Immunization has saved the lives of millions of children in the four decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide there are still millions of children not reached by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths every year.

The WHO Recommended Routine Immunizations for Children³³ recommends all children to be vaccinated against tuberculosis, diphtheria, pertussis, tetanus, polio, measles, hepatitis B (HepB), haemophilus influenzae type b, pneumonia/meningitis, rotavirus, and rubella.

All doses in the primary series are recommended to be completed before the child's first birthday, although depending on the epidemiology of disease in a country, the first doses of measles and rubella containing vaccines may be recommended at 12 months or later. The recommended number and timing of most other doses also vary slightly with local epidemiology and may include booster doses later in childhood.

The National Programme of Immunization in Turkmenistan includes the following vaccination of children before the first birthday: birth doses of BCG, Polio (within 2-3 days of life), and Hepatitis B vaccines (within 24 hours of birth); three doses of the Pentavalent vaccine containing DPT, Hepatitis B, and *Haemophilus influenzae* type b (Hib) antigens, and three doses of the Polio vaccine. At the age of 12-15 months, the child should receive one dose of the MMR vaccine containing measles, mumps, and rubella antigens, and, at the age of 18 months, a fourth dose of DPT and Polio (booster doses). Taking into consideration this vaccination schedule, the estimates for full immunization coverage from the Turkmenistan MICS are based on children age 24-35 months.

Information on vaccination coverage was collected for all children under three years of age. All mothers or caretakers were asked to provide vaccination cards/passport. If the vaccination card/passport for a child was available, interviewers copied vaccination information from the cards/passports onto the MICS questionnaire. If no vaccination card/passport was available for the child, the interviewer proceeded to ask the mother to recall whether or not the child had received each of the vaccinations, and for Polio, DPT, Hepatitis B and Hib, how many doses were received. Information was also obtained from vaccination records at health facilities. Final vaccination coverage estimates were calculated primarily by using information collected from health facility records. If health facility records were unavailable,

³³ http://www.who.int/immunization/policy/immunization_tables/en/. Table 2 includes recommendations for all children and additional antigens recommended only for children residing in certain regions of the world or living in certain high-risk population groups.

information from cards/passports kept at home was used, and if this information was unavailable data collected through mother's recall were used for estimating coverage.

Table CH.1: Vaccinations in the first years of life

Percentage of children age 12-23 months and 24-35 months vaccinated against vaccine preventable childhood diseases at any time before the survey and by their first birthday, Turkmenistan, 2015-2016

	Children age 12-23 months:				Children age 24-35 months:			
	Vaccinated at any time before the survey according to:				Vaccinated at any time before the survey according to:			
	Health facility record or vaccination card at home	Mother's report	Either	Vaccinated by 12 months of age ^a	Health facility record or vaccination card at home	Mother's report	Either	Vaccinated by 12 months of age (measles, Polio4 and DPT4 by 24 months) ^a
Antigen								
BCG ¹	99.7	0.2	99.9	99.9	99.6	0.4	100.0	99.9
Polio								
At birth	99.7	0.2	99.9	99.9	99.4	0.4	99.8	99.7
1	99.2	0.6	99.8	98.9	98.9	1.1	100.0	98.6
2	98.4	1.0	99.4	98.8	98.7	1.2	99.9	98.0
3 ²	98.1	0.8	99.8	97.9	98.6	1.3	99.9	97.6
4 ^b	36.6	18.3	54.9	na	95.1	3.2	98.3	96.1
DPT								
1	99.2	0.3	99.6	98.7	99.0	0.9	99.9	98.4
2	98.5	0.5	99.0	98.5	98.9	1.1	99.9	98.2
3 ³	98.4	0.6	99.0	98.0	98.7	1.2	99.9	97.2
4 ^b	38.8	11.7	50.5	na	96.7	1.4	98.2	96.1
HepB^c								
At birth	99.6	0.3	99.9	99.8	99.6	0.4	100.0	99.8
1	99.1	0.4	99.5	98.6	99.1	0.8	99.9	98.4
2	98.4	0.6	99.0	98.5	98.9	1.0	99.9	98.2
3 ⁴	98.2	0.7	99.0	98.0	98.5	1.4	99.9	97.2
Hib								
1	99.2	0.2	99.5	98.6	98.9	1.0	99.9	98.4
2	98.5	0.5	99.0	98.5	98.7	1.0	99.7	98.0
3 ⁵	98.4	0.6	99.0	98.0	98.1	1.6	99.7	97.0
Measles (MMR) ^{6, d}	90.5	4.7	95.2	na	99.0	0.8	99.8	99.3
Fully vaccinated ^{7, e}	na	na	na	na	99.5	0.1	99.6	95.3
No vaccinations	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Number of children	778	778	778	778	746	746	746	746

¹ MICS indicator 3.1 - Tuberculosis immunization coverage² MICS indicator 3.2 - Polio immunization coverage³ MICS indicator 3.3 - Diphtheria, pertussis and tetanus (DPT) immunization coverage⁴ MICS indicator 3.5 - Hepatitis B immunization coverage⁵ MICS indicator 3.6 - Haemophilus influenzae type B (Hib) immunization coverage⁶ MICS indicator 3.4; MDG indicator 4.3 - Measles immunization coverage⁷ MICS indicator 3.8 - Full immunization coverage

na: not applicable

^a MICS indicators 3.1, 3.2, 3.3, 3.5 and 3.6 refer to results of this column in the left panel; MICS indicators 3.4 and 3.8 refer to this column in the right panel.^b Polio4 and DPT4 are booster doses that are not included in full vaccination coverage.^c The way HepB doses are labelled in this table differs to the labelling in the vaccination schedule of Turkmenistan, where the birth dose (HepB0) is labelled as HepB1, HepB1 is labelled as HepB2, HepB2 as HepB3 and HepB3 as HepB4.^d Measles is administered through the combined measles, mumps and rubella (MMR) vaccine in Turkmenistan.^e Includes: BCG, Polio3, DPT3, HepB3, Hib3, and Measles (MMR) as per the vaccination schedule in Turkmenistan.

The percentage of children age 12-23 months and 24-35 months who have received each of the specific vaccinations by source of information (vaccination card/passport or vaccination records at health facilities and mother's recall) is shown in Table CH.1 and Figure CH.1. The denominators for the table are comprised of children age 12-23 months and 24-35 months so that only children who are old enough to be fully vaccinated are counted. In the first three columns in each panel of the table, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card/passport or the vaccination records at health facilities or the mother's report. In the last column in each panel, only those children who were vaccinated before their first birthday, as recommended, are included. For children without vaccination cards/passports/records, the proportion of vaccinations given before the first birthday is assumed to be the same as for children with vaccination cards/passports/records.

All children age 12-23 months received the birth dose of HepB as well as the BCG and Polio vaccines that are given during the first 2-3 days of life, while the third doses of Polio, DPT, HepB and Hib were received by 98 percent of children this age. The coverage for the first dose of measles vaccine by 24 months is 99 percent. As a result, the percentage of children who had all the recommended vaccinations by their first birthday (MMR by their second birthday) is very high at 95 percent. The individual coverage figures for children age 24-35 months are generally similar to those age 12-23 months suggesting that immunization coverage has been on average stable in Turkmenistan between 2013 and 2014.

Figure CH.1: Vaccinations by age 12 months (measles by 24 months), Turkmenistan, 2015-2016

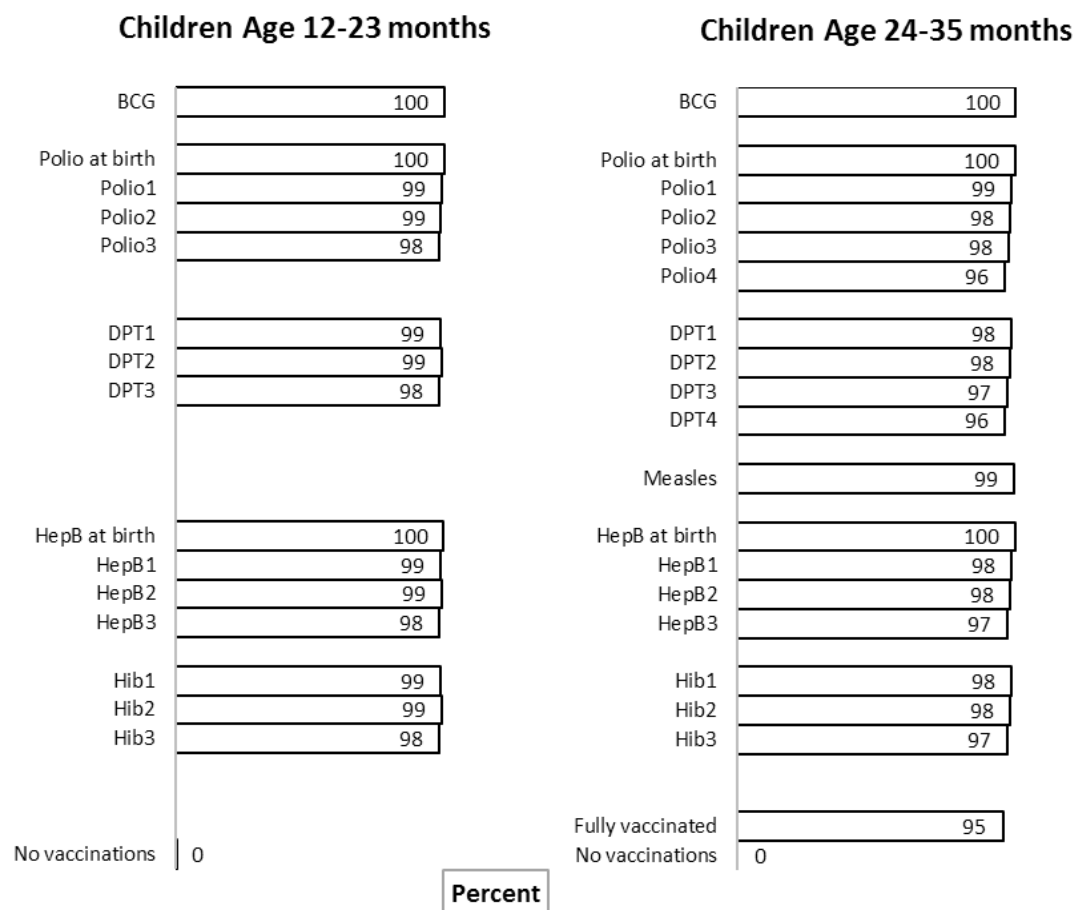


Table CH.2 presents vaccination coverage estimates among children age 12-23 and 24-35 months by background characteristics. The figures indicate children receiving the vaccinations at any time up to the date of the survey, and are based on information from both the vaccination cards/passport or health facility records and mothers'/caretakers' reports. Vaccination cards/passports have been seen by the interviewer for almost all children age 12-23 and children age 24-35 months (Table DQ.15).

Table CH.2: Vaccinations by background characteristics

Percentage of children age 12-23 months and 24-35 months currently vaccinated against vaccine preventable childhood diseases, Turkmenistan, 2015-2016

	Percentage of children age 12-23 months who received:																Percentage with health facility record or vaccination card at home seen	Number of children age 12-23 months	Percentage of children age 24-35 months who received:					Percentage with health facility record or vaccination card at home seen	Number of children age 24-35 months
	Polio					DPT			HepB ^a			Hib			Measles (MMR) ^b	Full ^c			Non e	Polio4 ^d	DPT4 ^d				
	BCG	At birth	1	2	3	1	2	3	At birth	1	2	3	1	2								3	None		
Total	99.9	99.9	99.8	99.4	98.8	99.6	99.0	99.0	99.9	99.5	99.0	99.0	99.5	99.0	99.0	0.1	99.7	778	99.8	99.6	0.0	98.3	98.2	99.6	746
Sex																									
Male	99.9	99.9	99.9	99.7	99.5	99.7	99.3	99.1	99.9	99.5	99.3	99.1	99.5	99.3	99.1	0.1	99.5	397	99.8	99.8	0.0	98.3	97.6	99.5	418
Female	99.9	99.9	99.6	99.0	98.2	99.4	98.8	98.8	99.9	99.4	98.8	98.8	99.4	98.8	98.8	0.1	99.9	382	99.7	99.3	0.0	98.4	99.0	99.7	328
Region																									
Ashgabat city	100.0	100.0	98.9	96.4	93.1	96.9	93.4	92.5	100.0	96.0	93.4	92.5	96.0	93.4	92.5	0.0	100.0	81	100.0	98.3	0.0	89.8	91.1	100.0	78
Ahal velayat	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	0.9	98.6	110	99.4	99.4	0.0	99.4	98.6	99.2	120
Balkan velayat	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	46	100.0	100.0	0.0	100.0	100.0	100.0	35
Dashoguz velayat	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	211	100.0	100.0	0.0	98.6	98.6	100.0	178
Lebap velayat	100.0	100.0	100.0	99.3	99.3	100.0	99.3	99.3	100.0	100.0	99.3	99.3	100.0	99.3	99.3	0.0	99.3	160	99.3	99.3	0.0	100.0	99.3	98.5	150
Mary velayat	100.0	100.0	100.0	100.0	99.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	171	100.0	100.0	0.0	99.3	99.3	100.0	184
Area																									
Urban	99.6	99.6	99.3	98.2	97.2	98.7	97.3	97.0	99.6	98.5	97.3	97.1	98.5	97.3	97.0	0.4	99.0	276	100.0	99.5	0.0	96.7	97.0	99.2	276
Rural	100.0	100.0	100.0	100.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	502	99.6	99.6	0.0	99.3	98.9	99.8	470
Mother's education^e																									
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	1
Secondary	99.9	99.9	99.7	99.3	98.7	99.5	98.9	98.8	99.9	99.4	98.9	98.8	99.4	98.9	98.8	0.1	99.6	679	99.7	99.5	0.0	98.4	98.3	99.7	648
Primary vocational	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	57	100.0	100.0	0.0	100.0	98.3	98.0	51
Secondary vocational	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	16	(*)	(*)	(*)	(*)	(*)	(*)	21
Higher	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	23	(100.0)	(100.0)	(0.0)	(96.0)	(96.0)	(100.0)	24
Wealth index quintile																									
Poorest	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	178	99.4	99.4	0.0	99.2	98.5	100.0	154
Second	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	161	99.5	99.5	0.0	98.8	98.8	100.0	153
Middle	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	162	100.0	100.0	0.0	99.2	98.5	99.4	162
Fourth	99.3	99.3	99.3	99.3	98.4	98.8	98.8	98.8	99.3	98.8	98.8	98.8	98.8	98.8	98.8	0.7	99.3	150	100.0	100.0	0.0	99.0	100.0	99.2	158
Richest	100.0	100.0	99.3	96.9	94.8	98.6	95.5	95.0	100.0	98.1	95.6	95.0	98.0	95.5	95.0	0.0	98.7	128	100.0	98.9	0.0	94.5	94.0	99.1	119
Language of household head																									
Turkmen	99.9	99.9	99.7	99.3	98.7	99.5	98.9	98.8	99.9	99.4	98.9	98.8	99.4	98.9	98.8	0.1	99.6	682	99.7	99.5	0.0	98.2	98.0	99.5	647
Uzbek	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	65	(100.0)	(100.0)	(0.0)	(100.0)	(100.0)	(100.0)	64
Russian	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	14	(*)	(*)	(*)	(*)	(*)	(*)	20
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	17	(*)	(*)	(*)	(*)	(*)	(*)	15

^a The way HepB doses are labelled in this table differs to the labelling in the vaccination schedule of Turkmenistan, where the birth dose (HepB0) is labelled as HepB1, HepB1 is labelled as HepB2, HepB2 as HepB3 and HepB3 as HepB4.

^b Measles is administered through the combined measles, mumps and rubella (MMR) vaccine in Turkmenistan.

^c Includes: BCG, Polio3, DPT3, HepB3, Hib3, and Measles (MMR) as per the vaccination schedule in Turkmenistan.

^d Polio4 and DPT4 are booster doses that are not included in full vaccination coverage.

^e Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

There are no differences in coverage with individual vaccines by background characteristics for children age 12-23 months with the exception of children from Ashgabat city and from the richest wealth index quintile. In Ashgabat city, comparing with other regions, a higher percentage of children did not receive recommended doses or they did not receive it timely. In particular, the percentage of children age 12-23 months who received the first dose of HepB vaccine is 100 percent while the percentage for the third dose declines to 93 percent. The situation is almost the same for children from the richest wealth index quintile.

Findings on coverage with the DPT-HepB-Hib combination vaccine for children age 12-23 months are presented in Table CH.2A. 99 percent of children age 12-23 months received all three doses of the vaccine against diphtheria, pertussis, tetanus, hepatitis B, haemophilus influenzae type b through the DPT-HepB-Hib combination vaccine. The coverage is slightly lower for the children from Ashgabat city and from the richest wealth index quintile.

Table CH.2A: Coverage of the DPT-HepB-Hib combination vaccine				
Percentage of children age 12-23 months vaccinated against diphtheria, pertussis, tetanus, hepatitis B and the Hib disease using the DPT-HepB-Hib combination vaccine ^a , Turkmenistan, 2015-2016				
	Percentage of children age 12-23 months who received:			Number of children age 12-23 months
	Pentavalent1 DPT1-HepB1- Hib1	Pentavalent2 DPT2-HepB2-Hib2	Pentavalent3 DPT3-HepB3-Hib3	
Total	99.5	99.0	99.0	778
Sex				
Male	99.5	99.3	99.1	397
Female	99.4	98.8	98.8	382
Region				
Ashgabat city	96.0	93.4	92.5	81
Ahal velayat	99.1	99.1	99.1	110
Balkan velayat	100.0	100.0	100.0	46
Dashoguz velayat	100.0	100.0	100.0	211
Lebap velayat	100.0	99.3	99.3	160
Mary velayat	100.0	100.0	100.0	171
Area				
Urban	98.5	97.3	97.0	276
Rural	100.0	100.0	100.0	502
Mother's education				
Primary	(*)	(*)	(*)	2
Secondary	99.4	98.9	98.8	679
Primary vocational	100.0	100.0	100.0	57
Secondary vocational	(*)	(*)	(*)	16
Higher	(100.0)	(100.0)	(100.0)	23
Wealth index quintile				
Poorest	100.0	100.0	100.0	178
Second	100.0	100.0	100.0	161
Middle	100.0	100.0	100.0	162
Fourth	98.8	98.8	98.8	150
Richest	98.0	95.5	95.0	128
Language of household head				
Turkmen	99.4	98.9	98.8	682
Uzbek	100.0	100.0	100.0	65
Russian	(*)	(*)	(*)	14
Other	(*)	(*)	(*)	17

^a The way HepB doses are labelled in this table differs to the labelling in the vaccination schedule of Turkmenistan, where the birth dose (HepB0) is labelled as HepB1, HepB1 is labelled as HepB2, HepB2 as HepB3 and HepB3 as HepB4.
 () Figures that are based on 25–49 unweighted cases.
 (*) Figures that are based on fewer than 25 unweighted cases.

Care of Illness

A key strategy for accelerating progress toward MDG 4 is to tackle the diseases that are the leading killers of children under 5. Diarrhoea and pneumonia are two such diseases. The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) aims to end preventable pneumonia and diarrhoea death by reducing mortality from pneumonia to 3 deaths per 1000 live births and mortality from diarrhoea to 1 death per 1000 live births by 2025.

From 2001, Turkmenistan has started the implementation of the program “Integrated Management of Childhood Illness” (IMCI) which focuses on improving primary health care, education and community outreach. One important component of this program is the rational use of medications in most common childhood diseases (use of oral rehydration salts (ORS) with diarrhoea and use of antibiotics for suspected pneumonia).

Table CH.3 presents the percentage of children under 5 years of age who were reported to have had an episode of diarrhoea, symptoms of acute respiratory infection (ARI), or fever during the 2 weeks preceding the survey. These results are not measures of true prevalence, and should not be used as such, but rather the period-prevalence of those illnesses over a two-week time window.

The definition of a case of diarrhoea or fever, in this survey, was the mother’s (or caretaker’s) report that the child had such symptoms over the specified period; no other evidence were sought beside the opinion of the mother. A child was considered to have had an episode of ARI if the mother or caretaker reported that the child had, over the specified period, an illness with a cough with rapid or difficult breathing, and whose symptoms were perceived to be due to a problem in the chest or both a problem in the chest and a blocked nose. While this approach is reasonable in the context of a MICS survey, these basically simple case definitions must be kept in mind when interpreting the results, as well as the potential for reporting and recall biases. Further, diarrhoea, fever and ARI are not only seasonal but are also characterized by the often rapid spread of localized outbreaks from one area to another at different points in time. The timing of the survey and the location of the teams might thus considerably affect the results, which must consequently be interpreted with caution. For these reasons, although the period-prevalence over a two-week time window is reported, these data should not be used to assess the epidemiological characteristics of these diseases but rather to obtain denominators for the indicators related to use of health services and treatment.

Table CH.3: Reported disease episodes

Percentage of children age 0-59 months for whom the mother/caretaker reported an episode of diarrhoea, symptoms of acute respiratory infection (ARI), and/or fever in the last two weeks, Turkmenistan, 2015-2016

	Percentage of children who in the last two weeks had:			Number of children age 0-59 months
	An episode of diarrhoea	Symptoms of ARI	An episode of fever	
Total	1.9	0.4	5.6	3765
Sex				
Male	2.1	0.5	5.7	1984
Female	1.6	0.4	5.4	1781
Region				
Ashgabat city	3.2	1.0	7.8	385
Ahal velayat	1.8	0.3	11.1	576
Balkan velayat	3.3	0.2	10.0	195
Dashoguz velayat	2.0	0.0	3.3	950
Lebap velayat	1.8	0.4	5.8	780
Mary velayat	1.0	0.9	2.1	879
Area				
Urban	2.0	0.4	6.4	1324
Rural	1.8	0.5	5.1	2441
Age				
0-11 months	3.3	0.0	5.5	723
12-23 months	2.6	0.8	7.2	778
24-35 months	1.9	0.5	6.0	746
36-47 months	1.0	0.1	4.2	758
48-59 months	0.5	0.7	4.9	760
Mother's education^a				
Primary	(*)	(*)	(*)	8
Secondary	1.8	0.5	5.4	3252
Primary vocational	2.3	0.7	6.3	251
Secondary vocational	2.1	0.0	7.2	128
Higher	1.8	0.0	6.1	124
Wealth index quintile				
Poorest	2.1	0.3	4.7	826
Second	1.5	0.7	4.3	799
Middle	1.5	0.5	5.6	793
Fourth	2.2	0.2	6.2	737
Richest	2.1	0.7	7.5	610
Language of household head				
Turkmen	1.9	0.4	5.7	3291
Uzbek	1.1	0.3	4.0	333
Russian	3.6	0.0	8.5	74
Other	2.0	2.1	4.1	68

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Overall, 2 percent of under five children were reported to have had diarrhoea in the two weeks preceding the survey, less than 1 percent symptoms of ARI, and 6 percent an episode of fever (Table CH.3). There are major differences between regions in the case of fever.

Diarrhoea

Diarrhoea is a leading cause of death among children under five worldwide. Most diarrhoea-related deaths in children are due to dehydration from 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. In addition, provision of zinc supplements has been shown to reduce the duration and severity of the illness as well as the risk of

future episodes within the next two or three months. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

In the MICS, mothers or caretakers were asked whether their child under age five years had an episode of diarrhoea in the two weeks prior to the survey. In cases where mothers reported that the child had diarrhoea, a series of questions were asked about the treatment of the illness, including what the child had been given to drink and eat during the episode and whether this was more or less than what was usually given to the child.

The overall period-prevalence of diarrhoea in children under 5 years of age is 2 percent (Table CH.3). With the increase of the age of child, the incidence of diarrhoea is gradually reduced from 3 percent for the children age 0-11 months to less than 1 percent for children age 48-59 months.

Table CH.4: Care-seeking during diarrhoea							
Percentage of children age 0-59 months with diarrhoea in the last two weeks for whom advice or treatment was sought ^a , by source of advice or treatment, Turkmenistan, 2015-2016							
	Percentage of children with diarrhoea for whom: Advice or treatment was sought from:						Number of children age 0-59 months with diarrhoea in the last two weeks
	Health facilities or providers				A health facility or provider ¹ ^d	No advice or treatment sought	
	Public ^b	Private	Mobile/Outreach clinic ^c	Other source			
Total	50.3	1.2	0.0	0.0	51.4	48.6	70
Sex							
Male	(56.4)	(0.0)	(0.0)	(0.0)	(56.4)	(43.6)	42
Female	(40.8)	(3.0)	(0.0)	(0.0)	(43.8)	(56.2)	28
Area							
Urban	(41.2)	(3.1)	(0.0)	(0.0)	(44.3)	(55.7)	26
Rural	(55.7)	(0.0)	(0.0)	(0.0)	(55.7)	(44.3)	44

¹ MICS indicator 3.10 - Care-seeking for diarrhoea

^a Due to low numbers of denominators, the background characteristics "Region", "Age", "Mother's education", "Wealth index quintile" and "Language of household head" are not shown.

^b Public health facilities and providers include public pharmacies

^c Includes both public (Mobile/Outreach clinic) and private (Mobile clinic) health facilities

^d Includes all public and private health facilities and providers, but excludes public and private pharmacy

() Figures that are based on 25–49 unweighted cases.

Table CH.4 shows the percentage of children with diarrhoea in the two weeks preceding the survey for whom advice or treatment was sought and where. Overall, a health facility or provider was seen in a half of the cases (51 percent), predominantly in the public sector (50 percent).

Table CH.5: Feeding practices during diarrhoeaPercent distribution of children age 0-59 months with diarrhoea^a in the last two weeks by amount of liquids and food given during episode of diarrhoea, Turkmenistan, 2015-2016

	Drinking practices during diarrhoea Child was given to drink:						Eating practices during diarrhoea Child was given to eat:						Number of children age 0-59 months with diarrhoea in the last two weeks
	Much less	Somewhat less	About the same	More	Nothing	Total	Much less	Somewhat less	About the same	More	Nothing	Total	
Total	10.1	24.3	36.5	26.5	2.6	100.0	13.2	47.0	35.7	1.2	2.9	100.0	70
Sex													
Male	(10.4)	(22.3)	(37.5)	(28.6)	(1.2)	100.0	(15.2)	(37.1)	(44.9)	(0.0)	(2.8)	100.0	42
Female	(9.6)	(27.4)	(34.9)	(23.2)	(4.8)	100.0	(10.0)	(62.2)	(21.7)	(3.0)	(3.1)	100.0	28
Area													
Urban	(18.2)	(12.7)	(40.2)	(21.9)	(7.0)	100.0	(14.4)	(54.2)	(26.4)	(3.1)	(1.9)	100.0	26
Rural	(5.2)	(31.3)	(34.3)	(29.2)	(0.0)	100.0	(12.5)	(42.8)	(41.3)	(0.0)	(3.5)	100.0	44

^a Due to low numbers of denominators, the background characteristics "Region", "Age", "Mother's education", "Wealth index quintile" and "Language of household head" are not shown.

() Figures that are based on 25–49 unweighted cases.

Table CH.5 provides statistics on drinking and feeding practices during diarrhoea. 27 percent of under five children with diarrhoea were given more than usual to drink while 71 percent were given the same or less. About 84 percent were given somewhat less, same or more (continued feeding), while 16 percent were given much less or almost nothing.

Table CH.6: Oral rehydration solutions and zinc

Percentage of children age 0-59 months with diarrhoea in the last two weeks, and treatment with oral rehydration salts (ORS) and zinc^a, Turkmenistan, 2015-2016

	Percentage of children with diarrhoea who received:					Number of children age 0-59 months with diarrhoea in the last two weeks
	Oral rehydration salts (ORS)	Zinc			ORS and zinc ¹	
		Tablet	Syrup	Any zinc		
Total	47.1	3.9	9.5	10.9	6.6	70
Sex						
Male	(45.8)	(4.3)	(7.1)	(8.6)	(5.7)	42
Female	(49.0)	(3.2)	(13.1)	(14.4)	(7.9)	28
Area						
Urban	(68.6)	(5.7)	(6.0)	(9.8)	(8.0)	26
Rural	(34.2)	(2.8)	(11.5)	(11.5)	(5.7)	44

¹ MICS indicator 3.11 - Diarrhoea treatment with oral rehydration salts (ORS) and zinc

^a Due to low numbers of denominators, the background characteristics "Region", "Age", "Mother's education", "Wealth index quintile" and "Language of household head" are not shown.

() Figures that are based on 25-49 unweighted cases.

Table CH.6 shows the percentage of children receiving ORS, various types of recommended homemade fluids and zinc during the episode of diarrhoea. Since children may have been given more than one type of liquid, the percentages do not necessarily add to 100. About 47 percent received fluids from ORS packets. Additionally, 11 percent received zinc in one form or another. Only 7 percent of children with diarrhoea received ORS and zinc.

Table CH.7: Oral rehydration therapy with continued feeding and other treatments

Percentage of children age 0-59 months with diarrhoea in the last two weeks who were given oral rehydration therapy with continued feeding and percentage who were given other treatments^a, Turkmenistan, 2015-2016

	Children with diarrhoea who were given:														Number of children age 0-59 months with diarrhoea in the last two weeks
				Other treatments											
				Pill or syrup				Injection				Home remedy, herbal medicine			
	Zinc	ORS or increased fluids	ORT with continued feeding ¹ _b	Anti-biotic	Anti-motility	Other	Unknown	Anti-biotic	Non-antibiotic ^c	Unknown	Intravenous				
Total	10.9	66.7	39.4	36.2	6.5	15.6	9.0	7.0	0.0	3.0	7.7	0.6	6.4	1.9	70
Sex															
Male	(8.6)	(70.6)	(38.0)	(40.2)	(1.9)	(11.9)	(13.7)	(9.0)	(0.0)	(4.9)	(8.6)	(0.0)	(7.5)	(3.2)	42
Female	(14.4)	(60.8)	(41.6)	(30.0)	(13.5)	(21.2)	(1.7)	(4.0)	(0.0)	(0.0)	(6.2)	(1.6)	(4.6)	(0.0)	28
Area															
Urban	(9.8)	(77.5)	(54.0)	(23.6)	(14.6)	(16.1)	(1.8)	(11.0)	(0.0)	(0.0)	(2.3)	(1.7)	(7.5)	(0.0)	26
Rural	(11.5)	(60.3)	(30.6)	(43.7)	(1.6)	(15.3)	(13.2)	(4.6)	(0.0)	(4.7)	(10.9)	(0.0)	(5.7)	(3.1)	44

¹ Survey-specific indicator 3.S1 - Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding

^a Due to the low number of unweighted cases, the categories "None" and "Primary" for the background characteristic "Mother's education" are not shown. Due to low numbers of denominators, the background characteristics "Region", "Age", "Mother's education", "Wealth index quintile" and "Language of household head" are not shown.

^b This is comparable to MICS Indicator 3.12 "Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding" with the exception that recommended homemade fluids are not included as part of the institutional approach in Turkmenistan.

() Figures that are based on 25–49 unweighted cases.

Table CH.7 provides the proportion of children age 0-59 months with diarrhoea in the last two weeks who received oral rehydration therapy with continued feeding, and the percentage of children with diarrhoea who received other treatments. Overall, 67 percent of children with diarrhoea received ORS or increased fluids. Combining the information in Table CH.5 with that of Table CH.6 on oral rehydration therapy, it is observed that 39 percent of children received ORT and, at the same time, feeding was continued, as is the recommendation. Table CH.7 also shows the percentage of children having had diarrhoea in the two weeks preceding the survey who were given various forms of treatment, leaving about 2 percent of them without any treatment or drug.

Table CH.8: Source of ORS and zinc

Percentage of children age 0-59 months with diarrhoea in the last two weeks who were given ORS, and percentage given zinc, by the source of ORS and zinc^b, Turkmenistan, 2015-2016

	Percentage of children who were given as treatment for diarrhoea:		Number of children age 0-59 months with diarrhoea in the last two weeks	Percentage of children for whom the source of ORS was:			Number of children age 0-59 months who were given ORS as treatment for diarrhoea in the last two weeks	Percentage of children for whom the source of zinc was:				Number of children age 0-59 months who were given zinc as treatment for diarrhoea in the last two weeks
	ORS	zinc		Health facilities or providers		A health facility or provider ^a		Health facilities or providers		Other source	A health facility or provider ^a	
				Public	Private			Public	Private			
Total	47.1	10.9	70	(93.5)	(6.5)	(100.0)	33	(*)	(*)	(*)	(*)	8
Sex												
Male	(45.8)	(8.6)	42	(*)	(*)	(*)	19	(*)	(*)	(*)	(*)	4
Female	(49.0)	(14.4)	28	(*)	(*)	(*)	14	(*)	(*)	(*)	(*)	4
Area												
Urban	(68.6)	(9.8)	26	(95.4)	(4.6)	(100.0)	18	(*)	(*)	(*)	(*)	3
Rural	(34.2)	(11.5)	44	(*)	(*)	(*)	15	(*)	(*)	(*)	(*)	5

^a Due to low numbers of denominators, the background characteristics "Region", "Age", "Mother's education", "Wealth index quintile" and "Language of household head" are not shown.

^b Includes all public and private health facilities and providers

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Table CH.8 provides information on the source of ORS and zinc for children who benefitted from these treatments. The main source of ORS is the public sector (94 percent).

Acute Respiratory Infections

Symptoms of ARI are collected during the 2015-2016 Turkmenistan MICS to capture pneumonia disease, the leading cause of death in children under five. Once diagnosed, pneumonia is treated effectively with antibiotics. Studies have shown a limitation in the survey approach of measuring pneumonia because many of the suspected cases identified through surveys are in fact, not true pneumonia.³⁴ While this limitation does not affect the level and patterns of care-seeking for suspected pneumonia, it limits the validity of the level of treatment of pneumonia with antibiotics, as reported through household surveys. MICS indicators 3.13 “Care-seeking for children with acute respiratory infection (ARI) symptoms” and 3.14 “Antibiotic treatment for children with ARI symptoms” are not shown in a table in this report because they are based on too few unweighted cases.

³⁴ Campbell, H. et al. 2013. *Measuring Coverage in MNCH: Challenges in Monitoring the Proportion of Young Children with Pneumonia Who Receive Antibiotic Treatment*. PLoS Med 10(5): e1001421. doi:10.1371/journal.pmed.1001421

Table CH.9: Knowledge of the two danger signs of pneumonia

Percentage of women age 15-49 years who are mothers or caretakers of children under age 5 by symptoms that would cause them to take a child under age 5 immediately to a health facility, and percentage of mothers who recognize fast or difficult breathing as signs for seeking care immediately, Turkmenistan, 2015-2016

	Percentage of mothers/caretakers of children age 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/caretakers who recognize at least one of the two danger signs of pneumonia (fast and/or difficult breathing)	Number of women age 15-49 years who are mothers/caretakers of children under age 5
	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		
Total	15.3	46.3	80.1	29.0	23.6	8.1	1.8	9.7	46.7	2580
Region										
Ashgabat city	17.2	53.9	88.6	20.5	17.9	3.3	4.0	21.5	34.7	280
Ahal velayat	30.2	48.6	75.5	34.9	23.1	8.1	4.6	17.0	49.4	375
Balkan velayat	8.9	32.1	94.0	39.5	19.3	2.3	1.0	0.3	48.0	150
Dashoguz velayat	1.3	33.5	82.6	41.8	24.1	3.3	0.0	0.2	56.6	620
Lebap velayat	17.1	54.4	82.7	19.5	28.6	23.1	2.9	22.2	44.3	543
Mary velayat	19.4	50.8	70.6	22.2	22.8	3.2	0.2	0.7	42.5	611
Area										
Urban	15.1	46.2	85.2	28.9	24.0	8.6	2.4	11.8	46.0	947
Rural	15.4	46.4	77.1	29.0	23.4	7.8	1.5	8.5	47.2	1634
Education^a										
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Secondary	15.1	45.7	79.0	29.5	23.5	7.6	2.0	9.0	47.1	2183
Primary vocational	16.6	47.3	85.9	25.2	29.4	12.0	0.0	13.5	48.1	186
Secondary vocational	22.0	50.2	86.9	28.8	20.2	11.6	1.7	10.4	43.3	108
Higher	10.7	55.2	86.6	25.6	20.4	8.3	1.3	17.2	41.4	99
Wealth index quintile										
Poorest	8.9	42.4	77.1	33.2	21.2	7.8	0.4	4.6	48.8	536
Second	15.8	44.0	75.2	25.9	27.8	7.0	1.2	10.2	48.4	536
Middle	21.0	49.1	77.7	27.2	21.4	9.5	2.8	10.0	43.5	541
Fourth	15.1	47.0	83.5	30.3	26.2	7.5	2.7	11.5	49.8	507
Richest	15.5	49.6	88.2	28.5	21.4	8.7	2.2	12.9	42.7	460
Language of household head										
Turkmen	16.5	47.5	79.5	28.0	23.7	8.6	2.1	10.5	46.2	2251
Uzbek	4.4	34.7	84.1	38.7	25.6	3.0	0.0	0.5	53.6	222
Russian	14.0	48.8	92.3	26.4	20.9	7.6	1.3	20.5	43.4	66
Other	(10.8)	(39.7)	(73.1)	(34.1)	(14.4)	(5.7)	(0.0)	(1.9)	(44.3)	42

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Mothers' knowledge of danger signs is an important determinant of care-seeking behaviour. In the MICS, mothers or caretakers were asked to report symptoms that would cause them to take a child under-five for care immediately at a health facility. Issues related to knowledge of danger signs of pneumonia are presented in Table CH.9. Overall, 47 percent of women know at least one of the two danger signs of pneumonia – fast and/or difficult breathing. The most commonly identified symptom for taking a child to a health facility is if the child develops a fever (80 percent). About 29 percent of mothers identified fast breathing and 24 percent difficult breathing as symptoms for taking children immediately to a health care provider. Notable differences are found between regions. Mothers or caretakers from Ashgabat city are less likely to recognise the two danger signs of pneumonia (35 percent) compared to those from velayats.

Fever

Table CH.10 provides information on care-seeking behaviour during an episode of fever in the past two weeks.

As shown in Table CH.10, advice was sought from a health facility or a qualified health care provider for 59 percent of children with fever; these services were provided by the public sector. With the increase of household wealth, values for this indicator increase from 42 percent for children in the poorest quintile to 71 percent for children from the richest quintile (data are based on low numbers of unweighted cases and should be interpreted with caution). No advice or treatment was sought in 40 percent of the cases.

Table CH.10: Care-seeking during fever

Percentage of children age 0-59 months with fever in the last two weeks for whom advice or treatment was sought, by source of advice or treatment, Turkmenistan, 2015-2016

	Percentage of children for whom:						Number of children with fever in last two weeks
	Advice or treatment was sought from:					No advice or treatment sought	
	Health facilities or providers		Mobile/Outreach clinic ^a	Other source	A health facility or provider ^{1, b}		
	Public	Private					
Total	59.3	0.5	0.0	1.0	59.3	40.1	209
Sex							
Male	61.1	0.0	0.0	0.6	61.1	38.9	114
Female	57.0	1.1	0.0	1.4	57.0	41.6	95
Region							
Ashgabat city	(40.0)	(3.5)	(0.0)	(0.0)	(40.0)	(60.0)	30
Ahal velayat	62.8	0.0	0.0	1.0	62.8	37.2	64
Balkan velayat	88.0	0.0	0.0	0.0	88.0	12.0	20
Dashoguz velayat	(*)	(*)	(*)	(*)	(*)	(*)	32
Lebap velayat	(57.3)	(0.0)	(0.0)	(0.0)	(57.3)	(42.7)	45
Mary velayat	(*)	(*)	(*)	(*)	(*)	(*)	19
Area							
Urban	61.8	1.2	0.0	0.8	61.8	38.2	85
Rural	57.5	0.0	0.0	1.1	57.5	41.4	125
Age							
0-11 months	(45.5)	(0.0)	(0.0)	(0.0)	(45.5)	(54.5)	40
12-23 months	71.5	0.0	0.0	1.1	71.5	28.5	56
24-35 months	60.4	2.3	0.0	3.0	60.4	36.6	45
36-47 months	(44.7)	(0.0)	(0.0)	(0.0)	(44.7)	(55.3)	32
48-59 months	(66.8)	(0.0)	(0.0)	(0.0)	(66.8)	(33.2)	37
Mother's education							
Secondary	58.0	0.6	0.0	1.1	58.0	41.3	177
Primary vocational	(*)	(*)	(*)	(*)	(*)	(*)	16
Secondary vocational	(*)	(*)	(*)	(*)	(*)	(*)	9
Higher	(*)	(*)	(*)	(*)	(*)	(*)	8
Wealth index quintile							
Poorest	(41.9)	(0.0)	(0.0)	(3.5)	(41.9)	(54.7)	39
Second	(56.3)	(0.0)	(0.0)	(0.0)	(56.3)	(43.7)	34
Middle	60.3	0.0	0.0	0.0	60.3	39.7	45
Fourth	63.8	2.3	0.0	0.0	63.8	36.2	46
Richest	70.7	0.0	0.0	1.4	70.7	29.3	46
Language of household head							
Turkmen	61.5	0.6	0.0	0.3	61.5	38.5	187
Uzbek	(*)	(*)	(*)	(*)	(*)	(*)	13
Russian	(*)	(*)	(*)	(*)	(*)	(*)	6
Other	(*)	(*)	(*)	(*)	(*)	(*)	3

¹ MICS indicator 3.20 - Care-seeking for fever^a Includes both public (Mobile/Outreach clinic) and private (Mobile clinic) health facilities^b Includes all public and private health facilities and providers as well as shops

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Mothers were asked to report all of the medicines given to a child to treat the fever, including both medicines given at home and medicines given or prescribed at a health facility (Table CH.11). The majority of children (71 percent) who had a fever in the last two weeks received Paracetamol or Panadol, 38 percent received Ibuprofen or Ibufen and 34 percent received an antibiotic in the form of a pill or syrup. Antibiotic injections and other medicines are less common (13 percent and 12 percent respectively).

Table CH.11: Treatment of children with fever

Percentage of children age 0-59 months who had a fever in the last two weeks, by type of medicine given for the illness, Turkmenistan, 2015-2016

	Children with a fever in the last two weeks who were given:						Number of children with fever in last two weeks
	Medications						
	Antibiotic pill or syrup	Antibiotic injection	Paracetamol/ Panadol	Ibuprofen/Ibufen	Other	Missing/DK	
Total	34.0	12.6	70.6	38.0	11.7	0.0	209
Sex							
Male	37.5	13.0	79.4	35.7	11.0	0.0	114
Female	29.8	12.1	60.2	40.7	12.5	0.0	95
Region							
Ashgabat city	(39.5)	(11.8)	(35.5)	(31.7)	(27.4)	(0.0)	30
Ahal velayat	20.4	11.2	87.6	61.1	16.7	0.0	64
Balkan velayat	30.2	6.5	75.3	14.4	4.0	0.0	20
Dashoguz velayat	(*)	(*)	(*)	(*)	(*)	(*)	32
Lebap velayat	(49.2)	(10.4)	(78.3)	(18.2)	(10.2)	(0.0)	45
Mary velayat	(*)	(*)	(*)	(*)	(*)	(*)	19
Area							
Urban	34.3	19.1	61.8	32.5	15.0	0.0	85
Rural	33.8	8.2	76.6	41.6	9.4	0.0	125
Age							
0-11 months	(28.0)	(9.0)	(75.7)	(28.7)	(3.0)	(0.0)	40
12-23 months	35.4	11.4	61.9	39.7	18.1	0.0	56
24-35 months	34.2	26.6	80.6	36.9	13.8	0.0	45
36-47 months	(31.3)	(7.4)	(69.7)	(37.2)	(9.0)	(0.0)	32
48-59 months	(40.4)	(6.0)	(67.1)	(47.1)	(10.9)	(0.0)	37
Mother's education							
Secondary	34.9	9.7	73.7	38.5	11.3	0.0	177
Primary vocational	(*)	(*)	(*)	(*)	(*)	(*)	16
Secondary vocational	(*)	(*)	(*)	(*)	(*)	(*)	9
Higher	(*)	(*)	(*)	(*)	(*)	(*)	8
Wealth index quintile							
Poorest	(35.2)	(2.6)	(70.6)	(30.1)	(2.6)	(0.0)	39
Second	(40.0)	(17.4)	(77.7)	(38.2)	(3.6)	(0.0)	34
Middle	29.1	9.9	73.9	50.0	15.5	0.0	45
Fourth	35.8	13.7	71.5	37.4	13.7	0.0	46
Richest	31.5	19.0	61.3	33.2	19.5	0.0	46
Language of household head							
Turkmen	34.6	13.0	74.2	37.2	12.0	0.0	187
Uzbek	(*)	(*)	(*)	(*)	(*)	(*)	13
Russian	(*)	(*)	(*)	(*)	(*)	(*)	6
Other	(*)	(*)	(*)	(*)	(*)	(*)	3

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Solid Fuel Use

More than 3 billion people around the world rely on solid fuels for their basic energy needs, including cooking and heating. Solid fuels include biomass fuels, such as wood, charcoal, crops or other agricultural waste, dung, shrubs and straw, and coal. Cooking and heating with solid fuels leads to high levels of indoor smoke which contains a complex mix of health-damaging pollutants. The main problem with the use of solid fuels is their incomplete combustion, which produces toxic elements such as carbon monoxide, polyaromatic hydrocarbons, and sulphur dioxide (SO₂), among others. Use of solid fuels increases the risks of incurring acute respiratory illness, pneumonia, chronic obstructive lung disease, cancer, and possibly tuberculosis, asthma, or cataracts, and may contribute to low birth weight

of babies born to pregnant women exposed to smoke. The primary indicator for monitoring use of solid fuels is the proportion of the population using solid fuels as the primary source of domestic energy for cooking, shown in Table CH.12.

In Turkmenistan, solid fuels are not used for cooking. The vast majority of household members use natural gas for cooking (98 percent). A very small percentage of household members uses other fuels. It should be noted that natural gas and electricity (according to the established average norms) are free of charge for citizens of Turkmenistan since the beginning of 2013, which ensures high availability to the whole population.

Table CH.12: Solid fuel use

Percent distribution of household members according to type of cooking fuel mainly used by the household, and percentage of household members living in households using solid fuels for cooking, Turkmenistan, 2015-2016

	Percentage of household members in households mainly using:										Number of household members
	Electricity	Liquefied Petroleum Gas (LPG)	Natural Gas	Kerosene	Solid fuels			No food cooked in the household	Total	Solid fuels for cooking ¹	
					Coal/Lignite	Wood	Other fuel				
Total	1.7	0.3	98.0	0.0	-	-	-	-	100.0	0.0	29871
Region											
Ashgabat city	10.4	0.0	89.5	0.1	-	-	-	-	100.0	0.0	3613
Ahal velayat	0.4	0.2	99.5	0.0	-	-	-	-	100.0	0.0	3967
Balkan velayat	0.4	0.0	99.6	0.0	-	-	-	-	100.0	0.0	2013
Dashoguz velayat	0.6	0.4	99.0	0.0	-	-	-	-	100.0	0.0	7058
Lebap velayat	0.6	0.2	99.3	0.0	-	-	-	-	100.0	0.0	5799
Mary velayat	0.6	0.5	98.9	0.0	-	-	-	-	100.0	0.0	7421
Area											
Urban	3.8	0.0	96.1	0.0	-	-	-	-	100.0	0.0	11666
Rural	0.4	0.4	99.2	0.0	-	-	-	-	100.0	0.0	18206
Education of household head^a											
Primary	0.0	7.5	92.5	0.0	-	-	-	-	100.0	0.0	159
Secondary	0.8	0.3	98.9	0.0	-	-	-	-	100.0	0.0	18917
Primary vocational	1.1	0.0	98.9	0.0	-	-	-	-	100.0	0.0	2187
Secondary vocational	2.2	0.1	97.7	0.0	-	-	-	-	100.0	0.0	4314
Higher	5.6	0.3	94.2	0.0	-	-	-	-	100.0	0.0	4277
Wealth index quintile											
Poorest	0.8	0.8	98.4	0.0	-	-	-	-	100.0	0.0	5971
Second	0.4	0.6	99.1	0.0	-	-	-	-	100.0	0.0	5979
Middle	0.1	0.0	99.9	0.0	-	-	-	-	100.0	0.0	5973
Fourth	0.2	0.1	99.7	0.0	-	-	-	-	100.0	0.0	5978
Richest	7.1	0.0	92.8	0.1	-	-	-	-	100.0	0.0	5970
Language of household head											
Turkmen	1.8	0.3	97.9	0.0	-	-	-	-	100.0	0.0	25457
Uzbek	0.1	0.2	99.6	0.0	-	-	-	-	100.0	0.0	2714
Russian	3.8	0.0	96.2	0.0	-	-	-	-	100.0	0.0	1204
Other	0.9	0.0	99.1	0.0	-	-	-	-	100.0	0.0	497

¹ MICS indicator 3.15 - Use of solid fuels for cooking

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown. "-" denotes 0 unweighted case in that cell or in the denominator.

VII. Water and Sanitation

Safe drinking water is a basic necessity for good health. Unsafe drinking water can be a significant determinant of diseases such as cholera, typhoid, and schistosomiasis. Drinking water can also be contaminated with chemical and physical contaminants with harmful effects on human health. In addition to preventing disease, improved 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.³⁵

Inadequate disposal of human excreta and personal hygiene are associated with a range of diseases including diarrhoeal diseases and polio and are important determinants of stunting. Improved sanitation can reduce diarrhoeal disease by more than a third³⁶, and can substantially lessen the adverse health impacts of other disorders among millions of children in many countries.

The MDG target (7, C) is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

For more details on water and sanitation and to access some reference documents, please visit data.unicef.org³⁷ or the website of the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation³⁸.

Use of Improved Water Sources

The distribution of the population by main source of drinking water is shown in Table WS.1. The population using *improved sources* of drinking water are those using any of the following types of supply: piped water (into dwelling, compound, yard or plot, to neighbour, public tap/standpipe), tube well/borehole, protected well, protected spring, and 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 handwashing and cooking.

³⁵ WHO/UNICEF. 2012. *Progress on Drinking water and Sanitation: 2012 update*.

³⁶ Cairncross, S. 2010. *Water, sanitation and hygiene for the prevention of diarrhoea*. Int. J. Epidemiology 39: i193-i205.

³⁷ <http://data.unicef.org/water-sanitation/water.html>

³⁸ <http://www.wssinfo.org>

Table WS.1: Use of improved water sources

Percent distribution of household population according to main source of drinking water and percentage of household population using improved drinking water sources, Turkmenistan, 2015-2016

	Main source of drinking water													Total	Percentage using improved sources of drinking water ¹	Number of household members
	Improved sources							Unimproved sources								
	Piped water			Tube-well/ bore-hole	Pro- tected well	Pro- tected spring	Bottled water ^a	Unpro- tected well	Unpro- tected spring	Tanker truck	Cart with tank / drum	Surface water	Bottled water ^a			
Into dwelling	Into yard/plot	To neighbour														
Total	25.4	27.2	1.5	21.0	1.5	0.0	6.2	0.0	0.1	16.1	0.2	0.6	0.2	100.0	82.8	29871
Region																
Ashgabat city	53.8	6.8	0.1	0.0	0.0	0.0	39.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	3613
Ahal velayat	9.0	45.3	0.0	7.7	0.0	0.0	0.0	0.0	0.0	37.8	0.0	0.0	0.2	100.0	62.1	3967
Balkan velayat	54.5	12.4	0.0	0.5	0.0	0.0	6.6	0.0	0.0	26.0	0.0	0.0	0.0	100.0	74.0	2013
Dashoguz velayat	27.2	49.2	5.7	16.6	0.7	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	100.0	99.2	7058
Lebap velayat	24.3	19.2	0.2	41.5	6.6	0.2	3.5	0.1	0.4	1.8	0.5	1.8	0.0	100.0	95.4	5799
Mary velayat	11.5	16.9	0.4	32.0	0.4	0.0	1.2	0.0	0.0	35.6	0.3	1.2	0.6	100.0	62.4	7421
Area																
Urban	55.8	22.8	0.3	4.3	0.1	0.0	14.4	0.0	0.0	2.0	0.1	0.0	0.1	100.0	97.8	11666
Rural	5.9	30.0	2.2	31.7	2.5	0.1	0.9	0.0	0.1	25.2	0.2	1.0	0.2	100.0	73.2	18206
Education of household head^b																
Primary	16.6	57.3	0.0	12.5	2.8	0.0	3.4	0.0	0.0	7.4	0.0	0.0	0.0	100.0	92.6	159
Secondary	21.0	30.2	2.0	23.1	1.7	0.0	3.0	0.0	0.1	18.0	0.1	0.8	0.0	100.0	81.0	18917
Primary vocational	33.6	26.3	1.3	16.8	1.0	0.0	5.4	0.0	0.0	13.2	0.9	1.0	0.5	100.0	84.3	2187
Secondary vocational	34.1	23.9	1.0	17.4	0.5	0.0	9.9	0.0	0.0	12.3	0.1	0.2	0.5	100.0	86.8	4314
Higher	32.3	16.7	0.0	17.4	2.1	0.0	16.9	0.0	0.0	13.8	0.3	0.1	0.3	100.0	85.4	4277
Wealth index quintile																
Poorest	7.2	44.7	5.9	28.1	3.2	0.2	0.2	0.1	0.1	9.0	0.0	1.3	0.0	100.0	89.5	5971
Second	6.9	25.5	1.1	38.3	2.8	0.0	0.7	0.0	0.3	22.6	0.2	1.3	0.1	100.0	75.4	5979
Middle	6.0	21.6	0.4	33.1	1.7	0.0	1.9	0.0	0.0	33.5	0.6	0.5	0.7	100.0	64.7	5973
Fourth	42.6	35.1	0.0	5.3	0.0	0.0	1.3	0.0	0.0	15.6	0.0	0.0	0.0	100.0	84.4	5978
Richest	64.2	9.1	0.0	0.0	0.0	0.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	5970
Language of household head																
Turkmen	22.4	27.0	1.5	22.6	1.7	0.0	5.6	0.0	0.0	18.4	0.1	0.4	0.2	100.0	80.9	25457
Uzbek	34.2	42.6	2.5	13.9	0.5	0.3	0.4	0.0	0.7	2.8	0.7	1.3	0.0	100.0	94.5	2714
Russian	64.2	2.7	0.0	1.8	0.0	0.0	31.1	0.0	0.0	0.2	0.0	0.0	0.0	100.0	99.8	1204
Other	33.8	13.1	0.0	23.8	0.0	0.0	6.3	0.0	0.0	12.3	0.0	10.7	0.0	100.0	77.0	497

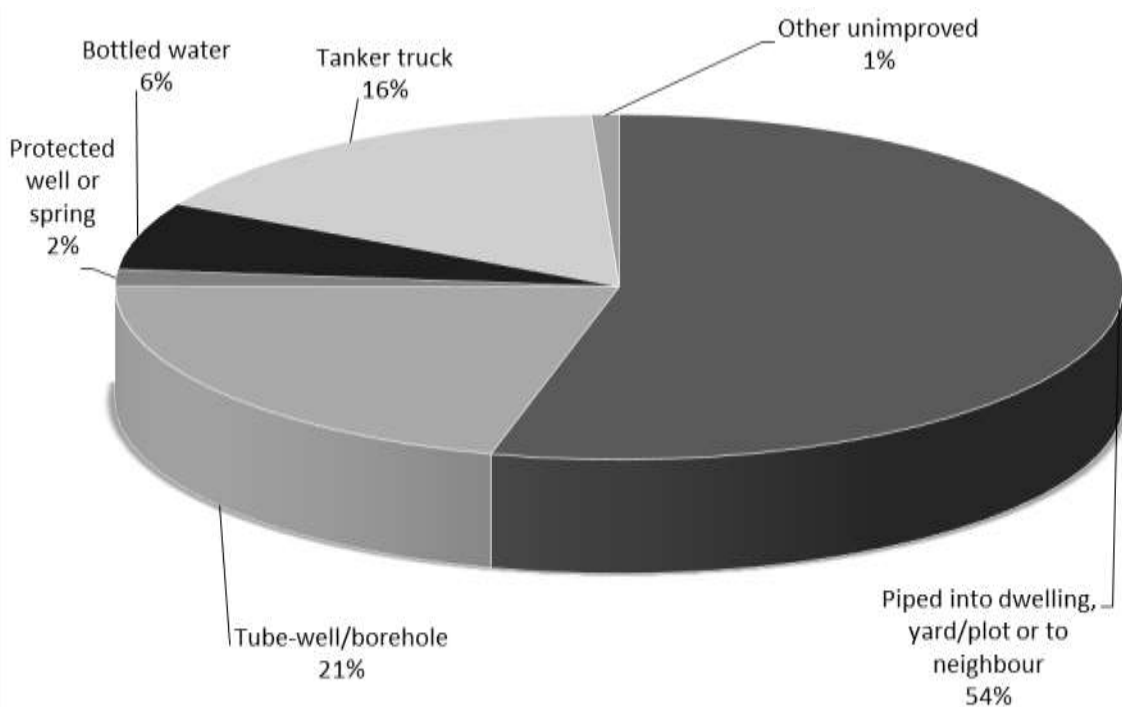
¹ MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources^a Households using bottled water as the main source of drinking water are classified into improved or unimproved drinking water users according to the water source used for other purposes such as cooking and handwashing.^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

Overall, 83 percent of the population uses an improved source of drinking water – 98 percent in urban areas and 73 percent in rural areas. More than half of the population (54 percent) uses piped water, 21 percent use a tube-well/bore-hole and 16 percent use a tanker truck (an unimproved source). Other sources of drinking water represent a small percentage.

The source of drinking water for the population varies strongly by region (Table WS.1). The best situation is in Ashgabat city where the population uses only improved sources of drinking water: piped water into dwelling or into yard/plot (61 percent) and bottled water (39 percent). A less favourable situation is found in Ahal and Mary velayats, where 38 percent and 36 percent respectively, use drinking water from tanker truck. Also, 26 percent of the household population in the Balkan velayat uses water delivered by tanker truck. The use of tube-well / bore-hole is widespread in two regions: in Lebap velayat (42 percent) and in Mary velayat (32 percent). The main sources are depicted in Figure WS.1.

There are notable differences in the percentage of the population using piped water by area of residence (38 percent in rural areas and 79 percent in urban areas).

Figure WS.1: Percent distribution of household members by source of drinking water, Turkmenistan, 2015-2016



Use of household water treatment is presented in Table WS.2. Households were asked about ways they may be treating water at home to make it safer to drink. Boiling water, adding bleach or chlorine, using a water filter, and using solar disinfection are considered as appropriate treatment of drinking water. The table shows water treatment by all household members and the percentage of those living in households using unimproved water sources but using appropriate water treatment methods.

In general, 69 percent of household members in households using unimproved drinking water sources use appropriate water treatment methods. Notable differences were found between regions. Use of appropriate water treatment methods are widespread in Lebap velayat (90 percent) compared to Ahal velayat where this indicator is at 52 percent.

The most popular water treatment method is boiling and it was used by 72 percent of household members, while letting water stand and settle is at second place with 31 percent. Use of a water filter is not very common (5 percent) and among regions is mainly used by the population in Balkan velayat (24 percent). In general, 19 percent of the population do not use any water treatment method. Compared to other regions, usage of water treatment methods is less present in Ashgabat city (41 percent). This is probably due to the high percentage of usage of bottled water as the main source of drinking water, which does not require treatment.

Table WS.2: Household water treatment

Percentage of household population by drinking water treatment method used in the household, and for household members living in households where an unimproved drinking water source is used, the percentage who are using an appropriate treatment method, Turkmenistan, 2015-2016

	Water treatment method used in the household									Number of household members	Percentage of household members in households using unimproved drinking water sources and using an appropriate water treatment method ¹	Number of household members in households using unimproved drinking water sources
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Solar disinfection	Let it stand and settle	Other	Missing/DK			
Total	18.5	72.3	0.2	0.6	4.8	0.1	30.9	0.1	0.0	29871	69.2	5141
Region												
Ashgabat city	41.2	54.0	0.0	0.1	7.7	0.0	2.5	0.0	0.0	3613	-	-
Ahal velayat	31.1	54.8	0.0	0.1	0.5	0.0	39.1	0.6	0.0	3967	51.9	1506
Balkan velayat	1.0	67.0	0.5	5.7	23.8	0.0	55.1	0.2	0.0	2013	67.4	524
Dashoguz velayat	18.2	81.8	0.0	0.0	0.0	0.0	9.9	0.0	0.0	7058	(57.0)	54
Lebap velayat	12.3	77.8	0.0	0.0	4.6	0.1	47.5	0.0	0.0	5799	89.7	267
Mary velayat	10.8	78.6	0.6	0.6	5.4	0.2	40.6	0.0	0.0	7421	77.1	2792
Area												
Urban	23.2	67.3	0.1	0.9	9.5	0.0	22.6	0.2	0.0	11666	64.2	254
Rural	15.5	75.5	0.2	0.3	1.9	0.1	36.1	0.0	0.0	18206	69.4	4887
Main source of drinking water												
Improved	18.1	73.0	0.1	0.5	5.1	0.1	29.6	0.1	0.0	24730	na	na
Unimproved	20.6	69.0	0.3	0.8	3.5	0.1	36.9	0.1	0.0	5141	69.2	5141
Education of household head^a												
Primary	25.5	67.9	0.0	1.5	7.0	0.0	26.6	0.0	0.0	159	(*)	12
Secondary	18.1	73.2	0.1	0.6	3.2	0.1	31.7	0.1	0.0	18917	66.6	3593
Primary vocational	14.3	77.9	0.8	0.5	5.3	0.3	36.0	0.0	0.0	2187	84.2	343
Secondary vocational	20.5	70.2	0.0	0.7	5.4	0.0	26.7	0.1	0.0	4314	68.2	568
Higher	20.6	67.6	0.1	0.4	11.2	0.0	28.5	0.2	0.0	4277	75.9	626
Wealth index quintile												
Poorest	16.2	79.3	0.0	0.1	0.2	0.1	24.5	0.0	0.0	5971	68.7	626
Second	14.2	76.3	0.7	0.4	0.2	0.3	43.4	0.0	0.0	5979	70.8	1473
Middle	19.0	68.9	0.1	0.6	3.1	0.0	42.0	0.1	0.0	5973	62.1	2109
Fourth	14.8	77.2	0.0	0.9	5.4	0.0	28.4	0.2	0.0	5978	82.9	933
Richest	28.6	59.8	0.1	0.8	15.3	0.0	15.9	0.2	0.0	5970	-	-
Language of household head												
Turkmen	18.4	71.8	0.2	0.5	4.8	0.0	32.9	0.1	0.0	25457	68.7	4875
Uzbek	16.5	82.4	0.0	0.0	0.1	0.0	16.9	0.0	0.0	2714	85.1	149
Russian	28.9	61.5	0.0	1.6	14.4	0.1	15.4	0.0	0.0	1204	(*)	3
Other	14.4	66.2	0.0	3.4	9.7	2.1	40.5	0.3	0.0	497	70.2	114

¹ MICS indicator 4.2 - Water treatment

na: not applicable

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"-" denotes 0 unweighted case in that cell or in the denominator.

The amount of time it takes to obtain water is presented in Table WS.3 and the person who usually collects the water in Table WS.4. Note that for Table WS.3, household members using water on premises are also shown in this table and for others, the results refer to one roundtrip from home to drinking water source. Information on the number of trips made in one day was not collected.

Table WS.3 shows that for about 99 percent of the household population, the drinking water source is on premises. The availability of water on premises is associated with greater use, better family hygiene and better health outcomes. For a water collection round trip of 30 minutes or more it has been observed that households carry progressively less water and are likely to compromise on the minimal basic drinking water needs of the household.³⁹ For less than 1 percent of the household population, it takes the household more than 30 minutes to go to the water source, collect water and come back. Less than 1 percent of those using an improved drinking water source spend 30 minutes or more per round trip. The most notable difference is for users of unimproved drinking water sources who live in households spending less than 30 minutes to go to source of drinking water, by language of household head – from less than 1 percent of household members living in households in which the mother tongue of the household head is Turkmen, Uzbek or Russian to 11 percent of household members who are not from these three groups.

³⁹ Cairncross, S and Cliff, JL. 1987. *Water use and Health in Mueda, Mozambique*. Transactions of the Royal Society of Tropical Medicine and Hygiene 81: 51-4.

Table WS.3: Time to source of drinking water

Percent distribution of household population according to time to go to source of drinking water, get water and return, for users of improved and unimproved drinking water sources, Turkmenistan, 2015-2016

	Time to source of drinking water							Total	Number of household members
	Users of improved drinking water sources			Users of unimproved drinking water sources					
	Water on premises	Less than 30 minutes	30 minutes or more	Water on premises	Less than 30 minutes	30 minutes or more	Missing/DK		
Total	82.3	0.5	0.1	16.3	0.8	0.2	0.0	100.0	29871
Region									
Ashgabat city	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3613
Ahal velayat	62.1	0.0	0.0	37.6	0.3	0.0	0.1	100.0	3967
Balkan velayat	74.0	0.0	0.0	26.0	0.0	0.0	0.0	100.0	2013
Dashoguz velayat	98.1	1.2	0.0	0.1	0.7	0.0	0.0	100.0	7058
Lebap velayat	94.2	0.9	0.3	2.2	1.6	0.9	0.0	100.0	5799
Mary velayat	62.4	0.0	0.0	36.6	1.0	0.0	0.0	100.0	7421
Area									
Urban	97.8	0.0	0.0	2.1	0.0	0.0	0.0	100.0	11666
Rural	72.3	0.7	0.1	25.3	1.2	0.3	0.0	100.0	18206
Education of household head^a									
Primary	92.6	0.0	0.0	7.4	0.0	0.0	0.0	100.0	159
Secondary	80.4	0.6	0.1	17.9	0.8	0.3	0.0	100.0	18917
Primary vocational	83.9	0.4	0.0	14.4	1.3	0.0	0.0	100.0	2187
Secondary vocational	86.6	0.2	0.0	12.4	0.8	0.0	0.0	100.0	4314
Higher	85.2	0.2	0.0	14.3	0.3	0.0	0.0	100.0	4277
Wealth index quintile									
Poorest	87.5	1.8	0.3	8.8	1.4	0.3	0.0	100.0	5971
Second	74.9	0.5	0.0	22.5	1.6	0.5	0.0	100.0	5979
Middle	64.7	0.0	0.0	34.4	0.8	0.1	0.0	100.0	5973
Fourth	84.4	0.0	0.0	15.6	0.0	0.0	0.0	100.0	5978
Richest	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	5970
Language of household head									
Turkmen	80.3	0.5	0.0	18.5	0.6	0.0	0.0	100.0	25457
Uzbek	94.1	0.0	0.3	3.4	0.7	1.4	0.0	100.0	2714
Russian	99.7	0.1	0.0	0.2	0.0	0.0	0.0	100.0	1204
Other	77.0	0.0	0.0	12.3	10.7	0.0	0.0	100.0	497

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

Table WS.4 shows that for more than half of the households (55 percent), an adult male usually collects drinking water when the source is not on the premises. Adult women collect water in 45 percent of such cases. There are no cases when female or male children under age 15 collect water.

Table WS.4: Person collecting water

Percentage of households without drinking water on premises, and percent distribution of households without drinking water on premises according to the person usually collecting drinking water used in the household, Turkmenistan, 2015-2016

	Percentage of households without drinking water on premises	Number of households	Person usually collecting drinking water			Number of households without drinking water on premises
			Adult woman	Adult man	Total	
Total	1.4	5861	45.1	54.9	100.0	84
Region						
Ashgabat city	0.0	883	(*)	(*)	100.0	-
Ahal velayat	0.3	674	(*)	(*)	100.0	2
Balkan velayat	0.0	497	(*)	(*)	100.0	-
Dashoguz velayat	2.2	1236	(*)	(*)	100.0	27
Lebap velayat	3.9	1079	(55.4)	(44.6)	100.0	42
Mary velayat	0.9	1491	(*)	(*)	100.0	13
Area						
Urban	0.1	2634	(*)	(*)	100.0	2
Rural	2.5	3227	46.4	53.6	100.0	82
Education of household head^a						
Primary	(0.0)	33	(*)	(*)	100.0	-
Secondary	1.8	3598	43.8	56.2	100.0	63
Primary vocational	2.0	422	(*)	(*)	100.0	8
Secondary vocational	1.0	889	(*)	(*)	100.0	9
Higher	0.4	915	(*)	(*)	100.0	4
Wealth index quintile						
Poorest	4.0	1155	(45.6)	(54.4)	100.0	46
Second	2.6	1055	(*)	(*)	100.0	27
Middle	1.0	1031	(*)	(*)	100.0	11
Fourth	0.0	1212	(*)	(*)	100.0	-
Richest	0.0	1408	(*)	(*)	100.0	-
Language of household head						
Turkmen	1.3	4853	44.5	55.5	100.0	62
Uzbek	2.7	473	(*)	(*)	100.0	13
Russian	0.3	426	(*)	(*)	100.0	1
Other	7.8	110	(*)	(*)	100.0	9

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"-" denotes 0 unweighted case in that cell or in the denominator.

Use of Improved Sanitation

An improved sanitation facility is defined as one that hygienically separates human excreta from human contact. Improved sanitation facilities for excreta disposal include flush or pour flush to a piped sewer system, septic tank, or pit latrine; ventilated improved pit latrine, pit latrine with slab, and use of a composting toilet. The data on the use of improved sanitation facilities in Turkmenistan are provided in Table WS.5.

The entire population of Turkmenistan lives in households using improved sanitation facilities (Table WS.5). The table indicates that the type of improved sanitation facilities used is strongly correlated with wealth and is different between regions and area of residence. In rural areas, the population primarily uses a ventilated improved pit latrine (68 percent), or a pit latrine with slab (28 percent). In contrast, the most common facilities in urban areas are flush toilets with connection to a sewage system, septic tank or pit latrine (59 percent). In Ashgabat city, flush toilets with connection to a sewage system or septic tank are used by 83 percent of household members and 54 percent in Balkan velayat, whereas this indicator in other regions (predominantly rural areas) is from 2 percent in Ahal velayat to 19 percent in Lebap velayat. There are notable differences in percentages of household members using flush toilets with connection to a sewage system by wealth index (around 2 percent in the first three quintiles, 24 percent in fourth quintile and 81 percent in the richest quintile) as well as by language of household head (93 percent of household members living in households where the language of the household head is Russian and ranging from 15 percent to 32 percent for all other categories).

Table WS.5: Types of sanitation facilitiesPercent distribution of household population according to type of toilet facility^a used by the household, Turkmenistan, 2015-2016

	Type of toilet facility used by household						Total	Number of household members
	Improved sanitation facility					Open defecation (no facility, bush, field)		
	Flush/Pour flush to:			Ventilated improved pit latrine	Pit latrine with slab			
Piped sewer system	Septic tank	Pit latrine						
Total	22.0	1.2	2.4	55.4	19.0	0.0	100.0	29871
Region								
Ashgabat city	82.1	0.8	10.1	6.1	0.9	0.0	100.0	3613
Ahal velayat	0.5	1.3	0.1	82.4	15.7	0.0	100.0	3967
Balkan velayat	53.8	0.4	1.6	42.6	1.6	0.0	100.0	2013
Dashoguz velayat	11.2	0.1	0.0	66.9	21.8	0.0	100.0	7058
Lebap velayat	18.5	0.5	3.4	32.8	44.9	0.0	100.0	5799
Mary velayat	8.6	3.2	1.5	75.0	11.6	0.2	100.0	7421
Area								
Urban	54.0	0.9	4.3	36.2	4.7	0.0	100.0	11666
Rural	1.5	1.4	1.2	67.6	28.2	0.1	100.0	18206
Education of household head^b								
Primary	15.0	5.3	10.7	38.3	30.6	0.0	100.0	159
Secondary	15.3	1.0	2.0	58.8	22.9	0.1	100.0	18917
Primary vocational	23.6	1.2	1.5	57.2	16.5	0.0	100.0	2187
Secondary vocational	33.5	1.0	3.3	48.9	13.3	0.0	100.0	4314
Higher	39.7	2.2	3.4	46.4	8.2	0.0	100.0	4277
Wealth index quintile								
Poorest	1.8	0.0	0.0	58.6	39.5	0.0	100.0	5971
Second	1.5	0.6	1.2	66.4	30.1	0.2	100.0	5979
Middle	2.4	1.6	1.9	76.9	17.3	0.0	100.0	5973
Fourth	23.6	3.1	5.0	60.5	7.8	0.0	100.0	5978
Richest	80.8	0.6	3.8	14.3	0.5	0.0	100.0	5970
Language of household head								
Turkmen	19.2	1.4	2.8	56.4	20.1	0.0	100.0	25457
Uzbek	15.2	0.0	0.1	70.4	14.3	0.0	100.0	2714
Russian	92.9	0.0	0.0	7.1	0.1	0.0	100.0	1204
Other	32.3	0.0	0.0	34.2	33.5	0.0	100.0	497

^a The number of household members who use unimproved sanitation facility is 0 unweighted cases for all categories.

Therefore, the part of Table WS.5 showing use of unimproved sanitation facilities is not shown.

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

The MDGs and the WHO / UNICEF Joint Monitoring Programme (JMP) for Water Supply and Sanitation classify otherwise acceptable sanitation facilities which are public or shared between two or more households as unimproved. In the context of this report and as an MDG indicator, "use of improved sanitation" refers to improved sanitation facilities, which are not public or shared with other households. Data on the use of improved sanitation are presented in Tables WS.6 and WS.7.

As shown in Table WS.6, only 1 percent of households use an improved toilet facility that is public or shared with other households. In urban households use of an improved toilet facility that is public or shared with other households is about 3 percent and in rural households less than 1 percent.

Table WS.6: Use and sharing of sanitation facilities

Percent distribution of household population by use of private and public sanitation facilities and use of shared facilities, by users of improved and unimproved sanitation facilities^a, Turkmenistan, 2015-2016

	Users of improved sanitation facilities				Open defecation (no facility, bush, field)	Total	Number of household members
	Not shared ¹	Public facility	Shared by				
			5 households or less	More than 5 households			
Total	98.6	0.6	0.5	0.2	0.0	100.0	29871
Region							
Ashgabat city	99.0	0.5	0.3	0.2	0.0	100.0	3613
Ahal velayat	99.8	0.1	0.1	0.0	0.0	100.0	3967
Balkan velayat	100.0	0.0	0.0	0.0	0.0	100.0	2013
Dashoguz velayat	98.0	0.4	1.3	0.4	0.0	100.0	7058
Lebap velayat	98.0	0.9	0.6	0.5	0.0	100.0	5799
Mary velayat	98.3	1.2	0.2	0.1	0.2	100.0	7421
Area							
Urban	97.4	1.6	0.4	0.6	0.0	100.0	11666
Rural	99.4	0.0	0.6	0.0	0.1	100.0	18206
Education of household head^b							
Primary	99.2	0.0	0.8	0.0	0.0	100.0	159
Secondary	98.6	0.5	0.5	0.3	0.1	100.0	18917
Primary vocational	96.6	1.9	1.0	0.5	0.0	100.0	2187
Secondary vocational	99.0	0.7	0.3	0.0	0.0	100.0	4314
Higher	98.8	0.5	0.4	0.3	0.0	100.0	4277
Wealth index quintile							
Poorest	98.7	0.2	1.0	0.1	0.0	100.0	5971
Second	99.2	0.3	0.3	0.1	0.2	100.0	5979
Middle	99.1	0.1	0.5	0.4	0.0	100.0	5973
Fourth	96.7	2.3	0.4	0.6	0.0	100.0	5978
Richest	99.3	0.4	0.3	0.0	0.0	100.0	5970
Language of household head							
Turkmen	98.5	0.7	0.6	0.2	0.0	100.0	25457
Uzbek	99.5	0.4	0.0	0.2	0.0	100.0	2714
Russian	98.9	0.8	0.0	0.3	0.0	100.0	1204
Other	99.1	0.3	0.3	0.2	0.0	100.0	497

¹ MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation

^a The number of household members who use unimproved sanitation facility is 0 unweighted cases for all categories. Therefore, the percentages of household members using unimproved sanitation facilities are not shown in Table WS.6

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

Having access to both an improved drinking water source and an improved sanitation facility brings the largest public health benefits to a household.⁴⁰ In its 2008 report⁴¹, the JMP developed a new way of presenting the access figures, by disaggregating and refining the data on drinking-water and sanitation and reflecting them in "ladder" format. This ladder allows a disaggregated analysis of trends in a three rung ladder for drinking-water and a four-rung ladder for sanitation. For sanitation, this gives an understanding of the proportion of population with no sanitation facilities at all – who revert to open defecation, of those reliant on technologies defined by JMP as "unimproved," of those sharing sanitation facilities of otherwise acceptable technology, and those using "improved" sanitation facilities.

Table WS.7 presents the percentages of household population by these drinking water and sanitation ladders. The table also shows the percentage of household members using both improved

⁴⁰ Wolf, J et al. 2014. *Systematic review: Assessing the impact of drinking water and sanitation on diarrhoeal disease in low- and middle-income settings: systematic review and meta-regression*. Tropical Medicine and International Health 2014.

DfID. 2013. *Water, Sanitation and Hygiene: Evidence Paper*. DfID:

<http://r4d.dfid.gov.uk/pdf/outputs/sanitation/WASH-evidence-paper-april2013.pdf>

⁴¹ WHO/UNICEF JMP. 2008. *MDG assessment report*.

http://www.wssinfo.org/fileadmin/user_upload/resources/1251794333-JMP_08_en.pdf

sources of drinking water⁴² and an improved sanitary means of excreta disposal. 81 percent of the household population in Turkmenistan has access to improved water sources and improved sanitation, 95 percent in urban areas and 73 percent in rural areas. Differences by background characteristics practically corresponds to the differences with the use of improved sources of drinking water since the values for the improved sanitation indicator are very high and range from 97 percent to 100 percent. These results are presented by wealth quintiles in Figure WS.2.

⁴² Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.

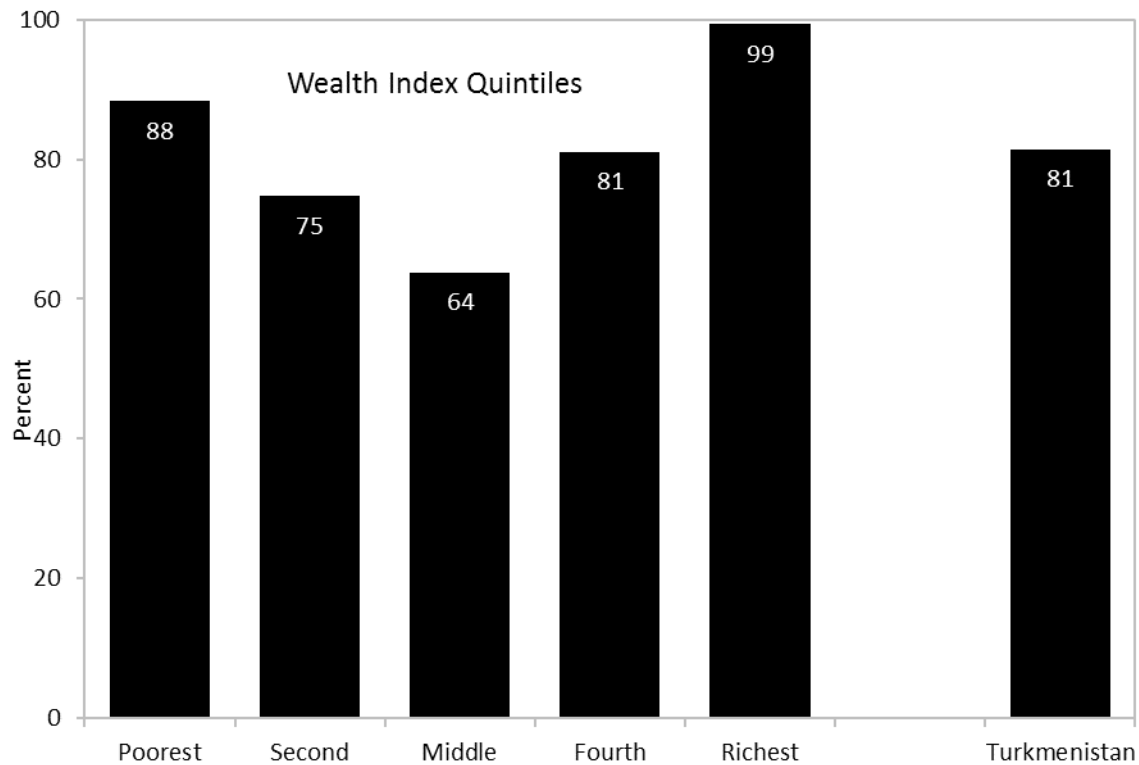
Table WS.7: Drinking water and sanitation ladders

Percentage of household population by drinking water and sanitation ladders, Turkmenistan, 2015-2016

	Percentage of household population using:									Number of household members
	Improved drinking water ^{1, a}				Unimproved sanitation ^b			Improved drinking water sources and improved sanitation		
	Piped into dwelling, plot or yard	Other improved	Unimproved drinking water	Total	Improved sanitation ²	Shared improved facilities	Open defecation	Total	Improved drinking water sources and improved sanitation	
Total	58.3	24.5	17.2	100.0	98.6	1.4	0.0	100.0	81.4	29871
Region										
Ashgabat city	99.9	0.1	0.0	100.0	99.0	1.0	0.0	100.0	99.0	3613
Ahal velayat	54.4	7.7	37.9	100.0	99.8	0.2	0.0	100.0	61.9	3967
Balkan velayat	73.5	0.5	26.0	100.0	100.0	0.0	0.0	100.0	74.0	2013
Dashoguz velayat	76.3	22.9	0.8	100.0	98.0	2.0	0.0	100.0	97.2	7058
Lebap velayat	44.9	50.5	4.6	100.0	98.0	2.0	0.0	100.0	93.6	5799
Mary velayat	29.2	33.2	37.6	100.0	98.3	1.5	0.2	100.0	60.9	7421
Area										
Urban	93.0	4.9	2.2	100.0	97.4	2.6	0.0	100.0	95.2	11666
Rural	36.1	37.1	26.8	100.0	99.4	0.6	0.1	100.0	72.6	18206
Education of household head^c										
Primary	77.3	15.3	7.4	100.0	99.2	0.8	0.0	100.0	91.9	159
Secondary	53.9	27.1	19.0	100.0	98.6	1.3	0.1	100.0	79.7	18917
Primary vocational	63.2	21.1	15.7	100.0	96.6	3.4	0.0	100.0	81.0	2187
Secondary vocational	67.8	19.0	13.2	100.0	99.0	1.0	0.0	100.0	85.9	4314
Higher	65.0	20.4	14.6	100.0	98.8	1.2	0.0	100.0	84.2	4277
Wealth index quintile										
Poorest	51.9	37.6	10.5	100.0	98.7	1.3	0.0	100.0	88.3	5971
Second	32.6	42.8	24.6	100.0	99.2	0.6	0.2	100.0	74.7	5979
Middle	28.0	36.7	35.3	100.0	99.1	0.9	0.0	100.0	63.8	5973
Fourth	78.9	5.5	15.6	100.0	96.7	3.3	0.0	100.0	81.1	5978
Richest	100.0	0.0	0.0	100.0	99.3	0.7	0.0	100.0	99.3	5970
Language of household head										
Turkmen	54.5	26.4	19.1	100.0	98.5	1.5	0.0	100.0	79.4	25457
Uzbek	77.2	17.3	5.5	100.0	99.5	0.5	0.0	100.0	94.0	2714
Russian	98.0	1.8	0.2	100.0	98.9	1.1	0.0	100.0	98.6	1204
Other	53.2	23.8	23.0	100.0	99.1	0.9	0.0	100.0	76.1	497

¹ MICS indicator 4.1; MDG indicator 7.8 - Use of improved drinking water sources² MICS indicator 4.3; MDG indicator 7.9 - Use of improved sanitation^a Those indicating bottled water as the main source of drinking water are distributed according to the water source used for other purposes such as cooking and handwashing.^b The number of household members who use unimproved sanitation facility is 0 unweighted cases for all categories. Therefore, the percentages of household members using unimproved sanitation facilities are not shown in Table WS.7.^c Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

Figure WS.2: Use of improved drinking water sources and improved sanitation facilities by household members, Turkmenistan, 2015-2016



Safe disposal of a child’s faeces is disposing of the stool, by the child using a toilet or by rinsing the stool into a toilet or latrine. Putting disposable diapers with solid waste, a very common practice throughout the world has thus far been classified as an inadequate means of disposal of child faeces for concerns about poor disposal of solid waste itself. This classification is currently under review. Disposal of faeces of children 0-2 years of age is presented in Table WS.8. For 61 percent of children age 0-2 years last stools were disposed of safely. Regional differences are most notable. In more than half of the cases (55 percent) child’s faeces were put/flushed into a toilet or latrine and there were 5 percent of children who used the toilet/latrine. For 34 percent children child’s faeces were thrown into the garbage (inadequate means of disposal). Other methods are not widespread. In Dashoguz velayat, faeces were disposed safely only for 19 percent of children age 0-2 years, compared with Ashgabat city and Lebap velayat with 87 percent and 89 percent respectively.

Table WS.8: Disposal of child's faeces

Percent distribution of children age 0-2 years according to place of disposal of child's faeces, and the percentage of children age 0-2 years whose stools were disposed of safely the last time the child passed stools, Turkmenistan, 2015-2016

	Place of disposal of child's faeces									Percentage of children whose last stools were disposed of safely ¹	Number of children age 0-2 years
	Child used toilet/latrine	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage	Buried	Left in the open	Other	Missing/DK	Total		
Total	5.3	55.2	5.5	33.7	0.1	0.0	0.0	0.1	100.0	60.5	2274
Type of sanitation facility used by household members^a											
Improved	5.3	55.2	5.5	33.7	0.1	0.0	0.0	0.1	100.0	60.5	2270
Open defecation	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	4
Region											
Ashgabat city	1.7	85.1	1.4	11.6	0.0	0.3	0.0	0.0	100.0	86.7	237
Ahal velayat	4.8	76.7	6.3	12.1	0.0	0.0	0.0	0.1	100.0	81.5	355
Balkan velayat	18.2	34.0	0.4	47.4	0.0	0.0	0.0	0.0	100.0	52.3	113
Dashoguz velayat	1.1	18.0	0.4	80.5	0.0	0.0	0.0	0.0	100.0	19.1	600
Lebap velayat	1.2	87.5	3.6	6.7	0.5	0.0	0.2	0.3	100.0	88.7	459
Mary velayat	12.9	45.7	15.8	25.2	0.0	0.0	0.0	0.3	100.0	58.6	510
Area											
Urban	3.9	67.3	5.7	22.8	0.0	0.1	0.0	0.3	100.0	71.2	818
Rural	6.0	48.4	5.4	39.9	0.2	0.0	0.1	0.1	100.0	54.4	1456
Mother's education^b											
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	5
Secondary	5.3	53.2	5.4	35.8	0.1	0.0	0.0	0.1	100.0	58.5	1977
Primary vocational	5.1	70.4	4.0	19.7	0.0	0.0	0.0	0.7	100.0	75.5	155
Secondary vocational	3.8	66.7	4.9	24.6	0.0	0.0	0.0	0.0	100.0	70.6	68
Higher	8.0	69.3	8.7	14.0	0.0	0.0	0.0	0.0	100.0	77.3	67
Wealth index quintile											
Poorest	5.2	30.1	5.1	58.7	0.5	0.0	0.0	0.4	100.0	35.4	488
Second	3.7	46.7	6.0	43.4	0.0	0.0	0.2	0.0	100.0	50.5	479
Middle	7.8	65.7	6.1	20.3	0.0	0.0	0.0	0.0	100.0	73.5	484
Fourth	5.4	63.9	5.5	24.9	0.0	0.0	0.0	0.3	100.0	69.3	450
Richest	3.8	74.8	4.7	16.5	0.0	0.2	0.0	0.1	100.0	78.5	373
Language of household head											
Turkmen	5.5	59.5	5.4	29.3	0.1	0.0	0.0	0.2	100.0	65.0	1989
Uzbek	0.7	13.6	1.2	84.0	0.6	0.0	0.0	0.0	100.0	14.3	198
Russian	13.9	66.5	4.4	15.2	0.0	0.0	0.0	0.0	100.0	80.4	46
Other	(7.1)	(34.0)	(32.7)	(26.2)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(41.2)	41

¹ MICS indicator 4.4 - Safe disposal of child's faeces

^a The number of household members who use unimproved sanitation facility is 0 unweighted cases for all categories. Therefore, the percentages of household members using unimproved sanitation facilities are not shown in Table WS.8.

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Handwashing

Handwashing with water and soap is the most cost effective health intervention to reduce both the incidence of diarrhoea and pneumonia in children under five⁴³. It is most effective when done using water and soap after visiting a toilet or cleaning a child, before eating or handling food and, before feeding a child. Monitoring correct handwashing behaviour at these critical times is challenging. A reliable alternative to observations or self-reported behaviour is assessing the likelihood that correct handwashing behaviour takes place by asking if a household has a specific place where people wash their hands and, if yes, observing whether water and soap are available at this place⁴⁴.

In almost all households in Turkmenistan (100 percent), the interviewers were able to observe a specific place for handwashing (Table WS.9). The percentage of households with a specific place for handwashing where water and soap are present is very high (99 percent). Overall, all households have soap in the dwelling (Table WS.10).

⁴³ Cairncross, S and Valdmanis, V. 2006. *Water supply, sanitation and hygiene promotion* Chapter 41 in *Disease Control Priorities in Developing Countries*. 2nd Edition, Edt. Jameson et al. The World Bank.

⁴⁴ Ram, P et al. editors. 2008. *Use of a novel method to detect reactivity to structured observation for measurement of handwashing behavior*. American Society of Tropical Medicine and Hygiene.

Table WS.9: Water and soap at place for handwashing

Percentage of households where place for handwashing was observed, percentage with no specific place for handwashing, and percent distribution of households by availability of water and soap at specific place for handwashing, Turkmenistan, 2015-2016

	Percentage of households:			Place for handwashing observed					Number of households where place for handwashing was observed or with no specific place for handwashing in the dwelling, yard, or plot	
	Where place for handwashing was observed	With no specific place for handwashing in the dwelling, yard, or plot	Number of households	Water is available and:		Water is not available and:		No specific place for handwashing in the dwelling, yard, or plot		Percentage of households with a specific place for handwashing where water and soap are present ¹
				Soap present	No soap present	Soap present		Total		
Total	99.5	0.3	5861	99.4	0.3	0.1	0.3	100.0	99.4	5849
Region										
Ashgabat city	99.3	0.0	883	100.0	0.0	0.0	0.0	100.0	100.0	877
Ahal velayat	99.7	0.2	674	99.8	0.0	0.0	0.2	100.0	99.8	673
Balkan velayat	99.8	0.2	497	99.8	0.0	0.0	0.2	100.0	99.8	497
Dashoguz velayat	99.5	0.3	1236	99.5	0.1	0.1	0.3	100.0	99.5	1234
Lebap velayat	99.1	0.7	1079	97.9	1.1	0.3	0.7	100.0	97.9	1077
Mary velayat	99.9	0.1	1491	99.6	0.3	0.0	0.1	100.0	99.6	1491
Area										
Urban	99.5	0.1	2634	99.8	0.0	0.1	0.1	100.0	99.8	2624
Rural	99.6	0.4	3227	99.0	0.5	0.1	0.4	100.0	99.0	3225
Education of household head^a										
Primary	(100.0)	(0.0)	33	(100.0)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	33
Secondary	99.6	0.3	3598	99.2	0.4	0.1	0.3	100.0	99.2	3593
Primary vocational	99.3	0.7	422	99.0	0.3	0.0	0.7	100.0	99.0	422
Secondary vocational	99.7	0.2	889	99.7	0.1	0.0	0.2	100.0	99.7	888
Higher	99.4	0.1	915	99.8	0.1	0.0	0.1	100.0	99.8	910
Wealth index quintile										
Poorest	99.1	0.9	1155	97.8	1.2	0.2	0.9	100.0	97.8	1154
Second	99.7	0.1	1055	99.5	0.2	0.1	0.1	100.0	99.5	1053
Middle	99.8	0.2	1031	99.7	0.1	0.0	0.2	100.0	99.7	1031
Fourth	99.5	0.1	1212	99.8	0.0	0.1	0.1	100.0	99.8	1206
Richest	99.7	0.0	1408	100.0	0.0	0.0	0.0	100.0	100.0	1404
Language of household head										
Turkmen	99.6	0.3	4853	99.3	0.4	0.1	0.3	100.0	99.3	4845
Uzbek	99.8	0.2	473	99.8	0.0	0.0	0.2	100.0	99.8	473
Russian	99.3	0.0	426	100.0	0.0	0.0	0.0	100.0	100.0	423
Other	98.7	0.0	110	100.0	0.0	0.0	0.0	100.0	100.0	108

¹ MICS indicator 4.5 - Place for handwashing

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

() Figures that are based on 25–49 unweighted cases.

Table WS.10: Availability of soap

Percent distribution of households by availability of soap in the dwelling, Turkmenistan, 2015-2016

	Place for handwashing observed				Place for handwashing not observed			Total	Percentage of households with soap anywhere in the dwelling ¹	Number of households
	Soap not observed at place for handwashing				Soap shown	No soap in household	Not able/Does not want to show soap			
	Soap observed	Soap shown	No soap in household	Not able/Does not want to show soap						
Total	99.2	0.2	0.0	0.0	0.4	0.0	0.1	100.0	99.9	5861
Region										
Ashgabat city	99.3	0.0	0.0	0.0	0.7	0.1	0.0	100.0	99.9	883
Ahal velayat	99.7	0.0	0.0	0.0	0.1	0.1	0.1	100.0	99.8	674
Balkan velayat	99.8	0.0	0.0	0.0	0.2	0.0	0.0	100.0	100.0	497
Dashoguz velayat	99.4	0.1	0.0	0.0	0.5	0.0	0.0	100.0	100.0	1236
Lebap velayat	98.0	1.0	0.0	0.1	0.7	0.0	0.2	100.0	99.7	1079
Mary velayat	99.6	0.2	0.1	0.0	0.1	0.0	0.0	100.0	99.9	1491
Area										
Urban	99.5	0.0	0.0	0.0	0.4	0.0	0.0	100.0	99.9	2634
Rural	99.1	0.4	0.1	0.0	0.4	0.0	0.1	100.0	99.9	3227
Education of household head^b										
Primary	(100.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	33
Secondary	99.2	0.3	0.0	0.0	0.3	0.0	0.1	100.0	99.8	3598
Primary vocational	99.0	0.3	0.0	0.0	0.7	0.0	0.0	100.0	100.0	422
Secondary vocational	99.6	0.1	0.0	0.0	0.3	0.0	0.0	100.0	100.0	889
Higher	99.2	0.1	0.0	0.0	0.6	0.1	0.0	100.0	99.9	915
Wealth index quintile										
Poorest	97.9	0.9	0.1	0.1	0.9	0.0	0.1	100.0	99.7	1155
Second	99.5	0.2	0.0	0.0	0.2	0.0	0.1	100.0	99.9	1055
Middle	99.7	0.1	0.0	0.0	0.2	0.0	0.0	100.0	100.0	1031
Fourth	99.5	0.0	0.0	0.0	0.3	0.1	0.1	100.0	99.8	1212
Richest	99.7	0.0	0.0	0.0	0.3	0.0	0.0	100.0	100.0	1408
Language of household head										
Turkmen	99.2	0.3	0.0	0.0	0.4	0.0	0.1	100.0	99.9	4853
Uzbek	99.8	0.0	0.0	0.0	0.2	0.0	0.0	100.0	100.0	473
Russian	99.3	0.0	0.0	0.0	0.7	0.0	0.0	100.0	100.0	426
Other	98.7	0.0	0.0	0.0	0.7	0.6	0.0	100.0	99.4	110

¹ MICS indicator 4.6 - Availability of soap^a

^a The indicator name has been changed from the standard "MICS indicator 4.6 - Availability of soap or other cleansing agent" since other cleansing agents such as ash, mud or sand are not applicable for Turkmenistan and therefore have not been included in the Household Questionnaire.

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education of household head" is not shown.

() Figures that are based on 25–49 unweighted cases.

VIII. Reproductive Health

Fertility

Measures of current fertility are presented in Table RH.1 for the three-year period preceding the survey. A three-year period was chosen for calculating these rates to provide the most current information while also allowing the rates to be calculated for a sufficient number of cases so as not to compromise the statistical precision of the estimates. Age-specific fertility rates (ASFRs), expressed as the number of births per 1,000 women in a specified age group, show the age pattern of fertility. Numerators for ASFRs are calculated by identifying live births that occurred in the three-year period preceding the survey classified according to the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of the rates represent the number of woman-years lived by the survey respondents in each of the five-year age groups during the specified period. The total fertility rate (TFR) is a synthetic measure that denotes the number of live births a woman would have if she were subject to the current age-specific fertility rates throughout her reproductive years (15-49 years). The general fertility rate (GFR) is the number of live births occurring during the specified period per 1,000 women age 15-49. The crude birth rate (CBR) is the number of live births per 1,000 population during the specified period.

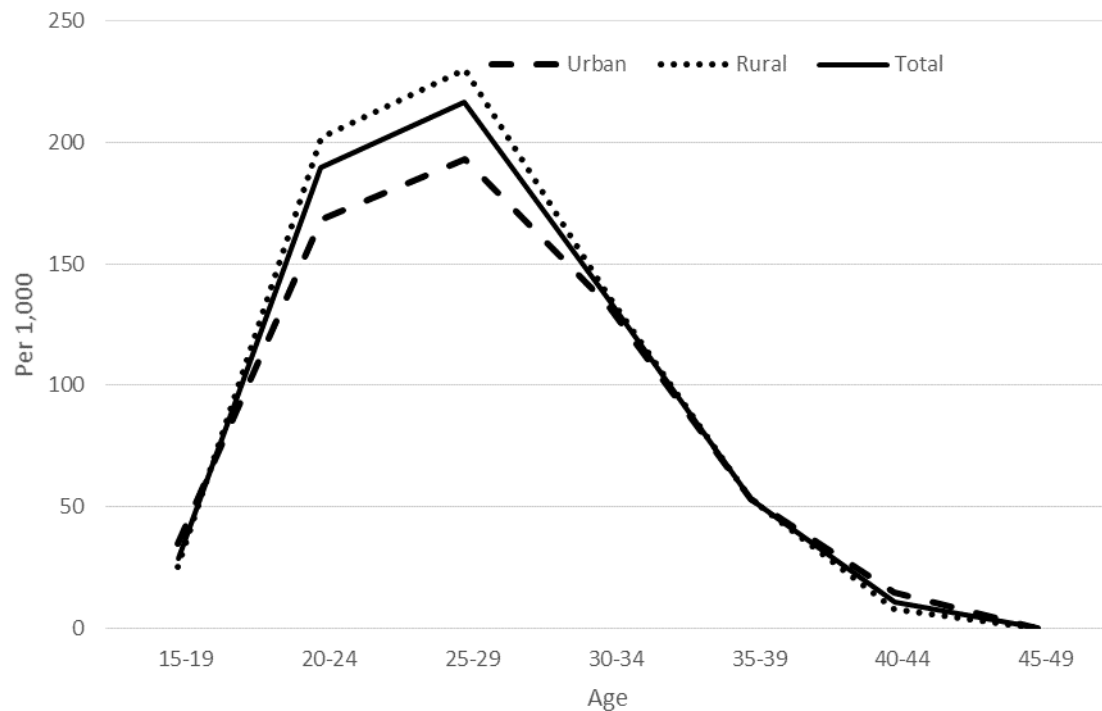
Table RH.1: Fertility rates

Adolescent birth rate, age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three-year period preceding the survey, by area, Turkmenistan, 2015-2016

	Urban	Rural	Total
Age			
15-19 ¹	35	25	28
20-24	168	202	190
25-29	193	230	217
30-34	133	138	136
35-39	53	53	53
40-44	15	8	11
45-49	0	0	0
TFR ^a	3.0	3.3	3.2
GFR ^b	97	114	107
CBR ^c	25	30	28
¹ MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate			
^a TFR: Total fertility rate expressed per woman age 15-49 years			
^b GFR: General fertility rate expressed per 1,000 women age 15-49 years			
^c CBR: Crude birth rate expressed per 1,000 population			

Table RH.1 shows current fertility in Turkmenistan at the national level and by urban-rural area. The TFR for the three years preceding the 2015-2016 Turkmenistan MICS, is 3.2 births per woman, the rate is slightly higher in rural areas (3.3 births per woman) than in urban areas (3.0 births per woman). As the ASFRs show, higher rural fertility is mainly due to two age groups – 20-24 years and 25-29 years. These results are shown in Figure RH.1 as well.

Figure RH.1: Age-specific fertility rates by area, Turkmenistan, 2015-2016



Rates refer to the three years period preceding the survey

The overall age pattern of fertility, as reflected in the ASFRs, indicates that fertility is low among adolescents, increases to a peak of 217 births per 1,000 among women age 25-29, and declines thereafter.

Table RH.2 shows adolescent birth rates and total fertility rates. The adolescent birth rate (age-specific fertility rate for women age 15-19) is defined as the number of births to women age 15-19 years during the three year period preceding the survey, divided by the average number of women age 15-19 (number of women-years lived between ages 15 through 19, inclusive) during the same period, expressed per 1,000 women.

Table RH.2: Adolescent birth rate and total fertility rate

Adolescent birth rates and total fertility rates for the three-year period preceding the survey, Turkmenistan, 2015-2016

	Adolescent birth rate ¹ (Age-specific fertility rate for women age 15-19 years)	Total fertility rate
Total	28	3.2
Region		
Ashgabat city	37	(2.8)
Ahal velayat	46	3.5
Balkan velayat	10	2.7
Dashoguz velayat	23	3.7
Lebap velayat	35	3.1
Mary velayat	21	2.8
Education^a		
Primary	(*)	(*)
Secondary	30	3.4
Primary vocational	20	(*)
Secondary vocational	(*)	(*)
Higher	(*)	(*)
Wealth index quintile		
Poorest	24	(3.7)
Second	22	(3.3)
Middle	33	3.2
Fourth	33	3.2
Richest	31	2.5
Language of household head		
Turkmen	28	3.2
Uzbek	(25)	(*)
Russian	(22)	(*)
Other	(*)	(*)
¹ MICS indicator 5.1; MDG indicator 5.4 - Adolescent birth rate		
<p>^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.</p> <p>() Figures that are based on 125–249 unweighted person-years of exposure.</p> <p>(*) Figures that are based on fewer than 125 unweighted person-years of exposure.</p>		

The age-specific fertility rate for women age 15-19 years is 28 births per 1,000 women with notable differences by regions. In Ahal velayat, women in the adolescent period are more likely to have a birth (46 births per 1,000 women) compared to women from Balkan velayat (10 births per 1,000 women). Adolescent birth rate is 1.4 times higher in rural compared to urban areas (35 births per 1,000 and 25 births per 1,000 women). Table RH.2 also suggests that fertility rates vary not only by regions but also by household wealth. The total fertility rate is above the national average in two regions, in Dashoguz velayat (3.7 births per woman) and in Ahal velayat (3.5 births per woman), while rates in other regions vary from 2.7 to 3.1 births per woman. With the increase of wealth status, the fertility rate decreases from 3.7 births per woman⁴⁵ in the poorest quintile to 2.5 births per woman in the richest quintile.

⁴⁵ This figure is based on 125–249 unweighted person-years of exposure and should be interpreted with caution.

Table RH.3 presents some early childbearing⁴⁶ indicators for women age 15-19 and 20-24 while Table RH.4 presents the trends for early childbearing.

Table RH.3: Early childbearing

Percentage of women age 15-19 years who have had a live birth, are pregnant with the first child, have begun childbearing, and who have had a live birth before age 15, and percentage of women age 20-24 years who have had a live birth before age 18, Turkmenistan, 2015-2016

	Percentage of women age 15-19 years who:				Number of women age 15-19 years	Percentage of women age 20-24 years who have had a live birth before age 18 ¹	Number of women age 20-24 years
	Have had a live birth	Are pregnant with first child	Have begun childbearing	Have had a live birth before age 15			
Total	2.8	1.3	4.1	0.0	1197	1.4	1400
Region							
Ashgabat city	1.9	0.5	2.4	0.0	144	0.4	163
Ahal velayat	5.0	1.2	6.2	0.0	133	2.9	226
Balkan velayat	0.7	0.0	0.7	0.0	75	1.0	75
Dashoguz velayat	3.2	1.0	4.1	0.0	310	0.0	288
Lebap velayat	2.8	2.1	4.9	0.0	220	2.8	286
Mary velayat	2.5	1.7	4.2	0.0	315	0.9	362
Area							
Urban	1.7	0.2	1.9	0.0	432	1.9	519
Rural	3.5	1.9	5.4	0.0	765	1.1	881
Education^a							
Primary	(*)	(*)	(*)	(*)	3	(*)	3
Secondary	2.9	1.3	4.2	0.0	1119	1.7	1105
Primary vocational	(2.8)	(2.7)	(5.5)	(0.0)	43	0.4	154
Secondary vocational	(*)	(*)	(*)	(*)	17	0.0	73
Higher	(*)	(*)	(*)	(*)	16	0.0	60
Wealth index quintile							
Poorest	2.7	2.0	4.7	0.0	272	1.0	225
Second	3.2	0.8	3.9	0.0	250	1.2	297
Middle	4.5	2.8	7.2	0.0	228	1.0	326
Fourth	2.4	0.3	2.8	0.0	220	1.9	280
Richest	1.4	0.3	1.8	0.0	227	1.9	272
Language of household head							
Turkmen	2.7	1.3	4.0	0.0	1040	1.5	1241
Uzbek	5.1	1.3	6.4	0.0	97	0.0	97
Russian	(2.4)	(0.0)	(2.4)	(0.0)	41	(3.5)	37
Other	(*)	(*)	(*)	(*)	19	(*)	26

¹ MICS indicator 5.2 - Early childbearing

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

⁴⁶ Childbearing is the process of giving birth to children. While early childbearing is defined as having had live births before specific young ages, for the purposes of Table RH.3, women age 15-19 years who have begun childbearing includes those who have had a live birth as well as those who have not had a live birth but are pregnant with their first child.

Table RH.4: Trends in early childbearing

Percentage of women who have had a live birth, by age 15 and 18, by area and age group, Turkmenistan, 2015-2016

	Urban				Rural				All			
	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years	Percentage of women with a live birth before age 15	Number of women age 15-49 years	Percentage of women with a live birth before age 18	Number of women age 20-49 years
Total	0.1	3006	2.0	2574	0.0	4612	1.5	3847	0.1	7618	1.7	6421
Age												
15-19	0.0	432	na	na	0.0	765	na	na	0.0	1197	na	na
20-24	0.0	519	1.9	519	0.0	881	1.1	881	0.0	1400	1.4	1400
25-29	0.0	474	1.6	474	0.0	876	1.0	876	0.0	1351	1.2	1351
30-34	0.3	469	3.4	469	0.0	648	2.4	648	0.1	1117	2.8	1117
35-39	0.2	398	2.0	398	0.0	548	3.2	548	0.1	946	2.7	946
40-44	0.0	378	1.5	378	0.3	456	1.6	456	0.2	835	1.5	835
45-49	0.2	335	0.9	335	0.0	438	0.4	438	0.1	772	0.6	772
na: not applicable												

As shown in Table RH.3, around 3 percent of women age 15-19 have already had a birth and about 1 percent are pregnant with their first child. The table also presents that about 1 percent of women age 20-24 have had a live birth before age 18, mainly women with secondary education.

Table RH.4 suggests that early childbearing before age 15 is not common in Turkmenistan, with no major changes over time. While percentages of women who have had a live birth before age 18 are generally low, there still seems to have been a slight decline in childbearing before age 18 over the last 15 years.

Contraception

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

Table RH.4A shows the proportions of women age 15-49 ever married or in union and women age 15-49 currently married or in union, who have heard of any contraceptive method, by specific method. The data show that almost all women have heard of a contraceptive method and the mean number of methods known by women is 6 (of 14 methods). While the majority are familiar with the most common traditional and modern methods of contraception, there are modern methods they are less familiar with (12 percent for diaphragm, 12 percent for implants, 16 percent for female condom and 20 percent for emergency contraception).

Table RH.4A: Knowledge of specific contraceptive methods

Percentage of women age 15-49 years ever married or in union and percentage of women age 15-49 years currently married or in union who have heard of any contraceptive method, by specific method, Turkmenistan 2015-2016

	Ever married or in union	Currently married or in union
Any method	99.8	99.8
Any modern method^b	99.8	99.8
Female sterilization	45.1	44.0
Male sterilization	22.5	21.5
Pill	87.8	87.4
IUD	98.3	98.4
Injectables	67.9	67.6
Implants	11.5	11.1
Male condom	95.2	95.2
Female condom	15.9	14.8
Diaphragm	11.8	11.0
Foam/Jelly	25.0	23.7
Emergency contraception	20.2	19.0
Any traditional method	84.8	84.5
Periodic abstinence	68.4	67.7
Withdrawal	82.9	82.5
Other	2.7	2.7
Mean number of methods known by women	6.4	6.3
Number of women	5378	4887

^a The lactational amenorrhea method (LAM) was not included in the 2015-2016 Turkmenistan MICS because there is no official LAM programme in the country.

Table RH.4B provides information on knowledge of contraceptive methods for women age 15-49 currently married or in union, by background characteristics. The awareness level is very high with no major differences observed among different background characteristics.

Table RH.4B: Knowledge of contraceptive methods			
Percentage of women age 15-49 years currently married or in union who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, Turkmenistan, 2015-2016			
	Any method	Any modern method ^a	Number of women age 15-49 currently married or in union
Total	99.8	99.8	4887
Region			
Ashgabat city	100.0	100.0	564
Ahal velayat	100.0	100.0	691
Balkan velayat	99.9	99.9	289
Dashoguz velayat	100.0	100.0	1136
Lebap velayat	99.8	99.8	953
Mary velayat	99.3	99.3	1254
Area			
Urban	100.0	100.0	1803
Rural	99.6	99.6	3084
Age			
15-19	98.6	98.6	72
20-24	99.8	99.8	681
25-29	99.8	99.8	1049
30-34	99.7	99.7	946
35-39	100.0	100.0	808
40-44	99.8	99.8	693
45-49	99.7	99.7	638
Education^b			
Primary	(*)	(*)	3
Secondary	99.7	99.7	3938
Primary vocational	100.0	100.0	361
Secondary vocational	100.0	100.0	356
Higher	100.0	100.0	226
Wealth index quintile			
Poorest	99.3	99.3	986
Second	99.8	99.8	1023
Middle	99.9	99.9	1007
Fourth	100.0	100.0	943
Richest	100.0	100.0	929
Language of household head			
Turkmen	99.8	99.8	4236
Uzbek	99.7	99.7	441
Russian	100.0	100.0	142
Other	95.9	95.9	68

^a Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, and other modern methods.

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Table RH.5: Use of contraception

Percentage of women age 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Turkmenistan, 2015-2016

	Percent of women currently married or in union who are using (or whose partner is using):																Number of women age 15-49 years currently married or in union
	No method	Female sterilization	Male sterilization	IUD	Injectables	Implants	Pill	Male condom	Female condom	Diaphragm/Foam/Jelly	Periodic abstinence	Withdrawal	Other	Any modern method	Any traditional method	Any method ¹	
Total	49.8	0.3	0.1	44.0	0.3	0.0	1.0	1.5	0.0	0.0	0.5	2.6	0.0	47.1	3.1	50.2	4887
Region																	
Ashgabat city	50.6	0.0	0.0	33.2	0.0	0.0	4.1	5.8	0.0	0.0	0.5	5.8	0.0	43.1	6.3	49.4	564
Ahal velayat	41.8	0.1	0.0	53.4	0.5	0.0	1.0	0.2	0.0	0.0	1.0	2.1	0.0	55.1	3.1	58.2	691
Balkan velayat	53.0	0.1	0.0	42.5	1.0	0.0	2.1	0.7	0.0	0.0	0.1	0.3	0.0	46.5	0.5	47.0	289
Dashoguz velayat	60.5	0.8	0.0	37.6	0.4	0.0	0.2	0.1	0.0	0.0	0.1	0.2	0.0	39.1	0.3	39.5	1136
Lebap velayat	47.0	0.1	0.2	46.4	0.4	0.0	0.7	2.4	0.0	0.0	1.1	1.4	0.2	50.2	2.7	53.0	953
Mary velayat	45.5	0.1	0.1	47.9	0.1	0.0	0.3	0.9	0.0	0.0	0.2	4.9	0.0	49.4	5.1	54.5	1254
Area																	
Urban	49.7	0.1	0.1	41.0	0.6	0.0	2.0	3.0	0.0	0.0	0.5	2.8	0.1	46.9	3.4	50.3	1803
Rural	49.8	0.3	0.1	45.7	0.2	0.0	0.4	0.6	0.0	0.0	0.5	2.4	0.0	47.2	2.9	50.2	3084
Age																	
15-19	98.0	0.0	0.0	1.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	72
20-24	77.7	0.0	0.0	17.5	0.3	0.0	0.9	1.5	0.0	0.0	0.1	2.1	0.0	20.2	2.1	22.3	681
25-29	58.8	0.1	0.1	35.2	0.3	0.0	0.6	1.4	0.0	0.0	0.7	2.8	0.0	37.7	3.5	41.2	1049
30-34	44.4	0.3	0.1	48.5	0.0	0.0	1.2	1.4	0.0	0.0	0.6	3.3	0.1	51.6	4.0	55.6	946
35-39	31.5	0.4	0.0	60.6	0.8	0.0	1.8	2.1	0.0	0.0	0.4	2.5	0.0	65.6	2.9	68.5	808
40-44	30.1	0.5	0.2	62.8	0.4	0.0	1.2	2.0	0.0	0.0	0.6	2.1	0.2	67.1	2.9	69.9	693
45-49	52.4	0.4	0.0	43.2	0.3	0.0	0.2	0.4	0.0	0.0	0.6	2.5	0.0	44.5	3.1	47.6	638
Number of living children																	
0	99.4	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	450
1	78.7	0.1	0.0	15.9	0.2	0.0	1.9	1.7	0.0	0.0	0.2	1.2	0.0	19.9	1.4	21.3	795
2	41.7	0.2	0.3	49.9	0.4	0.0	1.2	2.4	0.0	0.0	0.8	3.2	0.0	54.3	4.0	58.3	1474
3	33.7	0.3	0.0	59.3	0.6	0.0	0.7	1.2	0.0	0.0	0.5	3.6	0.2	62.0	4.3	66.3	1315
4+	35.4	0.6	0.0	59.5	0.2	0.0	0.6	0.7	0.0	0.0	0.4	2.6	0.0	61.6	3.0	64.6	853
Education^a																	
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	3
Secondary	50.1	0.3	0.1	44.6	0.2	0.0	0.8	1.0	0.0	0.0	0.5	2.4	0.0	47.0	2.9	49.9	3938
Primary vocational	50.9	0.0	0.4	39.4	0.9	0.0	1.2	2.7	0.0	0.0	0.5	3.6	0.3	44.7	4.4	49.1	361
Secondary vocational	44.4	0.4	0.0	45.8	0.9	0.0	1.6	3.6	0.0	0.0	0.6	2.8	0.0	52.1	3.4	55.6	356
Higher	50.8	0.0	0.0	37.9	0.0	0.0	3.4	4.4	0.0	0.0	0.4	3.0	0.0	45.8	3.4	49.2	226
Wealth index quintile																	
Poorest	55.3	0.6	0.1	40.5	0.1	0.0	0.1	0.4	0.0	0.0	0.4	2.2	0.1	42.0	2.7	44.7	986
Second	50.4	0.3	0.1	45.6	0.3	0.0	0.5	0.5	0.0	0.0	0.2	2.0	0.0	47.3	2.2	49.6	1023
Middle	46.0	0.1	0.0	49.0	0.1	0.0	0.5	0.9	0.0	0.0	0.6	2.9	0.0	50.6	3.4	54.0	1007
Fourth	48.8	0.2	0.1	45.3	0.5	0.0	0.8	1.0	0.0	0.0	0.8	2.4	0.0	48.0	3.2	51.2	943
Richest	48.4	0.0	0.0	39.1	0.6	0.0	3.1	4.7	0.0	0.0	0.5	3.4	0.1	47.6	4.0	51.6	929
Language of household head																	
Turkmen	49.5	0.1	0.1	44.6	0.3	0.0	0.7	1.4	0.0	0.0	0.5	2.7	0.1	47.2	3.2	50.5	4236
Uzbek	51.7	1.4	0.0	45.9	0.3	0.0	0.1	0.3	0.0	0.0	0.0	0.3	0.0	48.0	0.3	48.3	441
Russian	45.7	0.0	0.0	25.6	0.7	0.0	13.1	7.9	0.0	0.0	1.4	5.7	0.0	47.3	7.0	54.3	142
Other	63.3	0.0	0.0	29.4	0.0	0.0	0.5	1.7	0.0	0.0	2.0	3.0	0.0	31.7	5.0	36.7	68

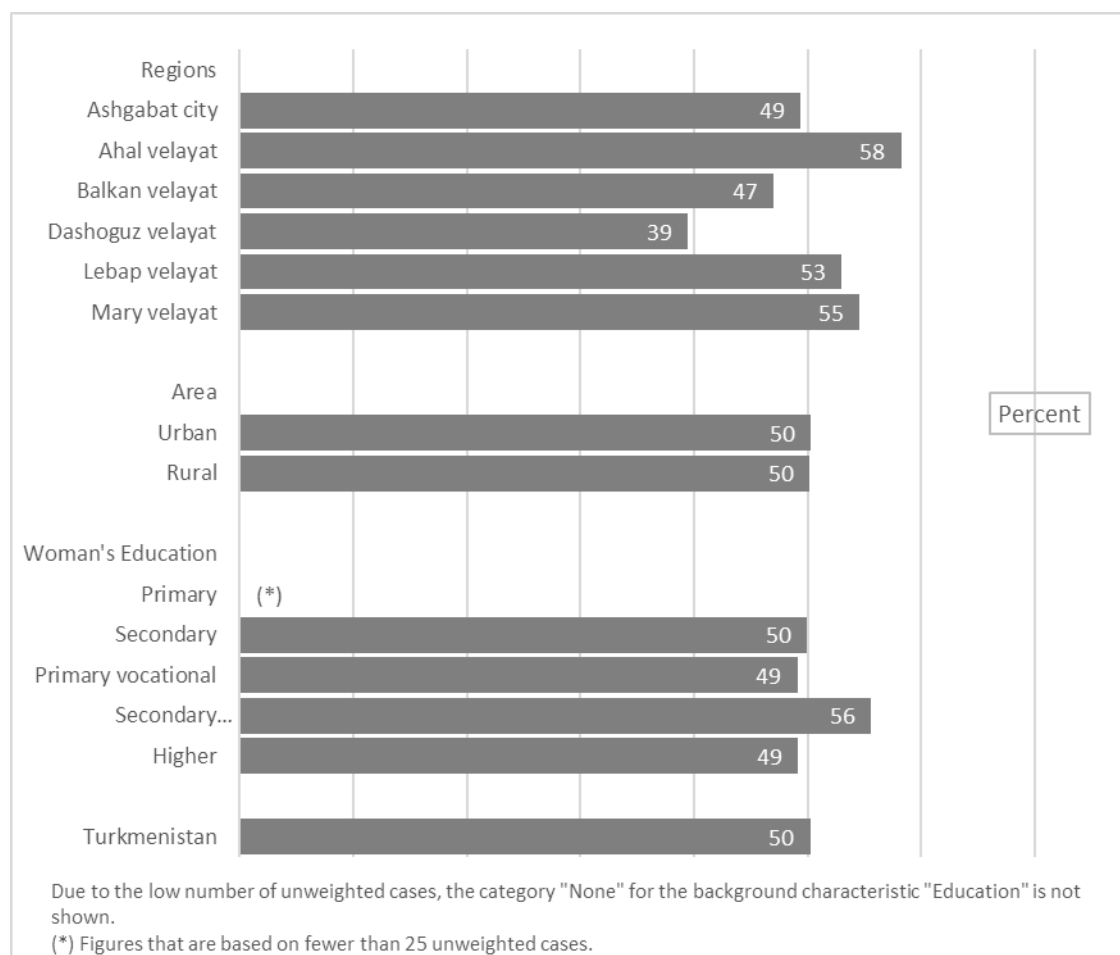
¹ MICS indicator 5.3; MDG indicator 5.3 - Contraceptive prevalence rate^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Current use of contraception was reported by half of all (50 percent) women currently married or in union⁴⁷ (Table RH.5). The most popular method and predominant method is the IUD which is used by 44 percent of married women in Turkmenistan. Between 1 percent and 3 percent of married women reported the use of the pill, male condom and withdrawal. Other methods are less likely to be used.

Contraceptive prevalence is the same in urban and rural areas and ranges by regions from 40 percent in Dashoguz velayat to 58 percent in Ahal velayat. The findings by region and area are depicted in Figure RH.2. Adolescents are far less likely to use contraception than older women. Only 2 percent of women age 15-19 married or in union currently use a method of contraception compared to 22 percent of 20-24 year olds, while the use of contraception among older women ranges from 41 percent to 70 percent. Women with two or more children are more likely to use a modern method of contraception than those with no or one child. Women’s education level is not associated with contraceptive prevalence.

Figure RH.2: Differentials in contraceptive use, Turkmenistan, 2015-2016



⁴⁷ All references to “married women” in this chapter include women in marital union as well.

Unmet Need

Unmet need for contraception refers to fecund women who are married or in union and are not using any method of contraception, but who wish to postpone the next birth (spacing) or who wish to stop childbearing altogether (limiting). 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.

Table RH.6 shows the levels of met need for contraception, unmet need, and the demand for contraception satisfied.

Unmet need for spacing is defined as the percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant, and not postpartum amenorrheic⁴⁸, and are fecund⁴⁹, and say they want to wait two or more years for their next birth OR
- are not pregnant, and not postpartum amenorrheic, and are fecund, and unsure whether they want another child OR
- are pregnant, and say that pregnancy was mistimed: would have wanted to wait OR
- are postpartum amenorrheic, and say that the birth was mistimed: would have wanted to wait.

Unmet need for limiting is defined as percentage of women who are married or in union and are not using a method of contraception AND

- are not pregnant, and not postpartum amenorrheic, and are fecund, and say they do not want any more children OR
- are pregnant, and say they did not want to have a child OR
- are postpartum amenorrheic, and say that they did not want the birth.

Total unmet need for contraception is the sum of unmet need for spacing and unmet need for limiting. In Turkmenistan, 12 percent of women age 15-49 years currently married or in union, have an unmet need for contraception. Around 7 percent of all women have an unmet need for spacing and 5 percent have an unmet need for limiting. As expected, younger women (15-34 years old) have higher unmet need for spacing while older age groups of women (35-49 years old) have slightly higher unmet need for limiting.

This indicator is also known as unmet need for family planning and is one of the indicators used to track progress toward the Millennium Development Goal 5 of improving maternal health.

⁴⁸ A woman is postpartum amenorrheic if she had a birth in last two years and is not currently pregnant, and her menstrual period has not returned since the birth of the last child

⁴⁹ A woman is considered infecund if she is neither pregnant nor postpartum amenorrheic, and (1a) has not had menstruation for at least six months, or (1b) never menstruated, or (1c) her last menstruation occurred before her last birth, or (1d) in menopause/has had hysterectomy OR
(2) She declares that she has had hysterectomy, or that she has never menstruated, or that she is menopausal, or that she has been trying to get pregnant for 2 or more years without result in response to questions on why she thinks she is not physically able to get pregnant at the time of survey OR
(3) She declares she cannot get pregnant when asked about desire for future birth OR
(4) She has not had a birth in the preceding 5 years, is currently not using contraception and is currently married and was continuously married during the last 5 years preceding the survey.

Table RH.6: Unmet need for contraception

Percentage of women age 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Turkmenistan, 2015-2016

	Met need for contraception			Unmet need for contraception			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
	For spacing	For limiting	Total	For spacing	For limiting	Total ¹			
Total	16.9	33.3	50.2	7.4	4.7	12.1	4887	80.5	3046
Region									
Ashgabat city	18.1	31.2	49.4	8.0	7.2	15.2	564	76.4	364
Ahal velayat	26.8	31.4	58.2	5.9	1.0	6.9	691	89.4	450
Balkan velayat	14.2	32.8	47.0	12.4	4.3	16.7	289	73.8	184
Dashoguz velayat	6.6	32.9	39.5	8.8	5.1	13.9	1136	73.9	607
Lebap velayat	16.2	36.8	53.0	6.0	5.8	11.7	953	81.9	616
Mary velayat	21.3	33.2	54.5	6.7	4.6	11.2	1254	82.9	825
Area									
Urban	16.7	33.6	50.3	7.8	5.6	13.5	1803	78.9	1150
Rural	17.0	33.1	50.2	7.1	4.2	11.3	3084	81.5	1897
Age									
15-19	2.0	0.0	2.0	17.2	0.0	17.2	72	(*)	14
20-24	19.0	3.3	22.3	15.6	1.2	16.8	681	57.0	266
25-29	30.3	10.9	41.2	13.4	3.4	16.8	1049	71.0	608
30-34	26.6	29.0	55.6	7.8	4.8	12.5	946	81.6	644
35-39	13.5	55.0	68.5	3.1	6.8	10.0	808	87.3	634
40-44	1.8	68.1	69.9	0.4	6.7	7.1	693	90.8	534
45-49	0.4	47.2	47.6	0.1	6.3	6.4	638	88.1	345
Education^a									
Primary	(*)	(*)	(*)	(*)	(*)	(*)	3	-	0
Secondary	17.8	32.1	49.9	7.9	4.4	12.4	3938	80.1	2454
Primary vocational	18.0	31.1	49.1	5.5	6.6	12.1	361	80.3	221
Secondary vocational	8.1	47.5	55.6	5.1	6.7	11.8	356	82.5	240
Higher	13.9	35.3	49.2	4.9	3.5	8.5	226	85.3	130
Wealth index quintile									
Poorest	11.2	33.4	44.7	7.8	5.5	13.3	986	77.0	572
Second	14.7	34.9	49.6	6.4	4.2	10.6	1023	82.4	615
Middle	21.0	33.0	54.0	7.7	3.5	11.3	1007	82.8	657
Fourth	19.8	31.4	51.2	7.2	5.5	12.7	943	80.1	603
Richest	17.9	33.7	51.6	7.9	5.0	12.9	929	80.0	599
Language of household head									
Turkmen	17.9	32.5	50.5	7.4	4.4	11.8	4236	81.0	2639
Uzbek	6.4	41.8	48.3	7.3	5.8	13.1	441	78.7	270
Russian	20.1	34.2	54.3	5.1	10.1	15.3	142	78.1	99
Other	12.1	24.5	36.7	14.0	4.1	18.2	68	(66.9)	37

¹ MICS indicator 5.4; MDG indicator 5.6 - Unmet need^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"-" denotes 0 unweighted case in that cell or in the denominator.

Met need for limiting includes women married or in union who are using (or whose partner is using) a contraceptive method⁵⁰, and who want no more children, are using male or female sterilization, or declare themselves as infertile. Met need for spacing includes women who are using (or whose partner is using) a contraceptive method, and who want to have another child, or are undecided whether to have another child. The total of met need for spacing and limiting adds up to the total met need for contraception.

According to the survey data, 17 percent of women age 15-49 years have a met need for spacing. The met need for spacing is the highest in the age groups 25-29 years and 30-34 years (30 percent and 27 percent respectively). One in three women (33 percent) have a met need for limiting with the highest values for women age 35-49 years, where values vary from 47 percent to 68 percent. Table RH.6 shows that 50 percent of women in Turkmenistan have a total met need for contraception.

Using information on contraception and unmet need, the percentage of demand for contraception satisfied is also estimated from the MICS data. The percentage of demand satisfied is defined as the proportion of women currently married or in union who are currently using contraception, over 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.

In Turkmenistan, the percentage of demand for contraception satisfied among women age 15-49 currently married or in union is high (81 percent).

Table RH.6 shows that the total met need is more than 4 times higher than the total unmet need for family planning. Unmet need is not associated with wealth and reach a minimum value among women with higher education (9 percent). The table also highlights that the total demand for family planning satisfied is highest in Ahal velayat (89 percent) and the lowest in Balkan and Dashoguz velayats (74 percent each).

⁵⁰ In this chapter, whenever reference is made to the use of a contraceptive by a woman, this may refer to her partner using a contraceptive method (such as male condom).

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, antenatal care can be used to inform women and families about risks and symptoms in pregnancy and about the risks of labour and delivery, and therefore it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. Antenatal visits also provide 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 the infant. The prevention and treatment of malaria among pregnant women, management of anaemia during pregnancy and treatment of sexually transmitted infections (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 care 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/height measurement (optional).

It is of crucial importance for pregnant women to start attending antenatal care visits as early in pregnancy as possible in order to prevent and detect pregnancy conditions that could affect both the woman and her baby. Antenatal care should continue throughout the entire pregnancy.

Antenatal care coverage indicators (at least one visit with a skilled provider and 4 or more visits with any providers) are used to track progress toward the Millennium Development Goal 5 of improving maternal health.

Table RH.7: Antenatal care coverage

Percent distribution of women age 15-49 years with a live birth in the last two years by antenatal care provider during the pregnancy for the last birth, Turkmenistan, 2015-2016

	Provider of antenatal care ^a				Total	Any skilled provider ^{1,b}	Number of women with a live birth in the last two years
	Medical doctor	Nurse/Midwife	Feldsher	No antenatal care			
Total	98.8	0.8	0.3	0.1	100.0	99.9	1476
Region							
Ashgabat city	99.5	0.5	0.0	0.0	100.0	100.0	160
Ahal velayat	99.3	0.4	0.3	0.0	100.0	100.0	226
Balkan velayat	92.0	8.0	0.0	0.0	100.0	100.0	75
Dashoguz velayat	100.0	0.0	0.0	0.0	100.0	100.0	395
Lebap velayat	98.2	0.7	1.1	0.0	100.0	100.0	300
Mary velayat	98.9	0.6	0.0	0.5	100.0	99.5	320
Area							
Urban	99.5	0.5	0.0	0.0	100.0	100.0	529
Rural	98.4	1.0	0.4	0.2	100.0	99.8	947
Mother's age at birth							
Less than 20	100.0	0.0	0.0	0.0	100.0	100.0	56
20-34	98.8	0.8	0.3	0.1	100.0	99.9	1305
35-49	98.7	1.3	0.0	0.0	100.0	100.0	115
Education^c							
Primary	(*)	(*)	(*)	(*)	100.0	(*)	1
Secondary	98.8	0.8	0.3	0.1	100.0	99.9	1265
Primary vocational	98.3	1.7	0.0	0.0	100.0	100.0	112
Secondary vocational	99.3	0.7	0.0	0.0	100.0	100.0	50
Higher	100.0	0.0	0.0	0.0	100.0	100.0	46
Wealth index quintile							
Poorest	98.1	1.1	0.4	0.4	100.0	99.6	322
Second	99.0	0.6	0.4	0.0	100.0	100.0	313
Middle	98.3	1.1	0.6	0.0	100.0	100.0	313
Fourth	99.6	0.4	0.0	0.0	100.0	100.0	270
Richest	99.3	0.7	0.0	0.0	100.0	100.0	259
Language of household head							
Turkmen	99.0	0.8	0.1	0.0	100.0	100.0	1301
Uzbek	97.3	0.9	1.8	0.0	100.0	100.0	124
Russian	(100.0)	(0.0)	(0.0)	(0.0)	100.0	(100.0)	27
Other	(*)	(*)	(*)	(*)	100.0	(*)	24

¹ MICS indicator 5.5a; MDG indicator 5.5 - Antenatal care coverage

^a Only the most qualified provider is considered in cases where more than one provider was reported.

^b Skilled providers include Medical doctor, Nurse/Midwife and Feldsher.

^c Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

The type of personnel providing antenatal care to women age 15-49 years who gave birth in the two years preceding is presented in Table RH.7. The results show that in Turkmenistan, almost all women receive antenatal care (100 percent). The majority of antenatal care is provided by medical doctors (99 percent).

Table RH.8: Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 years with a live birth in the last two years by number of antenatal care visits by any provider and by the timing of first antenatal care visits, Turkmenistan, 2015-2016

	Percent distribution of women by number of months pregnant at the time of first antenatal care visit													Number of women with a live birth in the last two years	Median months pregnant at first ANC visit	Number of women with a live birth in the last two years who had at least one ANC visit
	Percent distribution of women who had:							Percent distribution of women by number of months pregnant at the time of first antenatal care visit								
	No antenatal care visits	One visit	Two visits	Three visits	4 or more visits ¹	Missing/DK	Total	No antenatal care visits	First trimester	4-5 months	6-7 months	8+ months	Total			
Total	0.1	0.4	0.8	2.2	96.4	0.2	100.0	0.1	88.6	9.6	1.0	0.7	100.0	1476	2.1	1474
Region																
Ashgabat city	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	96.7	3.3	0.0	0.0	100.0	160	2.0	160
Ahal velayat	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	99.6	0.4	0.0	0.0	100.0	226	2.0	226
Balkan velayat	0.0	0.0	0.0	1.7	98.3	0.0	100.0	0.0	88.1	11.3	0.6	0.0	100.0	75	2.0	75
Dashoguz velayat	0.0	0.0	0.3	4.2	95.5	0.0	100.0	0.0	91.1	8.9	0.0	0.0	100.0	395	2.0	395
Lebap velayat	0.0	0.0	0.6	0.0	98.6	0.8	100.0	0.0	81.6	15.4	0.6	2.4	100.0	300	2.5	300
Mary velayat	0.5	1.8	2.6	4.4	90.8	0.0	100.0	0.5	80.4	14.4	3.9	0.9	100.0	320	3.0	318
Area																
Urban	0.0	0.3	0.2	0.7	98.7	0.2	100.0	0.0	91.1	7.7	0.5	0.6	100.0	529	2.0	529
Rural	0.2	0.4	1.1	3.0	95.2	0.1	100.0	0.2	87.2	10.7	1.2	0.7	100.0	947	2.5	945
Mother's age at birth																
Less than 20	0.0	0.0	2.4	0.0	97.6	0.0	100.0	0.0	88.7	8.8	0.0	2.4	100.0	56	3.0	56
20-34	0.1	0.3	0.7	2.3	96.4	0.2	100.0	0.1	88.6	9.9	0.8	0.6	100.0	1305	2.1	1303
35-49	0.0	1.2	1.2	1.1	96.5	0.0	100.0	0.0	89.0	7.4	3.6	0.0	100.0	115	2.5	115
Education^a																
Primary	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	1	(*)	1
Secondary	0.1	0.3	0.8	2.5	96.2	0.1	100.0	0.1	88.2	10.1	1.0	0.6	100.0	1265	2.1	1264
Primary vocational	0.0	0.0	0.0	0.0	99.0	1.0	100.0	0.0	89.9	9.2	0.0	0.9	100.0	112	2.1	112
Secondary vocational	0.0	0.0	0.0	0.8	99.2	0.0	100.0	0.0	92.8	5.1	0.0	2.2	100.0	50	2.0	50
Higher	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	96.2	3.8	0.0	0.0	100.0	46	2.0	46
Wealth index quintile																
Poorest	0.4	0.4	1.6	5.8	91.8	0.0	100.0	0.4	86.6	10.4	2.0	0.6	100.0	322	2.8	320
Second	0.0	0.9	0.4	2.7	95.6	0.4	100.0	0.0	88.8	10.4	0.4	0.4	100.0	313	2.3	313
Middle	0.0	0.0	1.2	0.4	98.4	0.0	100.0	0.0	87.3	10.5	1.6	0.7	100.0	313	2.3	313
Fourth	0.0	0.5	0.5	0.6	98.3	0.0	100.0	0.0	87.3	11.3	0.5	0.9	100.0	270	2.1	270
Richest	0.0	0.0	0.0	0.7	98.8	0.4	100.0	0.0	94.0	5.0	0.2	0.8	100.0	259	2.0	259
Language of household head																
Turkmen	0.0	0.2	0.5	2.0	97.1	0.2	100.0	0.0	88.8	9.8	0.7	0.6	100.0	1301	2.1	1301
Uzbek	0.0	0.0	0.0	4.0	96.0	0.0	100.0	0.0	92.2	7.8	0.0	0.0	100.0	124	2.0	124
Russian	(0.0)	(0.0)	(0.0)	(0.0)	(100.0)	(0.0)	100.0	(0.0)	(94.3)	(5.7)	(0.0)	(0.0)	100.0	27	(2.0)	27
Other	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	(*)	(*)	(*)	(*)	100.0	24	(*)	22

¹ MICS indicator 5.5b; MDG indicator 5.5 - Antenatal care coverage

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Table RH.8 shows the number of antenatal care visits during the latest pregnancy that took place within the two years preceding the survey, regardless of provider, by selected characteristics. The majority of mothers (96 percent) received antenatal care at least four times. 92 percent of the women living in poorest households reported four or more antenatal care visits compared to 99 percent among those living in richest households. The percentage is slightly lower in Mary velayat (91 percent) compared to other regions.

Table RH.8 also provides information about the timing of the first antenatal care visit. Overall, 89 percent of women with a live birth in the last two years had their first antenatal care visit during the first trimester of their last pregnancy, with a median of 2.1 months of pregnancy at the first visit among those who received antenatal care. The greater proportion of women who had their first antenatal care visit after the first trimester of their last pregnancy was found in Lebap and Mary velayats (18 percent and 19 percent respectively). Median months of pregnancy at first antenatal care visit decreases with the increase of the household wealth, from 2.8 months in the poorest quintile to 2.0 months in the richest quintile.

Table RH.9: Content of antenatal care

Percentage of women age 15-49 years with a live birth in the last two years who, at least once, had their blood pressure measured, urine sample taken, blood sample taken and ultrasound conducted as part of antenatal care, during the pregnancy for the last birth, Turkmenistan, 2015-2016

	Percentage of women who, during the pregnancy of their last birth, had:						Number of women with a live birth in the last two years
	Blood pressure measured	Urine sample taken	Blood sample taken	Blood pressure measured, urine and blood sample taken ¹	Ultrasound conducted	Blood pressure measured, urine and blood sample taken and ultrasound conducted ²	
Total	99.8	99.6	99.5	99.4	98.2	97.9	1476
Region							
Ashgabat city	100.0	100.0	100.0	100.0	99.4	99.4	160
Ahal velayat	100.0	100.0	99.3	99.3	100.0	99.3	226
Balkan velayat	100.0	100.0	98.7	98.7	98.5	97.3	75
Dashoguz velayat	100.0	100.0	99.7	99.7	100.0	99.7	395
Lebap velayat	100.0	99.7	100.0	99.7	99.7	99.4	300
Mary velayat	99.1	98.7	98.7	98.7	92.8	92.8	320
Area							
Urban	100.0	100.0	99.7	99.7	99.5	99.2	529
Rural	99.7	99.5	99.3	99.2	97.5	97.2	947
Mother's age at birth							
Less than 20	100.0	100.0	100.0	100.0	98.5	98.5	56
20-34	99.8	99.6	99.4	99.3	98.1	97.7	1305
35-49	100.0	100.0	100.0	100.0	100.0	100.0	115
Education^a							
Primary	(*)	(*)	(*)	(*)	(*)	(*)	1
Secondary	99.9	99.7	99.5	99.4	98.2	97.8	1265
Primary vocational	100.0	100.0	100.0	100.0	100.0	100.0	112
Secondary vocational	100.0	100.0	100.0	100.0	100.0	100.0	50
Higher	100.0	100.0	100.0	100.0	100.0	100.0	46
Wealth index quintile							
Poorest	99.1	98.7	98.3	98.3	96.5	96.1	322
Second	100.0	99.7	100.0	99.7	98.9	98.5	313
Middle	100.0	100.0	99.7	99.7	98.2	97.9	313
Fourth	100.0	100.0	99.8	99.8	98.0	97.7	270
Richest	100.0	100.0	99.6	99.6	100.0	99.6	259
Language of household head							
Turkmen	100.0	99.9	99.7	99.7	98.5	98.4	1301
Uzbek	100.0	99.2	98.9	98.1	100.0	98.1	124
Russian	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	27
Other	(*)	(*)	(*)	(*)	(*)	(*)	24

¹ MICS indicator 5.6 - Content of antenatal care

² Survey-specific indicator 5.S1 - Content of antenatal care (includes ultrasound)

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

The coverage of key services that pregnant women are expected to receive during antenatal care are shown in Table RH.9. Among those women who had a live birth during the two years preceding the survey, almost all women (more than 99 percent) reported that a blood sample was taken during antenatal care visits, their blood pressure was checked and urine specimen was taken. Overall, 98 percent of women received the recommended content of antenatal care as defined by the survey-specific indicator (which includes ultrasound as well), 99 percent in urban areas and 97 percent in rural areas. A somewhat lower percentage is recorded in Mary velayat (93 percent).

Assistance at Delivery

About three quarters of all maternal deaths occur due to direct obstetric causes.⁵¹ 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 in case of emergency that transport is available to a referral facility for obstetric care. The skilled attendant at delivery indicator is used to track progress toward the Millennium Development Goal 5 of improving maternal health.

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

⁵¹ Say, L et al. 2014. *Global causes of maternal death: a WHO systematic analysis*. *The Lancet Global Health* 2(6): e323-33. DOI: 10.1016/S2214-109X(14)70227-X

Table RH.10: Assistance during delivery and caesarian section

Percent distribution of women age 15-49 years with a live birth in the last two years by person providing assistance at delivery, and percentage of births delivered by C-section, Turkmenistan, 2015-2016

	Person assisting at delivery			Delivery assisted by any skilled attendant ^{1,a}	Percent delivered by C-section			Number of women who had a live birth in the last two years
	Medical doctor	Nurse/Midwife	Total		Decided before onset of labour pains	Decided after onset of labour pains	Total ²	
Total	98.9	1.1	100.0	100.0	2.8	3.4	6.3	1476
Region								
Ashgabat city	100.0	0.0	100.0	100.0	6.1	3.6	9.8	160
Ahal velayat	99.2	0.8	100.0	100.0	2.9	2.8	5.6	226
Balkan velayat	98.6	1.4	100.0	100.0	3.8	2.4	6.1	75
Dashoguz velayat	100.0	0.0	100.0	100.0	1.4	3.6	5.0	395
Lebap velayat	98.3	1.7	100.0	100.0	1.5	4.2	5.6	300
Mary velayat	97.3	2.7	100.0	100.0	4.0	3.1	7.1	320
Area								
Urban	99.6	0.4	100.0	100.0	3.3	4.5	7.8	529
Rural	98.5	1.5	100.0	100.0	2.6	2.8	5.4	947
Mother's age at birth								
Less than 20	96.9	3.1	100.0	100.0	0.0	8.7	8.7	56
20-34	99.1	0.9	100.0	100.0	2.8	3.1	5.9	1305
35-49	98.0	2.0	100.0	100.0	5.0	4.3	9.3	115
Place of delivery								
Home	(*)	(*)	100.0	(*)	(*)	(*)	(*)	8
Health facility	98.9	1.1	100.0	100.0	2.9	3.4	6.3	1468
Public	98.9	1.1	100.0	100.0	2.9	3.4	6.3	1466
Private	(*)	(*)	100.0	(*)	(*)	(*)	(*)	2
Education^b								
Primary	(*)	(*)	100.0	(*)	(*)	(*)	(*)	1
Secondary	98.8	1.2	100.0	100.0	2.9	3.2	6.1	1265
Primary vocational	98.6	1.4	100.0	100.0	1.2	5.5	6.7	112
Secondary vocational	100.0	0.0	100.0	100.0	1.7	2.9	4.6	50
Higher	100.0	0.0	100.0	100.0	6.1	4.5	10.6	46
Wealth index quintile								
Poorest	99.4	0.6	100.0	100.0	0.4	3.0	3.5	322
Second	98.9	1.1	100.0	100.0	3.3	4.1	7.5	313
Middle	97.4	2.6	100.0	100.0	3.8	3.1	6.8	313
Fourth	98.8	1.2	100.0	100.0	2.0	3.8	5.7	270
Richest	100.0	0.0	100.0	100.0	5.0	3.1	8.1	259
Language of household head								
Turkmen	99.0	1.0	100.0	100.0	3.0	3.4	6.4	1301
Uzbek	100.0	0.0	100.0	100.0	0.0	3.7	3.7	124
Russian	(100.0)	(0.0)	100.0	(100.0)	(4.9)	(6.5)	(11.5)	27
Other	(*)	(*)	100.0	(*)	(*)	(*)	(*)	24

¹ MICS indicator 5.7; MDG indicator 5.2 - Skilled attendant at delivery² MICS indicator 5.9 - Caesarean section^a Skilled attendants include Medical doctor, Nurse/Midwife and Feldsher.^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

All births (100 percent) occurring in the two years preceding the MICS survey were delivered by skilled personnel, which tells about universal access to skilled care during the birth in Turkmenistan (Table RH.10). Doctors assisted with the delivery of 99 percent of births and nurses or midwives assisted with 1 percent.

Table RH.10 also shows information on women who delivered by caesarian section (C-section) and provides additional information on the timing of the decision to conduct a C-section (before labour pains began or after) in order to better assess if such decisions are mostly driven by medical or non-medical reasons.

Overall, 6 percent of women who delivered in the last two years had a C-section; and for the same percent of women, the decision was taken before the onset of labour pains and after (3 percent each). Approximately one in ten women in Ashgabat city (10 percent) delivered the baby by C-section compared to other regions where those percentages range from 5 percent to 7 percent. This method was most often used among women with higher education (11 percent).

Place of Delivery

Increasing the proportion of births that are delivered in health facilities is an important factor in reducing the health risks to both the mother and the baby. Proper medical attention and hygienic conditions during delivery can reduce the risks of complications and infection that can cause morbidity and mortality to either the mother or the baby. Table RH.11 presents the percent distribution of women age 15-49 who had a live birth in the two years preceding the survey by place of delivery, and the percentage of births delivered in a health facility, according to background characteristics.

Table RH.11: Place of delivery

Percent distribution of women age 15-49 years with a live birth in the last two years by place of delivery of their last birth, Turkmenistan, 2015-2016

	Place of delivery			Total	Delivered in health facility ¹	Number of women with a live birth in the last two years
	Health facility					
	Public sector	Private sector	Home			
Total	99.3	0.1	0.5	100.0	99.5	1476
Region						
Ashgabat city	98.8	1.2	0.0	100.0	100.0	160
Ahal velayat	99.4	0.0	0.6	100.0	99.4	226
Balkan velayat	99.6	0.0	0.4	100.0	99.6	75
Dashoguz velayat	99.2	0.0	0.8	100.0	99.2	395
Lebap velayat	100.0	0.0	0.0	100.0	100.0	300
Mary velayat	99.0	0.0	1.0	100.0	99.0	320
Area						
Urban	99.1	0.4	0.5	100.0	99.5	529
Rural	99.5	0.0	0.5	100.0	99.5	947
Mother's age at birth						
Less than 20	98.7	0.0	1.3	100.0	98.7	56
20-34	99.3	0.1	0.6	100.0	99.4	1305
35-49	100.0	0.0	0.0	100.0	100.0	115
Number of antenatal care visits						
None	(*)	(*)	(*)	100.0	(*)	1
1-3 visits	(97.2)	(0.0)	(2.8)	100.0	(97.2)	49
4+ visits	99.4	0.1	0.5	100.0	99.5	1423
Missing/DK	(*)	(*)	(*)	100.0	(*)	2
Education^a						
Primary	(*)	(*)	(*)	100.0	(*)	1
Secondary	99.4	0.1	0.5	100.0	99.5	1265
Primary vocational	98.8	0.0	1.2	100.0	98.8	112
Secondary vocational	100.0	0.0	0.0	100.0	100.0	50
Higher	97.8	2.2	0.0	100.0	100.0	46
Wealth index quintile						
Poorest	99.3	0.0	0.7	100.0	99.3	322
Second	98.6	0.0	1.4	100.0	98.6	313
Middle	100.0	0.0	0.0	100.0	100.0	313
Fourth	99.5	0.0	0.5	100.0	99.5	270
Richest	99.3	0.7	0.0	100.0	100.0	259
Language of household head						
Turkmen	99.4	0.1	0.5	100.0	99.5	1301
Uzbek	99.2	0.8	0.0	100.0	100.0	124
Russian	(100.0)	(0.0)	(0.0)	100.0	(100.0)	27
Other	(*)	(*)	(*)	100.0	(*)	24

¹ MICS indicator 5.8 - Institutional deliveries^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Almost all births (100 percent) in Turkmenistan are delivered in a health facility; 99 percent of deliveries occur in public sector facilities and less than 1 percent in private sector facilities. Less than 1 percent of births take place at home. Deliveries in health facilities are equally accessible to all women, regardless of the wealth level or other background characteristics.

Post-natal Health Checks

The time of birth and immediately after is a critical window of opportunity to deliver lifesaving interventions for both the mother and newborn. Across the world, approximately 3 million newborns annually die in the first month of life⁵² and the majority of these deaths occur within a day or two of birth⁵³, which is also the time when the majority of maternal deaths occur⁵⁴.

Despite the importance of the first few days following birth, large-scale, nationally representative household survey programmes have not systematically included questions on the post-natal period and care for the mother and newborn. In 2008, the Countdown to 2015 initiative, which monitors progress on maternal, newborn and child health interventions, highlighted this data gap, and called not only for post-natal care (PNC) programmes to be strengthened, but also for better data availability and quality⁵⁵.

Following the establishment and discussions of an Inter-Agency Group on PNC and drawing on lessons learned from earlier attempts of collecting PNC data, a new questionnaire module for MICS was developed and validated. Named the Post-natal Health Checks (PNHC) module, the objective is to collect information on newborns' and mothers' contact with a provider, not content of care. The rationale for this is that as PNC programmes scale up, it is important to measure the coverage of that scale up and ensure that the platform for providing essential services is in place. Content is considered more difficult to measure, particularly because the respondent is asked to recall services delivered up to two years preceding the interview.

In Turkmenistan, the procedures for post-natal care for the mother and newborn are carried out in accordance with order №115 "On the improvement of medical services by family physicians" from 2002, and order №246 "Improving the quality of health care services for pregnant women and women in primary health care" from 2012. Accordingly, after discharge from the health facility, during the first day, qualified medical personnel should perform the first visit of the newborn at home, for the mother in the first week after birth followed by patronage visits every seventh day for 42 days.

Table RH.12 presents the percent distribution of women age 15-49 who gave birth in a health facility in the two years preceding the survey by duration of stay in the facility following the delivery, according to background characteristics.

⁵² UN Interagency Group for Child Mortality Estimation. 2013. *Levels and Trends in Child Mortality: Report 2013*

⁵³ Lawn, JE et al. 2005. *4 million neonatal deaths: When? Where? Why?* Lancet 2005; 365:891–900.

⁵⁴ WHO, UNICEF, UNFPA, The World Bank. 2012. *Trends in Maternal Mortality: 1990-2010*. World Health Organization.

⁵⁵ HMN, UNICEF, WHO. 2008. *Countdown to 2015: Tracking Progress in Maternal, Newborn & Child Survival, The 2008 Report*. UNICEF.

Table RH.12: Post-partum stay in health facility

Percent distribution of women age 15-49 years with a live birth in the last two years who had their last birth delivered in a health facility by duration of stay in health facility, Turkmenistan, 2015-2016

	Duration of stay in health facility								Total	12 hours or more ¹	Number of women who had their last birth delivered in a health facility in the last 2 years
	Less than 12 hours	12 hours or more, but less than 2 days	2 days	3 days	4 days	5 days	6 days	7 days or more			
Total	0.2	0.4	4.6	72.1	12.0	4.9	1.4	4.4	100.0	99.8	1468
Region											
Ashgabat city	0.0	0.0	8.4	69.7	4.5	8.9	3.0	5.6	100.0	100.0	160
Ahal velayat	0.0	0.0	4.0	88.2	2.3	2.1	0.5	2.9	100.0	100.0	224
Balkan velayat	0.5	0.0	11.0	76.1	7.8	1.0	3.0	0.6	100.0	99.5	75
Dashoguz velayat	0.7	0.6	5.7	65.5	13.6	9.5	1.3	3.1	100.0	99.3	392
Lebap velayat	0.0	0.3	2.5	66.2	19.2	3.4	2.1	6.3	100.0	100.0	300
Mary velayat	0.0	1.0	2.3	74.7	14.7	1.3	0.4	5.6	100.0	100.0	317
Area											
Urban	0.1	0.2	5.4	72.6	9.1	4.2	3.0	5.4	100.0	99.9	526
Rural	0.3	0.6	4.1	71.8	13.6	5.2	0.5	3.9	100.0	99.7	941
Mother's age at birth											
Less than 20	0.0	0.0	4.2	62.6	13.1	11.1	0.0	8.9	100.0	100.0	55
20-34	0.2	0.5	4.5	73.4	11.4	4.6	1.6	3.8	100.0	99.8	1297
35-49	0.0	0.0	6.2	62.2	18.0	4.3	0.0	9.3	100.0	100.0	115
Type of health facility											
Public	0.2	0.5	4.5	72.2	12.0	4.8	1.4	4.4	100.0	99.8	1466
Private	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	2
Type of delivery											
Vaginal birth	0.2	0.5	4.9	76.3	12.2	3.8	0.4	1.7	100.0	99.8	1375
C-section	0.0	0.0	0.0	9.6	8.1	21.2	16.1	45.0	100.0	100.0	92
Education^a											
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	1
Secondary	0.2	0.4	4.6	72.3	12.1	5.0	1.2	4.2	100.0	99.8	1259
Primary vocational	0.3	2.0	4.1	69.3	11.6	4.7	1.8	6.2	100.0	99.7	111
Secondary vocational	0.0	0.0	5.6	71.1	15.0	1.8	4.7	1.7	100.0	100.0	50
Higher	0.0	0.0	4.6	73.9	5.6	6.2	1.9	7.8	100.0	100.0	46
Wealth index quintile											
Poorest	0.9	1.0	7.3	66.3	14.0	6.3	0.6	3.6	100.0	99.1	319
Second	0.0	0.4	1.5	71.2	15.2	5.5	0.8	5.4	100.0	100.0	309
Middle	0.0	0.3	3.7	77.6	10.0	3.8	1.3	3.4	100.0	100.0	313
Fourth	0.0	0.4	2.9	76.8	9.4	2.4	3.0	5.2	100.0	100.0	268
Richest	0.1	0.0	7.8	68.9	10.7	6.1	1.6	4.7	100.0	99.9	259
Language of household head											
Turkmen	0.1	0.5	4.8	71.9	12.4	4.3	1.4	4.6	100.0	99.9	1294
Uzbek	1.1	0.0	1.0	72.0	12.4	9.0	1.7	2.7	100.0	98.9	124
Russian	(0.0)	(0.0)	(6.3)	(69.8)	(0.0)	(12.3)	(3.5)	(8.1)	100.0	(100.0)	27
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	22

¹ MICS indicator 5.10 - Post-partum stay in health facility^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

All women in Turkmenistan (100 percent) who gave birth in a health facility stay 12 hours or more in the facility after delivery. As expected, all women (100 percent) giving birth through C-section stay 3 days or more in the facility after giving birth. There are no clear patterns with regards to background characteristics of women as the length of stay depends mainly on the health of women and newborns. In total, 95 percent of women stay in a health facility for three or more days, of which the highest percent stay for three days (72 percent).

Safe motherhood programmes have recently increased emphasis on the importance of post-natal care, recommending that all women and newborns receive a health check within two days of delivery. To assess the extent of post-natal care utilization, women were asked whether they and their newborn received a health check after the delivery, the timing of the first check, and the type of health provider for the woman's last birth in the two years preceding the survey.

Table RH.13 shows the percentage of newborns born in the last two years who received health checks and post-natal care visits from any health provider after birth as well as post-natal care visits by time following discharge from health facility. Please note that *health checks following birth* while in facility or at home refer to checks provided by any health provider regardless of timing (column 1), whereas *post-natal care visits* refer to a separate visit to check on the health of the newborn and provide preventive care services and therefore do not include *health checks following birth* while in facility or at home. The indicator *Post-natal health checks* includes any health check after birth received while in the health facility and at home (column 1), regardless of timing, as well as PNC visits within two days of delivery (columns 2, 3, and 4).

Table RH.13: Post-natal health checks for newborns

Percentage of women age 15-49 years with a live birth in the last two years whose last live birth received health checks while in facility or at home following birth, percent distribution whose last live birth received post-natal care (PNC) visits from any health provider after birth, and after discharge from the health facility, by timing of visit, and percentage who received post natal health checks, Turkmenistan, 2015-2016

	Health check following birth while in facility or at home ^a	PNC visit for newborns ^b							Post-natal health check for the newborn ^{1, c}	Number of last live births in the last two years	PNC visit for newborns by time following discharge from health facility ^d							Number of last live births in the last two years delivered in health facility
		Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Total			Same day	1 day following discharge	2 days following discharge	3-6 days following discharge ^e	After the first week following discharge	No post-natal care visit following discharge	Total	
Total	99.8	0.6	0.2	0.4	91.1	6.8	0.9	100.0	99.8	1476	13.9	60.4	16.5	7.7	0.7	0.9	100.0	1468
Region																		
Ashgabat city	100.0	0.0	0.0	0.0	88.8	10.7	0.6	100.0	100.0	160	6.0	67.3	19.6	4.8	1.8	0.6	100.0	160
Ahal velayat	100.0	0.0	0.0	0.0	95.4	3.8	0.8	100.0	100.0	226	1.8	34.1	49.8	13.0	0.6	0.8	100.0	224
Balkan velayat	100.0	1.4	1.0	2.7	92.0	2.9	0.0	100.0	100.0	75	19.7	57.5	19.4	2.9	0.6	0.0	100.0	75
Dashoguz velayat	100.0	0.6	0.0	1.0	92.9	5.2	0.3	100.0	100.0	395	12.3	65.4	13.9	7.8	0.3	0.3	100.0	392
Lebap velayat	100.0	0.0	0.0	0.0	88.9	10.5	0.6	100.0	100.0	300	31.0	53.2	6.0	8.9	0.3	0.6	100.0	300
Mary velayat	99.0	1.5	0.8	0.0	88.8	6.4	2.5	100.0	99.0	320	10.9	76.8	3.8	5.1	0.9	2.5	100.0	317
Area																		
Urban	100.0	0.4	0.1	0.5	89.1	9.3	0.5	100.0	100.0	529	13.6	60.9	15.8	7.8	1.2	0.5	100.0	526
Rural	99.7	0.7	0.3	0.3	92.2	5.4	1.1	100.0	99.7	947	14.0	60.1	16.9	7.6	0.3	1.1	100.0	941
Mother's age at birth																		
Less than 20	100.0	0.6	0.0	0.0	86.0	12.1	1.3	100.0	100.0	56	9.2	53.2	20.3	13.3	2.7	1.3	100.0	55
20-34	99.8	0.6	0.3	0.4	91.4	6.3	1.0	100.0	99.8	1305	14.1	61.3	16.0	7.0	0.5	1.0	100.0	1297
35-49	100.0	0.0	0.0	0.3	89.9	9.8	0.0	100.0	100.0	115	13.7	53.2	19.8	12.3	1.1	0.0	100.0	115
Place of delivery																		
Home	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	8	na	na	na	na	na	na	na	na
Health facility	99.8	0.5	0.2	0.4	91.1	6.8	0.9	100.0	99.8	1468	13.9	60.4	16.5	7.7	0.7	0.9	100.0	1468
Public	99.8	0.5	0.2	0.4	91.1	6.8	0.9	100.0	99.8	1466	13.9	60.4	16.5	7.7	0.7	0.9	100.0	1466
Private	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	100.0	2
Education^f																		
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	1	(*)	(*)	(*)	(*)	(*)	(*)	100.0	1
Secondary	99.7	0.7	0.3	0.3	91.5	6.3	1.0	100.0	99.7	1265	13.4	59.9	17.5	7.8	0.5	1.0	100.0	1259
Primary vocational	100.0	0.0	0.0	1.1	88.3	10.7	0.0	100.0	100.0	112	21.8	54.8	13.3	8.7	1.3	0.0	100.0	111
Secondary vocational	100.0	0.0	0.0	1.4	91.0	7.6	0.0	100.0	100.0	50	15.3	74.0	7.8	2.9	0.0	0.0	100.0	50
Higher	100.0	0.0	0.0	0.0	90.3	9.7	0.0	100.0	100.0	46	7.5	74.0	7.8	6.8	3.9	0.0	100.0	46
Wealth index quintile																		
Poorest	99.5	0.0	0.4	0.4	92.3	5.5	1.3	100.0	99.5	322	14.3	66.5	11.1	6.7	0.0	1.3	100.0	319
Second	99.5	0.9	0.0	0.5	89.7	7.3	1.6	100.0	99.5	313	15.6	59.1	15.5	7.7	0.6	1.7	100.0	309
Middle	100.0	1.2	0.4	0.1	92.3	5.6	0.4	100.0	100.0	313	14.0	55.6	21.3	8.2	0.4	0.4	100.0	313
Fourth	100.0	0.2	0.3	0.9	89.9	8.3	0.3	100.0	100.0	270	12.2	60.2	15.9	9.8	1.5	0.3	100.0	268
Richest	100.0	0.6	0.0	0.0	91.0	7.7	0.7	100.0	100.0	259	12.8	60.4	19.2	5.9	0.9	0.7	100.0	259
Language of household head																		
Turkmen	99.9	0.4	0.3	0.5	91.5	6.7	0.7	100.0	99.9	1301	13.9	60.7	16.5	7.5	0.6	0.7	100.0	1294
Uzbek	100.0	0.9	0.0	0.0	90.9	7.2	0.9	100.0	100.0	124	15.1	56.5	17.9	9.5	0.0	0.9	100.0	124
Russian	(100.0)	(0.0)	(0.0)	(0.0)	(82.4)	(17.6)	(0.0)	100.0	(100.0)	27	(13.2)	(54.1)	(15.6)	(11.6)	(5.4)	(0.0)	100.0	27
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	24	(*)	(*)	(*)	(*)	(*)	(*)	100.0	22

¹ MICS indicator 5.11 - Post-natal health check for the newborn

na: not applicable

^a Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).

^b Post-natal care visits (PNC) refer to a separate visit by any health provider to check on the health of the newborn and provide preventive care services. PNC visits do not include health checks following birth while in facility or at home (see note ^a above).

^c Post-natal health checks include any health check performed while in the health facility or at home following birth (see note ^a above), as well as PNC visits (see note ^b above) within two days of delivery.

^d The same length of stay in the health facility is used for both the mother and the newborn child (since only information on the duration of stay of the mother is collected).

^e Including women that report time of the first PNC check in weeks.

^f Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Overall, almost all newborns receive a health check following birth while in a facility or at home.

The percentage of newborns who receive a health check following discharge from health facility is very high (99 percent). In most of cases (74 percent), the PNC visit takes place on the same day or 1 day following discharge from health facility. There are regional differences in timing of the PNC visits following discharge from the health facility. In all regions, with the exception of Ahal velayat, the majority of newborns receive a PNC visit on the same day or 1 day following discharge from health facility – from 73 percent in Ashgabat city to 88 percent in Mary velayat. In Ahal velayat, 36 percent of newborns receive a PNC visit on the same day or 1 day following discharge from health facility and one half of newborns (50 percent) receive a PNC visit 2 days following discharge from the health facility.

Table RH.14: Post-natal care visits for newborns within the first week following discharge from health facility

Percent distribution of women age 15-49 years with a live birth in the last two years whose last live birth received a post-natal care (PNC) visit within the first week following discharge from the health facility^a, by location and provider of the first PNC visit, Turkmenistan, 2015-2016

	Location of first PNC visit for newborns within the first week following discharge from the health facility			Provider of first PNC visit for newborns within the first week following discharge from the health facility			Total	Number of last live births in the last two years with a PNC visit within the first week following discharge from the health facility
	Home	Public Sector	Total	Doctor	Nurse/midwife	Feldsher		
Total	99.0	1.0	100.0	66.2	30.3	3.5	100.0	1445
Region								
Ashgabat city	100.0	0.0	100.0	68.9	31.1	0.0	100.0	156
Ahal velayat	99.8	0.2	100.0	39.7	54.4	5.9	100.0	221
Balkan velayat	90.8	9.2	100.0	3.8	95.3	0.9	100.0	75
Dashoguz velayat	99.7	0.3	100.0	85.3	14.7	0.0	100.0	390
Lebap velayat	100.0	0.0	100.0	74.4	17.7	7.9	100.0	297
Mary velayat	98.1	1.9	100.0	66.9	28.9	4.3	100.0	306
Area								
Urban	98.5	1.5	100.0	61.6	37.2	1.2	100.0	517
Rural	99.3	0.7	100.0	68.7	26.5	4.7	100.0	928
Mother's age at birth								
Less than 20	96.8	3.2	100.0	61.9	35.1	3.1	100.0	53
20-34	99.0	1.0	100.0	66.4	30.1	3.6	100.0	1278
35-49	100.0	0.0	100.0	66.2	31.2	2.6	100.0	114
Place of delivery								
Health facility	99.0	1.0	100.0	66.2	30.3	3.5	100.0	1445
Public	99.0	1.0	100.0	66.3	30.3	3.5	100.0	1443
Private	(*)	(*)	100.0	(*)	(*)	(*)	100.0	2
Education^b								
Secondary	99.0	1.0	100.0	66.7	29.6	3.7	100.0	1240
Primary vocational	98.3	1.7	100.0	63.1	34.5	2.4	100.0	109
Secondary vocational	99.2	0.8	100.0	63.3	34.7	2.1	100.0	50
Higher	100.0	0.0	100.0	64.0	33.2	2.8	100.0	44
Wealth index quintile								
Poorest	99.1	0.9	100.0	80.3	17.4	2.3	100.0	315
Second	99.3	0.7	100.0	70.3	24.1	5.6	100.0	302
Middle	99.3	0.7	100.0	62.0	31.8	6.2	100.0	310
Fourth	97.9	2.1	100.0	54.7	42.8	2.5	100.0	263
Richest	99.3	0.7	100.0	60.8	39.2	0.0	100.0	254
Language of household head								
Turkmen	99.0	1.0	100.0	65.8	30.6	3.7	100.0	1277
Uzbek	99.0	1.0	100.0	74.1	24.0	1.8	100.0	123
Russian	(100.0)	(0.0)	100.0	(62.1)	(37.9)	(0.0)	100.0	26
Other	(*)	(*)	100.0	(*)	(*)	(*)	100.0	19

^a The same length of stay in the health facility is used for both the mother and the newborn child (since only information on the duration of stay of the mother is collected).

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

In Table RH.14, the percentage of newborns who received the first PNC visit within the first week following discharge from the health facility is shown by location and type of provider of service. As defined above, a visit does not include a check in the facility or at home following birth.

The vast majority (99 percent) of the first PNC visits for newborns within the first week following discharge from the health facility occur at home. Only 1 percent of those visits take place in public institutions, and those mainly in the Balkan velayat (9 percent).

The first PNC visits for all newborns are provided by qualified medical personnel. In most of the cases, the first PNC visit within the first week following discharge from health facility is provided by a doctor (66 percent) and by nurse or midwife (30 percent). There is low percentage of newborns (4 percent) who are visited by a feldsher. There are notable differences by regions. In particular, a doctor provided the first PNC visits for only 4 percent of newborns in the Balkan velayat, for 40 percent of newborns in the Ahal velayat, while in other regions percentages vary from 67 percent in Mary velayat to 85 percent in Dashoguz velayat.

Tables RH.15 and RH.16 present information collected on post-natal health checks and visits of the mother and are identical to Tables RH.13 and RH.14 that presented the data collected for newborns.

Table RH.15: Post-natal health checks for mothers

Percentage of women age 15-49 years with a live birth in the last two years who received health checks while in facility or at home following birth, percent distribution who received post-natal care (PNC) visits from any health provider after birth at the time of last birth, and following discharge from the health facility, by timing of visit, and percentage who received post natal health checks, Turkmenistan, 2015-2016

	PNC visit for mothers ^b								PNC visit for mothers by time following discharge from health facility ^d								Number of women with a live birth in the last two years delivered in health facility	
	Health check following birth while in facility or at home ^a	Same day	1 day following birth	2 days following birth	3-6 days following birth	After the first week following birth	No post-natal care visit	Total	Post-natal health check for the mother ^{1,c}	Number of women with a live birth in the last two years	Same day	1 day following discharge	2 days following discharge	3-6 days following discharge ^e	After the first week following discharge	No post-natal care visit following discharge		Total
Total	99.8	0.2	0.2	0.4	90.6	7.5	1.1	100.0	99.8	1476	13.2	58.6	17.4	9.2	0.6	1.1	100.0	1468
Region																		
Ashgabat city	100.0	0.0	0.0	0.0	88.5	10.0	1.5	100.0	100.0	160	6.0	66.4	20.2	4.8	1.2	1.5	100.0	160
Ahal velayat	100.0	0.0	0.0	0.0	96.2	3.8	0.0	100.0	100.0	226	1.3	34.9	49.8	13.0	1.0	0.0	100.0	224
Balkan velayat	100.0	0.4	1.0	2.1	93.5	2.9	0.0	100.0	100.0	75	14.2	56.4	22.9	6.0	0.6	0.0	100.0	75
Dashoguz velayat	100.0	0.3	0.3	1.0	92.9	5.2	0.3	100.0	100.0	395	13.0	64.6	13.9	7.8	0.3	0.3	100.0	392
Lebap velayat	100.0	0.0	0.0	0.0	89.2	10.2	0.6	100.0	100.0	300	30.9	53.6	5.7	8.9	0.3	0.6	100.0	300
Mary velayat	99.0	0.4	0.4	0.0	85.4	10.4	3.4	100.0	99.0	320	8.4	69.2	7.3	11.3	0.4	3.4	100.0	317
Area																		
Urban	100.0	0.1	0.4	0.5	87.7	10.4	1.1	100.0	100.0	529	13.5	58.1	16.9	9.6	0.8	1.1	100.0	526
Rural	99.7	0.3	0.1	0.3	92.2	6.0	1.1	100.0	99.7	947	13.0	58.9	17.7	8.9	0.4	1.1	100.0	941
Mother's age at birth																		
Less than 20	100.0	0.6	0.0	0.0	83.4	11.9	4.0	100.0	100.0	56	7.8	54.5	17.8	13.3	2.5	4.1	100.0	55
20-34	99.8	0.2	0.3	0.4	91.2	7.0	0.9	100.0	99.8	1305	13.3	59.6	17.4	8.4	0.4	1.0	100.0	1297
35-49	100.0	0.0	0.0	0.3	87.2	11.3	1.2	100.0	100.0	115	14.4	49.5	17.8	16.0	1.1	1.2	100.0	115
Place of delivery																		
Home	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	8	na	na	na	na	na	na	na	na
Health facility	99.8	0.1	0.2	0.4	90.6	7.6	1.1	100.0	99.8	1468	13.2	58.6	17.4	9.2	0.6	1.1	100.0	1468
Public	99.8	0.1	0.2	0.4	90.6	7.6	1.1	100.0	99.8	1466	13.2	58.6	17.4	9.2	0.6	1.1	100.0	1466
Private	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	2	(*)	(*)	(*)	(*)	(*)	(*)	100.0	2
Type of delivery																		
Vaginal birth	99.8	0.2	0.2	0.4	94.0	4.2	1.0	100.0	99.8	1383	13.6	59.5	18.4	7.2	0.3	1.0	100.0	1375
C-section	100.0	0.0	0.0	0.0	39.4	58.1	2.5	100.0	100.0	92	7.5	44.5	3.3	38.0	4.3	2.5	100.0	92
Education^f																		
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	1	(*)	(*)	(*)	(*)	(*)	(*)	100.0	1
Secondary	99.7	0.2	0.3	0.3	91.1	7.1	1.0	100.0	99.7	1265	12.7	58.2	18.3	9.3	0.5	1.0	100.0	1259
Primary vocational	100.0	0.0	0.0	1.1	86.1	11.6	1.3	100.0	100.0	112	20.8	52.7	13.7	11.1	0.4	1.3	100.0	111
Secondary vocational	100.0	0.0	0.0	1.4	91.0	7.6	0.0	100.0	100.0	50	14.5	74.0	8.7	2.9	0.0	0.0	100.0	50
Higher	100.0	0.0	0.0	0.0	90.3	9.7	0.0	100.0	100.0	46	7.5	71.3	10.5	6.8	3.9	0.0	100.0	46
Wealth index quintile																		
Poorest	99.5	0.0	0.4	0.4	91.1	7.1	1.0	100.0	99.5	322	13.8	65.2	11.1	8.8	0.0	1.0	100.0	319
Second	99.5	0.9	0.0	0.5	89.4	7.4	1.8	100.0	99.5	313	14.6	57.7	16.1	9.2	0.6	1.9	100.0	309
Middle	100.0	0.0	0.0	0.1	93.3	6.1	0.4	100.0	100.0	313	12.8	54.3	22.6	9.2	0.8	0.4	100.0	313
Fourth	100.0	0.0	0.3	0.8	88.5	9.6	0.9	100.0	100.0	270	11.9	56.1	17.7	12.5	1.0	0.9	100.0	268
Richest	100.0	0.1	0.5	0.0	90.3	7.8	1.3	100.0	100.0	259	12.6	59.3	20.3	6.1	0.5	1.3	100.0	259
Language of household head																		
Turkmen	99.9	0.1	0.2	0.4	90.9	7.6	0.8	100.0	99.9	1301	13.1	59.2	17.1	9.2	0.6	0.8	100.0	1294
Uzbek	100.0	0.0	0.9	0.0	90.9	7.2	0.9	100.0	100.0	124	15.9	55.8	17.9	9.5	0.0	0.9	100.0	124
Russian	(100.0)	(0.0)	(0.0)	(0.0)	(80.9)	(13.7)	(5.4)	100.0	(100.0)	27	(10.3)	(52.0)	(19.2)	(11.6)	(1.5)	(5.4)	100.0	27
Other	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	(*)	24	(*)	(*)	(*)	(*)	(*)	(*)	100.0	22

¹ MICS indicator 5.12 - Post-natal health check for the mother

na: not applicable

^a Health checks by any health provider following facility births (before discharge from facility) or following home births (before departure of provider from home).

^b Post-natal care visits (PNC) refer to a separate visit by any health provider to check on the health of the mother and provide preventive care services. PNC visits do not include health checks following birth while in facility or at home (see note ^a above).

^c Post-natal health checks include any health check performed while in the health facility or at home following birth (see note ^a above), as well as PNC visits (see note ^b above) within two days of delivery.

^d The same length of stay in the health facility is used for both the mother and the newborn child (since only information on the duration of stay of the mother is collected).

^e Including women that report time of the first PNC check in weeks.

^f Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Table RH.15 presents a pattern similar to Table RH.13, without any notable differences. Overall, almost all mothers (100 percent) receive a health check following birth while in a facility or at home. With regards to PNC visits for mothers by time following discharge from health facility, the majority take place on the same or on the first day after discharge from the health facility (72 percent). Regional differences are consistent with regional differences in PNC visits for newborns.

Table RH.16: Post-natal care visits for mothers within the first week following discharge from health facility

Percent distribution of women age 15-49 years with a live birth in the last two years who received a post-natal care (PNC) visit within the first week following discharge from the health facility, by location and provider of the first PNC visit, Turkmenistan, 2015-2016

	Location of first PNC visit for mothers within the first week following discharge from the health facility			Provider of first PNC visit for mothers within the first week following discharge from the health facility			Total	Number of women with a live birth in the last two years who received a PNC visit within the first week following discharge from the health facility
	Home	Public Sector	Total	Doctor	Nurse/ midwife	Feldsher		
	Total	98.2	1.8	100.0	68.9	27.5		
Region								
Ashgabat city	100.0	0.0	100.0	71.1	28.9	0.0	100.0	156
Ahal velayat	100.0	0.0	100.0	39.4	54.7	5.9	100.0	222
Balkan velayat	98.6	1.4	100.0	8.6	90.5	0.9	100.0	75
Dashoguz velayat	98.5	1.5	100.0	85.0	15.0	0.0	100.0	390
Lebap velayat	100.0	0.0	100.0	80.1	11.6	8.3	100.0	297
Mary velayat	93.7	6.3	100.0	72.5	23.2	4.3	100.0	305
Area								
Urban	98.6	1.4	100.0	65.7	33.1	1.2	100.0	517
Rural	97.9	2.1	100.0	70.7	24.5	4.9	100.0	927
Mother's age at birth								
Less than 20	(96.7)	(3.3)	100.0	(61.3)	(35.5)	(3.2)	100.0	52
20-34	98.2	1.8	100.0	69.1	27.3	3.7	100.0	1279
35-49	98.6	1.4	100.0	70.6	26.7	2.7	100.0	112
Place of delivery								
Health facility	98.2	1.8	100.0	68.9	27.5	3.6	100.0	1444
Public	98.2	1.8	100.0	69.0	27.4	3.6	100.0	1442
Private	(*)	(*)	100.0	(*)	(*)	(*)	100.0	2
Type of delivery								
Vaginal birth	98.2	1.8	100.0	68.6	27.6	3.7	100.0	1358
C-section	98.4	1.6	100.0	73.0	25.8	1.2	100.0	86
Education^a								
Secondary	98.1	1.9	100.0	69.0	27.2	3.8	100.0	1240
Primary vocational	98.6	1.4	100.0	67.7	29.9	2.4	100.0	109
Secondary vocational	96.5	3.5	100.0	62.9	35.0	2.1	100.0	50
Higher	100.0	0.0	100.0	73.6	23.6	2.8	100.0	44
Wealth index quintile								
Poorest	97.9	2.1	100.0	80.7	16.6	2.7	100.0	316
Second	98.6	1.4	100.0	73.9	20.5	5.6	100.0	301
Middle	98.1	1.9	100.0	62.3	31.4	6.3	100.0	309
Fourth	96.6	3.4	100.0	60.7	36.8	2.5	100.0	263
Richest	99.7	0.3	100.0	64.7	35.3	0.0	100.0	254
Language of household head								
Turkmen	98.1	1.9	100.0	68.7	27.5	3.8	100.0	1276
Uzbek	98.0	2.0	100.0	74.7	23.4	1.8	100.0	123
Russian	(100.0)	(0.0)	100.0	(60.4)	(39.6)	(0.0)	100.0	25
Other	(*)	(*)	100.0	(*)	(*)	(*)	100.0	19

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Table RH.16 matches Table RH.14, but now deals with PNC visits for mothers within the first week following discharge from the health facility by location and type of provider. As defined above, a visit does not include a check in the facility or at home following birth.

Overall, 98 percent of the first PNC visits for mothers within the first week following discharge from the health facility occur at home and 2 percent in a public health facility. In the majority of cases, visits are

provided by a doctor (69 percent) and by nurse or midwife (28 percent). Regional differences regarding to the type of personnel are consistent with regional differences for newborns.

Table RH.17: Post-natal health checks for mothers and newborns					
Percent distribution of women age 15-49 years with a live birth in the last two years by post-natal health checks for the mother and newborn, within two days of the most recent birth, Turkmenistan, 2015-2016					
	Post-natal health checks within two days of birth for:			Total	Number of women with a live birth in the last two years
	Both mothers and newborns	Neither mother nor newborn			
Total	99.8	0.2	100.0	1476	
Region					
Ashgabat city	100.0	0.0	100.0	160	
Ahal velayat	100.0	0.0	100.0	226	
Balkan velayat	100.0	0.0	100.0	75	
Dashoguz velayat	100.0	0.0	100.0	395	
Lebap velayat	100.0	0.0	100.0	300	
Mary velayat	99.0	1.0	100.0	320	
Area					
Urban	100.0	0.0	100.0	529	
Rural	99.7	0.3	100.0	947	
Mother's age at birth					
Less than 20	100.0	0.0	100.0	56	
20-34	99.8	0.2	100.0	1305	
35-49	100.0	0.0	100.0	115	
Place of delivery					
Home	(*)	(*)	100.0	8	
Health facility	99.8	0.2	100.0	1468	
Public	99.8	0.2	100.0	1466	
Private	(*)	(*)	100.0	2	
Type of delivery					
Vaginal birth	99.8	0.2	100.0	1383	
C-section	100.0	0.0	100.0	92	
Education^a					
Primary	(*)	(*)	100.0	1	
Secondary	99.7	0.3	100.0	1265	
Primary vocational	100.0	0.0	100.0	112	
Secondary vocational	100.0	0.0	100.0	50	
Higher	100.0	0.0	100.0	46	
Wealth index quintile					
Poorest	99.5	0.5	100.0	322	
Second	99.5	0.5	100.0	313	
Middle	100.0	0.0	100.0	313	
Fourth	100.0	0.0	100.0	270	
Richest	100.0	0.0	100.0	259	
Language of household head					
Turkmen	99.9	0.1	100.0	1301	
Uzbek	100.0	0.0	100.0	124	
Russian	(100.0)	(0.0)	100.0	27	
Other	(*)	(*)	100.0	24	

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.
 () Figures that are based on 25–49 unweighted cases.
 (*) Figures that are based on fewer than 25 unweighted cases.

Table RH.17 presents the distribution of women with a live birth in the two years preceding the survey by receipt of health checks or PNC visits within 2 days of birth for the mother and the newborn, thus combining the indicators presented in Tables RH.13 and RH.15.

The 2015-2016 Turkmenistan MICS shows that for almost all live births, both the mothers and their newborns receive either a health check following birth or a timely PNC visit.

IX. Early Childhood Development

Early Childhood Care and Education

Readiness of children for primary school can be improved through attendance to early childhood education programmes or through pre-school attendance. Early childhood education programmes include programmes for children that have organised learning components as opposed to baby-sitting and day-care which do not typically have organised education and learning.

Turkmenistan has a network of preschool institutions for education and learning of children of preschool age. Types of preschool institutions depending on the conditions of their functioning are: crèches, combined crèches-kindergartens, kindergartens and other. State education administration bodies provide methodological guidance and monitor the activities of all preschool institutions, regardless of their departmental affiliation and ownership. An integral part of preschool education is preparation of preschool children for primary education (which is compulsory) and can be carried out in the family (at home), in preschool or other educational institutions.

The national program “Early development and preparation children for the school for the period 2011-2015” lays the foundation for a healthy physical and intellectual development of the personality of the child from birth to school age. The focus of the program are the family and assurance of children’s rights to the full development of their potential and creation of conditions for the comprehensive environment for readiness of children for school taking into account modern reality.

In Turkmenistan, 43 percent of children age 36-59 months are attending an organised early childhood education programme (Table CD.1). Urban-rural and regional differentials are notable – the figure is as high as 70 percent in urban areas, compared to 29 percent in rural areas. Among children age 36-59 months, attendance to early childhood education programmes is more prevalent in Ashgabat city and the Balkan velayat (71 percent and 75 percent respectively), than in other regions. No gender differential exists, but differentials by socioeconomic status seem to be notable. 81 percent of children living in the richest households attend such programmes, while the figure drops to 17 percent among children from the poorest households. It is interesting to note that there is an only a slight difference in the proportions of children attending early childhood education programmes at ages 36-47 months and 48-59 months (40 percent and 45 percent respectively).

Table CD.1: Early childhood education

Percentage of children age 36-59 months who are attending an organized early childhood education programme, Turkmenistan, 2015-2016

	Percentage of children age 36-59 months attending early childhood education ¹	Number of children age 36-59 months
Total	42.8	1518
Sex		
Male	43.0	782
Female	42.7	736
Region		
Ashgabat city	70.9	148
Ahal velayat	37.2	223
Balkan velayat	75.4	83
Dashoguz velayat	25.8	356
Lebap velayat	51.4	324
Mary velayat	36.9	383
Area		
Urban	69.8	518
Rural	28.9	1000
Age of child		
36-47 months	40.4	758
48-59 months	45.3	760
Mother's education		
Primary	(*)	3
Secondary	38.0	1301
Primary vocational	75.9	96
Secondary vocational	70.3	60
Higher	71.5	58
Wealth index quintile		
Poorest	16.7	342
Second	33.5	326
Middle	34.3	315
Fourth	61.9	296
Richest	80.7	239
Language of household head		
Turkmen	43.4	1326
Uzbek	36.0	136
Russian	(85.2)	29
Other	(*)	27

¹ MICS indicator 6.1 - Attendance to early childhood education

(*) Figures that are based on fewer than 25 unweighted cases.

Quality of Care

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 a major determinant of the child's development during this period.⁵⁶ In this context, engagement of adults in activities with children, presence of books in the home for the child, and the conditions of care are important indicators of quality of home care. As set out in *A World Fit for Children*, "children should be physically healthy, mentally alert, emotionally secure, socially competent and ready to learn."⁵⁷

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.

With the majority (94 percent) of children age 36-59 months, an adult household member engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey (Table CD.2). The mean number of activities that adults engaged with children was 5.6. The table also indicates that the father's involvement in such activities was limited, while mothers took an active part in such activities. Father's involvement in four or more activities was only 15 percent although 93 percent of children age 36-59 months live with their biological father. The percentage of children with whom mothers were engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey was 81 percent. The mean number of activities that fathers engaged with children was lower compared to mother's involvement (1.7 and 4.7 activities respectively).

The most notable differences in activities that promote learning and school readiness that adults engaged in with children were found by regions. In Lebap velayat, mothers and fathers are less involved in such activities with children. In this region, only 4 percent of fathers and 60 percent of mothers were involved in four or more activities that promote learning and school readiness. The highest prevalence is in the Balkan velayat where the father's involvement in such activities is 38 percent and mother's involvement is 95 percent.

⁵⁶ Grantham-McGregor, S et al. 2007. *Developmental Potential in the First 5 Years for Children in Developing Countries*. The Lancet 369: 60–70

Belsky, J et al. 2006. *Socioeconomic Risk, Parenting During the Preschool Years and Child Health Age 6 Years*. European Journal of Public Health 17(5): 511–2.

⁵⁷ UNICEF. 2002. *A World Fit For Children* adopted by the UN General Assembly at the 27th Special Session, 10 May 2002: 2.

Table CD.2: Support for learning

Percentage of children age 36-59 months with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities by biological fathers and mothers, Turkmenistan, 2015-2016

	Percentage of children with whom adult household members have engaged in four or more activities ¹	Mean number of activities with adult household members	Percentage of children living with their:		Number of children age 36-59 months	Percentage of children with whom biological fathers have engaged in four or more activities ²	Mean number of activities with biological fathers	Number of children age 36-59 months living with their biological fathers	Percentage of children with whom biological mothers have engaged in four or more activities ³	Mean number of activities with biological mothers	Number of children age 36-59 months living with their biological mothers
			Biological father	Biological mother							
Total	94.4	5.6	93.3	98.7	1518	14.8	1.7	1416	80.6	4.7	1499
Sex											
Male	94.3	5.6	93.1	98.4	782	16.0	1.8	728	79.8	4.7	770
Female	94.6	5.5	93.5	99.1	736	13.6	1.6	688	81.4	4.8	729
Region											
Ashgabat city	99.3	5.7	87.1	98.9	148	10.4	1.7	129	88.3	5.0	147
Ahal velayat	98.2	5.8	96.4	98.7	223	18.8	2.2	215	80.9	4.6	220
Balkan velayat	99.5	6.0	91.5	99.0	83	38.3	2.5	76	94.7	5.4	82
Dashoguz velayat	98.2	5.9	92.9	99.3	356	5.4	1.0	331	88.1	5.1	354
Lebap velayat	82.8	4.9	90.5	98.7	324	3.6	1.0	294	59.7	3.9	320
Mary velayat	95.6	5.6	97.0	98.1	383	27.5	2.4	371	85.1	4.9	376
Area											
Urban	96.2	5.6	87.0	98.1	518	15.7	1.6	450	85.4	4.9	508
Rural	93.5	5.5	96.6	99.1	1000	14.4	1.7	966	78.1	4.7	991
Age											
36-47 months	93.1	5.5	92.7	98.8	758	14.1	1.6	702	79.9	4.6	749
48-59 months	95.7	5.7	93.9	98.7	760	15.5	1.7	714	81.3	4.8	750
Mother's education^a											
Primary	(*)	(*)	(*)	(*)	3	(*)	(*)	3	(*)	(*)	3
Secondary	94.1	5.5	94.6	98.9	1301	14.5	1.7	1231	79.9	4.7	1286
Primary vocational	95.8	5.6	86.8	97.4	96	16.1	1.7	84	75.7	4.6	94
Secondary vocational	98.3	5.7	76.3	96.9	60	8.3	1.5	46	92.6	5.1	58
Higher	98.6	5.8	91.6	100.0	58	27.5	2.3	53	93.4	5.4	58
Father's education											
Primary	(*)	(*)	(*)	(*)	2	(*)	(*)	2	(*)	(*)	2
Secondary	94.2	5.6	100.0	99.2	1091	13.6	1.7	1091	80.5	4.7	1083
Primary vocational	90.5	5.3	100.0	98.9	138	25.0	2.0	138	74.2	4.5	137
Secondary vocational	97.1	5.6	100.0	100.0	80	13.5	1.8	80	80.5	4.7	80
Higher	98.8	5.8	100.0	100.0	105	28.9	2.3	105	90.7	5.2	105
Father not in the household	95.5	5.6	na	90.9	102	na	na	na	80.2	4.7	92
Wealth index quintile											
Poorest	92.3	5.5	95.3	99.6	342	9.0	1.3	326	78.2	4.7	341
Second	92.8	5.5	97.8	99.1	326	11.4	1.6	319	76.5	4.6	323
Middle	95.0	5.5	95.5	98.7	315	17.8	1.9	301	79.1	4.6	311
Fourth	95.0	5.6	88.9	97.4	296	20.1	1.8	263	83.4	4.8	288
Richest	98.3	5.7	86.8	98.8	239	17.5	1.8	207	88.1	5.1	236
Language of household head											
Turkmen	94.0	5.5	94.1	98.8	1326	15.3	1.7	1247	80.1	4.7	1309
Uzbek	99.1	5.8	91.8	98.5	136	9.8	1.2	125	85.4	5.0	134
Russian	(97.2)	(5.7)	(59.6)	(97.7)	29	(*)	(*)	17	(86.2)	(5.2)	28
Other	(*)	(*)	(*)	(*)	27	(*)	(*)	27	(*)	(*)	27

¹ MICS indicator 6.2 - Support for learning² MICS Indicator 6.3 - Father's support for learning³ MICS Indicator 6.4 - Mother's support for learning

na: not applicable

^a The background characteristic "Mother's education" refers to the education level of the respondent to the Questionnaire for Children Under Five, and covers both mothers and primary caretakers, who are interviewed when the mother is not listed in the same household. Since indicator 6.4 reports on the biological mother's support for learning, this background characteristic refers to only the educational levels of biological mothers when calculated for the indicator in question.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Exposure to books in early years not only provides the child with 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. Presence of books is important for later school performance. The mothers/caretakers of all children under 5 were asked about number of children's books or picture books they have for the child, and the types of playthings that are available at home.

In Turkmenistan, almost half of children (48 percent) age 0-59 months live in households where at least 3 children's books are present for the child (Table CD.3). The proportion of children with 10 or more books declines to 11 percent. While no gender differentials are observed, there are differences by area of residence and regions. The proportion of under-5 children who have 3 or more children's books is 57 percent in urban areas, compared to 43 percent in rural areas. Among regions, the indicator is the lowest in Dashoguz velayat (30 percent) and in other regions ranges from 48 percent to 62 percent. The presence of children's books is positively correlated with the child's age, level of household wealth and mother's education. In particular, 3 or more children's books are available in the homes of 28 percent of children age 0-23 months, while the figure is 62 percent for children age 24-59 months. The highest percentage of 3 or more children's books was in households where the language of the household head is Russian (85 percent).

When children for whom there are 10 or more children's books or picture books are taken into account, the differences by background characteristics are consistent with differences for the indicator on presence of 3 or more children's books.

Table CD.3: Learning materials

Percentage of children under age 5 by numbers of children's books present in the household, and by playthings that child plays with, Turkmenistan, 2015-2016

	Percentage of children living in households that have for the child:		Percentage of children who play with:				Number of children under age 5
	3 or more children's books ¹	10 or more children's books	Homemade toys	Toys from a shop/manufactured toys	Household objects/objects found outside	Two or more types of playthings ²	
Total	48.0	10.7	25.3	94.2	49.1	53.0	3765
Sex							
Male	46.8	10.5	25.7	94.1	50.3	53.9	1984
Female	49.4	11.0	24.9	94.4	47.7	52.0	1781
Region							
Ashgabat city	58.6	19.5	2.2	94.7	53.7	53.6	385
Ahal velayat	60.6	6.6	5.8	95.2	24.6	26.4	576
Balkan velayat	61.5	1.8	43.0	94.3	81.9	86.3	195
Dashoguz velayat	29.7	0.6	30.8	91.6	52.3	61.3	950
Lebap velayat	47.9	18.3	32.3	95.3	49.7	53.3	780
Mary velayat	52.0	15.8	32.2	95.1	51.7	53.7	879
Area							
Urban	57.1	14.8	19.8	94.5	53.8	56.8	1324
Rural	43.1	8.5	28.4	94.0	46.5	51.0	2441
Age							
0-23 months	27.6	6.1	12.1	86.9	27.6	31.2	1501
24-59 months	61.5	13.8	34.2	99.0	63.3	67.5	2264
Mother's education^a							
Primary	(*)	(*)	(*)	(*)	(*)	(*)	8
Secondary	46.3	8.7	26.1	94.0	48.4	52.5	3252
Primary vocational	55.4	22.3	23.6	96.5	56.6	58.9	251
Secondary vocational	59.8	19.4	21.0	96.7	49.3	54.2	128
Higher	68.1	31.9	14.9	97.4	55.0	56.2	124
Wealth index quintile							
Poorest	30.2	3.2	32.4	93.9	50.8	58.5	826
Second	38.8	5.9	25.4	93.4	44.0	47.5	799
Middle	53.4	11.5	24.5	94.8	44.4	47.5	793
Fourth	57.6	13.7	25.6	94.7	53.3	56.1	737
Richest	65.7	22.6	16.7	94.2	54.1	56.3	610
Language of household head							
Turkmen	48.5	10.7	24.9	94.8	48.4	52.1	3291
Uzbek	36.0	2.5	35.2	89.3	52.0	59.7	333
Russian	84.7	51.7	9.9	98.6	53.8	56.0	74
Other	43.5	6.7	14.1	84.5	59.9	59.9	68

¹ MICS indicator 6.5 - Availability of children's books² MICS indicator 6.6 - Availability of playthings^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Table CD.3 also shows that about half of children (53 percent) age 0-59 months had 2 or more types of playthings to play with in their homes. The types of playthings included in the questionnaires were homemade toys (such as dolls and cars, or other toys made at home), toys that came from a store, and household objects (such as pots and bowls) or objects and materials found outside the home (such as sticks, rocks, animal shells, or leaves). As expected, the most common are toys that come from a store (94 percent). Less than a half of children (49 percent) play with household objects or objects found outside and every fourth child (25 percent) plays with homemade toys. The percentage of children who have 2 or more types of playthings to play with increases with the child's age, from 31 percent for children age 0-23 months to 68 percent for children age 24-59 months. Differentials by background characteristics are not notable except by regions.

Leaving children alone or in the presence of other young children is known to increase the risk of injuries.⁵⁸ In MICS, two questions were asked to find out whether children age 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.4 shows that less than 1 percent of children were left with inadequate care during the past week, either by being left alone or in the care of another child.

⁵⁸ Grossman, DC. 2000. *The History of Injury Control and the Epidemiology of Child and Adolescent Injuries*. The Future of Children, 10(1): 23-52.

Table CD.4: Inadequate care

Percentage of children under age 5 left alone or left in the care of another child younger than 10 years of age for more than one hour at least once during the past week, Turkmenistan, 2015-2016

	Percentage of children under age 5:			Number of children under age 5
	Left alone in the past week	Left in the care of another child younger than 10 years of age in the past week	Left with inadequate care in the past week ¹	
Total	0.5	0.4	0.8	3765
Sex				
Male	0.1	0.2	0.3	1984
Female	0.9	0.6	1.3	1781
Region				
Ashgabat city	0.0	0.5	0.5	385
Ahal velayat	0.0	0.1	0.1	576
Balkan velayat	0.6	0.4	0.8	195
Dashoguz velayat	0.5	0.3	0.6	950
Lebap velayat	1.5	0.7	2.2	780
Mary velayat	0.2	0.3	0.3	879
Area				
Urban	0.3	0.5	0.7	1324
Rural	0.6	0.3	0.8	2441
Age				
0-23 months	0.4	0.5	0.9	1501
24-59 months	0.6	0.3	0.7	2264
Mother's education^a				
Primary	(*)	(*)	(*)	8
Secondary	0.5	0.4	0.8	3252
Primary vocational	0.5	0.5	0.9	251
Secondary vocational	0.0	0.0	0.0	128
Higher	0.0	0.0	0.0	124
Wealth index quintile				
Poorest	0.3	0.2	0.5	826
Second	0.7	0.5	1.1	799
Middle	0.6	0.2	0.8	793
Fourth	0.7	0.5	1.0	737
Richest	0.1	0.5	0.6	610
Language of household head				
Turkmen	0.5	0.3	0.7	3291
Uzbek	0.8	0.6	1.1	333
Russian	0.0	0.5	0.5	74
Other	0.0	2.1	2.1	68

¹ MICS indicator 6.7 - Inadequate care

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Developmental Status of Children

Early childhood development is defined as an orderly, predictable process along a continuous path, in which a child learns to handle more complicated levels of moving, thinking, speaking, feeling and relating to others. Physical growth, literacy and numeracy skills, socio-emotional development and readiness to learn are vital domains of a child's overall development, which is a basis for overall human development.⁵⁹

A 10-item module was used to calculate the Early Child Development Index (ECDI). The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Turkmenistan. The index is based on selected milestones that children are expected to achieve by ages 3 and 4. The 10 items are used to determine if children are developmentally on track in four domains:

- Literacy-numeracy: Children are identified as being developmentally on track based on whether they can identify/name at least ten letters of the alphabet, whether they can read at least four simple, popular words, and whether they know the name and recognize the symbols of all numbers from 1 to 10. If at least two of these are true, then the child is considered developmentally on track.
- Physical: If the child can pick up a small object with two fingers, like a stick or a rock from the ground and/or the mother/caretaker does not indicate that the child is sometimes too sick to play, then the child is regarded as being developmentally on track in the physical domain.
- Social-emotional: Children are considered to be developmentally on track if two of the following are true: If the child gets along well with other children, if the child does not kick, bite, or hit other children and if the child does not get distracted easily.
- Learning: If the child follows simple directions on how to do something correctly and/or when given something to do, is able to do it independently, then the child is considered to be developmentally on track in this domain.

ECDI is then calculated as the percentage of children who are developmentally on track in at least three of these four domains.

⁵⁹ Shonkoff, J and Phillips, D (eds). 2000. *From neurons to neighborhoods: the science of early childhood development*. Committee on Integrating the Science of Early Childhood Development, National Research Council, 2000.

Table CD.5: Early child development index

Percentage of children age 36-59 months who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score, Turkmenistan, 2015-2016

	Percentage of children age 36-59 months who are developmentally on track for indicated domains				Early child development index score ¹	Number of children age 36-59 months
	Literacy-numeracy	Physical	Social-Emotional	Learning		
Total	19.1	97.7	93.9	94.6	90.9	1518
Sex						
Male	20.4	98.0	93.9	95.7	91.0	782
Female	17.8	97.3	93.9	93.5	90.7	736
Region						
Ashgabat city	12.4	98.5	90.0	99.4	89.6	148
Ahal velayat	24.9	98.9	97.7	97.8	96.7	223
Balkan velayat	25.6	93.9	97.6	95.6	89.6	83
Dashoguz velayat	5.5	97.8	92.4	93.0	86.9	356
Lebap velayat	11.5	98.7	94.0	97.7	93.2	324
Mary velayat	36.1	96.4	93.6	89.7	89.9	383
Area						
Urban	20.2	97.0	93.3	96.3	91.6	518
Rural	18.6	98.0	94.2	93.8	90.5	1000
Age						
36-47 months	8.2	95.8	92.4	90.5	87.2	758
48-59 months	30.0	99.5	95.3	98.8	94.5	760
Attendance to early childhood education						
Attending	25.3	99.5	95.6	99.0	94.7	650
Not attending	14.5	96.3	92.6	91.4	88.0	867
Mother's education						
Primary	(*)	(*)	(*)	(*)	(*)	3
Secondary	18.3	97.4	93.7	94.2	90.6	1301
Primary vocational	20.6	100.0	94.6	98.2	92.7	96
Secondary vocational	29.3	99.3	98.9	97.5	95.6	60
Higher	26.3	97.9	91.7	95.5	89.3	58
Wealth index quintile						
Poorest	12.0	97.6	90.2	93.7	86.7	342
Second	14.5	98.2	94.2	91.6	89.5	326
Middle	26.2	97.7	97.0	94.8	93.9	315
Fourth	21.6	96.8	94.2	96.0	93.0	296
Richest	23.2	97.9	94.2	98.2	91.9	239
Language of household head						
Turkmen	20.2	97.6	94.1	94.3	91.0	1326
Uzbek	7.0	98.1	94.0	98.1	92.0	136
Russian	(40.4)	(97.2)	(87.2)	(97.2)	(89.9)	29
Other	(*)	(*)	(*)	(*)	(*)	27
¹ MICS indicator 6.8 - Early child development index						
() Figures that are based on 25–49 unweighted cases.						
(*) Figures that are based on fewer than 25 unweighted cases.						

In Turkmenistan, 91 percent of children age 36-59 months are developmentally on track (Table CD.5). ECDI among boys and girls is equally high. ECDI is slightly higher in the older age group (95 percent among children age 48-59 months compared to 87 percent among those age 36-47 months),

since children mature more skills with increasing age. Also, slightly higher ECDI is seen in children attending to an early childhood education programme at 95 percent compared to 88 percent among those who are not attending. The analysis of four domains of child development shows that in three domains, physical, learning and social-emotional domain, the vast majority of children are developmentally on track (98 percent, 95 percent and 94 percent respectively). However, the figure is much lower for the literacy-numeracy domain (19 percent)⁶⁰. The greatest differences in this domain of child development are by regions. Only 6 percent of children in Dashoguz velayat are developmentally on track in the literacy-numeracy domain compared with 36 percent in Mary velayat. Also, there are notable differences for this domain by age of child and attendance to early childhood education.

⁶⁰ The value of this child development indicator refers to children age 36-59 months.

X. Literacy and Education

Literacy among Young Women

The Youth Literacy Rate reflects the outcomes of primary education over the previous 10 years or so. As a measure of the effectiveness of the primary education system, it is often seen as a proxy measure of social progress and economic achievement. In MICS, since only a women's questionnaire was administered, the results are based only on females age 15-24. Literacy is assessed on the ability of the respondent to read a short simple statement or based on school attendance.

The percent literate is presented in Table ED.1. Almost all young women in Turkmenistan are literate (100 percent). Such a high level of literacy can be explained by implementation of the Law on Education according to which all citizens are guaranteed free and compulsory secondary education in Turkmenistan.

Table ED.1: Literacy

Percentage of women age 15-24 years who are literate, Turkmenistan, 2015-2016

	Percentage literate ¹	Percentage not known	Number of women age 15-24 years
Total	99.6	0.0	2597
Region			
Ashgabat city	99.3	0.0	307
Ahal velayat	100.0	0.0	359
Balkan velayat	100.0	0.0	150
Dashoguz velayat	100.0	0.0	598
Lebap velayat	100.0	0.0	506
Mary velayat	98.9	0.0	677
Area			
Urban	99.8	0.0	951
Rural	99.6	0.0	1646
Education^a			
Primary	(*)	(*)	6
Secondary	100.0	0.0	2224
Primary vocational	100.0	0.0	196
Secondary vocational	100.0	0.0	90
Higher	100.0	0.0	76
Age			
15-19	99.8	0.0	1197
20-24	99.5	0.0	1400
Wealth index quintile			
Poorest	99.4	0.0	497
Second	99.2	0.0	547
Middle	100.0	0.0	553
Fourth	100.0	0.0	501
Richest	99.6	0.0	499
Language of household head			
Turkmen	99.8	0.0	2281
Uzbek	100.0	0.0	194
Russian	100.0	0.0	78
Other	(86.9)	(0.0)	44

¹ MICS indicator 7.1; MDG indicator 2.3 - Literacy rate among young women

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

School Readiness

Attendance to pre-school education is important for the readiness of children to school. Table ED.2 shows the proportion of children in the first grade of primary school (regardless of age) who attended pre-school the previous year⁶¹. Overall, 44 percent of children who are currently attending the first grade of primary school were attending pre-school the previous year. The proportion among females is higher (50 percent) than among males (39 percent) – mainly due to the disparity between boys and girls in the Mary velayat, while almost 74 percent of the children in first grade in urban areas had attended pre-school the previous year compared to 26 percent among children living in rural areas. Regional differentials are also very notable; first graders in Ashgabat city are four times more likely to attend pre-school (81 percent) than their counterparts in Dashoguz velayat (21 percent). Socioeconomic status of the household has a positive correlation with school readiness – while the indicator is only 19 percent among the poorest households, it increases to 84 percent among those children living in the richest households.

Table ED.2: School readiness

Percentage of children attending first grade of primary school who attended pre-school the previous year, Turkmenistan, 2015-2016		
	Percentage of children attending first grade who attended preschool in previous year ¹	Number of children attending first grade of primary school
Total	44.1	649
Sex		
Male	39.1	340
Female	49.6	309
Region		
Ashgabat city	81.0	62
Ahal velayat	38.6	104
Balkan velayat	76.0	45
Dashoguz velayat	21.1	154
Lebap velayat	53.3	130
Mary velayat	39.1	155
Area		
Urban	73.7	243
Rural	26.3	405
Mother's education		
Secondary	40.2	544
Primary vocational	(67.5)	40
Secondary vocational	(61.3)	38
Higher	(64.2)	26
Wealth index quintile		
Poorest	19.3	151
Second	29.5	132
Middle	35.4	125
Fourth	62.1	129
Richest	83.9	112
Language of household head		
Turkmen	44.9	560
Uzbek	27.8	71
Russian	(*)	14
Other	(*)	4
¹ MICS indicator 7.2 - School readiness		
() Figures that are based on 25–49 unweighted cases.		
(*) Figures that are based on fewer than 25 unweighted cases.		

⁶¹ The computation of the indicator does not exclude repeaters, and therefore is inclusive of both children who are attending primary school for the first time, as well as those who were in the first grade of primary school the previous school year and are repeating. Children repeating may have attended pre-school prior to the school year during which they attended the first grade of primary school for the first time; these children are not captured in the numerator of the indicator.

Primary and Secondary School Participation

Universal access to basic education and the completion of primary education by the world's children is one of the Sustainable Development Goals. Education is a vital prerequisite for combating poverty, empowering women, protecting children from hazardous and exploitative labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and influencing population growth.

According to the Law on Education from 2012 (2013/2014 school year), children enter primary school at age 6 and enter secondary school at age 10 in Turkmenistan. There are 4 grades in primary school and 8 grades in secondary school (in total, 12 grades). According to the previous Law on Education, children entered primary school at age 7 and there were 3 grades in primary school and 8 grades in secondary school (in total, 11 grades). Having in mind changes in the Law on Education from 2012, separate calculations were applied for children born in 2006 or earlier and those born afterwards to take into account this change in the age eligibility criteria as well as the number of grades in primary and secondary school. In primary school, grades are referred to as grade 1 to grade 4 (grade 1 to grade 3 under the previous Law). For secondary school, grades are referred to as grade 5 to grade 12 (grade 4 to 11 under the previous Law). The school year typically runs from September of one year to June of the following year.

Of children who are of primary school entry age (age 6)⁶² in Turkmenistan, 94 percent are attending the first grade of primary school (Table ED.3). Differences by sex and urban-rural areas are small; however, some notable differentials are present by region. In Ashgabat city and Mary velayat entry of children to primary school is less timely (89 percent and 88 percent respectively) compared to other regions where the value of the indicator ranges from 95 percent in Ahal velayat to 99 percent in Dashoguz velayat. Correlation with socioeconomic status is not observed.

Table ED.3A in Appendix G. Primary school entry (calculated by age until September 2015), similarly to Table ED.3, provides data on primary school entry but does not include children who have reached age 6 (primary school entry age) after the start of the school year (1 September 2015).

⁶² When calculating this indicator the age of the child was calculated on the basis of the year of birth (without months) in order to reflect timely admission of children to school, in accordance with Article 21, Paragraph 3 of the Law.

Table ED.3: Primary school entry

Percentage of children of primary school entry age entering grade 1 (net intake rate), Turkmenistan, 2015-2016

	Percentage of children of primary school entry age entering grade 1 ¹	Number of children of primary school entry age
Total	94.2	659
Sex		
Male	94.9	345
Female	93.4	315
Region		
Ashgabat city	88.7	64
Ahal velayat	95.1	98
Balkan velayat	96.3	44
Dashoguz velayat	99.1	154
Lebap velayat	97.3	128
Mary velayat	88.4	172
Area		
Urban	92.8	250
Rural	95.0	409
Mother's education		
Secondary	93.9	557
Primary vocational	(95.7)	41
Secondary vocational	(92.7)	37
Higher	(100.0)	25
Wealth index quintile		
Poorest	93.0	156
Second	97.5	131
Middle	93.9	129
Fourth	94.1	131
Richest	92.3	113
Language of household head		
Turkmen	94.4	566
Uzbek	97.2	73
Russian	(*)	12
Other	(*)	8

¹ MICS indicator 7.3 - Net intake rate in primary education

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Table ED.4 provides the percentage of children of primary school age 6 to 9 years who are attending primary or secondary school⁶³ and those who are out of school. The percentage of children of primary school age that are attending school is very high (98 percent). Only 2 percent of children this age are out of school, though primarily due to a lower attendance rate (94 percent) for children age 6, who are starting late in school. Almost all children age 7 to 9 years are attending primary school (from 99 percent to 100 percent). Therefore, attendance rate does not vary much with regard to background characteristics.

⁶³ Ratios presented in this table are "adjusted" since they include not only primary school attendance, but also secondary school attendance in the numerator.

Table ED.4: Primary school attendance and out of school children

Percentage of children of primary school age attending primary or secondary school (adjusted net attendance ratio), percentage attending preschool, and percentage out of school, Turkmenistan, 2015-2016

	Male					Female					Total				
	Net attendance ratio (adjusted)	Percentage of children:			Number of children	Net attendance ratio (adjusted)	Percentage of children:			Number of children	Net attendance ratio (adjusted) ¹	Percentage of children:			Number of children
		Not attending school or preschool	Attending preschool	Out of school ^a			Not attending school or preschool	Attending preschool	Out of school ^a			Not attending school or preschool	Attending preschool	Out of school ^a	
Total	98.4	0.6	1.0	1.6	1168	97.7	1.6	0.7	2.3	1132	98.1	1.1	0.8	1.9	2300
Region															
Ashgabat city	97.8	0.0	2.2	2.2	136	96.6	1.4	2.0	3.4	122	97.2	0.7	2.1	2.8	258
Ahal velayat	99.3	0.7	0.0	0.7	156	97.7	1.5	0.9	2.3	163	98.5	1.1	0.4	1.5	319
Balkan velayat	97.5	0.0	2.5	2.5	77	99.5	0.5	0.0	0.5	76	98.5	0.3	1.3	1.5	152
Dashoguz velayat	100.0	0.0	0.0	0.0	302	98.9	1.1	0.0	1.1	254	99.5	0.5	0.0	0.5	556
Lebap velayat	99.4	0.0	0.6	0.6	223	99.1	0.9	0.0	0.9	242	99.3	0.5	0.3	0.7	464
Mary velayat	95.9	2.1	1.9	4.1	274	95.5	3.3	1.3	4.5	275	95.7	2.7	1.6	4.3	549
Area															
Urban	97.9	0.2	1.8	2.1	442	97.8	1.1	1.1	2.2	438	97.9	0.7	1.5	2.1	880
Rural	98.7	0.8	0.5	1.3	726	97.7	2.0	0.3	2.3	694	98.2	1.4	0.4	1.8	1420
Age^b															
6	94.9	2.0	3.1	5.1	345	93.4	4.3	2.4	6.6	315	94.2	3.1	2.8	5.8	659
7	99.9	0.0	0.1	0.1	329	99.5	0.5	0.0	0.5	298	99.7	0.2	0.1	0.3	627
8	99.9	0.0	0.1	0.1	248	98.7	1.3	0.0	1.3	258	99.3	0.7	0.1	0.7	506
9	100.0	0.0	0.0	0.0	246	100.0	0.0	0.0	0.0	261	100.0	0.0	0.0	0.0	507
Mother's education															
Primary	-	-	-	-	0	(*)	(*)	(*)	(*)	1	(*)	(*)	(*)	(*)	1
Secondary	98.3	0.7	1.0	1.7	962	97.6	1.6	0.8	2.4	926	98.0	1.1	0.9	2.0	1888
Primary vocational	97.7	0.6	1.7	2.3	78	100.0	0.0	0.0	0.0	83	98.9	0.3	0.8	1.1	161
Secondary vocational	99.4	0.0	0.6	0.6	80	95.4	4.6	0.0	4.6	77	97.4	2.3	0.3	2.6	157
Higher	100.0	0.0	0.0	0.0	49	100.0	0.0	0.0	0.0	45	100.0	0.0	0.0	0.0	94
Wealth index quintile															
Poorest	98.6	1.4	0.0	1.4	264	96.8	2.5	0.7	3.2	267	97.7	2.0	0.3	2.3	530
Second	100.0	0.0	0.0	0.0	238	96.9	2.3	0.8	3.1	220	98.5	1.1	0.4	1.5	458
Middle	97.8	1.0	1.2	2.2	206	98.5	1.5	0.0	1.5	212	98.1	1.3	0.6	1.9	419
Fourth	97.3	0.5	2.2	2.7	226	98.9	0.8	0.3	1.1	218	98.1	0.6	1.3	1.9	444
Richest	98.3	0.0	1.7	1.7	234	97.8	0.7	1.5	2.2	215	98.1	0.4	1.6	1.9	449
Language of household head															
Turkmen	98.4	0.5	1.1	1.6	997	97.9	1.4	0.7	2.1	958	98.2	1.0	0.9	1.8	1955
Uzbek	100.0	0.0	0.0	0.0	133	98.3	1.0	0.7	1.7	119	99.2	0.5	0.4	0.8	252
Russian	(*)	(*)	(*)	(*)	19	(100.0)	(0.0)	(0.0)	(0.0)	34	98.7	0.0	1.3	1.3	54
Other	(*)	(*)	(*)	(*)	19	(*)	(*)	(*)	(*)	20	(86.0)	(14.0)	(0.0)	(14.0)	38

¹ MICS indicator 7.4; MDG indicator 2.1 - Primary school net attendance ratio (adjusted)^a The percentage of children of primary school age out of school are those not attending school and those attending preschool^b Age is adjusted to take into account age eligibility criteria for starting primary school. Since in 2013 primary school entry age was changed from 7 to 6 during the year of entry, separate calculations were applied for children born in 2006 or earlier and those born afterwards to take into account this change in the age eligibility criteria.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"—" denotes 0 unweighted case in that cell or in the denominator.

The secondary school net attendance ratio is presented in Table ED.5⁶⁴. The percentage of children of secondary school age (10-17 years) attending secondary school or higher is more than 98 percent. Only a small proportion of children (1 percent) of secondary school age are attending primary school and those are mainly children age 10 years (7 percent). Less than 1 percent of children are out of school - not attending a primary, secondary, or higher educational institution.

⁶⁴ Ratios presented in this table are "adjusted" since they include not only secondary school attendance, but also attendance to higher levels in the numerator.

Table ED.5: Secondary school attendance and out of school children

Percentage of children of secondary school age attending secondary school or higher (adjusted net attendance ratio), percentage attending primary school, and percentage out of school, Turkmenistan, 2015-2016

	Male				Female				Total			
	Net attendance ratio (adjusted)	Percentage of children:		Number of children	Net attendance ratio (adjusted)	Percentage of children:		Number of children	Net attendance ratio (adjusted) ¹	Percentage of children:		Number of children
		Attending primary school	Out of school ^a			Attending primary school	Out of school ^a			Attending primary school	Out of school ^a	
Total	98.3	1.1	0.4	1969	98.5	0.8	0.6	1893	98.4	1.0	0.5	3863
Region												
Ashgabat city	99.6	0.4	0.0	219	99.6	0.4	0.0	229	99.6	0.4	0.0	447
Ahal velayat	99.6	0.4	0.0	250	99.6	0.4	0.0	220	99.6	0.4	0.0	470
Balkan velayat	98.5	0.9	0.3	132	99.4	0.4	0.0	134	98.9	0.6	0.1	265
Dashoguz velayat	99.5	0.2	0.3	468	98.9	0.6	0.5	488	99.2	0.4	0.4	956
Lebap velayat	97.5	1.9	0.3	389	97.8	1.2	0.7	349	97.6	1.5	0.5	738
Mary velayat	96.6	2.0	0.9	512	97.3	1.4	1.3	474	97.0	1.7	1.1	986
Area												
Urban	98.7	1.0	0.2	734	99.0	0.5	0.3	724	98.8	0.8	0.3	1458
Rural	98.1	1.2	0.5	1235	98.2	1.1	0.8	1169	98.1	1.1	0.6	2404
Age^b												
10	91.5	8.5	0.0	248	93.7	6.3	0.0	249	92.6	7.4	0.0	497
11	98.9	0.4	0.7	244	99.4	0.0	0.6	234	99.1	0.2	0.7	478
12	100.0	0.0	0.0	243	100.0	0.0	0.0	211	100.0	0.0	0.0	454
13	98.6	0.0	1.4	208	100.0	0.0	0.0	234	99.3	0.0	0.7	442
14	100.0	0.0	0.0	225	99.0	0.0	0.8	240	99.5	0.0	0.4	465
15	99.8	0.0	0.0	261	99.3	0.0	0.7	219	99.6	0.0	0.3	480
16	99.9	0.0	0.1	261	98.9	0.0	1.1	256	99.4	0.0	0.6	517
17	97.9	0.0	1.0	278	98.1	0.0	1.4	251	98.0	0.0	1.2	529
Mother's education												
Primary	(*)	(*)	(*)	3	(*)	(*)	(*)	2	(*)	(*)	(*)	6
Secondary	98.3	1.2	0.4	1438	98.6	0.8	0.6	1421	98.4	1.0	0.5	2859
Primary vocational	98.0	0.7	1.3	137	100.0	0.0	0.0	107	98.9	0.4	0.7	244
Secondary vocational	98.2	0.9	0.0	228	97.7	1.8	0.0	207	97.9	1.3	0.0	435
Higher	98.0	1.0	0.0	113	99.0	1.0	0.0	113	98.5	1.0	0.0	226
Cannot be determined ^c	(100.0)	(0.0)	(0.0)	49	(94.5)	(0.0)	(5.5)	43	97.5	0.0	2.5	91
Wealth index quintile												
Poorest	96.9	1.2	1.8	413	97.8	0.9	1.3	418	97.4	1.1	1.5	831
Second	99.3	0.5	0.1	409	98.1	1.5	0.4	399	98.7	1.0	0.2	807
Middle	97.9	1.3	0.0	386	99.0	0.4	0.6	347	98.4	0.9	0.3	733
Fourth	98.4	1.6	0.0	368	98.7	0.9	0.3	351	98.5	1.3	0.2	719
Richest	99.1	0.9	0.0	394	99.0	0.4	0.3	378	99.0	0.7	0.2	772
Language of household head												
Turkmen	98.3	1.2	0.3	1660	98.6	0.9	0.4	1627	98.4	1.0	0.4	3286
Uzbek	99.5	0.5	0.0	218	99.5	0.5	0.0	174	99.5	0.5	0.0	392
Russian	100.0	0.0	0.0	64	96.5	1.5	2.0	63	98.3	0.7	1.0	127
Other	(87.7)	(1.5)	(10.7)	28	(89.7)	(0.0)	(10.3)	30	88.7	0.8	10.5	58

¹ MICS indicator 7.5 - Secondary school net attendance ratio (adjusted)^a The percentage of children of secondary school age out of school are those who are not attending primary, secondary, or higher education^b Age is adjusted to take into account age eligibility criteria for starting primary school. Since in 2013 primary school entry age was changed from 7 to 6 during the year of entry, separate calculations were applied for children born in 2006 or earlier and those born afterwards to take into account this change in the age eligibility criteria.^c Children age 15 or higher at the time of the interview whose mothers were not living in the household

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

The percentage of children entering first grade who eventually reach the last grade of primary school is presented in Table ED.6. Table present findings only for children attending the 3-year primary school system (up to and including the 2015-2016 school year), and does not include children entering 4th grade of primary school in the 2016/2017 school year. In Turkmenistan, of all children starting grade one, all will eventually reach grade 3. The MICS included only questions on school attendance in the current and previous year. Thus, the indicator is calculated synthetically by computing the cumulative probability of survival from the first to the last grade of primary school, as opposed to calculating the indicator for a real cohort which would need to be followed from the time a cohort of children entered primary school, up to the time they reached the last grade of primary school. Repeaters are excluded from the calculation of the indicator, because it is not known whether they will eventually graduate. As an example, the probability that a child will move from the first grade to the second grade is computed by dividing the number of children who moved from the first grade to the second grade (during the two consecutive school years covered by the survey) by the number of children who have moved from the first to the second grade plus the number of children who were in the first grade the previous school year, but dropped out. Both the numerator and denominator excludes children who repeated during the two school years under consideration.

Table ED.6: Children reaching last grade of primary school

Percentage of children entering first grade of primary school who eventually reach the last grade of primary school (Survival rate to last grade of primary school), Turkmenistan, 2015-2016

	Percent attending grade 1 last school year who are in grade 2 this school year	Percent attending grade 2 last school year who are attending grade 3 this school year	Percent who reach grade 3 of those who enter grade 1 ¹
Total	100.0	100.0	100.0
Sex			
Male	100.0	100.0	100.0
Female	100.0	100.0	100.0
Region			
Ashgabat city	100.0	100.0	100.0
Ahal velayat	100.0	100.0	100.0
Balkan velayat	100.0	100.0	100.0
Dashoguz velayat	100.0	100.0	100.0
Lebap velayat	100.0	100.0	100.0
Mary velayat	100.0	100.0	100.0
Area			
Urban	100.0	100.0	100.0
Rural	100.0	100.0	100.0
Mother's education^a			
Primary	-	(*)	-
Secondary	100.0	100.0	100.0
Primary vocational	(100.0)	100.0	(100.0)
Secondary vocational	(100.0)	100.0	(100.0)
Higher	(100.0)	100.0	(100.0)
Wealth index quintile			
Poorest	100.0	100.0	100.0
Second	100.0	100.0	100.0
Middle	100.0	100.0	100.0
Fourth	100.0	100.0	100.0
Richest	100.0	100.0	100.0
Language of household head			
Turkmen	100.0	100.0	100.0
Uzbek	(100.0)	100.0	(100.0)
Russian	(*)	(100.0)	(*)
Other	(*)	(*)	(*)

¹ MICS indicator 7.6; MDG indicator 2.2 - Children reaching last grade of primary

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"-" denotes 0 unweighted case in that cell or in the denominator.

The primary school completion rate and transition rate to secondary education are presented in Table ED.7. The primary completion rate is the ratio of the total number of students, regardless of age, entering the last grade⁶⁵ of primary school for the first time, to the number of children of the primary graduation age at the beginning of the current (or most recent) school year.

Table ED.7 shows that the primary school completion rate is 103 percent. The value of the indicator is greater than 100 percent due to some of the children entering the last grade of primary school for the first time, being younger or older than the primary school graduation age.

Almost all children of the children who were attending the last grade of primary school in the previous school year were found to be attending the first grade of secondary school in the school year of the survey. The table also provides “effective” transition rate to secondary school which takes account of the presence of repeaters in the final grade of primary school. This indicator better reflects situations in which pupils repeat the last grade of primary education but eventually make the transition to the secondary level. The simple transition rate tends to underestimate pupils’ progression to secondary school as it assumes that the repeaters never reach secondary school. The table shows that all children in the last grade of primary school are expected to move on to secondary school.

⁶⁵ Since in 2013 the number of grades in primary school was changed from 3 to 4 grades, separate calculations were applied for children born in 2006 or earlier (3 grades of primary school) and those born afterwards (4 grades of primary school) to take into account the change in the number of primary school grades.

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

Primary school completion rates and transition and effective transition rates to secondary school, Turkmenistan, 2015-2016

	Primary school completion rate ¹	Number of children of primary school completion age	Transition rate to secondary school ²	Number of children who were in the last grade of primary school the previous year	Effective transition rate to secondary school	Number of children who were in the last grade of primary school the previous year and are not repeating that grade in the current school year
Total	102.8	507	99.8	496	100.0	494
Sex						
Male	102.6	246	99.5	251	100.0	250
Female	103.0	261	100.0	245	100.0	245
Region						
Ashgabat city	98.4	68	(100.0)	43	(100.0)	43
Ahal velayat	92.4	63	99.1	65	100.0	64
Balkan velayat	102.0	41	98.2	31	100.0	31
Dashoguz velayat	98.8	136	100.0	117	100.0	117
Lebap velayat	109.9	99	100.0	95	100.0	95
Mary velayat	110.9	100	100.0	145	100.0	145
Area						
Urban	100.6	211	99.7	194	100.0	194
Rural	104.3	296	99.8	301	100.0	301
Mother's education^a						
Primary	-	0	(*)	2	(*)	2
Secondary	102.8	405	99.7	395	100.0	394
Primary vocational	(97.4)	38	(*)	27	(*)	27
Secondary vocational	(104.2)	34	100.0	49	100.0	49
Higher	(107.6)	30	(*)	22	(*)	22
Wealth index quintile						
Poorest	103.7	129	100.0	94	100.0	94
Second	104.5	83	100.0	107	100.0	107
Middle	102.2	82	99.4	94	100.0	93
Fourth	104.5	95	100.0	112	100.0	112
Richest	99.7	118	99.4	88	100.0	87
Language of household head						
Turkmen	102.9	425	99.7	424	100.0	423
Uzbek	(105.1)	59	(100.0)	54	(100.0)	54
Russian	(*)	16	(*)	12	(*)	12
Other	(*)	7	(*)	6	(*)	6

¹ MICS indicator 7.7 - Primary completion rate² MICS indicator 7.8 - Transition rate to secondary school^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"–" denotes 0 unweighted case in that cell or in the denominator.

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). Notice that the ratios included here are obtained from net attendance ratios rather than gross attendance ratios. The latter provide an

erroneous description of the GPI mainly because, in most cases, the majority of over-age children attending primary education tend to be boys.

The table shows that, in Turkmenistan, gender parity is 0.99 for primary school and 1.00 for secondary school.

Table ED.8: Education gender parity						
Ratio of adjusted net attendance ratios of girls to boys, in primary and secondary school, Turkmenistan, 2015-2016						
	Primary school			Secondary school		
	Primary school adjusted net attendance ratio (NAR), girls	Primary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school adjusted NAR ¹	Secondary school adjusted net attendance ratio (NAR), girls	Secondary school adjusted net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school adjusted NAR ²
Total	97.7	98.4	0.99	98.5	98.3	1.00
Region						
Ashgabat city	96.6	97.8	0.99	99.6	99.6	1.00
Ahal velayat	97.7	99.3	0.98	99.6	99.6	1.00
Balkan velayat	99.5	97.5	1.02	99.4	98.5	1.01
Dashoguz velayat	98.9	100.0	0.99	98.9	99.5	0.99
Lebap velayat	99.1	99.4	1.00	97.8	97.5	1.00
Mary velayat	95.5	95.9	0.99	97.3	96.6	1.01
Area						
Urban	97.8	97.9	1.00	99.0	98.7	1.00
Rural	97.7	98.7	0.99	98.2	98.1	1.00
Mother's education^a						
Primary	(*)	-	-	(*)	(*)	(*)
Secondary	97.6	98.3	0.99	98.6	98.3	1.00
Primary vocational	100.0	97.7	1.02	100.0	98.0	1.02
Secondary vocational	95.4	99.4	0.96	97.7	98.2	0.99
Higher	100.0	100.0	1.00	99.0	98.0	1.01
Cannot be determined ^b	na	na	na	(94.5)	(100.0)	(0.95)
Wealth index quintile						
Poorest	96.8	98.6	0.98	97.8	96.9	1.01
Second	96.9	100.0	0.97	98.1	99.3	0.99
Middle	98.5	97.8	1.01	99.0	97.9	1.01
Fourth	98.9	97.3	1.02	98.7	98.4	1.00
Richest	97.8	98.3	0.99	99.0	99.1	1.00
Language of household head						
Turkmen	97.9	98.4	1.00	98.6	98.3	1.00
Uzbek	98.3	100.0	0.98	99.5	99.5	1.00
Russian	(100.0)	(*)	(*)	96.5	100.0	0.97
Other	(*)	(*)	(*)	(89.7)	(87.7)	(1.02)
¹ MICS indicator 7.9; MDG indicator 3.1 - Gender parity index (primary school)						
² MICS indicator 7.10; MDG indicator 3.1 - Gender parity index (secondary school)						
^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.						
^b Children age 15 or higher at the time of the interview whose mothers were not living in the household						
na: not applicable						
() Figures that are based on 25-49 unweighted cases.						
(*) Figures that are based on fewer than 25 unweighted cases.						
"- " denotes 0 unweighted case in that cell or in the denominator.						

The percentage of girls in the total out of school population, in both primary and secondary school, are provided in Table ED.9. As seen in Tables ED.4 and ED.5, at the primary school level, the percentage of out-of-school children is generally very low (2 percent). At the secondary school level, the percentage of out-of-school children is even lower (less than 1 percent) so that the percentage of girls in the out-of-school population is also very low and due to the small number of cases it is not shown in the table.

Table ED.9: Out of school gender parity

Percentage of girls in the total out of school population, in primary and secondary school, Turkmenistan, 2015-2016

	Primary school				Secondary school			
	Percentage of out of school children	Number of children of primary school age	Percentage of girls in the total out of school population of primary school age	Number of children of primary school age out of school	Percentage of out of school children	Number of children of secondary school age	Percentage of girls in the total out of school population of secondary school age	Number of children of secondary school age out of school
Total	1.9	2300	(58.5)	44	0.5	3863	(*)	19
Region								
Ashgabat city	2.8	258	(*)	7	0.0	447	-	-
Ahal velayat	1.5	319	(*)	5	0.0	470	-	-
Balkan velayat	1.5	152	(*)	2	0.1	265	(*)	0
Dashoguz velayat	0.5	556	(*)	3	0.4	956	(*)	4
Lebap velayat	0.7	464	(*)	3	0.5	738	(*)	4
Mary velayat	4.3	549	(*)	24	1.1	986	(*)	11
Area								
Urban	2.1	880	(*)	19	0.3	1458	(*)	4
Rural	1.8	1420	(*)	25	0.6	2404	(*)	15
Mother's education^a								
Primary	(*)	1	-	-	(*)	6	-	-
Secondary	2.0	1888	(58.0)	38	0.5	2859	(*)	15
Primary vocational	1.1	161	(*)	2	0.7	244	(*)	2
Secondary vocational	2.6	157	(*)	4	0.0	435	-	-
Higher	0.0	94	-	-	0.0	226	-	-
Cannot be determined ^b	na	na	na	na	2.5	91	(*)	2
Wealth index quintile								
Poorest	2.3	530	(*)	12	1.5	831	(*)	13
Second	1.5	458	(*)	7	0.2	807	(*)	2
Middle	1.9	419	(*)	8	0.3	733	(*)	2
Fourth	1.9	444	(*)	8	0.2	719	(*)	1
Richest	1.9	449	(*)	9	0.2	772	(*)	1
Language of household head								
Turkmen	1.8	1955	(55.3)	36	0.4	3286	(*)	12
Uzbek	0.8	252	(*)	2	0.0	392	-	-
Russian	1.3	54	(*)	1	1.0	127	(*)	1
Other	(14.0)	38	(*)	5	10.5	58	(*)	6

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.^b Children age 15 or higher at the time of the interview whose mothers were not living in the household

na: not applicable

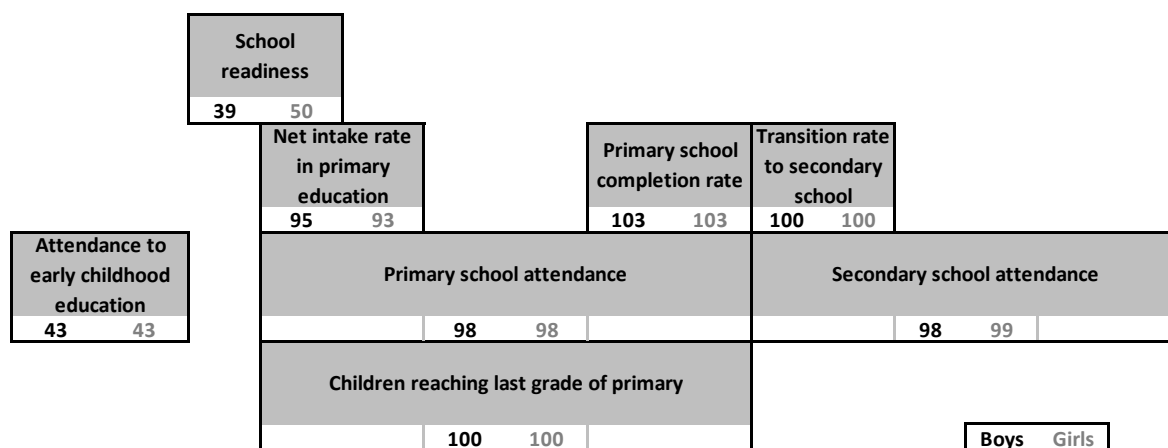
() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"—" denotes 0 unweighted case in that cell or in the denominator.

Figure ED.1 brings together all of the attendance and progression related education indicators covered in this chapter, by sex. Information on attendance to early childhood education is also included, which was covered in Chapter 9, in Table CD.1. Attendance rates in both primary and secondary education for boys and girls are equally high. All children enrolled in the first grade of primary school complete primary education and move to secondary school. Gender differences are observed in school readiness and they are more favourable for girls.

Figure ED.1: Education indicators by sex, Turkmenistan, 2015-2016



Note: All indicator values are in percent

XI. Child Protection

Birth Registration

A name and nationality is every child's right, enshrined in the Convention on the Rights of the Child (CRC) and other international treaties. Yet the births of around one in four children under the age of five worldwide have never been recorded.⁶⁶ This lack of formal recognition by the State usually means that a child is unable to obtain a birth certificate. As a result, he or she may be denied health care or education. Later in life, the lack of official identification documents can mean that a child may enter into marriage or the labour market, or be conscripted into the armed forces, before the legal age. In adulthood, birth certificates may be required to obtain social assistance or a job in the formal sector, to buy or prove the right to inherit property, to vote and to obtain a passport. Registering children at birth is the first step in securing their recognition before the law, safeguarding their rights, and ensuring that any violation of these rights does not go unnoticed.⁶⁷

Turkmenistan has adopted a new Family Code which regulates the procedure and deadlines for birth registration. According to the Code, parents or caretakers need to register the birth within one month. Indirect incentives for timely birth registration are one-off payments for the birth of the child and monthly universal allowances paid to the mothers/caretakers for child care for children under the age of 3.

⁶⁶ UNICEF. 2014. *The State of the World's Children 2015*. UNICEF.

⁶⁷ UNICEF. 2013. *Every Child's Birth Right: Inequities and trends in birth registration*. UNICEF.

Table CP.1: Birth registration

Percentage of children under age 5 by whether birth is registered and percentage of children not registered whose mothers/caretakers know how to register birth^a, Turkmenistan, 2015-2016

	Children under age 5 whose birth is registered with civil authorities			Total registered ¹	Number of children under age 5
	Has birth certificate		No birth certificate		
	Seen	Not seen			
Total	94.1	4.7	0.8	99.6	3765
Sex					
Male	94.7	4.0	0.8	99.6	1984
Female	93.4	5.5	0.8	99.7	1781
Region					
Ashgabat city	89.9	9.2	0.2	99.3	385
Ahal velayat	97.5	2.4	0.1	100.0	576
Balkan velayat	95.3	3.9	0.4	99.6	195
Dashoguz velayat	94.1	4.9	0.8	99.8	950
Lebap velayat	91.6	7.2	0.6	99.4	780
Mary velayat	95.7	2.1	1.8	99.6	879
Area					
Urban	92.3	6.4	0.7	99.5	1324
Rural	95.1	3.8	0.8	99.7	2441
Age					
0-11 months	88.1	6.5	3.5	98.1	723
0-5 months	81.8	7.9	6.3	96.0	343
6-11 months	93.9	5.2	0.9	100.0	380
12-23 months	94.5	5.1	0.4	100.0	778
24-35 months	95.3	4.5	0.2	100.0	746
36-47 months	95.6	4.3	0.1	100.0	758
48-59 months	96.7	3.3	0.0	100.0	760
Mother's education					
Primary	(*)	(*)	(*)	(*)	8
Secondary	94.3	4.5	0.9	99.7	3252
Primary vocational	95.1	4.6	0.0	99.7	251
Secondary vocational	91.0	9.0	0.0	100.0	128
Higher	91.2	8.4	0.0	99.7	124
Wealth index quintile					
Poorest	94.1	4.9	0.9	99.9	826
Second	94.3	4.2	0.8	99.3	799
Middle	96.8	2.4	0.8	100.0	793
Fourth	93.5	5.2	1.0	99.7	737
Richest	91.2	7.7	0.3	99.2	610
Language of household head					
Turkmen	94.5	4.4	0.8	99.7	3291
Uzbek	91.1	7.5	1.0	99.7	333
Russian	93.6	6.4	0.0	100.0	74
Other	89.3	5.8	2.8	97.9	68

¹ MICS indicator 8.1 - Birth registration

^a The number of children under age 5 without birth registration is fewer than 25 unweighted cases for all categories. For this reason, the percentage of children whose mother/caretaker knows how to register a child's birth not shown in the Table CP.1

Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

The births of almost 100 percent of children under five years in Turkmenistan have been registered, indicating equal opportunities for birth registration (Table CP.1). The proportion of children whose birth certificates were seen by the interviewer is 94%.

Child Labour

Children around the world are routinely engaged in paid and unpaid forms of work that are not harmful to them. However, they are classified as child labourers when they are either too young to work or are involved in hazardous activities that may compromise their physical, mental, social or educational development. Article 32 (1) of the Convention on the Rights of the Child states: "States Parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development".

Turkmenistan ratified the UN Convention on the Rights of the Child, International Labour Organisation's Convention (ILO) №138 on Minimum Age for Admission to Employment (June 26, 1973) and ILO Convention №182 on the Worst Forms of Child Labour (June 17, 1999). Respective legislation establishes 16 years as the minimum acceptable age for employment of the child and prohibitions are in place to eliminate child labour in harmful or dangerous work environment (actions which by their nature or the circumstances in which they are committed, can harm the health, safety and moral development of the children).

Turkmenistan adopted the Law on guarantees of the rights of the child, on May 3, 2014. Article 38 of this Law prohibits the employment of any child under the age of 18 years for jobs with special working condition, as well as work which can be harmful to his/her health and moral development. This Article also prohibits to carry, lift or move heavy objects exceeding the limits established by the Turkmenistan's normative acts. It is also prohibited to involve any children in night work, overtime work and work on weekends, public holidays and commemorative days as well as sending a child on business trips. In addition, during the school year, it is not allowed to involve any child in agricultural activities or any other activities resulting in exclusion from the studies.

The child labour module was administered for children age 5-17 and includes questions on the type of work a child does and the number of hours he or she is engaged in it. Data are collected on both economic activities (paid or unpaid work for someone who is not a member of the household, work for a family farm or business) and domestic work (household chores such as cooking, cleaning or caring for children, as well as collecting firewood or fetching water). The module also collects information on hazardous working conditions.^{68, 69}

⁶⁸ UNICEF. 2012. *How Sensitive Are Estimates of Child Labour to Definitions?* MICS Methodological Paper No. 1. UNICEF.

⁶⁹ The Child Labour module and the Child Discipline module were administered using random selection of a single child in all households with one or more children age 1-17 (See Appendix F: Questionnaires). The Child Labour module was administered if the selected child was age 5-17 and the Child Discipline module if the child was age 1-14 years old. To account for the random selection, the household sample weight is multiplied by the total number of children age 1-17 in each household.

Table CP.2 presents children's involvement in economic activities. The methodology of the MICS Indicator on Child Labour uses three age-specific thresholds for the number of hours a child can perform economic activity without it being classified as in child labour. A child that performed economic activities during the last week for more than the age-specific number of hours is classified as in child labour:

- age 5-11: 1 hour or more
- age 12-14: 14 hours or more
- age 15-17: 43 hours or more

In Turkmenistan, among children age 5-11 years less than 1 percent are involved in an economic activity for at least one hour. Among children age 12-14 years, 4 percent are involved in an economic activity for less than 14 hours, while less than 1 percent are involved for 14 hours or more. 7 percent of children age 15-17 years are involved in an economic activity for less than 43 hours while there are no children involved in economic activity for 43 hours or more.

Table CP.2: Children's involvement in economic activities

Percentage of children by involvement in economic activities during the last week, according to age groups, Turkmenistan, 2015-2016

	Percentage of children age 5-11 years involved in economic activity for at least one hour	Number of children age 5-11 years	Percentage of children age 12-14 years involved in:		Number of children age 12-14 years	Percentage of children age 15-17 years involved in:		Number of children age 15-17 years
			Economic activity less than 14 hours	Economic activity for 14 hours or more		Economic activity less than 43 hours	Economic activity for 43 hours or more	
Total	0.4	3843	3.8	0.3	1387	7.1	0.0	1381
Sex								
Male	0.5	1992	4.5	0.4	773	7.3	0.0	666
Female	0.2	1851	2.9	0.0	614	6.8	0.0	715
Region								
Ashgabat city	0.0	433	0.0	0.0	160	0.0	0.0	125
Ahal velayat	0.0	530	0.0	0.0	165	2.0	0.0	183
Balkan velayat	0.0	234	3.5	0.0	84	3.1	0.0	105
Dashoguz velayat	0.3	857	0.0	0.0	361	5.2	0.0	357
Lebap velayat	1.5	766	12.6	1.4	250	17.2	0.0	254
Mary velayat	0.0	1024	4.9	0.0	367	7.9	0.0	356
Area								
Urban	0.0	1503	0.3	0.0	462	4.0	0.0	499
Rural	0.6	2340	5.6	0.4	925	8.8	0.0	882
School attendance (including pre-school)								
Yes	0.4	3495	3.8	0.3	1386	6.6	0.0	1329
No	0.0	347	(*)	(*)	1	(18.4)	(0.0)	52
Mother's education								
Primary	(*)	11	-	-	0	-	-	0
Secondary	0.4	3106	4.3	0.3	1095	6.9	0.0	959
Primary vocational	0.0	286	6.0	0.0	92	6.3	0.0	61
Secondary vocational	0.0	275	0.0	0.0	128	4.9	0.0	167
Higher	0.0	163	0.0	0.0	72	10.6	0.0	100
Cannot be determined ^a	na	na	na	na	na	9.6	0.0	93
Wealth index quintile								
Poorest	0.9	801	1.3	0.0	316	6.0	0.0	308
Second	0.1	777	10.2	0.0	270	7.3	0.0	313
Middle	0.8	708	3.6	1.1	327	17.6	0.0	250
Fourth	0.0	784	4.2	0.0	219	1.7	0.0	267
Richest	0.0	773	0.0	0.0	255	3.1	0.0	244
Language of household head								
Turkmen	0.4	3276	4.4	0.3	1200	7.5	0.0	1165
Uzbek	0.0	381	0.0	0.0	140	6.7	0.0	155
Russian	0.0	114	(0.0)	(0.0)	33	0.0	0.0	43
Other	0.0	72	(*)	(*)	15	(*)	(*)	18

^a Children age 15 or higher at the time of the interview whose mothers were not living in the household

na: not applicable

Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"_" denotes 0 unweighted case in that cell or in the denominator.

Table CP.3 presents children's involvement in household chores. As for economic activity above, the methodology also uses age-specific thresholds for the number of hours a child can perform household chores without it being classified as child labour. A child that performed household chores during the last week for more than the age-specific number of hours is classified as in child labour:

- age 5-11 and age 12-14: 28 hours or more
- age 15-17: 43 hours or more

Girls are more likely to perform household chores than boys across all three age groups. Among children age 5-11 years, 39 percent are involved in household chores for less than 28 hours. For children age 12-14 years that percentage is much higher and reaches 75 percent. Among children age 15-17 years, 83 percent are involved in household chores for less than 43 hours.

Table CP.3: Children's involvement in household chores

Percentage of children by involvement in household chores during the last week, according to age groups, Turkmenistan, 2015-2016

	Percentage of children age 5-11 years involved in:			Percentage of children age 12-14 years involved in:			Percentage of children age 15-17 years involved in:		
	Household chores less than 28 hours	Household chores for 28 hours or more	Number of children age 5-11 years	Household chores less than 28 hours	Household chores for 28 hours or more	Number of children age 12-14 years	Household chores less than 43 hours	Household chores for 43 hours or more	Number of children age 15-17 years
Total	39.1	0.0	3843	74.5	0.0	1387	82.6	0.0	1381
Sex									
Male	37.3	0.0	1992	66.4	0.0	773	76.2	0.0	666
Female	41.1	0.0	1851	84.7	0.0	614	88.4	0.0	715
Region									
Ashgabat city	55.4	0.0	433	86.4	0.0	160	93.8	0.0	125
Ahal velayat	56.7	0.0	530	99.6	0.0	165	96.1	0.0	183
Balkan velayat	39.6	0.0	234	68.1	0.0	84	76.2	0.0	105
Dashoguz velayat	9.9	0.0	857	44.6	0.0	361	60.6	0.0	357
Lebap velayat	35.0	0.0	766	73.4	0.0	250	84.6	0.0	254
Mary velayat	50.6	0.0	1024	89.6	0.0	367	94.1	0.0	356
Area									
Urban	42.8	0.0	1503	80.2	0.0	462	82.3	0.0	499
Rural	36.8	0.0	2340	71.7	0.0	925	82.7	0.0	882
School attendance (including pre-school)									
Yes	42.2	0.0	3495	74.5	0.0	1386	82.1	0.0	1329
No	7.9	0.0	347	(*)	(*)	1	(93.3)	(0.0)	52
Mother's education									
Primary	(*)	(*)	11	-	-	0	-	-	0
Secondary	38.3	0.0	3106	74.7	0.0	1095	83.3	0.0	959
Primary vocational	40.0	0.0	286	66.6	0.0	92	80.7	0.0	61
Secondary vocational	37.9	0.0	275	71.8	0.0	128	77.7	0.0	167
Higher	52.3	0.0	163	86.0	0.0	72	87.2	0.0	100
Cannot be determined ^a	na	na	na	na	na	na	79.6	0.0	93
Wealth index quintile									
Poorest	23.4	0.0	801	56.6	0.0	316	69.6	0.0	308
Second	41.9	0.0	777	69.1	0.0	270	84.3	0.0	313
Middle	38.6	0.0	708	83.6	0.0	327	90.2	0.0	250
Fourth	44.7	0.0	784	80.7	0.0	219	83.0	0.0	267
Richest	47.4	0.0	773	85.4	0.0	255	88.4	0.0	244
Language of household head									
Turkmen	42.5	0.0	3276	77.6	0.0	1200	85.4	0.0	1165
Uzbek	8.7	0.0	381	46.1	0.0	140	57.2	0.0	155
Russian	50.7	0.0	114	(81.8)	(0.0)	33	91.9	0.0	43
Other	28.9	0.0	72	(*)	(*)	15	(*)	(*)	18

^a Children age 15 or higher at the time of the interview whose mothers were not living in the household

na: not applicable

Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

() Figures that are based on 25–49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"-" denotes 0 unweighted case in that cell or in the denominator.

Table CP.4 combines the children working and performing household chores at or above and below the age-specific thresholds as detailed in the previous tables, as well as those children reported working under hazardous conditions, into the total child labour indicator.

According to the 2015-2016 MICS Turkmenistan data, the percentage of children age 5-17 years involved in child labour is less than 1 percent. At the same time, involvement of children in household chores, for all age groups, is below age-specific threshold that would classify the activities as child labour.

The percentage of children involved in household chores below age-specific threshold increases with the age of the children and it is higher among children attending school than among those not attending school (58 percent compared to 19 percent).

Table CP.4: Child labour

Percentage of children age 5-17 years by involvement in economic activities or household chores during the last week, percentage working under hazardous conditions during the last week, and percentage engaged in child labour during the last week, Turkmenistan, 2015-2016

	Children involved in economic activities for a total number of hours during last week:		Children involved in household chores for a total number of hours during last week:		Children working under hazardous conditions	Total child labour ¹	Number of children age 5-17 years
	Below the age specific threshold	At or above the age specific threshold	Below the age specific threshold	At or above the age specific threshold			
Total	2.3	0.3	55.6	0.0	0.0	0.3	6611
Sex							
Male	2.4	0.4	51.4	0.0	0.1	0.5	3431
Female	2.1	0.1	60.2	0.0	0.0	0.1	3180
Region							
Ashgabat city	0.0	0.0	69.0	0.0	0.0	0.0	718
Ahal velayat	0.4	0.0	73.0	0.0	0.0	0.0	878
Balkan velayat	1.5	0.0	54.4	0.0	0.0	0.0	424
Dashoguz velayat	1.2	0.2	29.3	0.0	0.0	0.2	1575
Lebap velayat	5.9	1.2	52.5	0.0	0.2	1.4	1270
Mary velayat	2.6	0.0	67.7	0.0	0.0	0.0	1747
Area							
Urban	0.9	0.0	57.8	0.0	0.0	0.0	2465
Rural	3.1	0.4	54.3	0.0	0.1	0.5	4146
Age							
5-11	0.0	0.4	39.1	0.0	0.0	0.4	3843
12-14	3.8	0.3	74.5	0.0	0.2	0.5	1387
15-17	7.1	0.0	82.6	0.0	0.0	0.0	1381
School attendance (including pre-school)							
Yes	2.3	0.3	58.0	0.0	0.0	0.3	6210
No	2.4	0.0	19.1	0.0	0.0	0.0	401
Mother's education							
Primary	(*)	(*)	(*)	(*)	(*)	(*)	11
Secondary	2.2	0.3	54.4	0.0	0.1	0.4	5160
Primary vocational	2.1	0.0	51.2	0.0	0.0	0.0	440
Secondary vocational	1.4	0.0	57.2	0.0	0.0	0.0	570
Higher	3.2	0.0	70.0	0.0	0.0	0.0	334
Cannot be determined ^a	9.5	0.0	79.9	0.0	0.0	0.0	94
Wealth index quintile							
Poorest	1.6	0.5	40.7	0.0	0.0	0.5	1426
Second	3.7	0.1	57.0	0.0	0.2	0.3	1359
Middle	4.3	0.7	60.1	0.0	0.0	0.7	1285
Fourth	1.1	0.0	59.0	0.0	0.0	0.0	1270
Richest	0.6	0.0	62.9	0.0	0.0	0.0	1272
Language of household head							
Turkmen	2.5	0.3	58.8	0.0	0.1	0.4	5641
Uzbek	1.5	0.0	27.6	0.0	0.0	0.0	676
Russian	0.0	0.0	65.5	0.0	0.0	0.0	191
Other	0.0	0.0	45.9	0.0	0.0	0.0	104

¹ MICS indicator 8.2 - Child labour

^a Children age 15 or higher at the time of the interview whose mothers were not living in the household
Due to the low number of unweighted cases, the category "None" for the background characteristic "Mother's education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Child Discipline

Teaching children self-control and acceptable behavior is an integral part of child discipline in all cultures. Positive parenting practices involve providing guidance on how to handle emotions or conflicts in manners that encourage judgment and responsibility and preserve children's self-esteem, physical and psychological integrity and dignity. Too often however, children are raised through the use of punitive methods that rely on the use of physical force or verbal intimidation to obtain desired behaviors. Studies⁷⁰ have found that exposing children to violent discipline have harmful consequences, which range from immediate impacts to long-term harm that children carry forward into adult life. Violence hampers children's development, learning abilities and school performance; it inhibits positive relationships, provokes low self-esteem, emotional distress and depression; and, at times, it leads to risk taking and self-harm.

In the MICS, respondents to the household questionnaire were asked a series of questions on the methods adults in the household used to discipline a selected child during the past month.⁶⁹

Based on the findings of the 2015-2016 Turkmenistan MICS, 37 percent of children age 1-14 years were subjected to at least one form of psychological or physical punishment by household members during the past month (MICS indicator 8.3 - Violent discipline), while 5 percent of respondents to the household questionnaire believe that physical punishment is a necessary part of child-rearing.

The observations during the fieldwork monitoring and the analysis of initial data during the first month of fieldwork implementation revealed unexpected patterns in the child disciplining data. Therefore, the survey team immediately undertook certain measures such as revisiting the translation of the questions in Turkmen, putting additional emphasis on confidentiality during the administration of the household questionnaire and providing additional guidance to the fieldwork teams in relation to the child disciplining questions, which contributed to improved data quality and consistency. However, considering the variations in data before and after those measures (the prevalence level being consistently and considerably lower before the measures were taken) as well as the potential role of the social desirability bias, with respondents under-reporting disciplinary methods they consider undesirable, the tables showing findings on child discipline and attitudes towards physical punishment are not shown in this report, and it is recommended that estimates presented above are used with caution and to inform policy and program decisions only in conjunction with data from other sources.

⁷⁰ Straus, MA and Paschall MJ. 2009. *Corporal Punishment by Mothers and Development of Children's Cognitive Ability: A longitudinal study of two nationally representative age cohorts*. *Journal of Aggression, Maltreatment & Trauma* 18(5): 459-83.
Erickson, MF and Egeland, B. 1987. *A Developmental View of the Psychological Consequences of Maltreatment*. *School Psychology Review* 16: 156-68.
Schneider, MW et al. 2005. *Do Allegations of Emotional Maltreatment Predict Developmental Outcomes Beyond that of Other Forms of Maltreatment?*. *Child Abuse & Neglect* 29(5): 513-32.

Early Marriage

Marriage⁷¹ before the age of 18 is a reality for many young girls. 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.⁷² 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. Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before the age of 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 between the ages of 15 and 19, particularly among the youngest of this cohort. There is evidence to suggest that girls who marry at young ages are more likely to marry older men which puts them at increased risk of HIV infection. 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.⁷³

According to the Law of Turkmenistan "On Amendments to the Code on Family and Marriage" (Article 16) from 1998, age for marriage was reduced to the age of 16. On April 1, 2012 the new Family Code of Turkmenistan came into force according to which the age for marriage was raised to 18 years (Article 15) which corresponds with international standards.

The percentage of women married at or before ages 15 and 18 years are provided in Table CP.5. In Turkmenistan, the percentage of women age 15-49 years who were married/in union before age 15 is less than 1 percent. 6 percent of women age 20-49 years were married/in union before age 18. Women from this age group with higher education are less likely to be married before age 18 years (less than 1 percent) compared to women with secondary education (7 percent). The indicator range from 4 percent in Mary velayat to 10 percent for Lebap velayat.

6 percent of young women age 15-19 years are currently married. This proportion varies slightly between urban (3 percent) and rural (8 percent).

⁷¹ All references to marriage in this chapter include marital union as well.

⁷² Bajracharya, A ND Amin, S. 2010. *Poverty, marriage timing, and transitions to adulthood in Nepal: A longitudinal analysis using the Nepal living standards survey*. Poverty, Gender, and Youth Working Paper No. 19. Population Council.

Godha, D et al. 2011. *The influence of child marriage on fertility, fertility-control, and maternal health care utilization*. MEASURE/Evaluation PRH Project Working paper 11-124.

⁷³ Clark, S et al. 2006. *Protecting young women from HIV/AIDS: the case against child and adolescent marriage*. *International Family Planning Perspectives* 32(2): 79-88.

Raj, A et al. 2009. *Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study*. *The Lancet* 373(9678): 1883-9.

Table CP.5: Early marriage

Percentage of women age 15-49 years who first married or entered a marital union before their 15th birthday, percentages of women age 20-49 years who first married or entered a marital union before their 15th and 18th birthdays and percentage of women age 15-19 years currently married or in union, Turkmenistan, 2015-2016

	Women age 15-49 years		Women age 20-49 years			Women age 15-19 years	
	Percentage married before age 15 ¹	Number of women age 15-49 years	Percentage married before age 15	Percentage married before age 18 ²	Number of women age 20-49 years	Percentage currently married/in union ³	Number of women age 15-19 years
Total	0.2	7618	0.2	5.9	6421	6.0	1197
Region							
Ashgabat city	0.1	975	0.1	4.6	831	4.4	144
Ahal velayat	0.3	1007	0.3	5.8	874	7.1	133
Balkan velayat	0.3	482	0.3	5.6	407	0.7	75
Dashoguz velayat	0.2	1779	0.3	6.4	1470	6.8	310
Lebap velayat	0.0	1455	0.0	9.7	1235	7.0	220
Mary velayat	0.1	1920	0.1	3.6	1604	6.1	315
Area							
Urban	0.2	3006	0.2	6.1	2574	2.8	432
Rural	0.2	4612	0.1	5.8	3847	7.9	765
Age							
15-19	0.1	1197	na	na	na	6.0	1197
20-24	0.0	1400	0.0	5.7	1400	na	na
25-29	0.2	1351	0.2	5.5	1351	na	na
30-34	0.2	1117	0.2	6.6	1117	na	na
35-39	0.2	946	0.2	8.3	946	na	na
40-44	0.2	835	0.2	5.8	835	na	na
45-49	0.3	772	0.3	3.6	772	na	na
Education							
Primary	(*)	8	(*)	(*)	6	(*)	3
Secondary	0.2	6088	0.2	7.0	4969	5.9	1119
Primary vocational	0.1	601	0.1	3.0	558	(13.5)	43
Secondary vocational	0.0	527	0.0	3.2	510	(*)	17
Higher	0.0	387	0.0	0.2	371	(*)	16
Wealth index quintile							
Poorest	0.1	1521	0.1	5.8	1249	5.6	272
Second	0.1	1502	0.1	5.9	1252	7.2	250
Middle	0.3	1495	0.4	5.6	1267	10.4	228
Fourth	0.1	1490	0.2	7.8	1269	4.3	220
Richest	0.1	1610	0.1	4.8	1384	2.6	227
Language of household head							
Turkmen	0.1	6563	0.1	5.3	5523	5.8	1040
Uzbek	0.2	623	0.2	9.3	526	11.8	97
Russian	0.3	315	0.3	10.0	274	(2.4)	41
Other	0.0	117	0.0	13.9	98	(*)	19

¹ MICS indicator 8.4 - Marriage before age 15

² MICS indicator 8.5 - Marriage before age 18

³ MICS indicator 8.6 - Young women age 15-19 years currently married or in union

na: not applicable

Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

Table CP.6 presents the proportion of women who were first married or entered into a marital union before age 15 and 18 by area and age groups. Examining the percentages married before age 15 and 18 by different age groups allow for trends to be observed in early marriage over time. Data shows that the prevalence of the proportion of women married or in union by age 18 has increased and reached its maximum by the mid-1990-s, and then gradually declined. Thus, 4 percent of women age 45-49 years were first married/in union by age 18 and increasing to 8 percent among women age 35-39 years compared to 6 percent of women age 20-24 years (Figure CP.1).

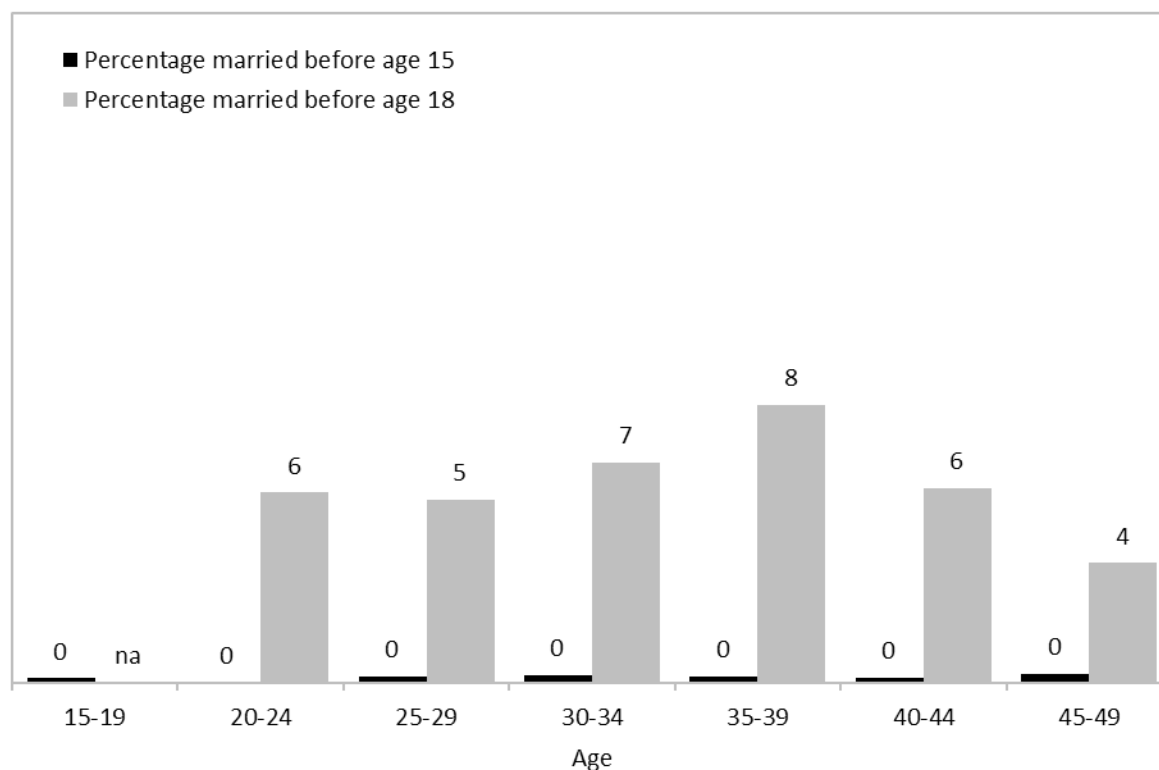
Table CP.6: Trends in early marriage

Percentage of women who were first married or entered into a marital union before age 15 and 18, by area and age groups, Turkmenistan, 2015-2016

	Urban				Rural				All			
	Percentage of women married before age 15	Number of women age 15-49 years	Percentage of women married before age 18	Number of women age 20-49 years	Percentage of women married before age 15	Number of women age 15-49 years	Percentage of women married before age 18	Number of women age 20-49 years	Percentage of women married before age 15	Number of women age 15-49 years	Percentage of women married before age 18	Number of women age 20-49 years
Total	0.2	3006	6.1	2574	0.2	4612	5.8	3847	0.2	7618	5.9	6421
Age												
15-19	0.0	432	na	na	0.2	765	na	na	0.1	1197	na	na
20-24	0.0	519	6.3	519	0.0	881	5.3	881	0.0	1400	5.7	1400
25-29	0.3	474	4.5	474	0.1	876	6.0	876	0.2	1351	5.5	1351
30-34	0.4	469	6.8	469	0.1	648	6.4	648	0.2	1117	6.6	1117
35-39	0.2	398	7.5	398	0.1	548	8.9	548	0.2	946	8.3	946
40-44	0.0	378	7.7	378	0.3	456	4.3	456	0.2	835	5.8	835
45-49	0.2	335	3.8	335	0.3	438	3.4	438	0.3	772	3.6	772

na: not applicable

Figure CP.1: Early marriage among women, Turkmenistan, 2015-2016



na: not applicable

Another component is the spousal age difference with the indicator being the percentage of married/in union women 10 or more years younger than their current spouse. Table CP.7 presents the results of the age difference between husbands and wives. The results show that there are some important spousal age differences in Turkmenistan. Among currently married/in union women age 20-24 years, about 3 percent are married/in union with a man who is older by ten years or more. Such marriages are more common for women from the poorest wealth index quintile.

For currently married/in union women age 15-19 years, the corresponding figure is also about 3 percent. The small proportion of women age 15-19 years who are married or in union does not allow analysis by background characteristics.

Table CP.7: Spousal age difference													
Percent distribution of women currently married/in union age 15-19 and 20-24 years according to the age difference with their husband or partner, Turkmenistan, 2015-2016													
	Percentage of currently married/in union women age 15-19 years whose husband or partner is:					Number of women age 15-19 years currently married/in union	Percentage of currently married/in union women age 20-24 years whose husband or partner is:					Number of women age 20-24 years currently married/in union	
	Younger	0-4 years older	5-9 years older	10+ years older ¹	Total		Younger	0-4 years older	5-9 years older	10+ years older ²	Husband/Partner's age unknown		Total
Total	4.5	74.9	17.3	3.3	100.0	72	16.3	64.5	16.4	2.7	0.1	100.0	681
Region													
Ashgabat city	(*)	(*)	(*)	(*)	100.0	6	19.1	59.9	21.0	0.0	0.0	100.0	79
Ahal velayat	(*)	(*)	(*)	(*)	100.0	10	20.1	58.4	17.9	3.2	0.5	100.0	116
Balkan velayat	(*)	(*)	(*)	(*)	100.0	0	16.4	71.9	10.4	1.4	0.0	100.0	28
Dashoguz velayat	(*)	(*)	(*)	(*)	100.0	21	9.3	66.1	20.0	4.5	0.0	100.0	159
Lebap velayat	(*)	(*)	(*)	(*)	100.0	15	15.7	62.4	18.2	3.7	0.0	100.0	151
Mary velayat	(*)	(*)	(*)	(*)	100.0	19	19.8	71.0	8.4	0.9	0.0	100.0	149
Area													
Urban	(*)	(*)	(*)	(*)	100.0	12	16.4	62.0	19.1	2.3	0.3	100.0	246
Rural	(5.4)	(75.5)	(15.2)	(3.9)	100.0	60	16.2	66.0	14.9	2.9	0.0	100.0	434
Age													
15-19	4.5	74.9	17.3	3.3	100.0	72	na	na	na	na	na	na	na
20-24	na	na	na	na	na	na	16.3	64.5	16.4	2.7	0.1	100.0	681
Education													
Primary	(*)	(*)	(*)	(*)	100.0	0	(*)	(*)	(*)	(*)	(*)	100.0	1
Secondary	4.9	74.2	17.2	3.6	100.0	66	16.4	64.3	16.3	2.9	0.1	100.0	579
Primary vocational	(*)	(*)	(*)	(*)	100.0	6	8.5	69.8	19.5	2.2	0.0	100.0	59
Secondary vocational	(*)	(*)	(*)	(*)	100.0	0	(23.5)	(61.5)	(14.9)	(0.0)	(0.0)	100.0	22
Higher	(*)	(*)	(*)	(*)	100.0	1	(*)	(*)	(*)	(*)	(*)	100.0	18
Wealth index quintile													
Poorest	(*)	(*)	(*)	(*)	100.0	15	22.3	57.2	14.1	6.5	0.0	100.0	107
Second	(*)	(*)	(*)	(*)	100.0	18	15.0	68.1	15.0	2.0	0.0	100.0	164
Middle	(*)	(*)	(*)	(*)	100.0	24	12.0	68.5	17.9	1.6	0.0	100.0	153
Fourth	(*)	(*)	(*)	(*)	100.0	10	18.4	62.6	16.5	2.0	0.5	100.0	132
Richest	(*)	(*)	(*)	(*)	100.0	6	15.9	63.3	18.4	2.4	0.0	100.0	124
Language of household head													
Turkmen	5.4	71.4	19.3	4.0	100.0	60	17.0	63.9	15.9	3.1	0.1	100.0	592
Uzbek	(*)	(*)	(*)	(*)	100.0	11	(12.2)	(69.3)	(18.5)	(0.0)	(0.0)	100.0	61
Russian	(*)	(*)	(*)	(*)	100.0	1	(*)	(*)	(*)	(*)	(*)	100.0	12
Other	(*)	(*)	(*)	(*)	100.0	0	(*)	(*)	(*)	(*)	(*)	100.0	16

¹ MICS indicator 8.8a - Spousal age difference (among women age 15-19)
² MICS indicator 8.8b - Spousal age difference (among women age 20-24)

na: not applicable
Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.
() Figures that are based on 25–49 unweighted cases.
(*) Figures that are based on fewer than 25 unweighted cases.

Attitudes toward Domestic Violence

MICS assessed the attitudes of women age 15-49 years towards wife beating by asking the respondents whether they think that husbands are justified to hit or beat their wives in a variety of situations. The purpose of these questions are to capture the social justification of violence (in contexts where women have a lower status in society) as a disciplinary action when a woman does not comply with certain expected gender roles.

The responses to these questions can be found in Table CP.8 for women. Overall, 26 percent of women in Turkmenistan feel that a husband is justified in hitting or beating his wife in at least one of the five situations. Women who justify a husband's violence, in most cases agree and justify violence in instances when a wife neglects the children (20 percent), or argues with him (12 percent) or if she demonstrates her autonomy, exemplified by going out without telling her husband (8 percent). Around 3 percent of women believe that wife-beating is justified if the wife refuses to have sex with the husband and a similar percentage if she burns the food. Justification in any of the five situations is more present among those less educated, and also currently married women. The most unfavorable picture is noted in Ahal velayat where around half of women (49 percent) believe a husband is justified in beating his wife in at least one of the five situations while the lowest percent age of women who believe this is found in the Balkan velayat (15 percent).

The 2015-2016 Turkmenistan MICS included a survey-specific question on whether women feel that a husband is justified in hitting or beating his wife if she does not respect her husband's parents. It appears that 27 percent of women justify the husband in this situation. In general, including this survey-specific question, 35 percent of women believe a husband is justified in beating his wife in at least one of the six situations.

Table CP.8: Attitudes toward domestic violence

Percentage of women age 15-49 years who believe a husband is justified in beating his wife in various circumstances, Turkmenistan, 2015-2016

	Percentage of women age 15-49 years who believe a husband is justified in beating his wife:								Number of women age 15-49 years
	If she goes out without telling him	If she neglects the children	If she argues with him	If she refuses sex with him	If she burns the food	For any of these five reasons ¹	If she does not respect her husband's parents	For any of these six reasons ²	
Total	7.7	20.4	12.1	3.1	2.6	26.3	26.8	35.0	7618
Region									
Ashgabat city	14.0	29.3	13.8	4.7	3.1	34.0	21.1	37.8	975
Ahal velayat	11.4	29.9	31.3	5.1	3.2	49.3	63.5	69.6	1007
Balkan velayat	0.9	6.0	5.4	6.4	0.2	15.2	22.2	28.4	482
Dashoguz velayat	10.8	19.8	13.8	3.2	5.7	23.2	36.1	37.6	1779
Lebap velayat	3.7	17.9	9.1	1.2	1.7	19.5	14.0	21.4	1455
Mary velayat	4.6	17.1	3.5	1.9	0.5	21.2	12.8	24.9	1920
Area									
Urban	7.7	21.8	12.3	4.0	2.2	27.9	23.5	35.2	3006
Rural	7.7	19.5	11.9	2.6	2.9	25.3	29.0	34.9	4612
Age									
15-19	4.5	13.7	7.7	1.2	1.8	17.0	19.3	25.0	1197
20-24	8.7	18.1	11.6	3.0	2.6	24.8	29.6	36.6	1400
25-29	8.1	22.4	12.9	3.1	1.7	28.3	30.5	39.2	1351
30-34	10.1	25.7	15.6	3.9	3.6	32.8	30.7	40.3	1117
35-39	8.2	23.7	12.3	3.7	3.3	29.4	27.0	36.2	946
40-44	5.9	18.7	11.4	3.6	2.7	25.1	22.2	31.9	835
45-49	8.6	21.9	13.7	4.1	3.3	28.2	26.4	34.4	772
Marital/Union status									
Currently married/in union	9.0	23.2	14.4	4.1	3.1	30.4	30.0	39.0	4887
Formerly married/in union	7.4	19.6	10.2	2.4	3.0	21.6	20.6	29.2	491
Never married/in union	5.1	14.7	7.5	1.2	1.6	18.5	21.2	27.5	2240
Education									
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
Secondary	8.3	21.2	12.8	3.4	2.7	27.7	29.1	37.1	6088
Primary vocational	6.4	20.7	9.6	1.3	1.8	24.1	19.9	29.2	601
Secondary vocational	5.4	17.9	9.7	2.9	2.5	21.6	19.2	27.9	527
Higher	3.7	11.8	8.0	1.9	2.0	14.9	13.9	21.3	387
Wealth index quintile									
Poorest	10.8	20.1	12.6	2.8	5.0	24.2	29.5	33.7	1521
Second	7.6	17.6	11.1	3.3	2.4	22.3	25.2	30.4	1502
Middle	5.4	16.2	12.0	2.3	1.8	24.5	28.2	34.0	1495
Fourth	5.9	24.1	10.8	3.6	2.0	30.3	28.7	40.5	1490
Richest	8.8	23.9	13.8	3.6	1.8	30.1	22.9	36.3	1610
Language of household head									
Turkmen	7.8	21.0	12.4	3.2	2.3	27.5	27.4	36.1	6563
Uzbek	10.1	19.0	13.4	3.3	6.5	20.6	32.3	33.6	623
Russian	1.5	12.4	2.3	0.3	1.4	14.4	7.1	16.3	315
Other	10.0	17.7	12.6	4.8	1.2	22.7	22.3	28.1	117

¹ MICS indicator 8.12 - Attitudes towards domestic violence² Survey-specific indicator 8.S1 - Attitudes towards domestic violence (including additional circumstance)

Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Children's Living Arrangements

The CRC recognizes that “the child, for the full and harmonious development of his or her personality, should grow up in a family environment, in an atmosphere of happiness, love and understanding”. Millions of children around the world grow up without the care of their parents for several reasons, including due to the premature death of the parents or their migration for work. In most cases, these children are cared for by members of their extended families, while in others, children may be living in households other than their own, as live-in domestic workers for instance. Understanding the children's living arrangements, including the composition of the households where they live and the relationships with their primary caregivers, is key to design targeted interventions aimed at promoting child's care and wellbeing.

Table CP.9 presents information on the living arrangements and orphanhood status of children under age 18. In Turkmenistan, 89 percent of children age 0-17 years live with both their parents, 8 percent live with mothers only and 2 percent live with fathers only. 1 percent of children live with neither of their biological parents while both of them are alive. About 6 percent live with mothers only while the biological father is alive.

About 4 percent of children have lost one or both parents. As expected, older children are less likely than younger children to live with both parents and slightly more likely than younger children to have lost one or both parents.

There are only small differences between urban and rural areas, among the regions and by wealth index in terms of orphanhood. The lowest percentage of children living with both parents is noted in households where the language of the household head is Russian (54 percent).

Children who are orphaned may be at increased risk of neglect or exploitation when the parents are not available to assist them. Monitoring the variations in different outcomes for orphans and comparing them to their peers (school attendance for children age 10-14 years) gives us a measure of how well communities and governments are responding to their needs.

In Turkmenistan, less than 1 percent of children age 10-14 years are orphans. MICS indicator 9.16 – Ratio of school attendance of orphans to school attendance of non-orphans is not shown because the total number of orphan children age 10-14 years is lower than 25 unweighted cases.

Table CP.9: Children's living arrangements and orphanhood

Percent distribution of children age 0-17 years according to living arrangements, percentage of children age 0-17 years not living with a biological parent and percentage of children who have one or both parents dead, Turkmenistan, 2015-2016

	Living with both parents	Living with neither biological parent				Living with mother only		Living with father only		Missing information on father/mother	Total	Living with neither biological parent ¹	One or both parents dead ²	Number of children age 0-17 years
		Only father alive	Only mother alive	Both alive	Both dead	Father alive	Father dead	Mother alive	Mother dead					
Total	89.4	0.2	0.1	0.8	0.1	5.5	2.0	0.7	1.0	0.2	100.0	1.2	3.5	10865
Sex														
Male	89.5	0.2	0.2	0.7	0.2	5.4	1.9	0.7	1.1	0.2	100.0	1.2	3.5	5599
Female	89.2	0.2	0.0	0.9	0.1	5.6	2.2	0.6	1.0	0.2	100.0	1.2	3.5	5266
Region														
Ashgabat city	81.7	0.0	0.2	0.8	0.1	12.6	2.8	0.4	1.1	0.4	100.0	1.0	4.2	1184
Ahal velayat	92.7	0.2	0.0	0.7	0.1	2.7	2.1	0.5	0.9	0.1	100.0	1.0	3.4	1508
Balkan velayat	89.3	0.2	0.0	0.4	0.1	5.4	3.6	0.1	0.8	0.1	100.0	0.7	4.6	667
Dashoguz velayat	89.4	0.1	0.1	1.0	0.2	4.9	2.2	0.9	1.0	0.0	100.0	1.5	3.7	2661
Lebap velayat	86.7	0.4	0.4	1.3	0.1	7.9	1.5	1.0	0.4	0.4	100.0	2.2	2.9	2158
Mary velayat	93.0	0.0	0.0	0.3	0.1	2.7	1.6	0.6	1.6	0.2	100.0	0.4	3.2	2686
Area														
Urban	82.3	0.4	0.2	1.0	0.1	10.7	3.2	0.9	1.0	0.2	100.0	1.7	4.8	3983
Rural	93.5	0.0	0.1	0.7	0.1	2.5	1.4	0.5	1.0	0.1	100.0	0.9	2.7	6882
Age														
0-4	93.3	0.0	0.0	0.4	0.0	4.9	0.7	0.1	0.3	0.2	100.0	0.5	1.1	3979
0-2	93.9	0.0	0.0	0.4	0.0	4.7	0.6	0.1	0.1	0.2	100.0	0.5	0.8	2402
3-4	92.6	0.1	0.1	0.3	0.0	5.3	0.9	0.1	0.6	0.2	100.0	0.4	1.6	1577
5-9	90.3	0.0	0.0	0.8	0.3	5.3	1.6	0.9	0.8	0.1	100.0	1.1	2.7	3015
10-14	85.7	0.3	0.2	1.5	0.1	6.1	3.2	1.2	1.5	0.2	100.0	2.2	5.3	2347
15-17	82.9	0.6	0.4	0.9	0.2	6.4	4.6	1.1	2.6	0.4	100.0	1.9	8.4	1523
Wealth index quintile														
Poorest	91.7	0.0	0.2	0.6	0.4	4.0	1.4	0.5	1.3	0.0	100.0	1.2	3.2	2392
Second	92.3	0.0	0.0	1.2	0.0	2.5	1.9	1.0	1.0	0.1	100.0	1.3	2.9	2265
Middle	95.0	0.1	0.0	0.2	0.1	2.0	1.6	0.1	0.7	0.3	100.0	0.4	2.4	2143
Fourth	85.8	0.3	0.3	1.0	0.1	8.3	2.2	1.1	0.8	0.2	100.0	1.6	3.7	2076
Richest	80.9	0.4	0.1	1.0	0.0	11.7	3.3	0.8	1.5	0.3	100.0	1.6	5.4	1988
Language of household head														
Turkmen	90.5	0.1	0.1	0.7	0.1	4.7	1.9	0.6	1.1	0.2	100.0	1.0	3.3	9352
Uzbek	87.7	0.4	0.2	1.5	0.3	5.7	2.0	1.8	0.4	0.0	100.0	2.3	3.2	1053
Russian	54.4	1.4	0.0	2.3	0.0	33.0	7.2	0.9	0.5	0.3	100.0	3.7	9.1	273
Other	91.4	0.0	0.0	0.9	0.0	3.7	3.3	0.0	0.8	0.0	100.0	0.9	4.0	186

¹ MICS indicator 8.13 - Children's living arrangements

² MICS indicator 8.14 - Prevalence of children with one or both parents dead

The 2015-2016 Turkmenistan MICS included a simple measure of one particular aspect of migration related to what is termed children left behind, i.e. for whom one or both parents have moved abroad. While the amount of literature is growing, the long-term effects of the benefits of remittances versus the potential adverse psycho-social effects are not yet conclusive, as there is somewhat conflicting evidence available as to the effects on children.

Table CP.10 shows information about children with parents living abroad. As expected in Turkmenistan, only 1 percent of children age 0-17 have one or both parents living abroad.

Table CP.10: Children with parents living abroad							
Percent distribution of children age 0-17 years by residence of parents in another country, Turkmenistan, 2015-2016							
	Percent distribution of children age 0-17 years:					Percentage of children age 0-17 years with at least one parent living abroad ¹	Number of children age 0-17 years
	With at least one parent living abroad			With neither parent living abroad	Total		
	Only mother abroad	Only father abroad	Both mother and father abroad				
Total	0.4	0.4	0.1	99.1	100.0	0.9	10865
Sex							
Male	0.4	0.4	0.2	99.1	100.0	0.9	5599
Female	0.3	0.4	0.1	99.2	100.0	0.8	5266
Region							
Ashgabat city	0.3	0.5	0.0	99.2	100.0	0.8	1184
Ahal velayat	0.0	0.0	0.0	100.0	100.0	0.0	1508
Balkan velayat	0.0	0.0	0.0	100.0	100.0	0.0	667
Dashoguz velayat	0.5	0.4	0.2	98.9	100.0	1.1	2661
Lebap velayat	1.0	0.9	0.4	97.7	100.0	2.3	2158
Mary velayat	0.0	0.1	0.1	99.9	100.0	0.1	2686
Area							
Urban	0.7	0.8	0.1	98.4	100.0	1.6	3983
Rural	0.1	0.1	0.2	99.6	100.0	0.4	6882
Age group							
0-4	0.0	0.3	0.1	99.6	100.0	0.4	3979
0-2	0.0	0.3	0.2	99.6	100.0	0.4	2402
3-4	0.0	0.4	0.0	99.6	100.0	0.4	1577
5-9	0.5	0.2	0.2	99.2	100.0	0.8	3015
10-14	0.8	0.6	0.2	98.4	100.0	1.6	2347
15-17	0.5	0.4	0.1	99.0	100.0	1.0	1523
Wealth index quintile							
Poorest	0.4	0.0	0.1	99.5	100.0	0.5	2392
Second	0.1	0.2	0.3	99.4	100.0	0.6	2265
Middle	0.0	0.2	0.1	99.8	100.0	0.2	2143
Fourth	0.6	0.6	0.1	98.7	100.0	1.3	2076
Richest	0.8	0.9	0.1	98.2	100.0	1.8	1988
Language of household head							
Turkmen	0.2	0.2	0.1	99.4	100.0	0.6	9352
Uzbek	1.3	0.7	0.5	97.5	100.0	2.5	1053
Russian	1.2	3.6	0.0	95.2	100.0	4.8	273
Other	0.0	0.0	0.0	100.0	100.0	0.0	186

¹ MICS indicator 8.15 - Children with at least one parent living abroad

XII. HIV/AIDS

Knowledge about HIV Transmission and Misconceptions about HIV

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 towards raising awareness and giving adolescents and young people the tools to protect themselves from infection. Misconceptions about HIV are common and can confuse adolescents and young people and hinder prevention efforts. The UN 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. The 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. HIV module(s) were administered to women 15-49 years of age. Please note that the questions in this module often refer to “the AIDS virus”. This terminology is used strictly as a method of data collection to aid respondents, preferred over the correct terminology of “HIV” that is used here in reporting the results, where appropriate.

Table HA.1: Knowledge about HIV transmission, misconceptions about HIV, and comprehensive knowledge about HIV transmission

Percentage of women age 15-49 years who know the main ways of preventing HIV transmission, percentage who know that a healthy looking person can be HIV-positive, percentage who reject common misconceptions, and percentage who have comprehensive knowledge about HIV transmission, Turkmenistan, 2015-2016

	Percentage who know transmission can be prevented by:				Percentage who know that a healthy looking person can be HIV-positive	Percentage who know that HIV cannot be transmitted by:					Percentage who reject the two most common misconceptions and know that a healthy looking person can be HIV-positive	Percentage with comprehensive knowledge ^{1, a}	Number of women age 15-49
	Percentage who have heard of AIDS	Having only one faithful uninfected sex partner	Using a condom every time	Both		Mosquito bites	Supernatural means	Sharing food with someone with HIV	Hugging or shaking hands with someone with HIV	Kissing with someone with HIV			
Total	80.7	69.7	60.6	56.4	62.2	64.8	77.0	67.9	73.8	60.2	43.9	35.0	7618
Region													
Ashgabat city	90.6	84.5	81.9	79.5	75.3	43.6	90.1	83.0	88.0	61.0	31.7	30.0	975
Ahal velayat	61.5	49.9	46.2	41.0	57.2	52.0	56.6	58.8	58.5	53.5	45.1	35.3	1007
Balkan velayat	67.5	57.0	44.0	38.1	57.7	56.6	63.3	54.0	59.1	47.7	39.7	19.2	482
Dashoguz velayat	95.0	72.3	64.6	56.7	78.9	75.8	86.2	72.7	82.0	77.3	58.7	43.0	1779
Lebap velayat	94.9	85.8	65.2	64.0	51.5	83.2	93.2	73.1	85.3	51.3	33.6	26.6	1455
Mary velayat	65.0	61.1	54.3	51.4	51.8	60.1	63.8	60.0	61.9	57.3	44.8	40.3	1920
Area													
Urban	86.6	78.2	71.0	67.3	68.1	63.9	84.6	76.2	81.7	63.6	44.0	36.7	3006
Rural	76.8	64.2	53.9	49.3	58.3	65.4	72.1	62.4	68.6	58.0	43.9	33.9	4612
Age													
15-24 ¹	72.0	57.6	48.3	44.5	53.2	55.6	67.3	58.4	63.8	50.9	35.2	25.4	2597
15-19	67.8	50.3	39.5	36.2	47.9	50.2	62.5	52.1	58.5	45.4	28.9	18.6	1197
20-24	75.6	63.8	55.9	51.6	57.7	60.2	71.4	63.7	68.3	55.5	40.5	31.2	1400
25-29	83.7	73.5	63.8	59.6	64.1	69.0	80.9	71.0	78.1	62.9	46.4	37.9	1351
30-39	86.8	77.2	68.6	63.7	67.7	70.6	83.4	73.3	79.8	65.7	48.7	39.6	2063
40-49	84.3	76.5	67.6	63.7	67.9	68.6	81.4	73.6	78.6	66.0	50.0	42.1	1607
Marital status													
Ever married/in union	85.3	75.9	67.2	62.5	66.6	69.6	82.0	73.0	79.1	65.2	48.6	40.0	5378
Never married/in union	69.5	54.8	44.7	41.8	51.5	53.3	65.2	55.5	61.0	48.2	32.7	23.0	2240
Education^b													
Primary	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	8
Secondary	77.3	65.0	56.2	51.6	58.2	62.3	73.2	63.5	69.8	56.8	41.1	31.9	6088
Primary vocational	93.5	84.9	70.2	66.8	68.8	73.0	91.3	79.5	85.5	67.3	47.0	37.0	601
Secondary vocational	94.7	90.3	82.7	80.5	81.9	76.9	93.0	88.3	91.5	76.9	59.8	53.2	527
Higher	98.3	94.9	88.0	86.3	90.3	77.2	96.8	93.3	96.3	82.0	63.6	56.9	387
Wealth index quintile													
Poorest	82.6	63.6	53.6	47.8	61.4	67.0	75.8	61.1	69.6	58.5	42.1	29.9	1521
Second	76.4	65.5	53.8	49.6	55.5	66.9	72.0	62.9	69.5	57.4	42.9	33.4	1502
Middle	71.6	62.5	52.1	48.6	53.5	61.7	68.7	61.3	66.2	55.0	42.0	33.5	1495
Fourth	82.5	73.3	67.4	62.6	64.8	64.3	79.7	72.1	76.4	62.1	46.6	39.5	1490
Richest	89.6	82.8	75.2	72.5	74.6	63.9	88.2	81.0	86.3	67.4	46.1	38.6	1610
Language of household head													
Turkmen	79.0	68.0	58.6	54.6	60.0	63.7	75.5	66.3	72.1	57.6	42.0	33.2	6563
Uzbek	95.7	79.2	71.6	64.0	75.7	77.6	89.1	76.2	85.8	81.4	59.7	46.3	623
Russian	97.8	95.0	89.9	87.5	86.8	72.3	96.9	92.5	95.5	82.1	58.8	54.2	315
Other	47.7	44.2	35.7	33.6	43.1	38.9	45.4	42.6	46.8	36.4	28.7	22.3	117

¹MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention among young women

^a Comprehensive knowledge about HIV prevention is the knowledge of all of the following: (1) that the chance of getting HIV can be reduced by having only one faithful uninfected partner and using a condom every time (two main ways of HIV prevention), (2) that a healthy looking person can be HIV-positive, and (3) that HIV cannot be transmitted by kissing with someone with HIV and by mosquito bites (the two most common misconceptions among women age 15-49 years in Turkmenistan according to this survey).

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

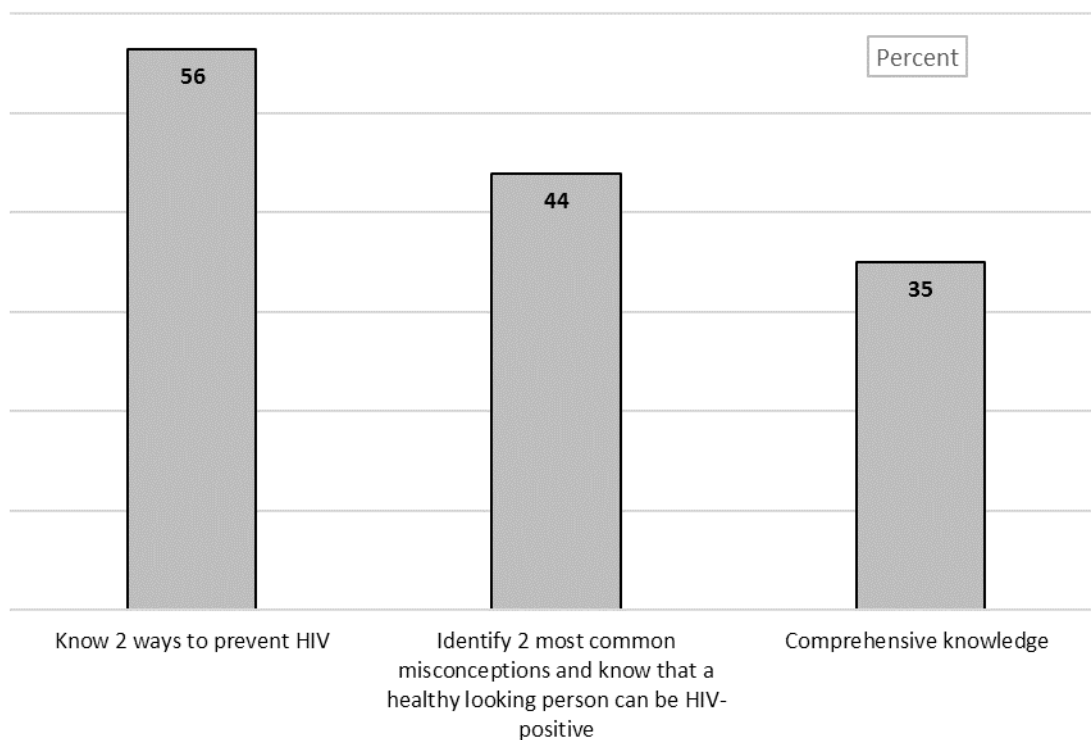
(*) Figures that are based on fewer than 25 unweighted cases.

One indicator which is both an MDG and the Global AIDS Response Progress Reporting (GARPR; formerly UNGASS) indicator is the percentage of young people who have comprehensive and correct knowledge of HIV prevention and transmission. This is defined as 1) knowing that consistent use of a condom during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, 2) knowing that a health-looking person can have HIV, and 3) rejecting the two most common local misconceptions about transmission/prevention of HIV. In the 2015-2016 Turkmenistan MICS all women who have heard of AIDS were asked questions on all three components and the results are detailed in Table HA.1.

In Turkmenistan, 81 percent of women age 15-49 years have heard of AIDS. However, the percentage of women who know of both main ways of preventing HIV transmission – having only one faithful uninfected partner and using a condom every time – is only 56 percent. About 70 percent of women know of having one faithful uninfected sex partner and 61 percent know of using a condom every time as main ways of preventing HIV transmission.

Table HA.1 also 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 kissing someone with HIV and by mosquito bites. The table also provides information on whether women know that HIV cannot be transmitted by supernatural means (77 percent), hugging or shaking hands with someone with HIV (74 percent), as well as by sharing food with someone with HIV (68 percent). Overall, 44 percent of women reject the two most common misconceptions and know that a healthy-looking person can be HIV-positive. About 60 percent of women know that HIV cannot be transmitted by kissing someone with HIV, and 65 percent of women know that HIV cannot be transmitted by mosquito bites, while 62 percent of women know that a healthy-looking person can be HIV-positive.

Figure HA.1: Women with comprehensive knowledge of HIV transmission, Turkmenistan, 2015-2016



Women who have comprehensive knowledge about HIV prevention include those who know of the two main ways of HIV prevention (having only one faithful uninfected partner and using a condom every time), who know that a healthy looking person can be HIV-positive, and who reject the two most common misconceptions. In Turkmenistan, comprehensive knowledge of HIV prevention methods and transmission is low although there are differences by regions. Overall, 35 percent of women were found to have comprehensive knowledge, the lowest percent being in Balkan velayat (19 percent) and the highest in Dashoguz and Mary velayats (43 percent and 40 percent respectively). As expected, the percentage of women with comprehensive knowledge increases with their education level. Only 32 percent of women with secondary education have comprehensive knowledge about HIV prevention, while increases to 57 percent among women with higher education. The percentage of women who have comprehensive knowledge is highest in the age group 40-49 years (42 percent) and lowest in the age group 15-24 years (25 percent).

Table HA.2: Knowledge of mother-to-child HIV transmission

Percentage of women age 15-49 years who correctly identify means of HIV transmission from mother to child, Turkmenistan, 2015-2016

	Percentage of women age 15-49 who have heard of AIDS and:						Number of women age 15-49
	Know HIV can be transmitted from mother to child:					Do not know any of the specific means of HIV transmission from mother to child	
	During pregnancy	During delivery	By breastfeeding	By at least one of the three means	By all three means ¹		
Total	75.7	73.4	67.3	76.7	65.3	4.0	7618
Region							
Ashgabat city	86.4	73.1	63.3	88.4	53.6	2.2	975
Ahal velayat	59.3	57.3	48.9	59.7	48.5	1.8	1007
Balkan velayat	58.7	60.4	60.5	63.4	56.4	4.2	482
Dashoguz velayat	84.3	84.4	84.8	85.3	83.6	9.6	1779
Lebap velayat	91.4	89.0	73.9	91.7	73.1	3.1	1455
Mary velayat	63.4	63.2	59.6	63.6	59.2	1.4	1920
Area							
Urban	82.3	77.9	70.4	84.0	66.3	2.7	3006
Rural	71.5	70.4	65.3	72.0	64.6	4.8	4612
Age group							
15-24	62.7	59.6	53.1	63.9	50.5	8.1	2597
15-19	55.3	51.4	45.5	56.7	42.6	11.1	1197
20-24	69.0	66.7	59.6	70.0	57.3	5.6	1400
25-29	80.6	78.1	73.3	81.2	71.6	2.5	1351
30-39	84.2	82.0	76.0	85.3	73.9	1.5	2063
40-49	81.9	80.4	74.2	82.6	72.6	1.7	1607
Marital status							
Ever married/in union	82.9	80.9	75.1	83.7	73.3	1.7	5378
Never married/in union	58.6	55.4	48.6	60.0	45.9	9.5	2240
Education^a							
Primary	(*)	(*)	(*)	(*)	(*)	(*)	8
Secondary	71.9	70.0	64.1	72.8	62.4	4.5	6088
Primary vocational	90.1	86.3	77.6	90.7	74.7	2.8	601
Secondary vocational	91.8	90.3	82.5	93.1	80.4	1.7	527
Higher	95.4	86.7	84.7	97.2	77.1	1.2	387
Wealth index quintile							
Poorest	73.0	71.9	69.4	73.8	68.3	8.8	1521
Second	73.2	72.2	67.3	73.5	66.8	2.9	1502
Middle	68.0	66.7	58.8	68.4	58.0	3.2	1495
Fourth	79.0	76.9	69.3	79.9	67.2	2.6	1490
Richest	84.9	78.8	71.5	87.2	65.9	2.4	1610
Language of household head							
Turkmen	74.1	71.6	65.3	75.0	63.3	4.0	6563
Uzbek	89.6	89.4	87.4	90.7	86.1	5.0	623
Russian	93.1	88.3	79.1	96.2	72.0	1.6	315
Other	44.5	44.3	44.2	45.1	43.5	2.6	117

¹ MICS indicator 9.2 - Knowledge of mother-to-child transmission of HIV^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Knowledge of mother-to-child transmission of HIV is also 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, during delivery, and through breastfeeding. The level of knowledge among women age 15-49 years concerning mother-to-child transmission is presented in Table HA.2. Overall, 77 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 65 percent, while 4 percent of women did not know of any specific way. The difference between the highest and the lowest level of knowledge about all three ways of mother-to-child transmission by regions is almost double, 84 percent in Dashoguz velayat and 49 percent in Ahal velayat. The percentage of women who know all three ways of mother-to-child transmission is higher among ever married/in union women (73 percent) compared to never married/in union women (46 percent).

Accepting Attitudes toward People Living with HIV

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are considered low if respondents report an accepting attitude on the following four questions: 1) would care for a family member with AIDS in own home; 2) would buy fresh vegetables from a vendor who is 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 it a secret if a family member is HIV-positive.

Table HA.3: Accepting attitudes toward people living with HIV

Percentage of women age 15-49 years who have heard of AIDS who express an accepting attitude towards people living with HIV, Turkmenistan, 2015-2016

	Percentage of women who:					Percentage of women who:			
	Are willing to care for a family member with AIDS in own home	Would buy fresh vegetables from a shopkeeper or vendor who is HIV-positive	Believe that a female teacher who is HIV-positive and is not sick should be allowed to continue teaching	Would not want to keep secret that a family member is HIV-positive	Agree with at least one accepting attitude	Express accepting attitudes on all four indicators ¹	Think children living with HIV should be able to attend school with children who are HIV-negative	Report discriminatory attitudes towards people living with HIV ^a	Number of women age 15-49 who have heard of AIDS
Total	83.3	11.7	21.3	31.7	95.5	1.0	25.4	89.6	6146
Region									
Ashgabat city	89.6	18.2	31.6	36.9	95.7	3.0	33.3	88.6	883
Ahal velayat	82.0	4.0	6.3	13.1	90.7	0.0	46.5	93.8	619
Balkan velayat	95.1	6.1	27.0	7.3	98.5	0.1	22.2	95.0	326
Dashoguz velayat	94.9	16.5	23.7	17.1	99.3	0.3	17.2	86.7	1690
Lebap velayat	70.3	1.9	10.1	58.8	91.6	0.1	9.3	96.7	1381
Mary velayat	74.8	16.8	28.7	33.5	96.0	2.1	39.0	82.8	1248
Area									
Urban	84.3	12.6	23.4	31.8	94.8	1.4	25.9	89.4	2604
Rural	82.5	11.1	19.7	31.7	95.9	0.6	25.0	89.7	3542
Age									
15-24	78.1	12.6	21.9	31.6	93.1	1.1	25.6	89.1	1870
15-19	72.2	12.5	22.4	32.9	91.4	1.3	25.1	88.9	811
20-24	82.6	12.6	21.5	30.6	94.5	0.9	25.9	89.3	1058
25-29	82.5	9.8	19.5	31.2	95.6	0.3	24.5	91.3	1131
30-39	86.7	11.0	19.1	32.5	97.0	1.0	25.1	90.1	1791
40-49	86.4	13.2	24.7	31.3	96.6	1.4	26.4	88.2	1355
Marital status									
Ever married/in union	85.4	11.4	20.8	31.8	96.3	0.9	25.5	89.8	4589
Never married/in union	76.8	12.7	22.5	31.5	93.0	1.1	25.1	88.9	1557
Education^b									
Secondary	83.0	10.7	18.9	30.2	95.3	0.6	24.4	90.3	4704
Primary vocational	82.1	9.5	19.2	37.6	95.6	1.0	18.6	93.2	562
Secondary vocational	85.6	17.5	31.7	33.1	96.7	2.5	32.6	85.3	499
Higher	85.1	20.7	39.8	40.2	95.9	3.4	38.4	81.6	381
Wealth index quintile									
Poorest	87.4	10.0	18.5	26.9	97.2	0.4	14.8	92.0	1256
Second	82.8	11.8	20.4	34.6	96.0	0.5	23.2	88.7	1147
Middle	81.8	7.3	15.2	31.4	94.6	0.8	29.9	92.4	1071
Fourth	80.0	13.3	21.6	32.0	95.2	1.3	27.8	87.8	1229
Richest	83.8	15.1	28.6	33.6	94.5	1.6	30.9	87.6	1443
Language of household head									
Turkmen	81.9	10.5	19.6	33.1	95.1	0.9	25.3	90.7	5185
Uzbek	94.7	17.2	25.3	19.7	99.4	0.2	20.5	85.1	596
Russian	80.6	23.0	41.3	35.2	93.4	3.2	36.4	78.9	309
Other	96.5	9.7	18.2	13.0	97.2	0.0	28.1	89.9	56

¹ MICS indicator 9.3 - Accepting attitudes towards people living with HIV^a This is a composite of those who respond "No" to any of the two situations in columns 2 and 7 (buying vegetables and attending school).^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Figure HA.2: Accepting attitudes toward people living with HIV/AIDS, Turkmenistan, 2015-2016

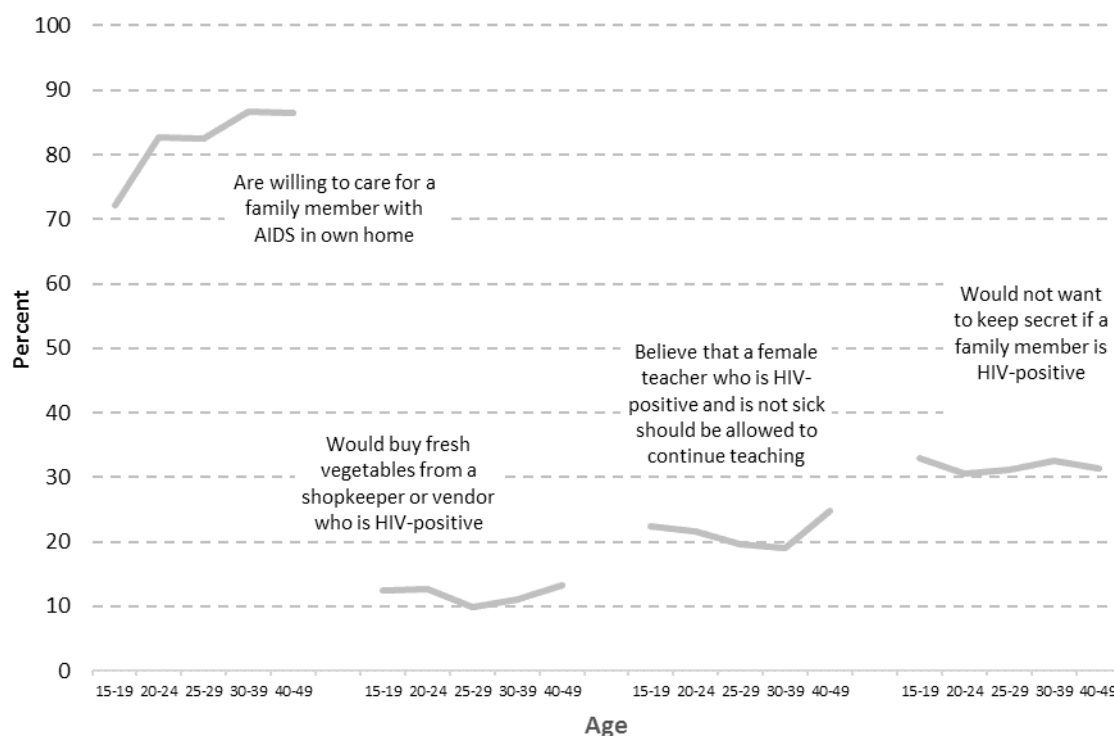


Table HA.3 presents the attitudes of women towards people living with HIV/AIDS. In Turkmenistan, 96 percent of women who have heard of AIDS agree with at least one accepting statement. The most common accepting attitude is willingness to care for a family member with AIDS in own home (83 percent) while only 1 percent of women expressed accepting attitudes on all four indicators.

The findings indicate that only 12 percent of women are willing to buy fresh vegetables from a shopkeeper or vendor who is HIV-positive. There are very small percentages of women with an accepting attitude on this indicator in three regions: in Lebap velayat (2 percent), Ahal velayat (4 percent) and in Balkan velayat (6 percent). Throughout the country, 21 percent of women believe that a female teacher who is HIV-positive and is not sick should be allowed to continue teaching. It should be noted that the lowest percentages of women who express an accepting attitude on this indicator are in Ahal and Lebap velayat (6 percent and 10 percent respectively).

Only 32 percent of women would not want to keep secret that a family member is HIV-positive. Among regions, the lowest percentage of women with an accepting attitude on this indicator is in Balkan velayat (7 percent) and the highest in Lebap velayat (59 percent).

Knowledge of a Place for HIV Testing, Counselling and Testing during Antenatal Care

Another important indicator is the knowledge of where to be tested for HIV and use of such services. In order to protect themselves and to prevent infecting others, it is important for individuals to know their HIV status. Knowledge of own status is also a critical factor in the decision to seek treatment.

Table HA.4: Knowledge of a place for HIV testing

Percentage of women age 15-49 years who know where to get an HIV test, percentage who have ever been tested, percentage who have ever been tested and know the result of the most recent test, percentage who have been tested in the last 12 months, and percentage who have been tested in the last 12 months and know the result, Turkmenistan, 2015-2016

	Percentage of women who:					Number of women age 15-49
	Know a place to get tested ¹	Have ever been tested	Have ever been tested and know the result of the most recent test	Have been tested in the last 12 months	Have been tested in the last 12 months and know the result ²	
Total	64.1	46.9	36.6	13.3	10.3	7618
Region						
Ashgabat city	82.3	55.8	54.1	12.7	12.1	975
Ahal velayat	48.0	35.2	6.9	19.3	3.5	1007
Balkan velayat	51.8	22.5	19.9	7.1	6.6	482
Dashoguz velayat	61.0	52.0	34.3	12.7	10.6	1779
Lebap velayat	91.1	63.5	60.5	22.8	22.1	1455
Mary velayat	48.6	37.2	31.7	5.6	4.5	1920
Area						
Urban	73.9	50.9	44.0	14.9	13.2	3006
Rural	57.6	44.2	31.8	12.3	8.4	4612
Age						
15-24	45.9	26.1	20.9	14.1	11.0	2597
15-19	32.6	8.1	7.4	5.6	4.8	1197
20-24	57.3	41.5	32.4	21.4	16.3	1400
25-29	72.4	62.3	47.6	22.9	17.0	1351
30-39	76.3	62.1	46.2	13.0	9.7	2063
40-49	70.6	47.8	40.6	4.4	4.1	1607
Marital status						
Ever married/in union	75.9	62.0	47.8	17.5	13.2	5378
Never married/in union	35.7	10.4	10.0	3.3	3.2	2240
Education^a						
Primary	(*)	(*)	(*)	(*)	(*)	8
Secondary	59.2	43.3	32.1	12.7	9.1	6088
Primary vocational	78.4	57.9	52.6	16.3	15.6	601
Secondary vocational	84.3	62.1	55.0	13.0	12.0	527
Higher	93.7	66.8	60.7	19.6	17.9	387
Wealth index quintile						
Poorest	56.2	43.9	31.5	11.3	9.3	1521
Second	58.9	46.4	35.3	12.1	9.2	1502
Middle	56.5	42.3	28.8	13.3	7.6	1495
Fourth	67.4	48.5	38.6	14.2	10.8	1490
Richest	80.2	52.7	48.3	15.6	14.1	1610
Language of household head						
Turkmen	62.8	45.6	36.0	13.4	10.0	6563
Uzbek	69.7	58.3	37.0	13.4	11.9	623
Russian	90.8	58.8	55.3	15.0	14.7	315
Other	34.2	24.5	22.2	4.4	4.4	117

¹ MICS indicator 9.4 - Women who know where to be tested for HIV

² MICS indicator 9.5 - Women who have been tested for HIV and know the results

^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Questions related to knowledge of a facility for HIV testing and whether a person has ever been tested are presented in Table HA.4. In Turkmenistan, 64 percent of women know where to be tested, while 47 percent have actually been tested. 37 percent of women know the result of their most recent test. The percentage of women who know where to be tested for HIV is higher among women with higher education (94 percent) and women from the wealthiest households (80 percent). The most aware are women who were ever married/in union (76 percent). Among regions, the highest percentage was found in Lebap velayat (91 percent).

Despite the fact that 64 percent of women knew where to be tested for HIV, only 13 percent of respondents were tested within the last 12 months, while only 10 percent were tested within the last 12 months and know the results. Women from the 20-24 and 25-29 year age groups are more likely to have been tested in the last 12 months (21 percent and 23 percent respectively) compared to women from other age groups. Women from Lebap velayat are more likely to have been tested in the last 12 months (23 percent) compared to women from the Balkan and Mary velayats (7 percent and 6 percent respectively).

Table HA.5: HIV counselling and testing during antenatal care

Percentage of women age 15-49 with a live birth in the last 2 years who received antenatal care from a health professional during the last pregnancy, percentage who received HIV counselling, percentage who were offered and tested for HIV, percentage who were offered, tested and received the results of the HIV test, and percentage who received counselling and were offered, accepted and received the results of the HIV test, Turkmenistan, 2015-2016

	Percentage of women who:						Number of women age 15-49 with a live birth in the last 2 years
	Received antenatal care from a health care professional for last pregnancy ^a	Received HIV counselling during antenatal care ¹	Were offered an HIV test and were tested for HIV during antenatal care	Were offered an HIV test and were tested for HIV during antenatal care, and received the results ²	Received HIV counselling, were offered an HIV test, accepted and received the results		
Total	99.9	74.6	76.7	55.6	52.3	1476	
Region							
Ashgabat city	100.0	78.5	83.3	82.5	74.1	160	
Ahal velayat	100.0	87.0	81.9	14.5	14.2	226	
Balkan velayat	100.0	42.0	40.2	30.5	30.5	75	
Dashoguz velayat	100.0	79.1	86.6	58.1	54.9	395	
Lebap velayat	100.0	90.8	92.2	89.2	86.1	300	
Mary velayat	99.5	51.0	51.5	42.4	38.7	320	
Area							
Urban	100.0	78.4	80.3	67.4	62.7	529	
Rural	99.8	72.5	74.7	49.0	46.5	947	
Age							
15-24	100.0	73.9	74.6	54.8	51.6	451	
15-19	100.0	72.2	76.4	56.6	50.1	33	
20-24	100.0	74.0	74.4	54.7	51.7	418	
25-29	99.7	75.7	78.3	57.4	54.7	541	
30-39	100.0	73.3	75.9	53.1	49.4	458	
40-49	(100.0)	(89.5)	(94.3)	(74.4)	(69.6)	26	
Marital status							
Ever married/in union	99.9	74.8	76.9	55.7	52.4	1473	
Never married/in union	(*)	(*)	(*)	(*)	(*)	3	
Education^b							
Primary	(*)	(*)	(*)	(*)	(*)	1	
Secondary	99.9	72.9	75.1	52.1	49.3	1265	
Primary vocational	100.0	86.4	88.2	79.6	75.2	112	
Secondary vocational	100.0	91.1	90.8	75.6	72.6	50	
Higher	100.0	79.6	83.4	72.7	62.4	46	
Wealth index quintile							
Poorest	99.6	65.6	72.2	52.4	49.1	322	
Second	100.0	75.4	78.9	54.2	51.4	313	
Middle	100.0	74.2	72.1	43.0	40.8	313	
Fourth	100.0	80.8	80.9	58.2	56.2	270	
Richest	100.0	79.1	80.8	73.6	67.5	259	
Language of household head							
Turkmen	100.0	74.0	75.8	55.5	52.4	1301	
Uzbek	100.0	87.1	90.5	53.1	51.2	124	
Russian	(100.0)	(78.9)	(90.1)	(87.0)	(72.9)	27	
Other	(*)	(*)	(*)	(*)	(*)	24	

¹ MICS indicator 9.7 - HIV counselling during antenatal care

² MICS indicator 9.8 - HIV testing during antenatal care

^a Health care professionals include Medical doctor, Nurse/Midwife and Feldsher.

^b Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

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.5.

All women (100 percent) in Turkmenistan received antenatal care of which 77 percent were offered an HIV test and were tested for HIV and 75 percent received HIV counselling during pregnancy. The highest proportion of women who received HIV counselling during antenatal care was in Lebap velayat (91 percent) and the lowest in Balkan velayat (42 percent). 56 percent of women were offered an HIV test and were tested for HIV during antenatal care, and received the results, with the highest percentage being in Lebap velayat (89 percent) and the lowest in Ahal velayat (15 percent).

HIV Indicators for Young Women

In many countries, over half of new adult HIV infections are among young people age 15-24 years thus a change in behaviour among members of this age group is especially important to reduce new infections. The next table present specific information on this age group.

Table HA.6: Key HIV and AIDS indicators

Percentage of women age 15-24 years by key HIV and AIDS indicators, Turkmenistan, 2015-2016

	Percentage of women age 15-24 years who:						Number of women age 15-24 years	Percentage who express accepting attitudes towards people living with HIV on all four indicators ^b	Percentage who report discriminatory attitudes towards people living with HIV ^b	Number of women age 15-24 years who have heard of AIDS
	Have comprehensive knowledge ^{1, a}	Know all three means of HIV transmission from mother to child	Know a place to get tested for HIV	Have ever been tested and know the result of the most recent test	Have been tested for HIV in the last 12 months and know the result					
Total	25.4	50.5	45.9	20.9	11.0	2597	1.1	89.1	1870	
Region										
Ashgabat city	21.1	35.7	68.8	28.0	13.8	307	4.9	90.0	257	
Ahal velayat	26.6	33.9	34.7	5.2	2.7	359	0.0	95.4	187	
Balkan velayat	14.0	41.4	33.7	6.6	4.0	150	0.0	94.6	87	
Dashoguz velayat	27.5	67.9	32.3	15.8	11.1	598	0.2	86.5	561	
Lebap velayat	23.5	68.9	85.9	51.2	27.4	506	0.3	96.1	465	
Mary velayat	28.8	39.1	26.5	10.9	3.3	677	1.5	77.4	313	
Area										
Urban	27.7	51.8	57.6	25.8	14.0	951	2.2	90.3	744	
Rural	24.1	49.8	39.2	18.0	9.2	1646	0.3	88.3	1125	
Age										
15-19	18.6	42.6	32.6	7.4	4.8	1197	1.3	88.9	811	
15-17	14.8	38.4	28.2	2.1	0.9	693	0.9	90.3	447	
18-19	24.0	48.5	38.7	14.6	10.2	504	1.9	87.1	364	
20-24	31.2	57.3	57.3	32.4	16.3	1400	0.9	89.3	1058	
20-22	31.6	55.4	52.6	27.9	14.2	876	1.1	88.3	656	
23-24	30.5	60.5	65.3	39.9	19.6	524	0.6	90.9	402	
Marital status										
Ever married/in union	33.4	67.4	73.1	48.7	28.5	785	0.7	89.9	634	
Never married/in union	22.0	43.3	34.2	8.8	3.4	1812	1.2	88.7	1235	
Education^c										
Primary	(*)	(*)	(*)	(*)	(*)	6	-	(*)	0	
Secondary	23.2	48.3	41.8	17.5	9.2	2224	0.7	89.0	1543	
Primary vocational	34.9	65.9	66.3	43.2	22.7	196	1.4	91.0	174	
Secondary vocational	38.1	66.9	70.8	35.5	16.1	90	4.9	93.0	78	
Higher	53.5	65.4	92.7	47.9	27.7	76	4.4	83.2	74	
Wealth index quintile										
Poorest	16.5	49.1	33.5	15.2	10.6	497	0.3	91.4	385	
Second	22.8	54.2	40.8	19.7	9.0	547	0.0	88.4	372	
Middle	26.4	43.7	40.3	18.6	9.2	553	0.0	89.6	330	
Fourth	29.7	54.5	50.0	21.6	11.9	501	2.1	87.1	371	
Richest	31.8	51.6	66.2	29.6	14.6	499	2.7	89.0	412	
Language of household head										
Turkmen	24.4	48.7	45.8	21.2	10.9	2281	1.0	90.3	1596	
Uzbek	29.6	76.1	43.3	18.1	13.5	194	0.0	83.8	185	
Russian	51.6	55.2	76.5	27.4	14.5	78	4.7	76.4	73	
Other	(12.0)	(27.4)	(13.3)	(3.7)	(0.0)	44	(*)	(*)	15	

¹ MICS indicator 9.1; MDG indicator 6.3 - Knowledge about HIV prevention among young women

^a Comprehensive knowledge about HIV prevention is the knowledge of all of the following: (1) that the chance of getting HIV can be reduced by having only one faithful uninfected partner and using a condom every time (two main ways of HIV prevention), (2) that a healthy looking person can be HIV-positive, and (3) that HIV cannot be transmitted by kissing with someone with HIV and by mosquito bites (the two most common misconceptions among women age 15-49 years in Turkmenistan according to this survey).

^b Refer to Table HA.3 for the components of this indicator.

^c Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

() Figures that are based on 25-49 unweighted cases.

(*) Figures that are based on fewer than 25 unweighted cases.

"-" denotes 0 unweighted case in that cell or in the denominator.

Table HA.6 summarizes information on key HIV indicators for young women. Results with respect to comprehensive knowledge (25 percent), knowledge of mother to child transmission (51 percent), and knowledge of a place to get tested (46 percent) are generally lower in this age group than the population age 15-49 years as a whole. Accepting attitudes towards people living with HIV with respect to the same four indicators that were previously discussed are at the same level as for the population age 15-49 years (1 percent). Overall, 11 percent of young women in this age group have been tested for HIV in the last 12 months and know the result.

XIII. Access to Mass Media and Use of Information/Communication Technology

The 2015-2016 Turkmenistan MICS collected information on exposure to mass media and the use of computers and the internet. Information was collected on exposure to newspapers/magazines, radio and television among women age 15-49 years, while the questions on the use of computers and the use of the internet was asked to 15-24 year-olds.

Access to Mass Media

The proportion of women who read a newspaper or magazine, listen to the radio and watch television at least once a week is shown in table MT.1.

41 percent of women in Turkmenistan read a newspaper or magazine, 33 percent listen to the radio, and 99 percent watch television at least once a week. Overall, less than 1 percent do not have regular exposure to any of the three media, while almost 100 percent are exposed to at least one and 21 to all the three types of media on a weekly basis.

Table MT.1: Exposure to mass media

Percentage of women age 15-49 years who are exposed to specific mass media on a weekly basis, Turkmenistan, 2015-2016

	Percentage of women age 15-49 years who:						Number of women age 15-49 years
	Read a newspaper at least once a week	Listen to the radio at least once a week	Watch television at least once a week	All three media at least once a week ¹	Any media at least once a week	None of the media at least once a week	
Total	41.0	32.5	99.3	20.7	99.6	0.4	7618
Age							
15-19	58.4	41.4	99.4	31.7	99.6	0.4	1197
15-17	65.4	42.3	99.4	36.4	99.6	0.4	693
18-19	48.7	40.2	99.4	25.3	99.6	0.4	504
20-24	41.3	36.6	99.5	21.3	99.8	0.2	1400
25-29	34.8	27.9	99.3	16.2	99.8	0.2	1351
30-34	31.2	26.8	98.8	15.3	99.2	0.8	1117
35-39	35.5	27.5	99.2	17.7	99.2	0.8	946
40-44	43.7	33.3	99.2	22.1	99.6	0.4	835
45-49	42.5	33.1	99.2	20.6	99.6	0.4	772
Region							
Ashgabat city	39.8	24.9	99.6	13.6	99.7	0.3	975
Ahal velayat	59.4	69.5	99.9	47.5	100.0	0.0	1007
Balkan velayat	36.5	36.4	99.8	15.9	99.9	0.0	482
Dashoguz velayat	30.2	25.5	98.3	14.2	98.9	1.1	1779
Lebap velayat	26.7	7.2	99.5	5.2	99.5	0.5	1455
Mary velayat	53.9	41.7	99.4	29.3	99.8	0.2	1920
Area							
Urban	44.6	31.3	99.8	20.0	99.9	0.1	3006
Rural	38.6	33.4	98.9	21.2	99.4	0.6	4612
Education^a							
Primary	(*)	(*)	(*)	(*)	(*)	(*)	8
Secondary	36.5	32.4	99.2	19.3	99.6	0.4	6088
Primary vocational	43.2	26.4	99.6	16.3	99.6	0.4	601
Secondary vocational	63.1	35.7	99.4	29.6	100.0	0.0	527
Higher	79.1	41.2	99.6	38.7	100.0	0.0	387
Wealth index quintile							
Poorest	25.3	21.0	97.8	10.2	98.4	1.6	1521
Second	34.5	27.8	99.3	16.8	99.6	0.4	1502
Middle	49.6	43.6	99.5	29.7	100.0	0.0	1495
Fourth	47.2	41.4	99.8	27.0	99.8	0.2	1490
Richest	48.1	29.3	99.8	20.3	99.9	0.1	1610
Language of household head							
Turkmen	42.5	34.2	99.2	22.0	99.6	0.4	6563
Uzbek	23.7	24.2	100.0	13.7	100.0	0.0	623
Russian	50.5	17.7	100.0	12.6	100.0	0.0	315
Other	21.7	21.1	96.3	11.1	96.3	3.7	117

¹ MICS indicator 10.1 - Exposure to mass media^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown.

(*) Figures that are based on fewer than 25 unweighted cases.

Women under age 20 are more likely than older women to report exposure to all three types of mass media. Differentials by education and socio-economic status are observed for exposure to all types of media, primarily due to differentials in exposure to print media and radio.

Women with higher education are more likely to have been exposed to all three types of media than women with lower levels of education. Almost 30 percent of women from the households in the middle wealth index quintile have been exposed to all the three media forms, while the corresponding proportion of women in the poorest households is only 10 percent. Exposure of women to all the three mass media is greatest in Ahal velayat (48 percent) and lowest in the Lebap velayat (5 percent).

Use of Information/Communication Technology

The questions on computer and internet use were asked only to 15-24 year old women.

As shown in Table MT.2, 86 percent of 15-24 year old women ever used a computer, 58 percent used a computer during the last year and 45 percent used it at least once a week during the last month. Overall, 47 percent of women age 15-24 ever used the internet, while 39 percent used it during the last year. The proportion of young women who used the internet more frequently, at least once a week during the last month, is smaller, at 31 percent.

As expected, computer use during the last 12 months is more widespread among 15-19 year old women. Use of a computer during the last 12 months and at least once a week during the last one month is associated with education and wealth, while use of the Internet is strongly associated with area, education and wealth.

43 percent of women with secondary education report using a computer at least once a week during the last one month, while about 90 percent of women with higher education used a computer at least once a week during the last one month. Similarly, higher utilisation of the internet during the last 12 months is observed among young women in urban areas (58 percent) compared to those in rural areas (29 percent). The use of the internet during the last year is greatest in the Balkan velayat (60 percent) and in Ashgabat city (59 percent) and lowest in the Ahal velayat (17 percent), while the proportion is 69 percent for young women in the richest households, compared to 22 percent among those living in the poorest households.

Table MT.2: Use of computers and internet

Percentage of young women age 15-24 years who have ever used a computer and the internet, percentage who have used during the last 12 months, and percentage who have used at least once weekly during the last one month, Turkmenistan, 2015-2016

	Percentage of women age 15-24 years who have:						Number of women age 15-24 years
	Ever used a computer	Used a computer during the last 12 months ¹	Used a computer use	Ever used the internet	Used the internet during the last 12 months ²	Used the internet at least once a week during the last one month	
Total	85.6	57.5	45.2	47.3	39.3	31.4	2597
Age							
15-19	92.3	80.1	66.3	49.4	44.0	36.0	1197
15-17	94.8	93.3	84.5	49.9	45.4	37.0	693
18-19	89.0	62.0	41.3	48.6	42.0	34.6	504
20-24	79.9	38.2	27.1	45.5	35.3	27.4	1400
Region							
Ashgabat city	89.6	73.8	54.2	63.2	58.9	50.8	307
Ahal velayat	67.8	44.9	37.4	20.4	16.9	10.3	359
Balkan velayat	84.7	66.8	52.6	61.4	59.6	55.3	150
Dashoguz velayat	98.3	55.6	46.7	49.6	35.7	26.9	598
Lebap velayat	85.8	55.5	40.8	55.7	41.2	30.8	506
Mary velayat	82.2	58.0	45.6	42.9	39.5	32.8	677
Area							
Urban	88.0	68.4	54.1	63.7	57.5	49.5	951
Rural	84.3	51.2	40.0	37.8	28.7	20.9	1646
Education^a							
Primary	(*)	(*)	(*)	(*)	(*)	(*)	6
Secondary	84.4	54.4	42.5	42.5	34.4	27.0	2224
Primary vocational	94.5	67.3	50.4	69.9	59.6	43.9	196
Secondary vocational	93.1	85.3	67.1	76.8	72.5	64.1	90
Higher	100.0	97.2	89.5	98.1	94.9	92.0	76
Wealth index quintile							
Poorest	88.2	50.5	39.4	35.2	22.8	14.2	497
Second	83.2	47.7	36.7	39.1	30.1	22.1	547
Middle	82.6	51.5	40.9	34.5	27.9	21.2	553
Fourth	82.4	60.0	44.8	56.2	48.2	39.7	501
Richest	92.2	79.6	65.5	73.4	69.4	61.6	499
Language of household head							
Turkmen	85.1	56.8	44.4	45.2	37.3	29.2	2281
Uzbek	94.9	57.5	46.7	55.8	43.8	35.5	194
Russian	99.5	93.1	78.0	97.8	94.9	89.5	78
Other	(45.5)	(32.3)	(21.3)	(27.8)	(21.8)	(21.8)	44
¹ MICS indicator 10.2 - Use of computers							
² MICS indicator 10.3 - Use of internet							
^a Due to the low number of unweighted cases, the category "None" for the background characteristic "Education" is not shown. () Figures that are based on 25–49 unweighted cases. (*) Figures that are based on fewer than 25 unweighted cases.							

Appendix A. Sample Design

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

The primary objective of the sample design for the 2015-2016 Turkmenistan MICS 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: Ashgabat city (capital) and five velayats (regions) – Ahal, Balkan, Dashoguz, Lebap and Mary. Urban and rural areas in each of the five velayats (regions) in addition to Ashgabat city (only urban) were defined as the sampling strata (11 main strata).

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

Sample Size and Sample Allocation

The sample size for the 2015- 2016 Turkmenistan MICS was calculated as 6,200 households. For the calculation of the sample size, the key indicator used was the percentage of married women using a contraceptive method from the 2006 Turkmenistan MICS. The following formula was used to estimate the required sample size for this indicator at the regional level:

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

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 by region
- 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)
- $(0.08 \text{ to } 0.11)r$ is the margin of error (me) 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 number of persons per household by region.

The recommended value for the relative margin of error is generally 0.12 (12 percent) compared to 0.08 to 0.11 used in this formula. The value of f (design effect) was taken as 1.5 based on estimates from previous surveys, p (percentage of women who currently use contraceptives) was taken for each region as being between 0.36 to 0.54, and n_h (average household size) was taken as 3.9 to 5.7 persons per household (based on the current statistical data). Using this formula, the required sample size for each region varied between 880 to 1240 households, which gives 6200 households in total (Table SD.1).

Table SD.1. The base information for sample size calculation and expected outputs for base sub-populations, 2015-2016 Turkmenistan MICS

	Input value							Expected outputs			
	Predicted value of indicator	Design effect	Number of households (Sample size)	Relative margin of error at 95% confidence	Proportion of target/base population in total population	Average household size	Response rate	Number of clusters	Number of women age 15-49 years	Number of children age 0-4 years	Number of children age 12-23 months
	R	<i>deff</i>	N	RME	Pb	AveSize	RR				
Total			6200					310	7582	3341	678
Region											
Ashgabat city	0.52	1.5	1240	0.084	0.182	3.9	0.9	62	1293	444	91
Ahal velayat	0.43	1.5	920	0.096	0.191	5.4	0.9	46	1256	617	125
Balkan velayat	0.36	1.5	1240	0.115	0.17	4.2	0.9	62	1228	581	117
Dashoguz velayat	0.47	1.5	880	0.092	0.178	5.7	0.9	44	1291	591	122
Lebap velayat	0.38	1.5	960	0.109	0.181	5.2	0.9	48	1262	544	108
Mary velayat	0.54	1.5	960	0.079	0.189	5.1	0.9	48	1251	564	115

The number of households selected per cluster for the 2015-2016 Turkmenistan MICS was determined as 20 households, based on a number of considerations, including a review of the design effects for the estimates of key indicators from the 2006 Turkmenistan MICS data, the budget available, and the time that would be needed per team to complete one cluster.

Selection of 20 households in each sample segment in all regions, resulted in a total target sample of 310 segments and 6200 households. Within each region the sample was allocated proportionately to the urban and rural strata. The table below shows the allocation of clusters to the sampling strata.

Table SD.2: The sample allocation of sample segments (clusters) and households by region/urban-rural strata

	No. of clusters (PSUs)			No. of households		
	Total	Urban	Rural	Total	Urban	Rural
Total	310	174	136	6200	3480	2720
Region						
Ashgabat city	62	62	-	1240	1240	0
Ahal velayat	46	14	32	920	280	640
Balkan velayat	62	50	12	1240	1000	240
Dashoguz velayat	44	14	30	880	280	600
Lebap velayat	48	22	26	960	440	520
Mary velayat	48	12	36	960	240	720

Sampling Frame and Selection of Clusters

For the first sampling stage, the enumeration areas were defined as PSUs selected within each stratum (region, urban/rural) systematically with PPS from the ordered list of PSUs in the sampling frame. The measures of size for the enumeration areas were based on the number of households identified in the sampling frame of the 2012 Census. The PSUs within each stratum were ordered geographically, in order to provide implicit geographic stratification and ensure a proportional distribution of the sample to all parts of the region.

Listing Activities

Since the sampling frame (the 2012 Census) was not up-to-date, a new listing of households was conducted in all the sample enumeration areas prior to the selection of households. For this purpose, listing teams were formed who visited all of the selected enumeration areas and listed all households in the enumeration areas.

Listing training was held in the period 16-19 June 2015 (4 days) in Ashgabat city. The training was attended by 3 cartographers, 3 listers, 1 reserve and 1 supervisor from each velayat/Ashgabat city (in total 48 participants). The training program consisted of two parts, the first 1.5 days for theoretical knowledge followed by 1.5 days for conducting a pilot in the field – to implement acquired knowledge into practice.

During the period from 22 June to 16 July 2015 in all regions of Turkmenistan work on the mapping and household listing in the clusters for the MICS was carried out in accordance with the schedule of

activities developed by the State Statistical Committee of Turkmenistan. During the listing the following materials were used:

- Manual for Mapping and Household Listing
- Listing Forms
- Schematic maps from the 2012 Census in printed form.

It was not possible to conduct listing in 5 selected enumeration areas because they were inaccessible due to demolition of buildings at the time of the listing period. Four of these were urban clusters (Ashgabat city) and one a rural cluster (Ahal velayat). In the Ahal velayat, the sample included 2 enumeration areas with a small number of households: 7 households in the village Kesikburun (Etrab Sarahs; Gengeshlik Hanýap) and 10 households in the village Bozköl (Etrab Ak bugdaý; Gengeshlik Sähra). It was agreed that each small sample EA can be joined with a neighboring EA within the same census sector following the first stage selection, and the probabilities can be calculated based on the size of the combined EAs. Thus, the enumeration area of the Kesikburun village was added to the neighboring enumeration area of the village Hanayap (Gengeshlik Hanayap). The enumeration district village Bozkel was added to the adjacent administrative enumeration area of the village Sahra (Gengeshlik Sahra).

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 State Statistical Committee of Turkmenistan, where the selection of 20 households in each enumeration area was carried out using random systematic selection procedures.

Calculation of Sample Weights

The 2015-2016 Turkmenistan MICS sample is not self-weighting. Essentially, by allocating equal numbers of households to each of the regions, different sampling fractions were used in each region since the sizes 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 stratum (h) and PSU (i):

$$W_{hi} = \frac{1}{f_{hi}}$$

The term f_{hi} , the sampling fraction for the i -th sample PSU in the h -th stratum, is the product of probabilities of selection at every stage in each sampling stratum:

$$f_{hi} = p_{1hi} \times p_{2hi} \times p_{3hi}$$

where p_{shi} is the probability of selection of the sampling unit at stage s for the i -th sample PSU in the h -th sampling stratum. Based on the sample design, these probabilities were calculated as follows:

$$p_{1hi} = \frac{n_h \times M_{hi}}{M_h}, \text{ where}$$

n_h = number of sample PSUs selected in stratum h

M_{hi} = number of households in the 2012 Census frame for the i -th sample PSU in stratum h

M_h = total number of households in the 2012 Census frame for stratum h

p_{2hi} = proportion of the PSU listed in the i -th sample PSU of stratum h (in the case of PSUs that were segmented); for non-segmented PSUs, $p_{2hi} = 1$

$$p_{3hi} = \frac{20}{M'_{hi}}$$

M'_{hi} = number of households listed in the i -th sample PSU in stratum h

Since the number of households in each enumeration area (PSU) from the 2012 Census frame used for the first stage selection and the updated number of households in the enumeration area from the listing are generally different, overall probabilities of selection for households in each sample enumeration area (cluster) were calculated.

A final component in the calculation of sample weights takes into account the level of non-response for the household and individual interviews. The adjustment for household non-response in each stratum is equal to:

$$\frac{1}{RR_h}$$

where RR_h is the response rate for the sample households in stratum h , defined as the proportion of the number of interviewed households in stratum h out of the number of selected households found to be occupied during the fieldwork in stratum h .

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

$$\frac{1}{RR_h}$$

where RR_h is the response rate for the individual questionnaires in stratum h , defined as the proportion of eligible individuals (women and under-5 children) in the sample households in stratum h who were successfully interviewed.

After the completion of fieldwork, response rates were calculated for each sampling stratum. These were used to adjust the sample weights calculated for each cluster. Response rates in the 2015-2016 Turkmenistan MICS are shown in Table HH.1 in this report.

The non-response adjustment factors for the individual women and under-5 questionnaires were applied to the adjusted household weights. The number of eligible women and under-5 children in each sample EA were obtained from the roster of household members in the Household Questionnaire for households where interviews were completed.

The design weights for the households were calculated by multiplying the inverse of the probabilities of selection by the non-response adjustment factor for each enumeration area. These weights were then standardized (or normalized), one purpose of which is to make the weighted sum of the interviewed sample units equal to the unweighted total number of sample units at the national level. Normalization is achieved by dividing the full sample weights (adjusted for nonresponse) by the average of these weights across all households at the national level. This is performed by multiplying the sample weights by a constant factor equal to the unweighted number of households at the national level divided by the weighted total number of households (using the full sample weights adjusted for nonresponse). A similar standardization procedure was followed for obtaining standardized weights for the individual women and under-5 questionnaires. Adjusted (normalized) household weights varied between 0.212032929 and 2.525432708 in the 305 sample enumeration areas (clusters), excluding 5 missing clusters.

Sample weights were appended to all data sets and analyses were performed by weighting households, women, or under-5s with these sample weights.

Appendix B. List of Personnel Involved in the Survey

MANAGERIAL PERSONNEL

State Committee of Statistics of Turkmenistan

Ayna Orayeva (Akmyrat Mammedow – until March 2016)	Chairman the State Committee of Statistics of Turkmenistan
Gurbangozel Charyyeva	Survey Director, Head of Population Department
Bagul Annamuhammedova	Field Supervisor, Deputy Head of Population Department
Jennet Hojamammedova	Sampling Specialist, Chief Specialist of Population Department
Lidiya Krzhiviskaya	Data Processing Specialist, Chief Specialist of Population Department

International organizations

Shaheen Nilofer (Oyunsaihan Dendevnorov – until August 2016)	Representative, UNICEF Turkmenistan
Elena Sialchonak	Deputive Representative, UNICEF Turkmenistan
Shohrat Orazov	Child Right Monitoring Specialist, UNICEF Turkmenistan
Dilara Ayazova	Programme Assistant, UNICEF Turkmenistan
Gulyalek Soltanova	Communication Officer, UNICEF Turkmenistan
Aigul Karayeva	Programme Assistant, UNICEF Turkmenistan
Tatjana Karaulac	International MICS Consultant, UNICEF
Hoshgeldy Halnazarov	National MICS Consultant, UNICEF
Attila Hancioglu	Global MICS Coordinator, UNICEF Headquarter, New York (HQ)
Ivana Belic	Data Processing Specialist, UNICEF HQ
Turgay Unalan	Household Survey Specialist, UNICEF HQ
Yadigar Coskun	Data Processing Specialist, UNICEF HQ
Siraj Mahmudlu	Regional MICS Coordinator, UNICEF Regional Office, Geneva (RO)
Ahmet Sinan Turkyilmaz	Sampling Consultant, UNICEF RO
Ana Abdelbasit	Household Survey Consultant, UNICEF RO
Ikhtier Kholmatov	Data Processing Consultant, UNICEF RO

Listers and Cartographers

Regional listing Coordinators

Shihmurat Genzhaliyev	Ashgabat city
Eziz Nursahetov	Ahal velayat
Ogulbayram Orazmammedova	Balkan velayat
Gozel Omarova	Dashoguz velayat
Saida Babakuliyeva	Lebap velayat
Jeren Charyyeva	Mary velayat

Listers

Avdeyeva S.	Garashova G.
Annageldiyev A.	Maagometova R.
Garyagdyeva G.	Kuliyeva M.
Allakova A.	Babakuliyev Sh.
Amangeldiyeva O.	Matkarimov A.
Aksakov P.	Taganov A.
Amankuliyva R.	Nurlyyev K.
Bashirova E.	Hommayeva L.
Rejepov A.	Salihova L.

Cartographers

Hojaniyazova G.	Yakubova K.
Taganov D.	Yusupova S.
Bekiyeva G.	Myradova S.
Kerimov K.	Nowruzov K.
Tachmuhommedov M.	Annageldiyev Ch.
Tachmyradov B.	Baynayev H.
Annayev D.	Ziyatdinova L.
Tachmyradov S.	Begliyev E.
Nazarov O.	Hojakurbanov A.

REGIONAL FIELD WORK TEAMS

Ashgabat city

Esenov M.	Coordinator
Berger O.	Supervisor
Annayeva M.	Interviewer
Bekova S.	Interviewer
Hudayberenova M.	Interviewer
Gulamova M.	Interviewer
Taganov D.	Measurer

Dashoguz velayat

Garayev B.	Coordinator
Omarova G.	Supervisor
Garasheva G.	Interviewer
Yusupova S.	Interviewer
Ashyrova M.	Interviewer
Artykova Sh.	Interviewer
Gulnazarov Yu.	Measurer

Ahal velayat

Nazarov H.	Coordinator
Nursahedov E.	Supervisor
Mollakova O.	Interviewer
Agayeva G.	Interviewer
Urazova B.	Interviewer
Rustemova O.	Interviewer
Tachmuhommedov M.	Measurer

Lebap velayat

Wekilov A. (Guvanjev H. – until November 2015)	Coordinator
Babakuliyeva S.	Supervisor
Taganova G.	Interviewer
Rozyyeva G.	Interviewer
Babakuliyeva Sh.	Interviewer
MATkarimov A.	Interviewer
Babakuliyev Sh.	Measurer

Balkan velayat

Atayev A.	Coordinator
Rejepov A.	Supervisor
Nazarov O.	Interviewer
Oraz O.	Interviewer
Мамурова Ш.	Interviewer
Амангулыева Р.	Interviewer
Реджепова Г.	Interviewer
Аннаев Д.	Measurer

Mary velayat

Garyagdyev B.	Coordinator
Ivashenko R.	Supervisor
Salihova L.	Interviewer
Charyyeva J.	Interviewer
Rodina T.	Interviewer
Nurliyev K.	Interviewer
Atakuliyev S.	Measurer

REPORT WRITING

Gurbangozel Charyyeva, Lidiya Krzhiviskaya, Shohrat Orazov and Tatjana Karaulac.

Appendix C. Estimates of Sampling Errors

The sample of respondents selected in the 2015-2016 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 the estimates from all possible samples. The extent of variability is not known exactly, but can be estimated statistically from the survey data.

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

- *Standard error (se)*: Standard error is the square root of the variance of the estimate. For survey indicators that are means, proportions or ratios, the Taylor series linearization method is used for the estimation of standard errors. For more complex statistics, such as fertility and mortality rates, the Jackknife repeated replications method is used for standard error estimation.
- *Coefficient of variation (se/r)* is the ratio of the standard error to the value (r) of the indicator, and is a measure of the relative sampling error.
- *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 based on the same sample size. The *square root of the design effect (deft)* is used to show the efficiency of the sample design in relation to the precision. A *deft* value of 1.0 indicates that the sample design of the survey is as efficient as a simple random sample for a particular indicator, while a *deft* value above 1.0 indicates an 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, with a specified level of confidence. 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 ($r + 2.se$ or $r - 2.se$) of the statistic in 95 percent of all possible samples of identical size and design.

For the calculation of sampling errors from MICS data, programs developed in CPro Version 5.0, SPSS Version 21 Complex Samples module and CMRJack⁷⁴ have 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. Given the use of normalized weights, by comparing the weighted and unweighted counts it is possible to determine whether a particular domain has been under-sampled or over-sampled compared to the average sampling rate. If the weighted count is smaller than the unweighted count, this means that the particular domain had been over-sampled. As explained later in the footnote of Table SE.1, there is an exception in the case of indicators 3.15, 4.1 and 4.3, for which the unweighted count represents the number of sample households, and the weighted counts reflect the total

⁷⁴ CMRJack is a software developed by FAFO, an independent and multidisciplinary research foundation. CMRJack produces mortality estimates and standard errors for surveys with complete birth histories or summary birth histories.

population. A similar exception is in the case of indicators 8.2 and 8.3, for which the unweighted count represents the unweighted number of households with children in the specific age range, whereas the weighted numbers reflect the number of children in the specific age range.

Sampling errors are calculated for indicators of primary interest, for the national level, for urban and rural areas, and for all regions. Eight of the selected indicators are based on households members, 16 are based on women, and 14 are based on children under 5. 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 for selected domains.

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, 2015-2016

MICS5 Indicator	Base Population
Household	
3.15 Use of solid fuels for cooking	All household members ^a
4.1 Use of improved drinking water sources	All household members ^a
4.3 Use of improved sanitation	All household members ^a
7.2 School readiness (children attending first grade of primary)	Children attending the first grade of primary school
7.4 Primary school net attendance ratio (adjusted)	Children of primary school age
7.5 Secondary school net attendance ratio (adjusted)	Children of secondary school age
8.2 Child labour	Children age 5-17 years ^b
8.3 Violent discipline	Children age 1-14 years ^b
Women	
1.2 Infant mortality rate	Children of interviewed women exposed to the risk of mortality during the first year of life
1.5 Under five mortality rate	Children of interviewed women exposed to the risk of mortality during the first five years of life
2.6 Early initiation of breastfeeding	Women with a live birth in the last 2 years
5.1 Adolescent birth rate	Women years of exposure to childbirth during ages 15-19 years
- Total fertility rate	Women years of exposure to childbirth during ages 15-49 years
5.2 Early childbearing	Women age 20-24 years
5.3 Contraceptive prevalence rate	Women age 15-49 years who are currently married or in union
5.4 Unmet need	Women age 15-49 years who are currently married or in union
5.5a Antenatal care coverage (1+ times, skilled provider)	Women age 15-49 years with a live birth in the last 2 years
5.5b Antenatal care coverage (4+ times, any provider)	Women age 15-49 years with a live birth in the last 2 years
5.7 Skilled attendant at delivery	Women age 15-49 years with a live birth in the last 2 years
5.9 Caesarean section	Women age 15-49 years with a live birth in the last 2 years
7.1 Literacy rate (young women)	Women age 15-24 years
8.5 Marriage before age 18	Women age 20-49 years
9.1 Knowledge about HIV prevention (young women)	Women age 15-24 years
10.3 Use of internet (young women)	Women age 15-24 years
Under-5s	
2.1a Underweight prevalence (moderate and severe)	Children under age 5 years
2.1b Underweight prevalence (severe)	Children under age 5 years
2.2a Stunting prevalence (moderate and severe)	Children under age 5 years
2.4 Overweight prevalence	Children under age 5 years
2.7 Exclusive breastfeeding under 6 months	Infants under 6 months of age
- Tuberculosis immunization coverage at any time before the survey	Children age 12-23 months ^c
- Polio immunization coverage at any time before the survey	Children age 12-23 months ^c
- Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	Children age 12-23 months ^c
- Hepatitis B immunization coverage at any time before the survey	Children age 12-23 months ^c
- Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	Children age 12-23 months ^c
- Measles immunization coverage at any time before the survey	Children age 24-35 months ^c
- Children fully vaccinated at any time before the survey	Children age 24-35 months ^c
6.1 Attendance to early childhood education	Children age 36-59 months
6.8 Early child development index	Children age 36-59 months

^a To calculate the weighted results of MICS Indicators 3.15, 4.1 and 4.3, the household weight is multiplied by the number of household members in each household.

Therefore the unweighted base populations presented in the SE tables reflect the unweighted number of households, whereas the weighted numbers reflect the household population.

^b Random selection of one child age 1-17 years per household is carried out during fieldwork for administering the child labour and/or child discipline modules. The child labour module is administered for children age 5-17 from among those randomly selected, while violent discipline module is administered for children age 1-14. To account for the random selection and calculate MICS Indicators 8.2 and 8.3, the household sample weight is multiplied by the total number of children in the age range in each household. Therefore the unweighted base population presented in the SE tables reflects the unweighted number of households with children in the age range, whereas the weighted numbers reflect the number of children in the age range.

^c Due to the way missing values are treated, the weighted count in the SE.2-SE.10 tables for immunization is different from the number in Table CH.1.

Table SE.2: Sampling errors: Total sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	29871	5861	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.8279	0.0164	0.020	11.117	3.334	29871	5861	0.795	0.861
Use of improved sanitation	4.3	7.9	0.9858	0.0044	0.004	8.132	2.852	29871	5861	0.977	0.995
School readiness (children attending first grade of primary)	7.2		0.4413	0.0229	0.052	1.362	1.167	649	641	0.395	0.487
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9808	0.0032	0.003	1.212	1.101	2300	2230	0.974	0.987
Secondary school net attendance ratio (adjusted)	7.5		0.9840	0.0022	0.002	1.124	1.060	3863	3692	0.980	0.988
Child labour	8.2		0.0031	0.0018	0.582	5.242	2.289	6611	2858	0.000	0.007
Violent discipline	8.3		0.3656	0.0135	0.037	4.679	2.163	8239	3449	0.339	0.393
Women											
Infant mortality rate	1.2	4.2	20.9419	2.7772	0.133	na	na	na	na	15.388	26.496
Under five mortality rate	1.5	4.1	26.8178	3.1278	0.117	na	na	na	na	20.562	33.073
Early initiation of breastfeeding	2.6		0.7339	0.0141	0.019	1.485	1.219	1476	1467	0.706	0.762
Adolescent birth rate	5.1	5.4	28.4492	3.2034	0.113	na	na	na	na	22.042	34.856
Total fertility rate	-		3.1713	0.0859	0.027	na	na	na	na	2.999	3.343
Early childbearing	5.2		0.0139	0.0030	0.218	0.939	0.969	1400	1401	0.008	0.020
Contraceptive prevalence rate	5.3	5.3	0.5021	0.0095	0.019	1.739	1.319	4887	4861	0.483	0.521
Unmet need	5.4	5.6	0.1212	0.0045	0.037	0.933	0.966	4887	4861	0.112	0.130
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	0.9990	0.0010	0.001	1.430	1.196	1476	1467	0.997	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9643	0.0086	0.009	3.118	1.766	1476	1467	0.947	0.981
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	1476	1467	1.000	1.000
Caesarean section	5.9		0.0626	0.0078	0.124	1.517	1.232	1476	1467	0.047	0.078
Literacy rate (young women)	7.1	2.3	0.9963	0.0025	0.002	4.243	2.060	2597	2566	0.991	1.000
Marriage before age 18	8.5		0.0594	0.0035	0.059	1.409	1.187	6421	6453	0.052	0.066
Knowledge about HIV prevention (young women)	9.1	6.3	0.2541	0.0116	0.046	1.830	1.353	2597	2566	0.231	0.277
Use of internet (young women)	10.3		0.3929	0.0153	0.039	2.503	1.582	2597	2566	0.362	0.423
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0317	0.0041	0.129	2.040	1.428	3718	3721	0.024	0.040
Underweight prevalence (severe)	2.1b	1.8	0.0074	0.0018	0.250	1.729	1.315	3718	3721	0.004	0.011
Stunting prevalence (moderate and severe)	2.2a		0.1146	0.0070	0.061	1.813	1.346	3713	3715	0.101	0.129
Overweight prevalence	2.4		0.0588	0.0044	0.075	1.317	1.148	3706	3708	0.050	0.068
Exclusive breastfeeding under 6 months	2.7		0.5890	0.0222	0.038	0.692	0.832	343	342	0.545	0.633
Tuberculosis immunization coverage at any time before the survey	-		0.9987	0.0013	0.001	1.028	1.014	778	787	0.996	1.000
Polio immunization coverage at any time before the survey	-		0.9885	0.0039	0.004	1.025	1.013	778	787	0.981	0.996
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		0.9896	0.0037	0.004	1.037	1.018	777	786	0.982	0.997
Hepatitis B immunization coverage at any time before the survey	-		0.9896	0.0037	0.004	1.034	1.017	778	787	0.982	0.997
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		0.9896	0.0037	0.004	1.037	1.018	777	786	0.982	0.997
Measles immunization coverage at any time before the survey	-		0.9977	0.0016	0.002	0.859	0.927	745	735	0.994	1.000
Children fully vaccinated at any time before the survey	-		0.9959	0.0024	0.002	1.058	1.028	744	734	0.991	1.000
Attendance to early childhood education	6.1		0.4285	0.0204	0.048	2.572	1.604	1518	1518	0.388	0.469
Early child development index	6.8		0.9086	0.0086	0.009	1.360	1.166	1518	1518	0.891	0.926

na: not applicable

Table SE.3: Sampling errors: Urban

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	11666	3183	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.9782	0.0054	0.006	4.341	2.084	11666	3183	0.967	0.989
Use of improved sanitation	4.3	7.9	0.9736	0.0096	0.010	11.357	3.370	11666	3183	0.954	0.993
School readiness (children attending first grade of primary)	7.2		0.7374	0.0263	0.036	1.089	1.044	243	307	0.685	0.790
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9787	0.0058	0.006	1.721	1.312	880	1070	0.967	0.990
Secondary school net attendance ratio (adjusted)	7.5		0.9885	0.0028	0.003	1.172	1.083	1458	1730	0.983	0.994
Child labour	8.2		0.0000	0.0000	0.000	na	na	3074	1428	0.000	0.000
Violent discipline	8.3		0.3910	0.0235	0.060	7.221	2.687	3785	1712	0.344	0.438
Women											
Infant mortality rate	1.2	4.2	16.7255	3.7426	0.2238	na	na	na	na	9.240	24.211
Under five mortality rate	1.5	4.1	21.5974	4.4387	0.2055	na	na	na	na	12.720	30.475
Early initiation of breastfeeding	2.6		0.7574	0.0199	0.026	1.371	1.171	529	640	0.718	0.797
Adolescent birth rate	5.1	5.4	34.5957	5.7254	0.165	na	na	na	na	23.145	46.047
Total fertility rate	-		2.9837	0.1315	0.044	na	na	na	na	2.721	3.247
Early childbearing	5.2		0.0193	0.0063	0.328	1.318	1.148	519	623	0.007	0.032
Contraceptive prevalence rate	5.3	5.3	0.5030	0.0131	0.026	1.523	1.234	1803	2224	0.477	0.529
Unmet need	5.4	5.6	0.1345	0.0074	0.055	1.034	1.017	1803	2224	0.120	0.149
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	1.0000	0.0000	0.000	na	na	529	640	1.000	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9867	0.0046	0.005	1.023	1.011	529	640	0.977	0.996
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	529	640	1.000	1.000
Caesarean section	5.9		0.0783	0.0132	0.169	1.544	1.242	529	640	0.052	0.105
Literacy rate (young women)	7.1	2.3	0.9977	0.0023	0.002	2.597	1.611	951	1146	0.993	1.000
Marriage before age 18	8.5		0.0610	0.0049	0.080	1.299	1.140	2574	3145	0.051	0.071
Knowledge about HIV prevention (young women)	9.1	6.3	0.2771	0.0195	0.070	2.176	1.475	951	1146	0.238	0.316
Use of internet (young women)	10.3		0.5755	0.0216	0.038	2.188	1.479	951	1146	0.532	0.619
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0408	0.0086	0.211	3.033	1.742	1292	1602	0.024	0.058
Underweight prevalence (severe)	2.1b	1.8	0.0117	0.0043	0.365	2.533	1.592	1292	1602	0.003	0.020
Stunting prevalence (moderate and severe)	2.2a		0.1218	0.0139	0.114	2.902	1.703	1288	1597	0.094	0.150
Overweight prevalence	2.4		0.0612	0.0080	0.131	1.792	1.339	1285	1593	0.045	0.077
Exclusive breastfeeding under 6 months	2.7		0.5467	0.0357	0.065	0.802	0.896	131	157	0.475	0.618
Tuberculosis immunization coverage at any time before the survey	-		0.9963	0.0037	0.004	1.274	1.129	276	343	0.989	1.000
Polio immunization coverage at any time before the survey	-		0.9724	0.0098	0.010	1.225	1.107	276	343	0.953	0.992
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		0.9705	0.0104	0.011	1.286	1.134	275	342	0.950	0.991
Hepatitis B immunization coverage at any time before the survey	-		0.9706	0.0103	0.011	1.274	1.129	276	343	0.950	0.991
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		0.9705	0.0104	0.011	1.286	1.134	275	342	0.950	0.991
Measles immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	275	322	1.000	1.000
Children fully vaccinated at any time before the survey	-		0.9951	0.0048	0.005	1.539	1.240	274	321	0.985	1.000
Attendance to early childhood education	6.1		0.6976	0.0296	0.042	2.710	1.646	518	655	0.638	0.757
Early child development index	6.8		0.9159	0.0131	0.014	1.467	1.211	518	655	0.890	0.942

na: not applicable

Table SE.4: Sampling errors: Rural

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	18206	2678	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.7316	0.0261	0.036	9.317	3.052	18206	2678	0.679	0.784
Use of improved sanitation	4.3	7.9	0.9936	0.0039	0.004	6.427	2.535	18206	2678	0.986	1.000
School readiness (children attending first grade of primary)	7.2		0.2635	0.0328	0.125	1.849	1.360	405	334	0.198	0.329
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9821	0.0037	0.004	0.918	0.958	1420	1160	0.975	0.990
Secondary school net attendance ratio (adjusted)	7.5		0.9812	0.0031	0.003	1.021	1.011	2404	1962	0.975	0.987
Child labour	8.2		0.0049	0.0028	0.580	3.960	1.990	3551	1430	0.000	0.011
Violent discipline	8.3		0.3508	0.0165	0.047	3.405	1.845	4457	1737	0.318	0.384
Women											
Infant mortality rate	1.2	4.2	23.1898	3.7554	0.162	na	na	na	na	15.679	30.701
Under five mortality rate	1.5	4.1	29.5949	4.1709	0.141	na	na	na	na	21.253	37.937
Early initiation of breastfeeding	2.6		0.7208	0.0189	0.026	1.461	1.209	947	827	0.683	0.759
Adolescent birth rate	5.1	5.4	25.0101	3.7901	0.152	na	na	na	na	17.430	32.590
Total fertility rate	-		3.2789	0.1120	0.034	na	na	na	na	3.055	3.503
Early childbearing	5.2		0.0107	0.0031	0.284	0.681	0.825	881	778	0.005	0.017
Contraceptive prevalence rate	5.3	5.3	0.5015	0.0129	0.026	1.749	1.323	3084	2637	0.476	0.527
Unmet need	5.4	5.6	0.1135	0.0058	0.051	0.871	0.933	3084	2637	0.102	0.125
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	0.9985	0.0015	0.002	1.253	1.119	947	827	0.995	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9518	0.0130	0.014	3.021	1.738	947	827	0.926	0.978
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	947	827	1.000	1.000
Caesarean section	5.9		0.0538	0.0097	0.180	1.520	1.233	947	827	0.034	0.073
Literacy rate (young women)	7.1	2.3	0.9955	0.0037	0.004	4.274	2.067	1646	1420	0.988	1.000
Marriage before age 18	8.5		0.0583	0.0048	0.083	1.408	1.187	3847	3308	0.049	0.068
Knowledge about HIV prevention (young women)	9.1	6.3	0.2409	0.0145	0.060	1.632	1.277	1646	1420	0.212	0.270
Use of internet (young women)	10.3		0.2874	0.0196	0.068	2.669	1.634	1646	1420	0.248	0.327
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0269	0.0042	0.157	1.434	1.198	2426	2119	0.018	0.035
Underweight prevalence (severe)	2.1b	1.8	0.0051	0.0017	0.329	1.174	1.084	2426	2119	0.002	0.008
Stunting prevalence (moderate and severe)	2.2a		0.1108	0.0078	0.070	1.303	1.141	2425	2118	0.095	0.126
Overweight prevalence	2.4		0.0576	0.0053	0.092	1.088	1.043	2421	2115	0.047	0.068
Exclusive breastfeeding under 6 months	2.7		0.6153	0.0290	0.047	0.654	0.808	212	185	0.557	0.673
Tuberculosis immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	502	444	1.000	1.000
Polio immunization coverage at any time before the survey	-		0.9973	0.0027	0.003	1.196	1.094	502	444	0.992	1.000
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	502	444	1.000	1.000
Hepatitis B immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	502	444	1.000	1.000
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	502	444	1.000	1.000
Measles immunization coverage at any time before the survey	-		0.9964	0.0026	0.003	0.767	0.876	470	413	0.991	1.000
Children fully vaccinated at any time before the survey	-		0.9964	0.0026	0.003	0.767	0.876	470	413	0.991	1.000
Attendance to early childhood education	6.1		0.2890	0.0254	0.088	2.706	1.645	1000	863	0.238	0.340
Early child development index	6.8		0.9048	0.0112	0.012	1.252	1.119	1000	863	0.882	0.927

na: not applicable

Table SE.5: Sampling errors: Ashgabat city

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deff), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	Value (r)	Standard error (se)	Coefficient of variation (se/r)	Design effect (deff)	Square root of design effect (deff)	Weighted count	Unweighted count	Confidence limits	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	3613	990	0.000	0.000
Use of improved drinking water sources	4.1	7.8	1.0000	0.0000	0.000	na	na	3613	990	1.000	1.000
Use of improved sanitation	4.3	7.9	0.9901	0.0045	0.005	2.094	1.447	3613	990	0.981	0.999
School readiness (children attending first grade of primary)	7.2		0.8099	0.0385	0.048	0.675	0.822	62	71	0.733	0.887
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9722	0.0111	0.011	1.313	1.146	258	288	0.950	0.994
Secondary school net attendance ratio (adjusted)	7.5		0.9959	0.0029	0.003	1.007	1.003	447	494	0.990	1.000
Child labour	8.2		0.0000	0.0000	0.000	na	na	832	409	0.000	0.000
Violent discipline	8.3		0.4135	0.0287	0.069	3.243	1.801	1070	505	0.356	0.471
Women											
Infant mortality rate	1.2	4.2	(25.3655)	(9.1579)	(0.361)	na	na	na	na	(7.050)	(43.681)
Under five mortality rate	1.5	4.1	(31.4810)	(10.1459)	(0.322)	na	na	na	na	(11.189)	(51.773)
Early initiation of breastfeeding	2.6		0.7960	0.0276	0.035	0.849	0.921	160	182	0.741	0.851
Adolescent birth rate	5.1	5.4	37.4584	11.0453	0.295	na	na	na	na	15.368	59.549
Total fertility rate	-		(2.7970)	(0.2177)	(0.078)	na	na	na	na	(2.362)	(3.232)
Early childbearing	5.2		0.0045	0.0045	0.995	0.794	0.891	163	179	0.000	0.013
Contraceptive prevalence rate	5.3	5.3	0.4935	0.0232	0.047	1.360	1.166	564	632	0.447	0.540
Unmet need	5.4	5.6	0.1525	0.0169	0.111	1.396	1.181	564	632	0.119	0.186
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	1.0000	0.0000	0.000	na	na	160	182	1.000	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	1.0000	0.0000	0.000	na	na	160	182	1.000	1.000
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	160	182	1.000	1.000
Caesarean section	5.9		0.0979	0.0238	0.243	1.161	1.077	160	182	0.050	0.145
Literacy rate (young women)	7.1	2.3	0.9928	0.0069	0.007	2.265	1.505	307	339	0.979	1.000
Marriage before age 18	8.5		0.0461	0.0059	0.128	0.727	0.853	831	926	0.034	0.058
Knowledge about HIV prevention (young women)	9.1	6.3	0.2112	0.0306	0.145	1.895	1.376	307	339	0.150	0.272
Use of internet (young women)	10.3		0.5894	0.0345	0.059	1.667	1.291	307	339	0.520	0.658
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0238	0.0062	0.260	0.677	0.823	364	412	0.011	0.036
Underweight prevalence (severe)	2.1b	1.8	0.0047	0.0033	0.702	0.947	0.973	364	412	0.000	0.011
Stunting prevalence (moderate and severe)	2.2a		0.0702	0.0142	0.202	1.259	1.122	362	410	0.042	0.099
Overweight prevalence	2.4		0.0503	0.0113	0.224	1.086	1.042	361	409	0.028	0.073
Exclusive breastfeeding under 6 months	2.7		0.4130	0.0219	0.053	0.077	0.278	34	40	0.369	0.457
Tuberculosis immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	81	93	1.000	1.000
Polio immunization coverage at any time before the survey	-		0.9310	0.0288	0.031	1.188	1.090	81	93	0.873	0.989
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		0.9249	0.0291	0.031	1.120	1.058	81	93	0.867	0.983
Hepatitis B immunization coverage at any time before the survey	-		0.9249	0.0291	0.031	1.120	1.058	81	93	0.867	0.983
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		0.9249	0.0291	0.031	1.120	1.058	81	93	0.867	0.983
Measles immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	78	87	1.000	1.000
Children fully vaccinated at any time before the survey	-		0.9829	0.0163	0.017	1.365	1.169	78	87	0.950	1.000
Attendance to early childhood education	6.1		0.7093	0.0528	0.074	2.188	1.479	148	163	0.604	0.815
Early child development index	6.8		0.8964	0.0231	0.026	0.933	0.966	148	163	0.850	0.943

na: not applicable

() For mortality rates, figures that are based on 250-499 unweighted cases of children exposed; for the total fertility rate, figures that are based on 125-249 unweighted person-years of exposure.

Table SE.6: Sampling errors: Ahal velayat

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	3967	899	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.6205	0.0423	0.068	6.835	2.614	3967	899	0.536	0.705
Use of improved sanitation	4.3	7.9	0.9981	0.0014	0.001	0.900	0.949	3967	899	0.995	1.000
School readiness (children attending first grade of primary)	7.2		0.3860	0.0494	0.128	1.409	1.187	104	138	0.287	0.485
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9848	0.0056	0.006	0.869	0.932	319	422	0.974	0.996
Secondary school net attendance ratio (adjusted)	7.5		0.9960	0.0028	0.003	1.200	1.095	470	626	0.991	1.000
Child labour	8.2		0.0000	0.0000	0.000	na	na	1219	484	0.000	0.000
Violent discipline	8.3		0.3578	0.0291	0.081	3.591	1.895	1571	602	0.300	0.416
Women											
Infant mortality rate	1.2	4.2	21.8460	4.7301	0.217	na	na	na	na	12.386	31.306
Under five mortality rate	1.5	4.1	30.0578	6.3951	0.213	na	na	na	na	17.268	42.848
Early initiation of breastfeeding	2.6		0.4705	0.0253	0.054	0.808	0.899	226	316	0.420	0.521
Adolescent birth rate	5.1	5.4	46.3894	9.7017	0.209	na	na	na	na	26.986	65.793
Total fertility rate	-		3.5200	0.1892	0.054	na	na	na	na	3.142	3.898
Early childbearing	5.2		0.0293	0.0074	0.252	0.600	0.775	226	315	0.015	0.044
Contraceptive prevalence rate	5.3	5.3	0.5821	0.0225	0.039	1.999	1.414	691	963	0.537	0.627
Unmet need	5.4	5.6	0.0688	0.0072	0.104	0.771	0.878	691	963	0.054	0.083
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	1.0000	0.0000	0.000	na	na	226	316	1.000	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	1.0000	0.0000	0.000	na	na	226	316	1.000	1.000
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	226	316	1.000	1.000
Caesarean section	5.9		0.0563	0.0096	0.171	0.552	0.743	226	316	0.037	0.076
Literacy rate (young women)	7.1	2.3	1.0000	0.0000	0.000	na	na	359	497	1.000	1.000
Marriage before age 18	8.5		0.0578	0.0070	0.122	1.106	1.052	874	1219	0.044	0.072
Knowledge about HIV prevention (young women)	9.1	6.3	0.2657	0.0249	0.094	1.572	1.254	359	497	0.216	0.315
Use of internet (young women)	10.3		0.1686	0.0218	0.130	1.689	1.300	359	497	0.125	0.212
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0163	0.0062	0.381	1.951	1.397	576	813	0.004	0.029
Underweight prevalence (severe)	2.1b	1.8	0.0048	0.0024	0.501	0.979	0.989	576	813	0.000	0.010
Stunting prevalence (moderate and severe)	2.2a		0.0820	0.0152	0.186	2.493	1.579	575	812	0.052	0.112
Overweight prevalence	2.4		0.1436	0.0177	0.123	2.064	1.437	574	809	0.108	0.179
Exclusive breastfeeding under 6 months	2.7		0.5779	0.0501	0.087	0.884	0.940	61	87	0.478	0.678
Tuberculosis immunization coverage at any time before the survey	-		0.9908	0.0093	0.009	1.473	1.214	110	155	0.972	1.000
Polio immunization coverage at any time before the survey	-		0.9908	0.0093	0.009	1.473	1.214	110	155	0.972	1.000
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		0.9908	0.0093	0.009	1.473	1.214	110	155	0.972	1.000
Hepatitis B immunization coverage at any time before the survey	-		0.9908	0.0093	0.009	1.473	1.214	110	155	0.972	1.000
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		0.9908	0.0093	0.009	1.473	1.214	110	155	0.972	1.000
Measles immunization coverage at any time before the survey	-		0.9943	0.0058	0.006	0.981	0.991	120	165	0.983	1.000
Children fully vaccinated at any time before the survey	-		0.9943	0.0058	0.006	0.981	0.991	120	165	0.983	1.000
Attendance to early childhood education	6.1		0.3716	0.0462	0.124	2.914	1.707	223	320	0.279	0.464
Early child development index	6.8		0.9667	0.0092	0.010	0.839	0.916	223	320	0.948	0.985

na: not applicable

Table SE.7: Sampling errors: Balkan velayat

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	2013	1224	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.7398	0.0355	0.048	8.020	2.832	2013	1224	0.669	0.811
Use of improved sanitation	4.3	7.9	1.0000	0.0000	0.000	na	na	2013	1224	1.000	1.000
School readiness (children attending first grade of primary)	7.2		0.7605	0.0347	0.046	0.736	0.858	45	112	0.691	0.830
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9847	0.0059	0.006	0.890	0.943	152	386	0.973	0.996
Secondary school net attendance ratio (adjusted)	7.5		0.9893	0.0045	0.005	1.243	1.115	265	648	0.980	0.998
Child labour	8.2		0.0000	0.0000	0.000	na	na	1098	533	0.000	0.000
Violent discipline	8.3		0.3956	0.0366	0.093	6.518	2.553	1292	612	0.322	0.469
Women											
Infant mortality rate	1.2	4.2	15.5076	5.8280	0.376	na	na	na	na	3.852	27.164
Under five mortality rate	1.5	4.1	(15.5076)	(5.8280)	(0.376)	na	na	na	na	(3.852)	(27.164)
Early initiation of breastfeeding	2.6		0.7748	0.0402	0.052	1.801	1.342	75	195	0.694	0.855
Adolescent birth rate	5.1	5.4	9.9540	5.1938	0.522	na	na	na	na	0.000	20.342
Total fertility rate	-		2.6951	0.1500	0.056	na	na	na	na	2.395	2.995
Early childbearing	5.2		0.0104	0.0073	0.703	1.010	1.005	75	196	0.000	0.025
Contraceptive prevalence rate	5.3	5.3	0.4698	0.0223	0.047	1.505	1.227	289	755	0.425	0.514
Unmet need	5.4	5.6	0.1667	0.0122	0.073	0.811	0.901	289	755	0.142	0.191
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	1.0000	0.0000	0.000	na	na	75	195	1.000	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9831	0.0121	0.012	1.710	1.308	75	195	0.959	1.000
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	75	195	1.000	1.000
Caesarean section	5.9		0.0614	0.0167	0.272	0.938	0.968	75	195	0.028	0.095
Literacy rate (young women)	7.1	2.3	1.0000	0.0000	0.000	na	na	150	389	1.000	1.000
Marriage before age 18	8.5		0.0558	0.0072	0.129	1.038	1.019	407	1058	0.041	0.070
Knowledge about HIV prevention (young women)	9.1	6.3	0.1404	0.0155	0.110	0.773	0.879	150	389	0.109	0.171
Use of internet (young women)	10.3		0.5955	0.0380	0.064	2.330	1.527	150	389	0.519	0.672
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0366	0.0094	0.257	1.269	1.126	194	507	0.018	0.055
Underweight prevalence (severe)	2.1b	1.8	0.0000	0.0000	0.000	na	na	194	507	0.000	0.000
Stunting prevalence (moderate and severe)	2.2a		0.1292	0.0178	0.138	1.422	1.193	193	506	0.094	0.165
Overweight prevalence	2.4		0.0221	0.0096	0.435	2.155	1.468	193	506	0.003	0.041
Exclusive breastfeeding under 6 months	2.7		(0.7563)	(0.0373)	(0.049)	(0.249)	(0.499)	14	34	(0.682)	(0.831)
Tuberculosis immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	46	120	1.000	1.000
Polio immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	46	120	1.000	1.000
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	46	120	1.000	1.000
Hepatitis B immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	46	120	1.000	1.000
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	46	120	1.000	1.000
Measles immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	35	93	1.000	1.000
Children fully vaccinated at any time before the survey	-		1.0000	0.0000	0.000	na	na	35	93	1.000	1.000
Attendance to early childhood education	6.1		0.7538	0.0255	0.034	0.757	0.870	83	218	0.703	0.805
Early child development index	6.8		0.8960	0.0254	0.028	1.502	1.225	83	218	0.845	0.947

na: not applicable

() Figures that are based on 25–49 unweighted cases; for the under-five mortality rate, figures that are based on 250-499 unweighted cases of children exposed.

Table SE.8: Sampling errors: Dashoguz velayat

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	7058	873	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.9924	0.0044	0.004	2.184	1.478	7058	873	0.984	1.000
Use of improved sanitation	4.3	7.9	0.9798	0.0122	0.012	6.535	2.556	7058	873	0.955	1.000
School readiness (children attending first grade of primary)	7.2		0.2111	0.0441	0.209	1.260	1.122	154	109	0.123	0.299
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9951	0.0035	0.004	0.974	0.987	556	388	0.988	1.000
Secondary school net attendance ratio (adjusted)	7.5		0.9917	0.0039	0.004	1.220	1.105	956	672	0.984	0.999
Child labour	8.2		0.0017	0.0017	0.998	1.264	1.124	1150	459	0.000	0.005
Violent discipline	8.3		0.1750	0.0249	0.142	3.838	1.959	1440	551	0.125	0.225
Women											
Infant mortality rate	1.2	4.2	20.6603	6.1187	0.296	na	na	na	na	8.423	32.898
Under five mortality rate	1.5	4.1	(24.7245)	(6.7191)	(0.272)	na	na	na	na	(11.286)	(38.163)
Early initiation of breastfeeding	2.6		0.6661	0.0308	0.046	1.210	1.100	395	285	0.605	0.728
Adolescent birth rate	5.1	5.4	22.5131	5.6181	0.250	na	na	na	na	11.277	33.749
Total fertility rate	-		3.6615	0.1873	0.051	na	na	na	na	3.287	4.036
Early childbearing	5.2		0.0000	0.0000	0.000	na	na	288	211	0.000	0.000
Contraceptive prevalence rate	5.3	5.3	0.3947	0.0209	0.053	1.509	1.229	1136	827	0.353	0.437
Unmet need	5.4	5.6	0.1391	0.0102	0.074	0.721	0.849	1136	827	0.119	0.160
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	1.0000	0.0000	0.000	na	na	395	285	1.000	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9545	0.0144	0.015	1.362	1.167	395	285	0.926	0.983
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	395	285	1.000	1.000
Caesarean section	5.9		0.0503	0.0122	0.243	0.888	0.943	395	285	0.026	0.075
Literacy rate (young women)	7.1	2.3	1.0000	0.0000	0.000	na	na	598	435	1.000	1.000
Marriage before age 18	8.5		0.0636	0.0072	0.113	0.936	0.967	1470	1075	0.049	0.078
Knowledge about HIV prevention (young women)	9.1	6.3	0.2755	0.0237	0.086	1.219	1.104	598	435	0.228	0.323
Use of internet (young women)	10.3		0.3565	0.0346	0.097	2.259	1.503	598	435	0.287	0.426
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0317	0.0093	0.292	1.910	1.382	936	685	0.013	0.050
Underweight prevalence (severe)	2.1b	1.8	0.0046	0.0026	0.563	1.008	1.004	936	685	0.000	0.010
Stunting prevalence (moderate and severe)	2.2a		0.1551	0.0106	0.068	0.582	0.763	936	685	0.134	0.176
Overweight prevalence	2.4		0.0479	0.0067	0.140	0.674	0.821	930	681	0.034	0.061
Exclusive breastfeeding under 6 months	2.7		0.5691	0.0501	0.088	0.769	0.877	106	76	0.469	0.669
Tuberculosis immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	211	155	1.000	1.000
Polio immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	211	155	1.000	1.000
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	211	155	1.000	1.000
Hepatitis B immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	211	155	1.000	1.000
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	211	155	1.000	1.000
Measles immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	178	132	1.000	1.000
Children fully vaccinated at any time before the survey	-		1.0000	0.0000	0.000	na	na	178	132	1.000	1.000
Attendance to early childhood education	6.1		0.2578	0.0408	0.158	2.274	1.508	356	262	0.176	0.339
Early child development index	6.8		0.8689	0.0206	0.024	0.971	0.985	356	262	0.828	0.910

na: not applicable

() For the under-five mortality rate, figures that are based on 250-499 unweighted cases of children exposed

Table SE.9: Sampling errors: Lebap velayat

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	5799	940	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.9540	0.0046	0.005	0.458	0.677	5799	940	0.945	0.963
Use of improved sanitation	4.3	7.9	0.9804	0.0071	0.007	2.442	1.563	5799	940	0.966	0.995
School readiness (children attending first grade of primary)	7.2		0.5333	0.0564	0.106	1.458	1.207	130	115	0.420	0.646
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9926	0.0042	0.004	0.975	0.987	464	405	0.984	1.000
Secondary school net attendance ratio (adjusted)	7.5		0.9763	0.0061	0.006	1.038	1.019	738	646	0.964	0.989
Child labour	8.2		0.0139	0.0089	0.640	4.852	2.203	1159	487	0.000	0.032
Violent discipline	8.3		0.4341	0.0300	0.069	3.739	1.934	1509	610	0.374	0.494
Women											
Infant mortality rate	1.2	4.2	16.2947	5.0933	0.313	na	na	na	na	6.108	26.481
Under five mortality rate	1.5	4.1	23.6948	6.0273	0.254	na	na	na	na	11.640	35.749
Early initiation of breastfeeding	2.6		0.8788	0.0303	0.034	2.337	1.529	300	272	0.818	0.939
Adolescent birth rate	5.1	5.4	34.8228	8.1217	0.233	na	na	na	na	18.579	51.066
Total fertility rate	-		3.1192	0.1871	0.060	na	na	na	na	2.745	3.493
Early childbearing	5.2		0.0285	0.0102	0.359	0.973	0.987	286	258	0.008	0.049
Contraceptive prevalence rate	5.3	5.3	0.5298	0.0228	0.043	1.793	1.339	953	858	0.484	0.575
Unmet need	5.4	5.6	0.1173	0.0100	0.085	0.824	0.908	953	858	0.097	0.137
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	1.0000	0.0000	0.000	na	na	300	272	1.000	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9864	0.0071	0.007	1.017	1.008	300	272	0.972	1.000
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	300	272	1.000	1.000
Caesarean section	5.9		0.0561	0.0162	0.289	1.342	1.159	300	272	0.024	0.089
Literacy rate (young women)	7.1	2.3	1.0000	0.0000	0.000	na	na	506	457	1.000	1.000
Marriage before age 18	8.5		0.0966	0.0112	0.116	1.594	1.263	1235	1118	0.074	0.119
Knowledge about HIV prevention (young women)	9.1	6.3	0.2346	0.0288	0.123	2.103	1.450	506	457	0.177	0.292
Use of internet (young women)	10.3		0.4125	0.0254	0.062	1.216	1.103	506	457	0.362	0.463
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0369	0.0095	0.258	1.817	1.348	772	712	0.018	0.056
Underweight prevalence (severe)	2.1b	1.8	0.0175	0.0070	0.398	2.007	1.417	772	712	0.004	0.031
Stunting prevalence (moderate and severe)	2.2a		0.1280	0.0218	0.170	3.029	1.741	771	711	0.084	0.172
Overweight prevalence	2.4		0.0509	0.0080	0.157	0.940	0.969	771	711	0.035	0.067
Exclusive breastfeeding under 6 months	2.7		0.6344	0.0492	0.077	0.657	0.810	66	64	0.536	0.733
Tuberculosis immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	160	147	1.000	1.000
Polio immunization coverage at any time before the survey	-		0.9934	0.0065	0.007	0.959	0.979	160	147	0.980	1.000
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		0.9934	0.0066	0.007	0.971	0.985	159	146	0.980	1.000
Hepatitis B immunization coverage at any time before the survey	-		0.9934	0.0065	0.007	0.959	0.979	160	147	0.980	1.000
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		0.9934	0.0066	0.007	0.971	0.985	159	146	0.980	1.000
Measles immunization coverage at any time before the survey	-		0.9933	0.0066	0.007	0.893	0.945	148	136	0.980	1.000
Children fully vaccinated at any time before the survey	-		0.9933	0.0067	0.007	0.893	0.945	147	135	0.980	1.000
Attendance to early childhood education	6.1		0.5142	0.0364	0.071	1.571	1.253	324	298	0.441	0.587
Early child development index	6.8		0.9320	0.0159	0.017	1.193	1.092	324	298	0.900	0.964

na: not applicable

Table SE.10: Sampling errors: Mary velayat

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft), and confidence intervals for selected indicators, Turkmenistan, 2015-2016

	MICS Indicator	MDG Indicator	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	
										Lower bound r - 2se	Upper bound r + 2se
Household											
Use of solid fuels for cooking	3.15		0.0000	0.0000	0.000	na	na	7421	935	0.000	0.000
Use of improved drinking water sources	4.1	7.8	0.6238	0.0576	0.092	13.189	3.632	7421	935	0.509	0.739
Use of improved sanitation	4.3	7.9	0.9831	0.0120	0.012	8.039	2.835	7421	935	0.959	1.000
School readiness (children attending first grade of primary)	7.2		0.3912	0.0574	0.147	1.316	1.147	155	96	0.276	0.506
Primary school net attendance ratio (adjusted)	7.4	2.1	0.9571	0.0096	0.010	0.760	0.872	549	341	0.938	0.976
Secondary school net attendance ratio (adjusted)	7.5		0.9695	0.0061	0.006	0.762	0.873	986	606	0.957	0.982
Child labour	8.2		0.0000	0.0000	0.000	na	na	1137	486	0.000	0.000
Violent discipline	8.3		0.4686	0.0339	0.072	4.566	2.137	1341	569	0.401	0.537
Women											
Infant mortality rate	1.2	4.2	23.8338	7.2897	0.306	na	na	na	na	9.254	38.413
Under five mortality rate	1.5	4.1	(29.9800)	(7.9225)	(0.264)	na	na	na	na	(14.135)	(45.825)
Early initiation of breastfeeding	2.6		0.8274	0.0306	0.037	1.415	1.190	320	217	0.766	0.889
Adolescent birth rate	5.1	5.4	21.3271	5.9557	0.279	na	na	na	na	9.416	33.239
Total fertility rate	-		2.8343	0.1816	0.064	na	na	na	na	2.471	3.198
Early childbearing	5.2		0.0089	0.0062	0.702	1.067	1.033	362	242	0.000	0.021
Contraceptive prevalence rate	5.3	5.3	0.5454	0.0200	0.037	1.331	1.154	1254	826	0.505	0.585
Unmet need	5.4	5.6	0.1125	0.0088	0.078	0.639	0.799	1254	826	0.095	0.130
Antenatal care coverage (1+ times, skilled provider)	5.5a	5.5	0.9955	0.0045	0.004	0.957	0.978	320	217	0.987	1.000
Antenatal care coverage (4+ times, any provider)	5.5b	5.5	0.9081	0.0334	0.037	2.879	1.697	320	217	0.841	0.975
Skilled attendant at delivery	5.7	5.2	1.0000	0.0000	0.000	na	na	320	217	1.000	1.000
Caesarean section	5.9		0.0709	0.0254	0.358	2.110	1.453	320	217	0.020	0.122
Literacy rate (young women)	7.1	2.3	0.9891	0.0090	0.009	3.362	1.834	677	449	0.971	1.000
Marriage before age 18	8.5		0.0356	0.0071	0.199	1.538	1.240	1604	1057	0.021	0.050
Knowledge about HIV prevention (young women)	9.1	6.3	0.2884	0.0265	0.092	1.537	1.240	677	449	0.235	0.341
Use of internet (young women)	10.3		0.3953	0.0385	0.097	2.775	1.666	677	449	0.318	0.472
Under-5s											
Underweight prevalence (moderate and severe)	2.1a	1.8	0.0395	0.0104	0.263	1.685	1.298	877	592	0.019	0.060
Underweight prevalence (severe)	2.1b	1.8	0.0060	0.0034	0.575	1.171	1.082	877	592	0.000	0.013
Stunting prevalence (moderate and severe)	2.2a		0.0961	0.0163	0.170	1.810	1.345	876	591	0.063	0.129
Overweight prevalence	2.4		0.0336	0.0100	0.298	1.823	1.350	877	592	0.014	0.054
Exclusive breastfeeding under 6 months	2.7		(0.6442)	(0.0501)	(0.078)	(0.437)	(0.661)	63	41	(0.544)	(0.744)
Tuberculosis immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	171	117	1.000	1.000
Polio immunization coverage at any time before the survey	-		0.9921	0.0079	0.008	0.924	0.961	171	117	0.976	1.000
Diphtheria, pertussis and tetanus (DPT) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	171	117	1.000	1.000
Hepatitis B immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	171	117	1.000	1.000
Haemophilus influenzae type B (Hib) immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	171	117	1.000	1.000
Measles immunization coverage at any time before the survey	-		1.0000	0.0000	0.000	na	na	184	122	1.000	1.000
Children fully vaccinated at any time before the survey	-		1.0000	0.0000	0.000	na	na	184	122	1.000	1.000
Attendance to early childhood education	6.1		0.3688	0.0517	0.140	2.942	1.715	383	257	0.265	0.472
Early child development index	6.8		0.8994	0.0213	0.024	1.284	1.133	383	257	0.857	0.942

na: not applicable

() Figures that are based on 25–49 unweighted cases; for the under-five mortality rate, figures that are based on 250-499 unweighted cases of children exposed.

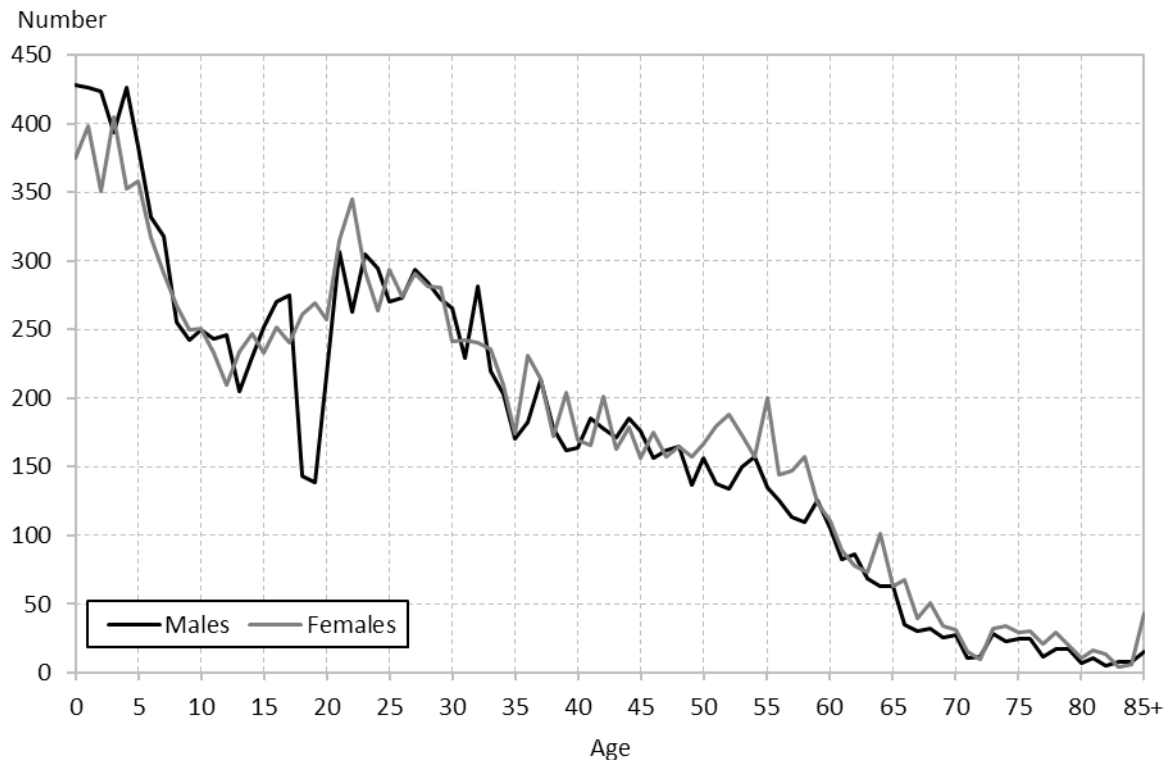
Appendix D. Data Quality Tables

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex, Turkmenistan, 2015-2016

	Males		Females		Age	Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
Age					Age				
0	428	2.9	375	2.5	45	176	1.2	156	1.0
1	426	2.9	398	2.6	46	156	1.1	175	1.2
2	424	2.9	351	2.3	47	162	1.1	157	1.0
3	394	2.7	405	2.7	48	165	1.1	165	1.1
4	426	2.9	353	2.3	49	137	0.9	157	1.0
5	383	2.6	358	2.3	50	156	1.1	167	1.1
6	332	2.3	317	2.1	51	138	0.9	180	1.2
7	318	2.2	291	1.9	52	134	0.9	188	1.2
8	255	1.7	268	1.8	53	150	1.0	173	1.1
9	242	1.7	250	1.6	54	157	1.1	157	1.0
10	250	1.7	251	1.6	55	135	0.9	200	1.3
11	243	1.7	233	1.5	56	126	0.9	144	0.9
12	246	1.7	210	1.4	57	113	0.8	147	1.0
13	205	1.4	234	1.5	58	110	0.8	157	1.0
14	230	1.6	247	1.6	59	126	0.9	124	0.8
15	252	1.7	233	1.5	60	105	0.7	111	0.7
16	270	1.8	252	1.7	61	83	0.6	89	0.6
17	275	1.9	240	1.6	62	86	0.6	78	0.5
18	143	1.0	261	1.7	63	69	0.5	73	0.5
19	139	0.9	269	1.8	64	63	0.4	101	0.7
20	217	1.5	257	1.7	65	63	0.4	63	0.4
21	307	2.1	315	2.1	66	35	0.2	68	0.4
22	263	1.8	345	2.3	67	30	0.2	40	0.3
23	305	2.1	293	1.9	68	32	0.2	51	0.3
24	295	2.0	264	1.7	69	26	0.2	34	0.2
25	270	1.8	294	1.9	70	27	0.2	31	0.2
26	273	1.9	274	1.8	71	11	0.1	15	0.1
27	294	2.0	291	1.9	72	12	0.1	10	0.1
28	284	1.9	282	1.9	73	28	0.2	32	0.2
29	272	1.9	281	1.8	74	23	0.2	34	0.2
30	266	1.8	241	1.6	75	25	0.2	29	0.2
31	229	1.6	242	1.6	76	25	0.2	30	0.2
32	282	1.9	240	1.6	77	12	0.1	21	0.1
33	220	1.5	236	1.6	78	17	0.1	29	0.2
34	203	1.4	210	1.4	79	17	0.1	20	0.1
35	170	1.2	174	1.1	80	7	0.0	11	0.1
36	183	1.3	231	1.5	81	11	0.1	16	0.1
37	213	1.5	214	1.4	82	5	0.0	13	0.1
38	178	1.2	172	1.1	83	8	0.1	4	0.0
39	162	1.1	204	1.3	84	8	0.1	6	0.0
40	164	1.1	169	1.1	85+	15	0.1	43	0.3
41	185	1.3	166	1.1					
42	178	1.2	201	1.3	DK/Missing	1	0.0	2	0.0
43	171	1.2	163	1.1					
44	185	1.3	179	1.2	Total	14635	100.0	15237	100.0

Figure DQ.1: Household population by single ages, Turkmenistan, 2015-2016



Note: The figure excludes 3 household members with unknown age

Table DQ.2: Age distribution of eligible and interviewed women

Household population of women age 10-54 years, interviewed women age 15-49 years, and percentage of eligible women who were interviewed, by five-year age groups, Turkmenistan, 2015-2016

Age	Household population of women age 10-54 years	Interviewed women age 15-49 years		Percentage of eligible women interviewed (Completion rate)
	Number	Number	Percent	
10-14	1173	na	na	na
15-19	1256	1246	15.7	99.2
20-24	1475	1458	18.4	98.9
25-29	1422	1407	17.7	98.9
30-34	1170	1162	14.7	99.3
35-39	995	985	12.4	99.0
40-44	879	868	10.9	98.7
45-49	811	804	10.1	99.2
50-54	865	na	na	na
Total (15-49)	8008	7930	100.0	99.0
Ratio of 50-54 to 45-49	1.07	na	na	na

na: not applicable

Table DQ.3: Age distribution of children in household and under-5 questionnaires

Household population of children age 0-7 years, children age 0-4 years whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed, by single years of age, Turkmenistan, 2015-2016

	Household population of children 0-7 years	Under-5s with completed interviews		Percentage of eligible under-5s with completed interviews (Completion rate)
	Number	Number	Percent	
Age				
0	803	798	20.1	99.4
1	824	819	20.7	99.4
2	775	773	19.5	99.8
3	798	794	20.0	99.4
4	779	777	19.6	99.8
5	741	na	na	na
6	649	na	na	na
7	609	na	na	na
Total (0-4)	3979	3961	100.0	99.6
Ratio of 5 to 4	0.95	na	na	na
na: not applicable				

Table DQ.4: Birth date reporting: Household population

Percent distribution of household population by completeness of date of birth information, Turkmenistan, 2015-2016

	Completeness of reporting of month and year of birth				Total	Number of household members
	Year and month of birth	Year of birth only	Month of birth only	Both missing		
Total	99.9	0.1	0.0	0.0	100.0	29871
Age						
0-4	100.0	0.0	0.0	0.0	100.0	3979
5-14	100.0	0.0	0.0	0.0	100.0	5362
15-24	99.9	0.1	0.0	0.0	100.0	5196
25-49	99.9	0.1	0.0	0.0	100.0	10457
50-64	100.0	0.0	0.0	0.0	100.0	3839
65-84	99.7	0.3	0.0	0.0	100.0	978
85+	100.0	0.0	0.0	0.0	100.0	58
DK/Missing	na	na	0.0	0.0	100.0	2
Region						
Ashgabat city	99.6	0.3	0.0	0.0	100.0	3613
Ahal velayat	100.0	0.0	0.0	0.0	100.0	3967
Balkan velayat	100.0	0.0	0.0	0.0	100.0	2013
Dashoguz velayat	100.0	0.0	0.0	0.0	100.0	7058
Lebap velayat	100.0	0.0	0.0	0.0	100.0	5799
Mary velayat	100.0	0.0	0.0	0.0	100.0	7421
Area						
Urban	99.9	0.1	0.0	0.0	100.0	11666
Rural	100.0	0.0	0.0	0.0	100.0	18206
na: not applicable						

Table DQ.5: Birth date and age reporting: Women

Percent distribution of women age 15-49 years by completeness of date of birth/age information, Turkmenistan, 2015-2016

	Completeness of reporting of date of birth and age						Number of women age 15-49 years
	Year and month of birth	Year of birth and age	Year of birth only	Age only	Other/DK/Missing	Total	
Total	100.0	0.0	0.0	0.0	0.0	100.0	7618
Region							
Ashgabat city	100.0	0.0	0.0	0.0	0.0	100.0	975
Ahal velayat	100.0	0.0	0.0	0.0	0.0	100.0	1007
Balkan velayat	100.0	0.0	0.0	0.0	0.0	100.0	482
Dashoguz velayat	100.0	0.0	0.0	0.0	0.0	100.0	1779
Lebap velayat	100.0	0.0	0.0	0.0	0.0	100.0	1455
Mary velayat	100.0	0.0	0.0	0.0	0.0	100.0	1920
Area							
Urban	100.0	0.0	0.0	0.0	0.0	100.0	3006
Rural	100.0	0.0	0.0	0.0	0.0	100.0	4612

Table DQ.6: Birth date and age reporting: Under-5s

Percent distribution of children under 5 by completeness of date of birth/age information, Turkmenistan, 2015-2016

	Completeness of reporting of date of birth and age						Number of under-5 children
	Year and month of birth	Year of birth and age	Year of birth only	Age only	Other/DK/Missing	Total	
Total	100.0	0.0	0.0	0.0	0.0	100.0	3765
Region							
Ashgabat city	100.0	0.0	0.0	0.0	0.0	100.0	385
Ahal velayat	100.0	0.0	0.0	0.0	0.0	100.0	576
Balkan velayat	100.0	0.0	0.0	0.0	0.0	100.0	195
Dashoguz velayat	100.0	0.0	0.0	0.0	0.0	100.0	950
Lebap velayat	100.0	0.0	0.0	0.0	0.0	100.0	780
Mary velayat	100.0	0.0	0.0	0.0	0.0	100.0	879
Area							
Urban	100.0	0.0	0.0	0.0	0.0	100.0	1324
Rural	100.0	0.0	0.0	0.0	0.0	100.0	2441

Table DQ.7: Birth date reporting: Children, adolescents and young people

Percent distribution of children, adolescents and young people age 5-24 years by completeness of date of birth information, Turkmenistan, 2015-2016

	Completeness of reporting of month and year of birth					Number of children, adolescents and young people age 5-24 years
	Year and month of birth	Year of birth only	Month of birth only	Both missing	Total	
Total	100.0	0.0	0.0	0.0	100.0	10558
Region						
Ashgabat city	99.7	0.3	0.0	0.0	100.0	1206
Ahal velayat	100.0	0.0	0.0	0.0	100.0	1452
Balkan velayat	100.0	0.0	0.0	0.0	100.0	672
Dashoguz velayat	100.0	0.0	0.0	0.0	100.0	2469
Lebap velayat	100.0	0.0	0.0	0.0	100.0	2032
Mary velayat	100.0	0.0	0.0	0.0	100.0	2727
Area						
Urban	99.9	0.1	0.0	0.0	100.0	3952
Rural	100.0	0.0	0.0	0.0	100.0	6606

Table DQ.8: Birth date reporting: First and last births

Percent distribution of first and last births to women age 15-49 years by completeness of date of birth, Turkmenistan, 2015-2016

	Completeness of reporting of date of birth										Number of last births
	Date of first birth					Total	Date of last birth				
	Year and month of birth	Year of birth only	Completed years since first birth only	Other/DK/Missing	Number of first births		Year and month of birth	Year of birth only	Other/DK/Missing	Total	
Total	99.8	0.2	0.0	0.0	100.0	4910	99.9	0.1	0.0	100.0	3975
Region											
Ashgabat city	99.9	0.1	0.0	0.0	100.0	627	100.0	0.0	0.0	100.0	462
Ahal velayat	99.6	0.3	0.0	0.1	100.0	658	100.0	0.0	0.0	100.0	563
Balkan velayat	99.9	0.1	0.0	0.0	100.0	308	99.8	0.2	0.0	100.0	244
Dashoguz velayat	99.6	0.4	0.0	0.0	100.0	1122	99.8	0.2	0.0	100.0	889
Lebap velayat	100.0	0.0	0.0	0.0	100.0	972	99.9	0.1	0.0	100.0	796
Mary velayat	99.8	0.2	0.0	0.0	100.0	1224	100.0	0.0	0.0	100.0	1020
Area											
Urban	99.9	0.1	0.0	0.0	100.0	1969	100.0	0.0	0.0	100.0	1508
Rural	99.7	0.3	0.0	0.0	100.0	2942	99.9	0.1	0.0	100.0	2467

Table DQ.9: Completeness of reporting

Percentage of observations that are missing information for selected questions and indicators, Turkmenistan, 2015-2016

Questionnaire and type of missing information	Reference group	Percent with missing/incomplete information ^a	Number of cases
Household			
Salt test result	All households interviewed that have salt	0.0	5861
Women			
Date of first marriage/union	All ever married women age 15-49		
Only month		0.0	5378
Both month and year		0.0	5378
Age at first marriage/union	All ever married women age 15-49 with year of first marriage not known	0.0	5378

^a Includes "Don't know" responses**Table DQ.10: Completeness of information for anthropometric indicators: Underweight**

Percent distribution of children under 5 by completeness of information on date of birth and weight, Turkmenistan, 2015-2016

	Valid weight and date of birth	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Weight not measured	Incomplete date of birth	Weight not measured and incomplete date of birth	Flagged cases (outliers)			
Total	98.8	1.2	0.0	0.0	0.0	100.0	1.2	3765
Age								
<6 months	99.0	1.0	0.0	0.0	0.0	100.0	1.0	343
6-11 months	99.0	1.0	0.0	0.0	0.0	100.0	1.0	380
12-23 months	98.4	1.6	0.0	0.0	0.0	100.0	1.6	778
24-35 months	99.4	0.6	0.0	0.0	0.0	100.0	0.6	746
36-47 months	98.6	1.4	0.0	0.0	0.0	100.0	1.4	758
48-59 months	98.4	1.6	0.0	0.0	0.0	100.0	1.6	760

Table DQ.11: Completeness of information for anthropometric indicators: Stunting

Percent distribution of children under 5 by completeness of information on date of birth and length or height, Turkmenistan, 2015-2016

	Valid length/height and date of birth	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Length/Height not measured	Incomplete date of birth	Length/Height not measured, incomplete date of birth	Flagged cases (outliers)			
Total	98.6	1.3	0.0	0.0	0.1	100.0	1.4	3765
Age								
<6 months	98.8	1.0	0.0	0.0	0.2	100.0	1.2	343
6-11 months	99.0	1.0	0.0	0.0	0.0	100.0	1.0	380
12-23 months	98.1	1.8	0.0	0.0	0.1	100.0	1.9	778
24-35 months	99.2	0.6	0.0	0.0	0.2	100.0	0.8	746
36-47 months	98.6	1.4	0.0	0.0	0.0	100.0	1.4	758
48-59 months	98.4	1.6	0.0	0.0	0.0	100.0	1.6	760

Table DQ.12: Completeness of information for anthropometric indicators: Wasting

Percent distribution of children under 5 by completeness of information on weight and length or height, Turkmenistan, 2015-2016

	Valid weight and length/height	Reason for exclusion from analysis				Total	Percent of children excluded from analysis	Number of children under 5
		Weight not measured	Length/Height not measured	Weight and length/height not measured	Flagged cases (outliers)			
Total	98.4	0.0	0.1	1.2	0.3	100.0	1.6	3765
Age								
<6 months	97.5	0.0	0.0	1.0	1.5	100.0	2.5	343
6-11 months	99.0	0.0	0.0	1.0	0.0	100.0	1.0	380
12-23 months	98.2	0.0	0.3	1.6	0.0	100.0	1.8	778
24-35 months	99.3	0.0	0.0	0.6	0.1	100.0	0.7	746
36-47 months	98.6	0.0	0.0	1.4	0.0	100.0	1.4	758
48-59 months	97.8	0.0	0.0	1.6	0.6	100.0	2.2	760

Table DQ.13: Heaping in anthropometric measurements

Distribution of weight and height/length measurements by digits reported for the decimal points, Turkmenistan, 2015-2016

	Weight		Height or length	
	Number	Percent	Number	Percent
Total	3718	100.0	3718	100.0
Digits				
0	200	5.4	269	7.2
1	442	11.9	371	10.0
2	437	11.8	542	14.6
3	372	10.0	493	13.3
4	350	9.4	383	10.3
5	288	7.8	260	7.0
6	429	11.5	376	10.1
7	386	10.4	381	10.3
8	421	11.3	402	10.8
9	393	10.6	241	6.5
0 or 5	488	13.1	529	14.2

Figure DQ.2: Weight and height/length measurements by digits reported for the decimal points, Turkmenistan, 2015-2016

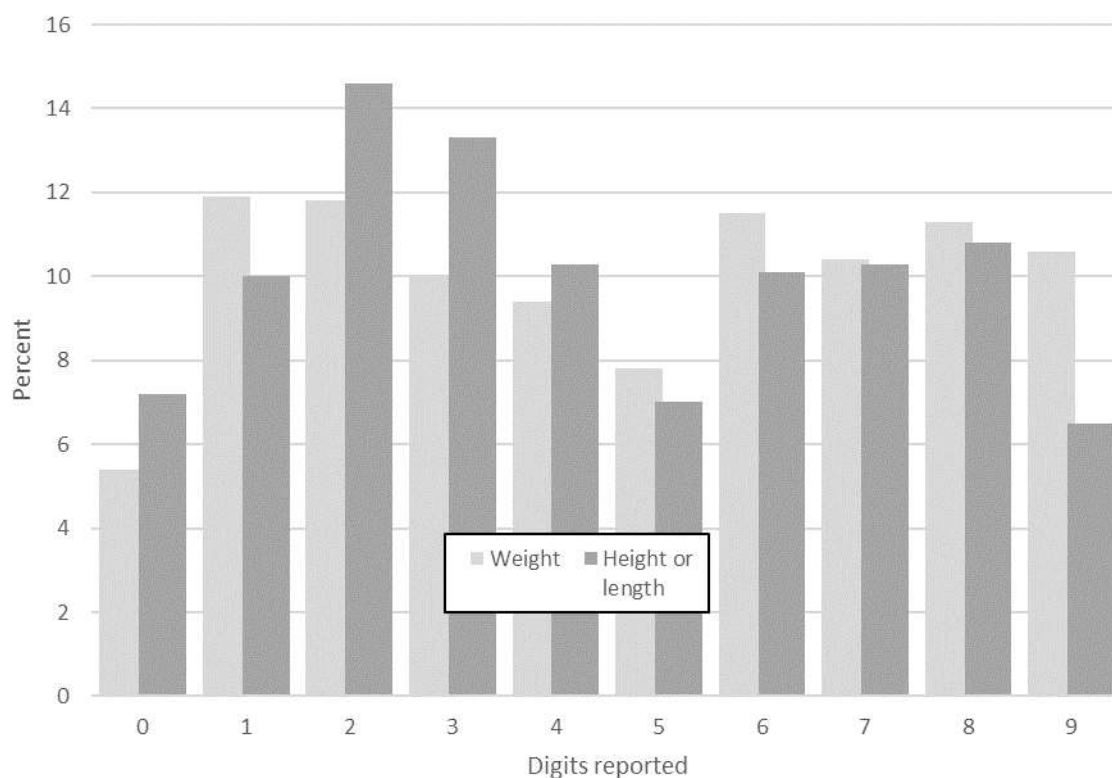


Table DQ.14: Observation of birth certificates

Percent distribution of children under 5 by presence of birth certificates, and percentage of birth certificates seen, Turkmenistan, 2015-2016

	Child has birth certificate		Child does not have birth certificate	DK/Missing	Total	Percentage of birth certificates seen by the interviewer (1)/(1+2)*100	Number of children under age 5
	Seen by the interviewer (1)	Not seen by the interviewer (2)					
Total	94.1	4.7	1.2	0.0	100.0	95.2	3765
Region							
Ashgabat city	89.9	9.2	0.9	0.0	100.0	90.7	385
Ahal velayat	97.5	2.4	0.1	0.0	100.0	97.5	576
Balkan velayat	95.3	3.9	0.9	0.0	100.0	96.1	195
Dashoguz velayat	94.1	4.9	1.0	0.0	100.0	95.0	950
Lebap velayat	91.6	7.2	1.2	0.0	100.0	92.7	780
Mary velayat	95.7	2.1	2.2	0.0	100.0	97.9	879
Area							
Urban	92.3	6.4	1.3	0.0	100.0	93.5	1324
Rural	95.1	3.8	1.1	0.0	100.0	96.1	2441
Child's age							
0-5 months	81.8	7.9	10.3	0.0	100.0	91.2	343
6-11 months	93.9	5.2	0.9	0.0	100.0	94.7	380
12-23 months	94.5	5.1	0.4	0.0	100.0	94.9	778
24-35 months	95.3	4.5	0.2	0.0	100.0	95.5	746
36-47 months	95.6	4.3	0.1	0.0	100.0	95.7	758
48-59 months	96.7	3.3	0.0	0.0	100.0	96.7	760

Table DQ.15: Observation of vaccination cards at home and in health facility

Percent distribution of children age 0-35 months by presence of a vaccination card, and the percentage of vaccination cards seen by the interviewers, Turkmenistan, 2015-2016

	Child does not have vaccination card at home		Child has vaccination card at home			Child has vaccination card at health facility			Percentage of vaccination cards seen by the interviewer (at home and/or in health facility)	Number of children age 0-35 months
	Had vaccination card at home previously	Never had vaccination card at home	Seen by the interviewer at home	Not seen by the interviewer at home	Missing/DK	Seen by the interviewer at health facility	Not seen by the interviewer at health facility	Missing/DK		
Total	12.3	17.1	37.3	33.2	0.1	99.5	0.5	0.0	99.7	2247
Region										
Ashgabat city	2.0	1.7	23.5	72.4	0.4	100.0	0.0	0.0	100.0	237
Ahal velayat	0.3	0.8	69.5	29.5	0.0	98.3	1.7	0.0	98.8	353
Balkan velayat	7.5	5.9	34.5	52.1	0.0	100.0	0.0	0.0	100.0	113
Dashoguz velayat	3.0	41.6	33.2	22.0	0.2	99.8	0.2	0.0	100.0	593
Lebap velayat	38.9	17.7	17.9	25.5	0.0	99.1	0.7	0.2	99.3	456
Mary velayat	13.5	8.6	44.5	33.4	0.0	100.0	0.0	0.0	100.0	496
Area										
Urban	12.5	9.1	32.5	45.8	0.1	99.0	1.0	0.0	99.3	806
Rural	12.2	21.5	40.0	26.2	0.1	99.8	0.1	0.1	99.9	1441
Child's age										
0-5 months	5.4	18.9	47.9	27.4	0.4	99.0	1.0	0.0	99.6	343
6-11 months	10.2	15.9	40.9	33.0	0.0	100.0	0.0	0.0	100.0	380
12-23 months	15.5	17.5	34.5	32.3	0.1	99.6	0.4	0.0	99.7	778
24-35 months	13.2	16.3	33.6	36.9	0.0	99.4	0.5	0.1	99.6	746

Table DQ.16: Observation of places for handwashing

Percent distribution of places for handwashing observed by the interviewers in all interviewed households, Turkmenistan, 2015-2016

	Place for handwashing				Total	Number of households interviewed
	Observed	Not observed				
		Not in the dwelling, plot or yard	No permission to see	Other reason		
Total	99.5	0.3	0.2	0.0	100.0	5861
Region						
Ashgabat city	99.3	0.0	0.6	0.1	100.0	883
Ahal velayat	99.7	0.2	0.1	0.0	100.0	674
Balkan velayat	99.8	0.2	0.0	0.0	100.0	497
Dashoguz velayat	99.5	0.3	0.1	0.1	100.0	1236
Lebap velayat	99.1	0.7	0.2	0.0	100.0	1079
Mary velayat	99.9	0.1	0.0	0.0	100.0	1491
Area						
Urban	99.5	0.1	0.3	0.1	100.0	2634
Rural	99.6	0.4	0.1	0.0	100.0	3227
Wealth index quintile						
Poorest	99.1	0.8	0.1	0.0	100.0	1175
Second	99.8	0.1	0.1	0.0	100.0	1035
Middle	99.9	0.1	0.0	0.0	100.0	975
Fourth	99.8	0.0	0.0	0.1	100.0	1116
Richest	99.3	0.1	0.5	0.1	100.0	1561

Table DQ.17: Respondent to the under-5 questionnaire

Distribution of children under five by respondent to the under-5 questionnaire, Turkmenistan, 2015-2016

	Mother in the household	Mother not in the household and primary caretaker identified:		Total	Number of children under 5
		Father	Other adult female		
Total	99.0	0.1	0.9	100.0	3979
Age					
0	99.6	0.0	0.4	100.0	803
1	98.6	0.1	1.3	100.0	824
2	99.4	0.0	0.6	100.0	775
3	98.8	0.4	0.8	100.0	798
4	98.6	0.2	1.2	100.0	779

Table DQ.18: School attendance by single age

Distribution of household population age 5-24 years by educational level and grade attended in the current (or most recent) school year, Turkmenistan, 2015-2016

Age ^b	Not attending school	Currently attending																		Total	Number of household members		
		Preschool	Primary school Grade			Secondary school Grade							Primary vocational		Secondary vocational			Higher	DK/Missing				
			1	2	3	4	5	6	7	8	9	10	11	1	2	1	2					3	
5	54.2	45.5	0.1	0.0	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	0.0	0.0	0.0	100.0	716
6	3.1	2.8	94.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	644
7	0.2	0.1	4.1	94.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	594
8	0.7	0.1	0.3	14.1	84.5	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	487
9	0.0	0.0	0.0	1.2	95.3	3.5	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	505
10	0.0	0.0	0.0	0.1	7.3	90.4	1.7	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	463
11	0.7	0.0	0.0	0.0	0.2	5.4	91.9	1.8	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	470
12	0.0	0.0	0.0	0.0	0.0	0.6	8.5	88.7	2.3	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	442
13	0.7	0.0	0.0	0.0	0.0	0.3	0.0	8.5	89.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	417
14	0.5	0.0	0.0	0.0	0.0	0.0	0.1	0.5	7.0	89.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	450
15	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.2	9.7	85.3	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	100.0	462
16	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	8.0	88.8	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	497
17	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	7.0	90.0	0.0	0.0	0.6	0.0	0.0	0.2	0.0	0.0	100.0	491
18	80.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	9.1	4.4	0.3	1.9	0.0	0.0	3.6	0.0	0.0	100.0	384
19	88.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.6	0.7	1.5	0.3	8.4	0.0	0.0	100.0	370
20	91.5	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	0.3	1.3	1.2	0.4	5.1	0.0	0.0	100.0	431
21	94.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.4	0.0	0.4	0.2	0.0	4.8	0.0	0.0	100.0	600
22	96.5	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	0.1	0.1	0.4	0.0	3.0	0.0	0.0	100.0	594
23	97.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.0	1.8	0.0	0.0	100.0	561
24 ^a	97.8	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	0.3	0.0	0.5	0.0	1.4	0.0	0.0	100.0	555

^a Those age 25 at the time of interview who were age 24 at beginning of school year are excluded as current attendance was only collected for those age 5-24 at the time of interview

^b Age is adjusted to take into account age eligibility criteria for starting primary school. Since in 2013 primary school entry age was changed from 7 to 6 during the year of entry, separate calculations were applied for children born in 2006 or earlier and those born afterwards to take into account this change in the age eligibility criteria.

Table DQ.19: Sex ratio at birth among children ever born and living

Sex ratio (number of males per 100 females) among children ever born (at birth), children living, and deceased children, by age of women, Turkmenistan, 2015-2016

	Children Ever Born			Children Living			Children Deceased			Number of women
	Sons	Daughters	Sex ratio at birth	Sons	Daughters	Sex ratio	Sons	Daughters	Sex ratio	
Total	6640	6214	1.07	6327	5988	1.06	313	226	1.38	7618
Age										
15-19	21	15	1.41	21	14	1.43	1	1	1.00	1197
20-24	404	402	1.01	395	395	1.00	9	7	1.37	1400
25-29	1120	985	1.14	1084	964	1.12	36	21	1.73	1351
30-34	1326	1244	1.07	1282	1212	1.06	44	33	1.34	1117
35-39	1343	1271	1.06	1268	1227	1.03	75	44	1.72	946
40-44	1200	1165	1.03	1139	1113	1.02	62	53	1.17	835
45-49	1225	1132	1.08	1139	1063	1.07	86	69	1.25	772

Table DQ.20: Births by periods preceding the survey

Number of births, sex ratio at birth, and period ratio by periods preceding the survey, according to living, deceased, and total children (imputed), as reported in the birth histories, Turkmenistan, 2015-2016

	Number of births			Percent with complete birth date ^a			Sex ratio at birth ^b			Period ratio ^c		
	Living	Deceased	Total	Living	Deceased	Total	Living	Deceased	Total	Living	Deceased	Total
Total	12316	538	12855	99.9	97.1	99.8	105.4	143.3	106.8	na	na	na
Years												
0	726	13	740	100.0	100.0	100.0	115.2	68.9	114.1	na	na	na
1	775	14	789	100.0	100.0	100.0	104.6	459.8	106.9	104.9	72.7	104.1
2	752	25	776	99.9	100.0	99.9	126.9	227.0	129.1	98.0	138.7	99.0
3	758	22	780	99.3	100.0	99.3	93.6	413.2	97.0	101.6	94.2	101.3
4	742	22	763	100.0	96.2	99.9	121.7	119.8	121.6	102.9	94.1	102.6
5	684	24	708	100.0	98.4	99.9	103.5	101.5	103.4	100.4	91.9	100.1
6	620	31	651	100.0	91.8	99.6	105.8	252.8	109.9	99.8	118.1	100.5
7	560	28	588	100.0	95.4	99.8	107.9	114.4	108.2	101.7	111.8	102.2
8	480	19	500	100.0	100.0	100.0	99.2	142.2	100.6	94.2	91.9	94.1
9	460	14	474	100.0	100.0	100.0	88.5	89.6	88.5	14.7	8.3	14.4
10+	5760	327	6086	99.9	96.8	99.7	103.5	133.3	105.0	na	na	na
Five-year periods												
0-4	3753	95	3848	99.8	99.2	99.8	111.6	197.7	113.1	na	na	na
5-9	2804	117	2920	100.0	96.4	99.9	101.5	136.5	102.7	na	na	na
10-14	2055	81	2136	100.0	96.7	99.9	97.8	167.8	99.8	na	na	na
15-19	1952	110	2062	99.9	97.0	99.7	105.0	161.4	107.4	na	na	na
20+	1753	135	1887	99.8	96.6	99.6	109.0	100.1	108.3	na	na	na

na: not applicable

^a Both month and year of birth given. The inverse of the percent reported is the percent with incomplete and therefore imputed date of birth^b $(B_m/B_f) \times 100$, where B_m and B_f are the numbers of male and female births, respectively^c $(2 \times B_t / (B_{t-1} + B_{t+1})) \times 100$, where B_t is the number of births in year t preceding the survey

Table DQ.21: Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0–6 days, by 5-year periods preceding the survey (imputed), Turkmenistan, 2015-2016

	Number of years preceding the survey				Total (0–19)
	0–4	5–9	10–14	15–19	
Age at death (days)					
0	7	9	3	2	20
1	13	8	16	15	52
2	6	12	1	5	24
3	9	9	6	6	31
4	0	2	1	1	5
5	3	6	1	6	17
6	1	0	0	1	2
7	2	6	2	6	15
8	0	2	0	0	2
9	1	1	0	0	2
10	3	3	1	3	10
11	-	-	-	-	-
12	2	1	0	0	3
13	0	3	0	0	3
14	0	1	0	1	3
15	0	3	0	0	3
16	-	-	-	-	-
17	-	-	-	-	-
18	0	0	0	2	2
19	1	0	0	0	1
20	1	3	1	0	5
21	-	-	-	-	-
22	-	-	-	-	-
23	-	-	-	-	-
24	0	1	0	0	1
25	-	-	-	-	-
26	-	-	-	-	-
27	-	-	-	-	-
28	-	-	-	-	-
29	-	-	-	-	-
30	1	1	1	0	3
Total 0–30 days	52	71	33	48	203
Percent early neonatal ^a	78.3	64.5	87.8	74.4	74.1

^a Deaths during the first 7 days (0-6), divided by deaths during the first month (0-30 days)

Table DQ.22: Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for the 5-year periods of birth preceding the survey (imputed), Turkmenistan, 2015-2016

	Number of years preceding the survey				Total (0-19)
	0-4	5-9	10-14	15-19	
Age at death (months)					
0 ^a	52	71	33	48	203
1	3	5	5	5	18
2	6	1	6	4	17
3	5	7	3	7	22
4	5	5	2	3	15
5	0	5	5	3	12
6	4	1	4	6	15
7	3	0	5	3	12
8	1	4	3	3	11
9	2	3	1	7	13
10	1	1	3	3	7
11	1	0	0	4	5
12	3	3	1	0	8
13	1	1	0	0	2
14	1	2	0	0	2
15	0	0	0	1	1
16	1	0	0	0	1
17	0	0	0	1	1
18	1	2	0	4	7
19	1	0	0	0	1
20	-	-	-	-	-
21	-	-	-	-	-
22	-	-	-	-	-
23	-	-	-	-	-
Total 0-11 months	82	102	72	96	351
Percent neonatal ^b	63.0	69.3	45.9	50.8	58.0

^a Includes deaths under one month reported in days^b Deaths under one month, divided by deaths under one year

Appendix E. 2015-2016 Turkmenistan MICS5 Indicators: Numerators and Denominators

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
MORTALITY⁷⁷					
1.1	Neonatal mortality rate	BH	Probability of dying within the first month of life		
1.2	Infant mortality rate	CM - BH	Probability of dying between birth and the first birthday		MDG 4.2
1.3	Post-neonatal mortality rate	BH	Difference between infant and neonatal mortality rates		
1.4	Child mortality rate	BH	Probability of dying between the first and the fifth birthdays		
1.5	Under-five mortality rate	CM - BH	Probability of dying between birth and the fifth birthday		MDG 4.1

NUTRITION					
2.1a 2.1b	Underweight prevalence	AN	Number of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for age of the WHO standard	Total number of children under age 5	MDG 1.8
2.2a 2.2b	Stunting prevalence	AN	Number of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) below minus three standard deviations (severe) of the median height for age of the WHO standard	Total number of children under age 5	
2.3a 2.3b	Wasting prevalence	AN	Number of children under age 5 who fall below (a) minus two standard deviations (moderate and severe) (b) minus three standard deviations (severe) of the median weight for height of the WHO standard	Total number of children under age 5	

⁷⁵ Some indicators are constructed by using questions from several modules. In such cases, only the modules containing most of the necessary information are indicated.

⁷⁶ Millennium Development Goals (MDG) indicators, effective 15 January 2008 - <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>, accessed 10 June 2013.

⁷⁷ When the Birth History module is used, mortality indicators are calculated for the last 5-year period. When the indicators are estimated indirectly (using the Fertility module only), the rates refer to dates as estimated by the indirect technique.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
2.4	Overweight prevalence	AN	Number of children under age 5 who are above two standard deviations of the median weight for height of the WHO standard	Total number of children under age 5	
2.5	Children ever breastfed	MN	Number of women with a live birth in the last 2 years who breastfed their last live-born child at any time	Total number of women with a live birth in the last 2 years	
2.6	Early initiation of breastfeeding	MN	Number of women with a live birth in the last 2 years who put their last newborn to the breast within one hour of birth	Total number of last live-born children in the last 2 years	
2.7	Exclusive breastfeeding under 6 months	BD	Number of infants under 6 months of age who are exclusively breastfed ⁷⁸	Total number of infants under 6 months of age	
2.8	Predominant breastfeeding under 6 months	BD	Number of infants under 6 months of age who received breast milk as the predominant source of nourishment ⁷⁹ during the previous day	Total number of infants under 6 months of age	
2.9	Continued breastfeeding at 1 year	BD	Number of children age 12-15 months who received breast milk during the previous day	Total number of children age 12-15 months	
2.10	Continued breastfeeding at 2 years	BD	Number of children age 20-23 months who received breast milk during the previous day	Total number of children age 20-23 months	
2.11	Duration of breastfeeding	BD	The age in months when 50 percent of children age 0-35 months did not receive breast milk during the previous day		
2.12	Age-appropriate breastfeeding	BD	Number of children age 0-23 months appropriately fed ⁸⁰ during the previous day	Total number of children age 0-23 months	
2.13	Introduction of solid, semi-solid or soft foods	BD	Number of infants age 6-8 months who received solid, semi-solid or soft foods during the previous day	Total number of infants age 6-8 months	
2.14	Milk feeding frequency for non-breastfed children	BD	Number of non-breastfed children age 6-23 months who received at least 2 milk feedings during the previous day	Total number of non-breastfed children age 6-23 months	

⁷⁸ Infants receiving breast milk, and not receiving any other fluids or foods, with the exception of oral rehydration solution, vitamins, mineral supplements and medicines.

⁷⁹ Infants who receive breast milk and certain fluids (water and water-based drinks, fruit juice, ritual fluids, oral rehydration solution, drops, vitamins, minerals, and medicines), but do not receive anything else (in particular, non-human milk and food-based fluids).

⁸⁰ Infants age 0-5 months who are exclusively breastfed, and children age 6-23 months who are breastfed and ate solid, semi-solid or soft foods.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
2.15	Minimum meal frequency	BD	Number of children age 6-23 months who received solid, semi-solid and soft foods (plus milk feeds for non-breastfed children) the minimum number of times ⁸¹ or more during the previous day	Total number of children age 6-23 months	
2.16	Minimum dietary diversity	BD	Number of children age 6–23 months who received foods from 4 or more food groups ⁸² during the previous day	Total number of children age 6–23 months	
2.17a 2.17b	Minimum acceptable diet	BD	(a) Number of breastfed children age 6–23 months who had at least the minimum dietary diversity and the minimum meal frequency during the previous day (b) Number of non-breastfed children age 6–23 months who received at least 2 milk feedings and had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day	(a) Number of breastfed children age 6–23 months (b) Number of non-breastfed children age 6–23 months	
2.18	Bottle feeding	BD	Number of children age 0-23 months who were fed with a bottle during the previous day	Total number of children age 0-23 months	
2.19	Iodized salt consumption	SI	Number of households with salt testing 15 parts per million or more of iodide/iodate	Total number of households in which salt was tested or where there was no salt	
2.20	Low-birthweight infants	MN	Number of most recent live births in the last 2 years weighing below 2,500 grams at birth	Total number of most recent live births in the last 2 years	
2.21	Infants weighed at birth	MN	Number of most recent live births in the last 2 years who were weighed at birth	Total number of most recent live births in the last 2 years	

CHILD HEALTH

3.1	Tuberculosis immunization coverage	IM	Number of children age 12-23 months who received BCG vaccine by their first birthday	Total number of children age 12-23 months	
-----	------------------------------------	----	--	---	--

⁸¹ Breastfeeding children: Solid, semi-solid, or soft foods, two times for infants age 6-8 months, and three times for children 9-23 months; Non-breastfeeding children: Solid, semi-solid, or soft foods, or milk feeds, four times for children age 6-23 months.

⁸² The indicator is based on consumption of any amount of food from at least 4 out of the 7 following food groups: 1) grains, roots and tubers, 2) legumes and nuts, 3) dairy products (milk, yogurt, cheese), 4) flesh foods (meat, fish, poultry and liver/organ meats), 5) eggs, 6) vitamin-A rich fruits and vegetables, and 7) other fruits and vegetables.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
3.2	Polio immunization coverage	IM	Number of children age 12-23 months who received the third dose of OPV vaccine (OPV3) by their first birthday	Total number of children age 12-23 months	
3.3	Diphtheria, pertussis and tetanus (DPT) immunization coverage	IM	Number of children age 12-23 months who received the third dose of DPT vaccine (DPT3) by their first birthday	Total number of children age 12-23 months	
3.4	Measles immunization coverage ⁸³	IM	Number of children age 24-35 months who received measles vaccine by their second birthday	Total number of children age 24-35 months	MDG 4.3
3.5	Hepatitis B immunization coverage	IM	Number of children age 12-23 months who received the third dose of Hepatitis B vaccine (HepB3) by their first birthday	Total number of children age 12-23 months	
3.6	Haemophilus influenzae type B (Hib) immunization coverage	IM	Number of children age 12-23 months who received the third dose of Hib vaccine (Hib3) by their first birthday	Total number of children age 12-23 months	
3.8	Full immunization coverage ⁸⁴	IM	Number of children age 24-35 months who received all vaccinations recommended in the national immunization schedule by their first birthday (measles by their second birthday)	Total number of children age 24-35 months	
3.10	Care-seeking for diarrhoea	CA	Number of children under age 5 with diarrhoea in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with diarrhoea in the last 2 weeks	
3.11	Diarrhoea treatment with oral rehydration salts (ORS) and zinc	CA	Number of children under age 5 with diarrhoea in the last 2 weeks who received ORS and zinc	Total number of children under age 5 with diarrhoea in the last 2 weeks	
3.S1 ⁸⁵	Diarrhoea treatment with oral rehydration therapy (ORT) and continued feeding	CA	Number of children under age 5 with diarrhoea in the last 2 weeks who received ORT (ORS packet or increased fluids) and continued feeding during the episode of diarrhoea	Total number of children under age 5 with diarrhoea in the last 2 weeks	
3.13	Care-seeking for children with acute respiratory infection (ARI) symptoms	CA	Number of children under age 5 with ARI symptoms in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with ARI symptoms in the last 2 weeks	

⁸³ In countries where measles vaccination is administered before 12 months of age according to the vaccination schedule, the indicator is calculated as the percentage of children age 12-23 months who received the measles vaccine by 12 months of age.

⁸⁴ The DPT-HepB-Hib combination vaccine was introduced in 2010.

⁸⁵ The indicator numbering system #.S# denotes a survey specific indicator calculated by the introduction of a non-standard module or question(s) to this survey that is not part of the global MICS5 Questionnaires or by applying a non-standard calculation method that is not included in the global MICS5 Tabulation Plan.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
3.14	Antibiotic treatment for children with ARI symptoms	CA	Number of children under age 5 with ARI symptoms in the last 2 weeks who received antibiotics	Total number of children under age 5 with ARI symptoms in the last 2 weeks	
3.15	Use of solid fuels for cooking	HC	Number of household members in households that use solid fuels as the primary source of domestic energy to cook	Total number of household members	
3.20	Care-seeking for fever	CA	Number of children under age 5 with fever in the last 2 weeks for whom advice or treatment was sought from a health facility or provider	Total number of children under age 5 with fever in the last 2 weeks	

WATER AND SANITATION					
4.1	Use of improved drinking water sources	WS	Number of household members using improved sources of drinking water	Total number of household members	MDG 7.8
4.2	Water treatment	WS	Number of household members in households using unimproved drinking water who use an appropriate treatment method	Total number of household members in households using unimproved drinking water sources	
4.3	Use of improved sanitation	WS	Number of household members using improved sanitation facilities which are not shared	Total number of household members	MDG 7.9
4.4	Safe disposal of child's faeces	CA	Number of children age 0-2 years whose last stools were disposed of safely	Total number of children age 0-2 years	
4.5	Place for handwashing	HW	Number of households with a specific place for hand washing where water and soap or other cleansing agent are present	Total number of households	
4.6	Availability of soap ⁸⁶	HW	Number of households with soap	Total number of households	

⁸⁶ The indicator name has been changed from the standard "MICS indicator 4.6 - Availability of soap or other cleansing agent" since other cleansing agents such as ash, mud or sand are not applicable for Turkmenistan.

MICS INDICATOR	Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
REPRODUCTIVE HEALTH				
5.1	Adolescent birth rate ⁸⁷	CM - BH	Age-specific fertility rate for women age 15-19 years	MDG 5.4
5.2	Early childbearing	CM - BH	Number of women age 20-24 years who had at least one live birth before age 18	Total number of women age 20-24 years
5.3	Contraceptive prevalence rate	CP	Number of women age 15-49 years currently married or in union who are using (or whose partner is using) a (modern or traditional) contraceptive method	Total number of women age 15-49 years who are currently married or in union
5.4	Unmet need ⁸⁸	UN	Number of women age 15-49 years who are currently married or in union who are fecund and want to space their births or limit the number of children they have and who are not currently using contraception	Total number of women age 15-49 years who are currently married or in union
5.5a 5.5b	Antenatal care coverage	MN	Number of women age 15-49 years with a live birth in the last 2 years who were attended during their last pregnancy that led to a live birth (a) at least once by skilled health personnel (b) at least four times by any provider	Total number of women age 15-49 years with a live birth in the last 2 years
5.6	Content of antenatal care	MN	Number of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured and gave urine and blood samples during the last pregnancy that led to a live birth	Total number of women age 15-49 years with a live birth in the last 2 years
5.S1	Content of antenatal care (includes ultrasound)	MN	Number of women age 15-49 years with a live birth in the last 2 years who had their blood pressure measured, gave urine and blood samples and had an ultrasound during the last pregnancy that led to a live birth	Total number of women age 15-49 years with a live birth in the last 2 years
5.7	Skilled attendant at delivery	MN	Number of women age 15-49 years with a live birth in the last 2 years who were attended by skilled health personnel during their most recent live birth	Total number of women age 15-49 years with a live birth in the last 2 years
5.8	Institutional deliveries	MN	Number of women age 15-49 years with a live birth in the last 2 years whose most recent live birth was delivered in a health facility	Total number of women age 15-49 years with a live birth in the last 2 years

⁸⁷ When the Birth History module is used, the indicator is calculated for the last 3-year period. When estimated using the Fertility module only, the rate refers to the last one year.

⁸⁸ See the MICS tabulation plan for a detailed description.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
5.9	Caesarean section	MN	Number of women age 15-49 years whose most recent live birth in the last 2 years was delivered by caesarean section	Total number of women age 15-49 years with a live birth in the last 2 years	
5.10	Post-partum stay in health facility	PN	Number of women age 15-49 years who stayed in the health facility for 12 hours or more after the delivery of their most recent live birth in the last 2 years	Total number of women age 15-49 years with a live birth in the last 2 years	
5.11	Post-natal health check for the newborn	PN	Number of last live births in the last 2 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery	Total number of last live births in the last 2 years	
5.12	Post-natal health check for the mother	PN	Number of women age 15-49 years who received a health check while in facility or at home following delivery, or a post-natal care visit within 2 days after delivery of their most recent live birth in the last 2 years	Total number of women age 15-49 years with a live birth in the last 2 years	

CHILD DEVELOPMENT

6.1	Attendance to early childhood education	EC	Number of children age 36-59 months who are attending an early childhood education programme	Total number of children age 36-59 months	
6.2	Support for learning	EC	Number of children age 36-59 months with whom an adult has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.3	Father's support for learning	EC	Number of children age 36-59 months whose biological father has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.4	Mother's support for learning	EC	Number of children age 36-59 months whose biological mother has engaged in four or more activities to promote learning and school readiness in the last 3 days	Total number of children age 36-59 months	
6.5	Availability of children's books	EC	Number of children under age 5 who have three or more children's books	Total number of children under age 5	
6.6	Availability of playthings	EC	Number of children under age 5 who play with two or more types of playthings	Total number of children under age 5	

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
6.7	Inadequate care	EC	Number of children under age 5 left alone or in the care of another child younger than 10 years of age for more than one hour at least once in the last week	Total number of children under age 5	
6.8	Early child development index	EC	Number of children age 36-59 months who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning	Total number of children age 36-59 months	

LITERACY AND EDUCATION

7.1	Literacy rate among young women ^[M]	WB	Number of women age 15-24 years who are able to read a short simple statement about everyday life or who attended secondary or higher education ⁸⁹	Total number of women age 15-24 years	MDG 2.3
7.2	School readiness	ED	Number of children in first grade of primary school who attended pre-school during the previous school year	Total number of children attending the first grade of primary school	
7.3	Net intake rate in primary education	ED	Number of children of school-entry age who enter the first grade of primary school	Total number of children of school-entry age	
7.4	Primary school net attendance ratio (adjusted)	ED	Number of children of primary school age currently attending primary ⁹⁰ or secondary school	Total number of children of primary school age	MDG 2.1
7.5	Secondary school net attendance ratio (adjusted)	ED	Number of children of secondary school age currently attending secondary school or higher	Total number of children of secondary school age	
7.6	Children reaching last grade of primary	ED	Percentage of children entering the first grade of primary school who eventually reach last grade		MDG 2.2
7.7	Primary completion rate	ED	Number of children 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)	
7.8	Transition rate to secondary school	ED	Number of children attending the last grade of primary school during the previous school year who are in the first grade of secondary school during the current school year	Total number of children attending the last grade of primary school during the previous school year	

⁸⁹ Secondary school (grades 4-11), primary vocational, secondary vocational or higher education.

⁹⁰ Primary school comprises grades 1-3 of secondary education.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
7.9	Gender parity index (primary school)	ED	Primary school net attendance ratio (adjusted) for girls	Primary school net attendance ratio (adjusted) for boys	MDG 3.1
7.10	Gender parity index (secondary school)	ED	Secondary school net attendance ratio (adjusted) for girls	Secondary school net attendance ratio (adjusted) for boys	MDG 3.1

CHILD PROTECTION					
8.1	Birth registration	BR	Number of children under age 5 whose births are reported registered	Total number of children under age 5	
8.2	Child labour	CL	Number of children age 5-17 years who are involved in child labour ⁹¹	Total number of children age 5-17 years	
8.3	Violent discipline	CD	Number of children age 1-14 years who experienced psychological aggression or physical punishment during the last one month	Total number of children age 1-14 years	
8.4	Marriage before age 15 ^[M]	MA	Number of women age 15-49 years who were first married or in union before age 15	Total number of women age 15-49 years	
8.5	Marriage before age 18 ^[M]	MA	Number of women age 20-49 years who were first married or in union before age 18	Total number of women age 20-49 years	
8.6	Young women age 15-19 years currently married or in union ^[M]	MA	Number of women age 15-19 years who are married or in union	Total number of women age 15-19 years	
8.8a 8.8b	Spousal age difference	MA	Number of women who are married or in union and whose spouse is 10 or more years older, (a) among women age 15-19 years, (b) among women age 20-24 years	Total number of women who are married or in union (a) age 15-19 years, (b) age 20-24 years	
8.12	Attitudes towards domestic violence ^[M]	DV	Number of women who state that a husband 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 age 15-49 years	

⁹¹ Children involved in child labour are defined as children involved in economic activities at or above the age-specific thresholds, children involved in household chores at or above the age-specific thresholds, and children involved in hazardous work. See the MICS tabulation plan for more detailed information on thresholds and classifications.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
8.S1	Attitudes towards domestic violence (including additional circumstance)	DV	Number of women who state that a husband 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, (6) she does not respect her husband's parents	Total number of women age 15-49 years	
8.13	Children's living arrangements	HL	Number of children age 0-17 years living with neither biological parent	Total number of children age 0-17 years	
8.14	Prevalence of children with one or both parents dead	HL	Number of children age 0-17 years with one or both biological parents dead	Total number of children age 0-17 years	
8.15	Children with at least one parent living abroad	HL	Number of children 0-17 years with at least one biological parent living abroad	Total number of children 0-17 years	

HIV/AIDS					
9.1	Knowledge about HIV prevention among young women ^[M]	HA	Number of women age 15-24 years who correctly identify ways of preventing the sexual transmission of HIV ⁹² , and who reject major misconceptions about HIV transmission	Total number of women age 15-24 years	MDG 6.3
9.2	Knowledge of mother-to-child transmission of HIV ^[M]	HA	Number of women age 15-49 years who correctly identify all three means ⁹³ of mother-to-child transmission of HIV	Total number of women age 15-49 years	
9.3	Accepting attitudes towards people living with HIV ^[M]	HA	Number of women age 15-49 years expressing accepting attitudes on all four questions ⁹⁴ toward people living with HIV	Total number of women age 15-49 years who have heard of HIV	
9.4	Women who know where to be tested for HIV ^[M]	HA	Number of women age 15-49 years who state knowledge of a place to be tested for HIV	Total number of women age 15-49 years	
9.5	Women who have been tested for HIV and know the results ^[M]	HA	Number of women age 15-49 years who have been tested for HIV in the last 12 months and who know their results	Total number of women age 15-49 years	

⁹² Using condoms and limiting sex to one faithful, uninfected partner.

⁹³ Transmission during pregnancy, during delivery, and by breastfeeding.

⁹⁴ Women (1) who think that a female teacher with the AIDS virus should be allowed to teach in school, (2) who would buy fresh vegetables from a shopkeeper or vendor who has the AIDS virus, (3) who would not want to keep it as a secret if a family member became infected with the AIDS virus, and (4) who would be willing to care for a family member who became sick with the AIDS virus.

MICS INDICATOR		Module ⁷⁵	Numerator	Denominator	MDG Indicator Reference 76
9.7	HIV counselling during antenatal care	HA	Number of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they received counselling on HIV during antenatal care	Total number of women age 15-49 years who had a live birth in the last 2 years	
9.8	HIV testing during antenatal care	HA	Number of women age 15-49 years who had a live birth in the last 2 years and received antenatal care during the pregnancy of their most recent birth, reporting that they were offered and accepted an HIV test during antenatal care and received their results	Total number of women age 15-49 years who had a live birth in the last 2 years	
9.16	Ratio of school attendance of orphans to school attendance of non-orphans	HL - ED	Proportion attending school among children age 10-14 years who have lost both parents	Proportion attending school among children age 10-14 years whose parents are alive and who are living with one or both parents	MDG 6.4

ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGY

10.1	Exposure to mass media ^[M]	MT	Number of women age 15-49 years who, at least once a week, read a newspaper or magazine, listen to the radio, and watch television	Total number of women age 15-49 years	
10.2	Use of computers ^[M]	MT	Number of young women age 15-24 years who used a computer during the last 12 months	Total number of women age 15-24 years	
10.3	Use of internet ^[M]	MT	Number of young women age 15-24 who used the internet during the last 12 months	Total number of women age 15-24 years	

Appendix F1. Household Questionnaire



HOUSEHOLD QUESTIONNAIRE

2015 TURKMENISTAN MULTIPLE INDICATOR CLUSTER SURVEY

HOUSEHOLD INFORMATION PANEL		HH
HH1. Cluster number: _____	HH2. Household number: _____	
HH3. Interviewer's name and number: Name _____	HH4. Supervisor's name and number: Name _____	
HH5. Day / Month / Year of interview: _____ / _____ / 201_____	HH7. Region:	
HH6. Area:	Ashgabat city 1	
Urban 1	Ahal velayat 2	
Rural 2	Balkan velayat 3	
	Dashoguz velayat 4	
	Lebap velayat 5	
	Mary velayat 6	
<p>WE ARE FROM THE STATE STATISTICS COMMITTEE OF TURKMENISTAN. WE ARE CONDUCTING A SURVEY ABOUT THE SITUATION OF CHILDREN, FAMILIES AND HOUSEHOLDS. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 20 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS. MAY I START NOW?</p> <p><input type="checkbox"/> Yes, permission is given ⇒ Go to HH18 to record the time and then begin the interview.</p> <p><input type="checkbox"/> No, permission is not given ⇒ Circle 04 in HH9. Discuss this result with your supervisor.</p>		
<p>HH9. Result of household interview:</p> <p>Completed 01</p> <p>No household member or no competent respondent at home at time of visit 02</p> <p>Entire household absent for extended period of time 03</p> <p>Refused 04</p> <p>Dwelling vacant / Address not a dwelling 05</p> <p>Dwelling destroyed 06</p> <p>Dwelling not found 07</p> <p>Other (specify) _____ 96</p>		

After the household questionnaire has been completed, fill in the following information:

HH10. Respondent to Household Questionnaire:
Name _____

HH11. Total number of household members: _____

HH12. Number of women age 15-49 years: _____

HH14. Number of children under age 5: _____

After all questionnaires for the household have been completed, fill in the following information:

HH13. Number of women's questionnaires completed: _____

HH15. Number of under-5 questionnaires completed: _____

HH18. Record the time.

Hour.....

Minutes.....

LIST OF HOUSEHOLD MEMBERS

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?
 If yes, complete listing for questions HL2-HL4. Then, ask questions starting with HL5 for each person at a time.
 Use an additional questionnaire if all rows in the List of Household Members have been used.

HL1. Line no.	HL2. Name	HL3. WHAT IS THE RELATIONSHIP OF (name) TO THE HEAD OF HOUSEHOLD?	HL4. IS (name) MALE OR FEMALE?		HL5. WHAT IS (name)'S DATE OF BIRTH?		HL6. HOW OLD IS (name)?	For women age 15-49	For children age 0-4	For children age 0-17 years					For Children age 0-14
			1 Male	2 Female	98 DK	9998 DK	Record in complete d years. If age is 95 or above, record '95'.	Circle line no. if woman age 15-49.	Circle line no. if age 0-4.	HL11. IS (name)'S NATURAL MOTHER ALIVE?	HL12. DOES (name)'S NATURAL MOTHER LIVE IN THIS HOUSEHOLD?	HL12A. WHERE DOES (name)'S NATURAL MOTHER LIVE?	HL13. IS (name)'S NATURAL FATHER ALIVE?	HL14. DOES (name)'S NATURAL FATHER LIVE IN THIS HOUSEHOLD?	HL14A. WHERE DOES (name)'S NATURAL FATHER LIVE?
Line	Name	Relation*	M	F	Month	Year	Age	15-49	0-4	Y N DK	Mother	Y N DK	Father	Mother	
01		01	1	2	___	___	___	01	01	1 2 8	___	1 2 8	___	1 2 3 8	
02		___	1	2	___	___	___	02	02	1 2 8	___	1 2 8	___	1 2 3 8	
03		___	1	2	___	___	___	03	03	1 2 8	___	1 2 8	___	1 2 3 8	
04		___	1	2	___	___	___	04	04	1 2 8	___	1 2 8	___	1 2 3 8	
05		___	1	2	___	___	___	05	05	1 2 8	___	1 2 8	___	1 2 3 8	
06		___	1	2	___	___	___	06	06	1 2 8	___	1 2 8	___	1 2 3 8	
07		___	1	2	___	___	___	07	07	1 2 8	___	1 2 8	___	1 2 3 8	
08		___	1	2	___	___	___	08	08	1 2 8	___	1 2 8	___	1 2 3 8	
09		___	1	2	___	___	___	09	09	1 2 8	___	1 2 8	___	1 2 3 8	
10		___	1	2	___	___	___	10	10	1 2 8	___	1 2 8	___	1 2 3 8	

11		___	___	1	2	___	___	___	11	11	1 2 8	___	___	1 2 3 8	1 2 8	___	___	1 2 3 8	___	___
12		___	___	1	2	___	___	___	12	12	1 2 8	___	___	1 2 3 8	1 2 8	___	___	1 2 3 8	___	___
13		___	___	1	2	___	___	___	13	13	1 2 8	___	___	1 2 3 8	1 2 8	___	___	1 2 3 8	___	___
14		___	___	1	2	___	___	___	14	14	1 2 8	___	___	1 2 3 8	1 2 8	___	___	1 2 3 8	___	___
15		___	___	1	2	___	___	___	15	15	1 2 8	___	___	1 2 3 8	1 2 8	___	___	1 2 3 8	___	___

Tick here if additional questionnaire used

Probe for additional household members.
 Probe especially for any infants or small children not listed, and others who may not be members of the family (such as servants, friends) but who usually live in the household.
 Insert names of additional members in the household list and complete form accordingly.

Now for each woman age 15-49 years, write her name and line number and other identifying information in the information panel of a separate Individual 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 a separate Under-5 Questionnaire.
 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	04 Son-In-Law / Daughter-In-Law	07 Parent-In-Law	10 Uncle / Aunt	13 Adopted / Foster/ Stepchild	96 Other (Not related)
	02 Spouse/Partner	05 Grandchild	08 Brother / Sister	11 Niece / Nephew	14 Servant (Live-in)	98 DK
	03 Son / Daughter	06 Parent	09 Brother-In-Law / Sister-In-Law	12 Other relative		

EDUCATION

ED

			For household members age 5 and above					For household members age 5-24 years															
ED1. Line number	ED2. Name and age Copy from HL2 and HL6.		ED3. HAS (name) EVER ATTENDED SCHOOL OR PRE-SCHOOL?		ED4A. WHAT IS THE HIGHEST LEVEL OF SCHOOL (name) HAS ATTENDED? Level: 0 Preschool/ Kindergarten 1 Secondary (1-11) 2 Primary vocational 3 Secondary vocational 4 Higher 8 DK If level=0, skip to ED5.				ED4B. WHAT IS THE HIGHEST GRADE (name) COMPLETED AT THIS LEVEL? Grade: 98 DK If the first grade at this level is not completed, enter "00".		ED5. DURING THE CURRENT SCHOOL YEAR, THAT IS 2015-2016, DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME? 1 Yes 2 No		ED6. DURING THIS SCHOOL YEAR, WHICH LEVEL AND GRADE IS/WAS (name) ATTENDING? Level: 0 Preschool/ Kindergarten 1 Secondary(1-11) 2 Primary vocational 3 Secondary vocational 4 Higher 8 DK If level=0, skip to ED7.				ED7. DURING THE PREVIOUS SCHOOL YEAR, THAT IS 2014-2015, DID (name) ATTEND SCHOOL OR PRESCHOOL AT ANY TIME? 1 Yes 2 No 8 DK Next Line Next Line			ED8. DURING THAT PREVIOUS SCHOOL YEAR, WHICH LEVEL AND GRADE DID (name) ATTEND? Level: 0 Preschool/ Kindergarten 1 Secondary(1-11) 2 Primary vocational 3 Secondary vocational 4 Higher 8 DK If level=0, go to next line.			
			Yes	No	Level	Grade	Yes	No	Level	Grade	Yes	No	DK	Level	Grade								
01			1	2	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	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	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	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	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	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	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	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	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	0 1 2 3 4 8			1	2	0 1 2 3 4 8			1	2	8	0 1 2 3 4 8							
11			1	2	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	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	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	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	0 1 2 3 4 8			1	2	0 1 2 3 4 8			1	2	8	0 1 2 3 4 8							

SELECTION OF ONE CHILD FOR CHILD LABOUR/CHILD DISCIPLINE

SL

SL1. Check HL6 in the List of Household Members and write the total number of children age 1-17 years.

Total number

SL2. Check the number of children age 1-17 years in SL1:

- Zero ⇒ Go to HOUSEHOLD CHARACTERISTICS module.
- One ⇒ Go to SL9 and record the rank number as '1', enter the line number, child's name and age.
- Two or more ⇒ Continue with SL2A.

SL2A. List each of the children age 1-17 years below in the order they appear in the List of Household Members. Do not include other household members outside of the age range 1-17 years. Record the line number, name, sex, and age for each child.

SL3. Rank number	SL4. Line number from HL1	SL5. Name from HL2	SL6. Sex from HL4		SL7. Age from HL6
Rank	Line	Name	M	F	Age
1	___		1	2	___
2	___		1	2	___
3	___		1	2	___
4	___		1	2	___
5	___		1	2	___
6	___		1	2	___
7	___		1	2	___
8	___		1	2	___

SL8. Check the last digit of the household number (HH2) from the cover page. This is the number of the row you should go to in the table below.

Check the total number of children age 1-17 years in SL1 above. This is the number of the column you should go to in the table below.

Find the box where the row and the column meet and circle the number that appears in the box. This is the rank number (SL3) of the selected child.

Last Digit of Household Number (from HH2)	Total Number of Eligible Children in the Household (from SL1)						
	2	3	4	5	6	7	8+
0	2	2	4	3	6	5	4
1	1	3	1	4	1	6	5
2	2	1	2	5	2	7	6
3	1	2	3	1	3	1	7
4	2	3	4	2	4	2	8
5	1	1	1	3	5	3	1
6	2	2	2	4	6	4	2
7	1	3	3	5	1	5	3
8	2	1	4	1	2	6	4
9	1	2	1	2	3	7	5

SL9. Record the rank number (SL3), line number (SL4), name (SL5) and age (SL7) of the selected child.

Rank number

Line number

Name

Age

CHILD LABOUR		CL															
CL1. Check selected child's age from SL9: <input type="checkbox"/> 1-4 years ⇒ Go to Next Module. <input type="checkbox"/> 5-17 years ⇒ Continue with CL2.																	
CL2. NOW I WOULD LIKE TO ASK ABOUT ANY WORK CHILDREN IN THIS HOUSEHOLD MAY DO. SINCE LAST (<i>day of the week</i>), DID (<i>name</i>) DO ANY OF THE FOLLOWING ACTIVITIES, EVEN FOR ONLY ONE HOUR? [A] DID (<i>name</i>) DO ANY WORK OR HELP ON HIS/HER OWN OR THE HOUSEHOLD'S PLOT/FARM/FOOD GARDEN OR LOOKED AFTER ANIMALS? FOR EXAMPLE, GROWING FARM PRODUCE, HARVESTING, OR FEEDING, GRAZING, MILKING ANIMALS? [B] DID (<i>name</i>) HELP IN FAMILY BUSINESS OR RELATIVE'S BUSINESS WITH OR WITHOUT PAY, OR RUN HIS/HER OWN BUSINESS? [C] DID (<i>name</i>) PRODUCE OR SELL ARTICLES, HANDICRAFTS, CLOTHES, FOOD OR AGRICULTURAL PRODUCTS? [D] SINCE LAST (<i>day of the week</i>), DID (<i>name</i>) ENGAGE IN ANY OTHER ACTIVITY IN RETURN FOR INCOME IN CASH OR IN KIND, EVEN FOR ONLY ONE HOUR? <i>If "No", Probe:</i> PLEASE INCLUDE ANY ACTIVITY (<i>name</i>) PERFORMED AS A REGULAR OR CASUAL EMPLOYEE, SELF-EMPLOYED OR EMPLOYER; OR AS AN UNPAID FAMILY WORKER HELPING OUT IN HOUSEHOLD BUSINESS OR FARM.	<table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Worked on plot/farm/food garden/looked after animals.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Helped in family/relative's business/ran own business.....</td> <td>1</td> <td>2</td> </tr> <tr> <td>Produce/sell articles/handicrafts/clothes/food or agricultural products</td> <td>1</td> <td>2</td> </tr> <tr> <td>Any other activity</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	Worked on plot/farm/food garden/looked after animals.....	1	2	Helped in family/relative's business/ran own business.....	1	2	Produce/sell articles/handicrafts/clothes/food or agricultural products	1	2	Any other activity	1	2	
	Yes	No															
Worked on plot/farm/food garden/looked after animals.....	1	2															
Helped in family/relative's business/ran own business.....	1	2															
Produce/sell articles/handicrafts/clothes/food or agricultural products	1	2															
Any other activity	1	2															
CL3. Check CL2, A to D <input type="checkbox"/> There is at least one 'Yes' ⇒ continue with CL4 <input type="checkbox"/> All answers are 'No' ⇒ Go to CL8																	
CL4. SINCE LAST (<i>day of the week</i>) ABOUT HOW MANY HOURS DID (<i>name</i>) ENGAGE IN THIS ACTIVITY/THESE ACTIVITIES, IN TOTAL? <i>If less than one hour, record "00"</i>	Number of hours																
CL5. DOES THE ACTIVITY/DO THESE ACTIVITIES REQUIRE CARRYING HEAVY LOADS?	Yes 1 No..... 2	1 ⇒ CL8															
CL6. DOES THE ACTIVITY/DO THESE ACTIVITIES REQUIRE WORKING WITH DANGEROUS TOOLS (KNIVES ETC.) OR OPERATING HEAVY MACHINERY?	Yes 1 No..... 2	1 ⇒ CL8															

<p>CL7. HOW WOULD YOU DESCRIBE THE WORK ENVIRONMENT OF <i>(name)</i>?</p> <p>[A] IS <i>(name)</i> EXPOSED TO DUST, FUMES OR GAS?</p> <p>[B] IS <i>(name)</i> EXPOSED TO EXTREME COLD, HEAT OR HUMIDITY?</p> <p>[C] IS <i>(name)</i> EXPOSED TO LOUD NOISE OR VIBRATION?</p> <p>[D] IS <i>(name)</i> REQUIRED TO WORK AT HEIGHTS?</p> <p>[E] IS <i>(name)</i> REQUIRED TO WORK WITH CHEMICALS (PESTICIDES, GLUES, ETC.) OR EXPLOSIVES?</p> <p>[F] IS <i>(name)</i> EXPOSED TO OTHER THINGS, PROCESSES OR CONDITIONS BAD FOR <i>(name)</i>'S HEALTH OR SAFETY?</p>	<p>Yes 1 No..... 2</p> <p>Yes 1 No..... 2</p> <p>Yes 1 No..... 2</p> <p>Yes 1 No..... 2</p> <p>Yes 1 No..... 2</p> <p>Yes 1 No..... 2</p>	<p>1⇒ CL8</p> <p>1⇒ CL8</p> <p>1⇒ CL8</p> <p>1⇒ CL8</p> <p>1⇒ CL8</p>																								
<p>CL8. SINCE LAST <i>(day of the week)</i>, DID <i>(name)</i> FETCH WATER OR COLLECT FIREWOOD FOR HOUSEHOLD USE?</p>	<p>Yes 1 No..... 2</p>	<p>2⇒ CL10</p>																								
<p>CL9. IN TOTAL, HOW MANY HOURS DID <i>(name)</i> SPEND ON FETCHING WATER OR COLLECTING FIREWOOD FOR HOUSEHOLD USE, SINCE LAST <i>(day of the week)</i>?</p> <p><i>If less than one hour, record "00"</i></p>	<p>Number of hours __ __</p>																									
<p>CL10. SINCE LAST <i>(day of the week)</i>, DID <i>(name)</i> DO ANY OF THE FOLLOWING FOR THIS HOUSEHOLD?</p> <p>[A] SHOPPING FOR HOUSEHOLD?</p> <p>[B] REPAIR ANY HOUSEHOLD EQUIPMENT?</p> <p>[C] COOKING OR CLEANING UTENSILS OR THE HOUSE?</p> <p>[D] WASHING CLOTHES?</p> <p>[E] CARING FOR CHILDREN?</p> <p>[F] CARING FOR THE OLD OR SICK?</p> <p>[G] OTHER HOUSEHOLD TASKS?</p>	<table border="0"> <thead> <tr> <th></th> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Shopping for household</td> <td>1</td> <td>2</td> </tr> <tr> <td>Repair household equipment</td> <td>1</td> <td>2</td> </tr> <tr> <td>Cooking/cleaning utensils/house</td> <td>1</td> <td>2</td> </tr> <tr> <td>Washing clothes</td> <td>1</td> <td>2</td> </tr> <tr> <td>Caring for children</td> <td>1</td> <td>2</td> </tr> <tr> <td>Caring for old/sick</td> <td>1</td> <td>2</td> </tr> <tr> <td>Other household tasks</td> <td>1</td> <td>2</td> </tr> </tbody> </table>		Yes	No	Shopping for household	1	2	Repair household equipment	1	2	Cooking/cleaning utensils/house	1	2	Washing clothes	1	2	Caring for children	1	2	Caring for old/sick	1	2	Other household tasks	1	2	
	Yes	No																								
Shopping for household	1	2																								
Repair household equipment	1	2																								
Cooking/cleaning utensils/house	1	2																								
Washing clothes	1	2																								
Caring for children	1	2																								
Caring for old/sick	1	2																								
Other household tasks	1	2																								
<p>CL11. Check CL10, A to G</p> <p><input type="checkbox"/> <i>There is at least one 'Yes' ⇒ Continue with CL12</i></p> <p><input type="checkbox"/> <i>All answers are 'No' ⇒ Go to Next Module</i></p>																										
<p>CL12. SINCE LAST <i>(day of the week)</i>, ABOUT HOW MANY HOURS DID <i>(name)</i> ENGAGE IN THIS ACTIVITY/THESE ACTIVITIES, IN TOTAL?</p> <p><i>If less than one hour, record "00"</i></p>	<p>Number of hours __ __</p>																									

CHILD DISCIPLINE		CD																																				
CD1. Check selected child's age from SL9: <input type="checkbox"/> 1-14 years ⇒ Continue with CD2 <input type="checkbox"/> 15-17 years ⇒ Go to Next Module																																						
CD2. Write the line number and name of the child from SL9.	Line number _ _ Name																																					
CD3. ADULTS USE CERTAIN WAYS TO TEACH CHILDREN THE RIGHT BEHAVIOUR OR TO ADDRESS A BEHAVIOUR PROBLEM. I WILL READ VARIOUS METHODS THAT ARE USED. PLEASE TELL ME IF <u>YOU OR ANYONE ELSE IN YOUR HOUSEHOLD</u> HAS USED THIS METHOD WITH <u>(name)</u> IN THE PAST MONTH.	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;"></th> <th style="width: 10%; text-align: center;">Yes</th> <th style="width: 20%; text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>[A] TOOK AWAY PRIVILEGES, FORBADE SOMETHING <i>(name)</i> LIKED OR DID NOT ALLOW HIM/HER TO LEAVE THE HOUSE.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[B] EXPLAINED WHY <i>(name)</i>'S BEHAVIOUR WAS WRONG.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[C] SHOOK HIM/HER.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[D] SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[E] GAVE HIM/HER SOMETHING ELSE TO DO.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[F] SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[G] HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[H] CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[I] HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[J] HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>[K] BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		Yes	No	[A] TOOK AWAY PRIVILEGES, FORBADE SOMETHING <i>(name)</i> LIKED OR DID NOT ALLOW HIM/HER TO LEAVE THE HOUSE.	1	2	[B] EXPLAINED WHY <i>(name)</i> 'S BEHAVIOUR WAS WRONG.	1	2	[C] SHOOK HIM/HER.	1	2	[D] SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	1	2	[E] GAVE HIM/HER SOMETHING ELSE TO DO.	1	2	[F] SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	1	2	[G] HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	1	2	[H] CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	1	2	[I] HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	1	2	[J] HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	1	2	[K] BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.	1	2	
	Yes	No																																				
[A] TOOK AWAY PRIVILEGES, FORBADE SOMETHING <i>(name)</i> LIKED OR DID NOT ALLOW HIM/HER TO LEAVE THE HOUSE.	1	2																																				
[B] EXPLAINED WHY <i>(name)</i> 'S BEHAVIOUR WAS WRONG.	1	2																																				
[C] SHOOK HIM/HER.	1	2																																				
[D] SHOUTED, YELLED AT OR SCREAMED AT HIM/HER.	1	2																																				
[E] GAVE HIM/HER SOMETHING ELSE TO DO.	1	2																																				
[F] SPANKED, HIT OR SLAPPED HIM/HER ON THE BOTTOM WITH BARE HAND.	1	2																																				
[G] HIT HIM/HER ON THE BOTTOM OR ELSEWHERE ON THE BODY WITH SOMETHING LIKE A BELT, HAIRBRUSH, STICK OR OTHER HARD OBJECT.	1	2																																				
[H] CALLED HIM/HER DUMB, LAZY, OR ANOTHER NAME LIKE THAT.	1	2																																				
[I] HIT OR SLAPPED HIM/HER ON THE FACE, HEAD OR EARS.	1	2																																				
[J] HIT OR SLAPPED HIM/HER ON THE HAND, ARM, OR LEG.	1	2																																				
[K] BEAT HIM/HER UP, THAT IS HIT HIM/HER OVER AND OVER AS HARD AS ONE COULD.	1	2																																				
CD4. DO YOU BELIEVE THAT IN ORDER TO BRING UP, RAISE, OR EDUCATE A CHILD PROPERLY, THE CHILD NEEDS TO BE PHYSICALLY PUNISHED?	Yes 1 No 2 DK / No opinion 8																																					

HOUSEHOLD CHARACTERISTICS		HC
HC1B. WHAT IS THE MOTHER TONGUE/NATIVE LANGUAGE OF THE HEAD OF THIS HOUSEHOLD?	Turkmen 1 Uzbek 2 Russian 3 Other language (<i>specify</i>) _____ 6	
HC2. HOW MANY ROOMS IN THIS HOUSEHOLD ARE USED FOR SLEEPING?	Number of rooms _ _	
HC3. <i>Main material of the dwelling floor.</i> <i>Record observation.</i>	Rudimentary floor Wood planks 21 Finished floor Parquet or polished wood / laminate..... 31 Vinyl or asphalt strips 32 Ceramic tiles 33 Wall-to-wall carpet..... 35 Other (<i>specify</i>) _____ 96	
HC4. <i>Main material of the roof.</i> <i>Record observation.</i>	Rudimentary roofing Wood planks 23 Finished roofing Metal / Tin / metal slate 31 Wood 32 Ceramic tiles 34 Cement..... 35 Asbestos slate 37 Ruberoid..... 38 Other (<i>specify</i>) _____ 96	
HC5. <i>Main material of the exterior walls.</i> <i>Record observation.</i>	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 Monolithic concrete design..... 37 Plastered wall 38 Wall sheeted with marble tile / Alucobond..... 39 Other (<i>specify</i>) _____ 96	
HC6. WHAT TYPE OF FUEL DOES YOUR HOUSEHOLD <u>MAINLY</u> USE FOR COOKING?	Electricity..... 01 Liquefied Petroleum Gas (LPG)..... 02 Natural gas..... 03 Kerosene..... 05 Coal / Lignite 06 Wood 08 No food cooked in household 95 Other (<i>specify</i>) _____ 96	01⇒HC8 02⇒HC8 03⇒HC8 05⇒HC8 95⇒HC8

<p>HC7. IS THE COOKING USUALLY DONE IN THE HOUSE, IN A SEPARATE BUILDING, OR OUTDOORS?</p> <p><i>If 'In the house', probe: IS IT DONE IN A SEPARATE ROOM USED AS A KITCHEN?</i></p>	<p>In the house</p> <p>In a separate room used as kitchen..... 1</p> <p>Elsewhere in the house..... 2</p> <p>In a separate building..... 3</p> <p>Outdoors 4</p> <p>Other (<i>specify</i>) _____ 6</p>																																																										
<p>HC8. DOES YOUR HOUSEHOLD HAVE:</p> <p>[A] ELECTRICITY?</p> <p>[B] A RADIO?</p> <p>[C] A TELEVISION (NOT PLASMA AND NOT MESOMORPHIC)?</p> <p>[F] A PLASMA OR MESOMORPHIC (LCD) TELEVISION?</p> <p>[D] A NON-MOBILE TELEPHONE?</p> <p>[E] A REFRIGERATOR?</p> <p>[G] AIR CONDITIONER?</p> <p>[H] WASHING MACHINE?</p> <p>[I] VACUUM CLEANER?</p> <p>[J] COMPUTER / NOTEBOOK?</p> <p>[K] VIDEO RECORDER OR DVD?</p> <p>[L] CASSETTE PLAYER OR CD PLAYER?</p> <p>[M] SEWING MACHINE?</p> <p>[N] FACTORY CARPET?</p> <p>[O] HANDMADE CARPET (WOOL OR SILK)?</p> <p>[P] SOFA?</p> <p>[Q] SIDEBOARD?</p> <p>[R] EMBROIDERY MACHINE?</p>	<table border="0"> <thead> <tr> <th></th> <th style="text-align: center;">Yes</th> <th style="text-align: center;">No</th> </tr> </thead> <tbody> <tr> <td>Electricity.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Radio... ..</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Television (not plasma and not mesomorphic)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>A plasma or mesomorphic (LCD) television.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Non-mobile telephone</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Refrigerator</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Air Conditioner</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Washing machine.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Vacuum cleaner</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Computer / Notebook</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Video recorder.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Cassette player or CD Player</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Sewing machine.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Factory carpet</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Handmade carpet (wool, silk).....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Sofa.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Sideboard.....</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td>Embroidery machine</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> </tbody> </table>		Yes	No	Electricity.....	1	2	Radio... ..	1	2	Television (not plasma and not mesomorphic)	1	2	A plasma or mesomorphic (LCD) television.....	1	2	Non-mobile telephone	1	2	Refrigerator	1	2	Air Conditioner	1	2	Washing machine.....	1	2	Vacuum cleaner	1	2	Computer / Notebook	1	2	Video recorder.....	1	2	Cassette player or CD Player	1	2	Sewing machine.....	1	2	Factory carpet	1	2	Handmade carpet (wool, silk).....	1	2	Sofa.....	1	2	Sideboard.....	1	2	Embroidery machine	1	2	
	Yes	No																																																									
Electricity.....	1	2																																																									
Radio... ..	1	2																																																									
Television (not plasma and not mesomorphic)	1	2																																																									
A plasma or mesomorphic (LCD) television.....	1	2																																																									
Non-mobile telephone	1	2																																																									
Refrigerator	1	2																																																									
Air Conditioner	1	2																																																									
Washing machine.....	1	2																																																									
Vacuum cleaner	1	2																																																									
Computer / Notebook	1	2																																																									
Video recorder.....	1	2																																																									
Cassette player or CD Player	1	2																																																									
Sewing machine.....	1	2																																																									
Factory carpet	1	2																																																									
Handmade carpet (wool, silk).....	1	2																																																									
Sofa.....	1	2																																																									
Sideboard.....	1	2																																																									
Embroidery machine	1	2																																																									

	Yes	No	
HC9. DOES ANY MEMBER OF YOUR HOUSEHOLD OWN: [A] A WATCH? [B] A MOBILE TELEPHONE? [C] A BICYCLE? [D] A MOTORCYCLE OR SCOOTER? [H] A PASSENGER CAR? [I] TRUCK? [J] TRACTOR / COMBINE HARVESTER? [K] TABLET?	Watch 1 Mobile telephone..... 1 Bicycle..... 1 Motorcycle / Scooter 1 A passenger car 1 Truck 1 Tractor / Combine harvester 1 Tablet 1	2 2 2 2 2 2 2	
HC10. DO YOU OR SOMEONE LIVING IN THIS HOUSEHOLD OWN THIS DWELLING? <i>If "No", then ask: DO YOU RENT THIS DWELLING FROM SOMEONE NOT LIVING IN THIS HOUSEHOLD?</i> <i>If rented from a private individual, circle "3".</i> <i>If rented from the State or the State Institution, circle "4".</i> <i>For other responses, circle "6".</i>	Own..... 1 Rented from a private individual 3 Rented from the State or the State's Institution 4 Other (<i>specify</i>) 6		
HC11. DOES ANY MEMBER OF THIS HOUSEHOLD HAVE ANY LAND THAT CAN BE USED FOR AGRICULTURE?	Yes 1 No..... 2		2⇒HC13
HC12. HOW MANY HECTARES OR ARES OF AGRICULTURAL LAND DO MEMBERS OF THIS HOUSEHOLD HAVE? <i>If 1 hectare or more, circle '1' and record hectares.</i> <i>If 95 or more hectares, circle '1' and record '95'.</i> <i>If less than 1 hectare, circle '2' and record in ares.</i> <i>If less than 1 are, circle '2' and record '00'.</i> <i>If unknown, circle "998".</i>	Hectares 1 ____ Ares 2 ____ DK 998		
HC13. DOES THIS HOUSEHOLD OWN ANY LIVESTOCK, HERDS, OTHER FARM ANIMALS, OR POULTRY?	Yes 1 No..... 2		2⇒HC15

<p>HC14. HOW MANY OF THE FOLLOWING ANIMALS DOES THIS HOUSEHOLD HAVE?</p> <p>[A] BULLS, COWS, HEIFERS, CALVES?</p> <p>[G] HORSES?</p> <p>[H] DONKEYS, OR MULES?</p> <p>[C] GOATS?</p> <p>[D] SHEEP?</p> <p>[E] CHICKENS?</p> <p>[I] OTHER POULTRY?</p> <p>[F] PIGS?</p> <p>[J] CAMELS?</p> <p>[K] RABBITS?</p> <p><i>If none, record "00". If 95 or more, record "95". If unknown, record "98".</i></p>	<p>Bulls, cows, heifers, calves __ __</p> <p>Horses, __ __</p> <p>Donkeys or mules __ __</p> <p>Goats __ __</p> <p>Sheep __ __</p> <p>Chickens __ __</p> <p>Other Poultry __ __</p> <p>Pigs __ __</p> <p>Camels __ __</p> <p>Rabbit __ __</p>	
<p>HC15. DOES ANY MEMBER OF THIS HOUSEHOLD HAVE A BANK ACCOUNT?</p>	<p>Yes 1</p> <p>No 2</p>	

WATER AND SANITATION

WS

<p>WS1. WHAT IS THE <u>MAIN</u> SOURCE OF DRINKING WATER FOR MEMBERS OF YOUR HOUSEHOLD?</p>	<p>Piped water Piped into dwelling 11 Piped into compound, yard or plot 12 Piped to neighbour 13 Public tap / standpipe 14 Tube Well, Borehole.....21 Dug well Protected well 31 Unprotected well..... 32 Water from spring Protected spring 41 Unprotected spring 42 Rainwater collection 51 Tanker-truck 61 Cart with small tank / drum..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) 81 Bottled water 91 Other (<i>specify</i>) 96</p>	<p>11⇒WS6 12⇒WS6 13⇒WS6 14⇒WS3 21⇒WS3 31⇒WS3 32⇒WS3 41⇒WS3 42⇒WS3 51⇒WS3 61⇒WS3 71⇒WS3 81⇒WS3 96⇒WS3</p>
<p>WS2. WHAT IS THE <u>MAIN</u> SOURCE OF WATER USED BY YOUR HOUSEHOLD FOR OTHER PURPOSES SUCH AS COOKING AND HANDWASHING?</p>	<p>Piped water Piped into dwelling 11 Piped into compound, yard or plot 12 Piped to neighbour 13 Public tap / standpipe 14 Tube Well, Borehole.....21 Dug well Protected well 31 Unprotected well..... 32 Water from spring Protected spring 41 Unprotected spring 42 Rainwater collection 51 Tanker-truck 61 Cart with small tank / drum..... 71 Surface water (river, stream, dam, lake, pond, canal, irrigation channel) 81 Other (<i>specify</i>) 96</p>	<p>11⇒WS6 12⇒WS6 13⇒WS6</p>
<p>WS3. WHERE IS THAT WATER SOURCE LOCATED?</p>	<p>In own dwelling 1 In own yard / plot 2 Elsewhere 3</p>	<p>1⇒WS6 2⇒WS6</p>
<p>WS4. HOW LONG DOES IT TAKE TO GO THERE, GET WATER, AND COME BACK?</p>	<p>Number of minutes DK..... 998</p>	

<p>WS5. WHO USUALLY GOES TO THIS SOURCE TO COLLECT THE WATER FOR YOUR HOUSEHOLD?</p> <p><i>Probe:</i> IS THIS PERSON UNDER AGE 15? WHAT SEX?</p>	<p>Adult woman (age 15+ years) 1 Adult man (age 15+ years) 2 Female child (under 15) 3 Male child (under 15) 4 DK 8</p>	
<p>WS6. DO YOU DO ANYTHING TO THE WATER TO MAKE IT SAFER TO DRINK?</p>	<p>Yes 1 No 2 DK 8</p>	<p>2⇒WS8 8⇒WS8</p>
<p>WS7. WHAT DO YOU USUALLY DO TO MAKE THE WATER SAFER TO DRINK?</p> <p><i>Probe:</i> ANYTHING ELSE?</p> <p><i>Record all items mentioned.</i></p>	<p>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 (<i>specify</i>) X DK Z</p>	
<p>WS8. WHAT KIND OF TOILET FACILITY DO MEMBERS OF YOUR HOUSEHOLD USUALLY USE?</p> <p><i>If “flush” or “pour flush”, probe:</i> WHERE DOES IT FLUSH TO?</p> <p><i>If not possible to determine, ask permission to observe the facility.</i></p>	<p>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 Pit latrine Ventilated Improved Pit latrine (VIP) 21 Pit latrine with slab 22 Pit latrine without slab / Open pit 23 No facility, Bush, Field 95 Other (<i>specify</i>) 96</p>	<p>95⇒Next Module</p>
<p>WS9. DO YOU SHARE THIS FACILITY WITH OTHERS WHO ARE NOT MEMBERS OF YOUR HOUSEHOLD?</p>	<p>Yes 1 No 2</p>	<p>2⇒Next Module</p>
<p>WS10. DO YOU SHARE THIS FACILITY ONLY WITH MEMBERS OF OTHER HOUSEHOLDS THAT YOU KNOW, OR IS THE FACILITY OPEN TO THE USE OF THE GENERAL PUBLIC?</p>	<p>Other households only (not public) 1 Public facility 2</p>	<p>2⇒Next Module</p>
<p>WS11. HOW MANY HOUSEHOLDS IN TOTAL USE THIS TOILET FACILITY, INCLUDING YOUR OWN HOUSEHOLD?</p>	<p>Number of households (if less than 10). 0 ____ Ten or more households 10 DK 98</p>	

HANDWASHING		HW
<p>HW1. WE WOULD LIKE TO LEARN ABOUT THE PLACES THAT HOUSEHOLDS USE TO WASH THEIR HANDS.</p> <p>CAN YOU PLEASE SHOW ME WHERE MEMBERS OF YOUR HOUSEHOLD <u>MOST OFTEN</u> WASH THEIR HANDS?</p>	<p>Observed 1</p> <p>Not observed</p> <p>Not in dwelling / plot / yard..... 2</p> <p>No permission to see 3</p> <p>Other reason (specify)..... 6</p>	<p>2 ⇨HW4</p> <p>3 ⇨HW4</p> <p>6 ⇨HW4</p>
<p>HW2. <i>Observe presence of water at the place for handwashing.</i></p> <p><i>Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.</i></p>	<p>Water is available..... 1</p> <p>Water is not available 2</p>	
<p>HW3A. <i>Is soap or detergent present at the place for handwashing?</i></p>	<p>Yes, present..... 1</p> <p>No, not present 2</p>	<p>2⇨HW4</p>
<p>HW3B. <i>Record your observation.</i></p> <p><i>Circle all that apply.</i></p>	<p>Bar soap..... A</p> <p>Detergent (Powder / Liquid / Paste)..... B</p> <p>Liquid soap..... C</p>	<p>A⇨HH19</p> <p>B⇨HH19</p> <p>C⇨HH19</p>
<p>HW4. DO YOU HAVE ANY SOAP OR DETERGENT IN YOUR HOUSE FOR WASHING HANDS?</p>	<p>Yes..... 1</p> <p>No 2</p>	<p>2⇨HH19</p>
<p>HW5A. CAN YOU PLEASE SHOW IT TO ME?</p>	<p>Yes, shown 1</p> <p>No, not shown 2</p>	<p>2⇨HH19</p>
<p>HW5B. <i>Record your observation.</i></p> <p><i>Circle all that apply.</i></p>	<p>Bar soap..... A</p> <p>Detergent (Powder / Liquid / Paste)..... B</p> <p>Liquid soap..... C</p>	

HH19. Record the time.	Hour and minutes : ..	
-------------------------------	-----------------------------	--

SALT IODIZATION		SI
<p>SI1. WE WOULD LIKE TO CHECK WHETHER THE SALT USED IN YOUR HOUSEHOLD IS IODIZED. MAY I HAVE A SAMPLE OF THE SALT USED TO <u>COOK MEALS</u> IN YOUR HOUSEHOLD?</p> <p><i>First test for iodate using the blue-capped test kit and circle the appropriate response code.</i></p>	<p>Not iodized - 0 PPM 1 More than 0 PPM & less than 15 PPM..... 2 15 PPM or more 3</p> <p>No salt in the house..... 4</p> <p>Salt not tested <i>(specify reason)</i> 5</p>	<p>2⇒HH20 3⇒HH20 4⇒HH20 5⇒HH20</p>
<p>SI2. THE SALT DID NOT REACT TO MY TEST, SO I WOULD LIKE TO PERFORM ONE OR TWO MORE TESTS ACCORDING TO THE METHOD OF TESTING THAT WE USE. MAY I HAVE ANOTHER SAMPLE OF THE SAME SALT?</p> <p><i>Use the re-check solution from the blue-capped test kit on the fresh sample and perform another test. Circle the appropriate response code.</i></p>	<p>Not iodized - 0 PPM 1 More than 0 PPM & less than 15 PPM..... 2 15 PPM or more 3</p> <p>Salt not tested <i>(specify reason)</i> 5</p>	<p>2⇒HH20 3⇒HH20 5⇒HH20</p>
<p>SI3. Take a fresh sample and test for iodide using the red-capped test kit. Circle the appropriate response code.</p>	<p>Not iodized - 0 PPM 1 More than 0 PPM & less than 15 PPM..... 2 15 PPM or more 3</p> <p>Salt not tested <i>(specify reason)</i> 5</p>	

HH20. Thank the respondent for his/her cooperation and check the List of Household Members:

A separate QUESTIONNAIRE FOR INDIVIDUAL WOMEN has been issued for each woman age 15-49 years in the List of Household Members (HL7).

A separate QUESTIONNAIRE FOR CHILDREN UNDER FIVE has been issued for each child under age 5 years in the List of Household Members (HL7B).

Return to the cover page and make sure that the result of the household interview (HH9), the name and line number of the respondent to the household questionnaire (HH10), and the number of eligible women (HH12) and under-5s (HH14) are entered.

Make arrangements for the administration of the remaining questionnaire(s) in this household.

Interviewer's Observations

Supervisor's Observations

Appendix F2. Questionnaire for Individual Women



QUESTIONNAIRE FOR INDIVIDUAL WOMEN

2015 TURKMENISTAN MULTIPLE INDICATOR CLUSTER SURVEY

WOMAN'S INFORMATION PANEL		WM
<p><i>This questionnaire is to be administered to all women age 15 through 49 (see List of Household Members, column HL7). A separate questionnaire should be used for each eligible woman.</i></p>		
<p>WM1. Cluster number:</p> <p>_____</p>	<p>WM2. Household number:</p> <p>_____</p>	
<p>WM3. Woman's name:</p> <p>Name _____</p>	<p>WM4. Woman's line number:</p> <p>_____</p>	
<p>WM5. Interviewer's name and number:</p> <p>Name _____</p>	<p>WM6. Day / Month / Year of interview:</p> <p>_____ / _____ / 201__</p>	

<p><i>Repeat greeting if not already read to this woman:</i></p> <p>WE ARE FROM THE STATE STATISTICS COMMITTEE OF TURKMENISTAN. WE ARE CONDUCTING A SURVEY ABOUT THE SITUATION OF CHILDREN, FAMILIES AND HOUSEHOLDS. I WOULD LIKE TO TALK TO YOU ABOUT THESE SUBJECTS. THE INTERVIEW WILL TAKE ABOUT 20 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>	<p><i>If greeting at the beginning of the household questionnaire has already been read to this woman, then read the following:</i></p> <p>NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT YOUR HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 20 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>
<p>MAY I START NOW?</p> <p><input type="checkbox"/> Yes, permission is given ⇒ Go to WM10 to record the time and then begin the interview.</p> <p><input type="checkbox"/> No, permission is not given ⇒ Circle "03" in WM7. Discuss this result with your supervisor.</p>	

<p>WM7. Result of woman's interview</p>	<p>Completed 01</p> <p>Not at home 02</p> <p>Refused 03</p> <p>Partly completed 04</p> <p>Incapacitated 05</p> <p>Other (<i>specify</i>) _____ 96</p>
--	---

WM10. Record the time.	Hour and minutes : ..	
-------------------------------	-----------------------------	--

WOMAN'S BACKGROUND		WB
WB1. IN WHAT MONTH AND YEAR WERE YOU BORN?	Date of birth Month DK month 98 Year DK year 9998	
WB2. HOW OLD ARE YOU? <i>Probe: HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?</i> <i>Compare and correct WB1 and/or WB2 if inconsistent.</i>	Age (in completed years)	
WB3. HAVE YOU EVER ATTENDED SCHOOL OR PRESCHOOL?	Yes 1 No 2	2⇒WB7
WB4. WHAT IS THE HIGHEST LEVEL OF SCHOOL YOU ATTENDED?	Preschool/Kindergarten 0 Secondary (1-11) 1 Primary Vocational 2 Secondary Vocational 3 Higher 4	0⇒WB7
WB5. WHAT IS THE HIGHEST GRADE YOU COMPLETED AT THAT LEVEL? <i>If the first grade at this level is not completed, enter "00".</i>	Grade	
WB6. Check WB4 and WB5 <input type="checkbox"/> Secondary (WB4 = 1) and class (WB5 = 04-11) ⇒ Go to Next Module. <input type="checkbox"/> Primary Vocational, Secondary Vocational or Higher (WB4 = 2, 3 or 4) ⇒ Go to Next Module. <input type="checkbox"/> Secondary (WB4 = 1) and (WB5 = 00, 01, 02 or 03) ⇒ Continue with WB7.		
WB7. NOW I WOULD LIKE YOU TO READ THIS SENTENCE TO ME. <i>Show sentence on the card to the respondent. If respondent cannot read whole sentence, probe:</i> CAN YOU READ PART OF THE SENTENCE TO ME?	Cannot read at all 1 Able to read only parts of sentence 2 Able to read whole sentence 3 No sentence in required language _____ 4 <i>(specify language)</i> Blind/visually impaired 5	

ACCESS TO MASS MEDIA AND USE OF INFORMATION/COMMUNICATION TECHNOLOGYMT

MT1. Check WB7:

- Question left blank (Respondent has Secondary (WB4 = 1 and WB5 = 04 to 11), Primary Vocational, Secondary Vocational or Higher education) ⇒ Continue with MT2.
- Able to read or no sentence in required language (WB7 = 2, 3 or 4) ⇒ Continue with MT2.
- Cannot read at all or blind/visually impaired (WB7 = 1 or 5) ⇒ Go to MT3.

MT2. HOW OFTEN DO YOU READ A NEWSPAPER OR MAGAZINE: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day..... 1 At least once a week 2 Less than once a week 3 Not at all 4	
MT3. DO YOU LISTEN TO THE RADIO ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day..... 1 At least once a week 2 Less than once a week 3 Not at all 4	
MT4. HOW OFTEN DO YOU WATCH TELEVISION: WOULD YOU SAY THAT YOU WATCH ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day..... 1 At least once a week 2 Less than once a week 3 Not at all 4	

MT5. Check WB2: Age of respondent?

- Age 15-24 ⇒ Continue with MT6.
- Age 25-49 ⇒ Go to Next Module.

MT6. HAVE YOU EVER USED A COMPUTER?	Yes 1 No 2	2⇒MT9
MT7. HAVE YOU USED A COMPUTER FROM ANY LOCATION IN THE LAST 12 MONTHS?	Yes 1 No 2	2⇒MT9
MT8. DURING THE LAST ONE MONTH, HOW OFTEN DID YOU USE A COMPUTER: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day..... 1 At least once a week 2 Less than once a week 3 Not at all 4	
MT9. HAVE YOU EVER USED THE INTERNET?	Yes 1 No 2	2⇒Next Module
MT10. IN THE LAST 12 MONTHS, HAVE YOU USED THE INTERNET? <i>If necessary, probe for use from any location, with any device.</i>	Yes 1 No 2	2⇒Next Module
MT11. DURING THE LAST ONE MONTH, HOW OFTEN DID YOU USE THE INTERNET: ALMOST EVERY DAY, AT LEAST ONCE A WEEK, LESS THAN ONCE A WEEK OR NOT AT ALL?	Almost every day..... 1 At least once a week 2 Less than once a week 3 Not at all 4	

FERTILITY/BIRTH HISTORY		CM
CM1. NOW I WOULD LIKE TO ASK ABOUT ALL THE BIRTHS YOU HAVE HAD DURING YOUR LIFE. HAVE YOU EVER GIVEN BIRTH?	Yes 1 No 2	2⇒CM8
CM4. DO YOU HAVE ANY SONS OR DAUGHTERS TO WHOM YOU HAVE GIVEN BIRTH WHO ARE NOW LIVING WITH YOU?	Yes 1 No 2	2⇒CM6
CM5. HOW MANY SONS LIVE WITH YOU? HOW MANY DAUGHTERS LIVE WITH YOU? <i>If none, record "00".</i>	Sons at home __ __ Daughters at home __ __	
CM6. 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⇒CM8
CM7. HOW MANY SONS ARE ALIVE BUT DO NOT LIVE WITH YOU? HOW MANY DAUGHTERS ARE ALIVE BUT DO NOT LIVE WITH YOU? <i>If none, record "00".</i>	Sons elsewhere __ __ Daughters elsewhere __ __	
CM8. HAVE YOU EVER GIVEN BIRTH TO A BOY OR GIRL WHO WAS BORN ALIVE BUT LATER DIED? <i>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?</i>	Yes 1 No 2	2⇒CM10
CM9. HOW MANY BOYS HAVE DIED? HOW MANY GIRLS HAVE DIED? <i>If none, record "00".</i>	Boys dead __ __ Girls dead __ __	
CM10. Sum answers to CM5, CM7, and CM9.	Sum __ __	
CM11. JUST TO MAKE SURE THAT I HAVE THIS RIGHT, YOU HAVE HAD IN TOTAL (<i>total number in CM10</i>) LIVE BIRTHS DURING YOUR LIFE. IS THIS CORRECT?		
<input type="checkbox"/> <i>Yes. Check below:</i>		
<input type="checkbox"/> <i>No live births ⇒ Go to ILLNESS SYMPTOMS Module.</i>		
<input type="checkbox"/> <i>One or more live births ⇒ Continue with the BIRTH HISTORY module.</i>		
<input type="checkbox"/> <i>No. ⇒ Check responses to CM1-CM10 and make corrections as necessary before proceeding to the BIRTH HISTORY Module or ILLNESS SYMPTOMS Module.</i>		

BIRTH HISTORY

BH

NOW I WOULD LIKE TO RECORD THE NAMES OF ALL OF YOUR BIRTHS, WHETHER STILL ALIVE OR NOT, STARTING WITH THE FIRST ONE YOU HAD.

Record names of all of the births in BH1. Record twins and triplets on separate lines. If there are more than 14 births, use an additional questionnaire.

BH Line No.	BH1. WHAT NAME WAS GIVEN TO YOUR (first/next) BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS?		BH3. Is (name) A BOY OR A GIRL?		BH4. IN WHAT MONTH AND YEAR WAS (name) BORN? Probe: WHAT IS HIS/HER BIRTHDAY?		BH5. Is (name) STILL ALIVE?		BH6. HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY?	BH7. Is (name) LIVING WITH YOU?		BH8. Record household line number of child (from HLI) Record "00" if child is not listed.	BH9. If dead: HOW OLD WAS (name) WHEN HE/SHE DIED? If "1 year", probe: HOW MANY MONTHS OLD WAS (name)? Record days if less than 1 month; record months if less than 2 years; record years if 2 years or older		BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name), INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH?	
		1 Single 2 Multiple		1 Boy 2 Girl		Month	Year	Y	N	Age	Y	N	Line No	Unit	Number	Y	N
01		1	2	1	2	___	___	1	2	___	1	2	___ ⇒Next Line	Days.....1 Months.....2 Years.....3			
02		1	2	1	2	___	___	1	2	___	1	2	___ ⇒BH10	Days.....1 Months.....2 Years.....3	1	2	Add Birth Next Birth
03		1	2	1	2	___	___	1	2	___	1	2	___ ⇒BH10	Days.....1 Months.....2 Years.....3	1	2	Add Birth Next Birth
04		1	2	1	2	___	___	1	2	___	1	2	___ ⇒BH10	Days.....1 Months.....2 Years.....3	1	2	Add Birth Next Birth
05		1	2	1	2	___	___	1	2	___	1	2	___ ⇒BH10	Days.....1 Months.....2 Years.....3	1	2	Add Birth Next Birth
06		1	2	1	2	___	___	1	2	___	1	2	___ ⇒BH10	Days.....1 Months.....2 Years.....3	1	2	Add Birth Next Birth
07		1	2	1	2	___	___	1	2	___	1	2	___ ⇒BH10	Days.....1 Months.....2 Years.....3	1	2	Add Birth Next Birth

BH Line No.	BH1. WHAT NAME WAS GIVEN TO YOUR (first/next) BABY?	BH2. WERE ANY OF THESE BIRTHS TWINS?		BH3. IS (name) A BOY OR A GIRL?		BH4. IN WHAT MONTH AND YEAR WAS (name) BORN? Probe: WHAT IS HIS/HER BIRTHDAY?		BH5. IS (name) STILL ALIVE?		BH6. HOW OLD WAS (name) AT HIS/HER LAST BIRTHDAY?	BH7. IS (name) LIVING WITH YOU?		BH8. Record household line number of child (from HLI) Record "00" if child is not listed.	BH9. If dead: HOW OLD WAS (name) WHEN HE/SHE DIED? If "1 year", probe: HOW MANY MONTHS OLD WAS (name)? Record days if less than 1 month; record months if less than 2 years; record years if 2 years or older		BH10. WERE THERE ANY OTHER LIVE BIRTHS BETWEEN (name of previous birth) AND (name), INCLUDING ANY CHILDREN WHO DIED AFTER BIRTH?		
		S	M	B	G	Month	Year	Y	N	Age	Y	N	Line No	Unit	Number	Y	N	
08		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
09		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
10		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
11		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
12		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
13		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
14		1	2	1	2	___	___	1	2	___	1	2	___	⇒BH10	Days.....1 Months.....2 Years.....3	___	1	2
BH11. HAVE YOU HAD ANY LIVE BIRTHS SINCE THE BIRTH OF (name of last birth in BIRTH HISTORY Module)?											Yes..... 1				1⇒Record birth(s) in Birth History			
											No..... 2							

CM12A. Compare number in CM10 with number of births in the BIRTH HISTORY Module above and check:

- Numbers are same ⇒ Continue with CM13.
- Numbers are different ⇒ Probe and reconcile.

CM13. Check BH4 in BIRTH HISTORY Module: Last birth occurred within the last 2 years, that is, since (month of interview) in **2013** (if the month of interview and the month of birth are the same, and the year of birth is **2013**, consider this as a birth within the last 2 years)

- No live birth in last 2 years. ⇒ Go to ILLNESS SYMPTOMS Module.
- One or more live births in last 2 years. ⇒ Record name of last born child and continue with Next Module.

Name of last-born child _____

If child has died, take special care when referring to this child by name in the following modules.

DESIRE FOR LAST BIRTH**DB**

This module is to be administered to all women with a live birth in the 2 years preceding the date of interview.

Record name of last-born child from CM13 here _____.

Use this child's name in the following questions, where indicated.

DB1. WHEN YOU GOT PREGNANT WITH (<i>name</i>), DID YOU WANT TO GET PREGNANT AT THAT TIME?	Yes 1 No 2	1⇒Next Module
DB2. DID YOU WANT TO HAVE A BABY LATER ON, OR DID YOU NOT WANT ANY (MORE) CHILDREN?	Later 1 No more..... 2	2⇒Next Module
DB3. HOW MUCH LONGER DID YOU WANT TO WAIT? <i>Record the answer as stated by respondent.</i>	Months..... 1 __ __ Years 2 __ __ DK..... 998	

MATERNAL AND NEWBORN HEALTH

MN

*This module is to be administered to all women with a live birth in the 2 years preceding the date of interview.
Record name of last-born child from CM13 here _____.
Use this child's name in the following questions, where indicated.*

<p>MN1. DID YOU SEE ANYONE FOR ANTENATAL CARE DURING YOUR PREGNANCY WITH (name)?</p>	<p>Yes 1 No 2</p>	<p>2⇒MN17</p>															
<p>MN2. WHOM DID YOU SEE?</p> <p><i>Probe:</i> ANYONE ELSE?</p> <p><i>Probe for the type of person seen and circle all answers given.</i></p>	<p>Health professional: Doctor A Nurse / Midwife..... B Feldsher..... D</p> <p>Other person Traditional birth attendant.....F Other (specify) X</p>																
<p>MN2A. HOW MANY WEEKS OR MONTHS PREGNANT WERE YOU WHEN YOU FIRST RECEIVED ANTENATAL CARE FOR THIS PREGNANCY?</p> <p><i>Record the answer as stated by respondent.</i></p>	<p>Weeks 1 ___ Months..... 2 0 ___ DK..... 998</p>																
<p>MN3. HOW MANY TIMES DID YOU RECEIVE ANTENATAL CARE DURING THIS PREGNANCY?</p> <p><i>Probe to identify the number of times antenatal care was received. If a range is given, record the minimum number of times antenatal care received.</i></p>	<p>Number of times ___ DK..... 98</p>																
<p>MN4. AS PART OF YOUR ANTENATAL CARE DURING THIS PREGNANCY, WERE ANY OF THE FOLLOWING DONE AT LEAST ONCE:</p> <p>[A] WAS YOUR BLOOD PRESSURE MEASURED?</p> <p>[B] DID YOU GIVE A URINE SAMPLE?</p> <p>[C] DID YOU GIVE A BLOOD SAMPLE?</p> <p>[D] DID YOU HAVE AN ULTRA SOUND?</p>	<table border="0"> <tr> <td></td> <td style="text-align: right;">Yes</td> <td style="text-align: right;">No</td> </tr> <tr> <td>Blood pressure</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Urine sample</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Blood sample.....</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> </tr> <tr> <td>Ultra sound.....</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> </tr> </table>		Yes	No	Blood pressure	1	2	Urine sample	1	2	Blood sample.....	1	2	Ultra sound.....	1	2	
	Yes	No															
Blood pressure	1	2															
Urine sample	1	2															
Blood sample.....	1	2															
Ultra sound.....	1	2															
<p>MN17. WHO ASSISTED WITH THE DELIVERY OF (name)?</p> <p><i>Probe:</i> ANYONE ELSE?</p> <p><i>Probe for the type of person assisting and circle all answers given.</i></p> <p><i>If respondent says no one assisted, probe to determine whether any adults were present at the delivery.</i></p>	<p>Health professional: Doctor A Nurse / Midwife..... B Feldsher..... D</p> <p>Other person Traditional birth attendant.....F Relative / Friend H Other (specify) X No one Y</p>																

<p>MN18. WHERE DID YOU GIVE BIRTH TO (<i>name</i>)?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name of place)</i></p>	<p>Home</p> <p>Respondent's home 11</p> <p>Other home..... 12</p> <p>Public sector</p> <p>Government hospital 21</p> <p>Government clinic/health centre..... 22</p> <p>Government health post 23</p> <p>Other public (<i>specify</i>) 26</p> <p>Private Medical Sector</p> <p>Private hospital..... 31</p> <p>Other private medical (<i>specify</i>) 36</p> <p>Other (<i>specify</i>) 96</p>	<p>11⇒MN20</p> <p>12⇒MN20</p> <p>96⇒MN20</p>
<p>MN19. WAS (<i>name</i>) DELIVERED BY CAESAREAN SECTION? THAT IS, DID THEY CUT YOUR BELLY OPEN TO TAKE THE BABY OUT?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2⇒MN20</p>
<p>MN19A. WHEN WAS THE DECISION MADE TO HAVE THE CAESAREAN SECTION?</p> <p>WAS IT BEFORE OR AFTER YOUR LABOUR PAINS STARTED?</p>	<p>Before 1</p> <p>After 2</p>	
<p>MN20. WHEN (<i>name</i>) WAS BORN, WAS HE/SHE VERY LARGE, LARGER THAN AVERAGE, AVERAGE, SMALLER THAN AVERAGE, OR VERY SMALL?</p>	<p>Very large 1</p> <p>Larger than average 2</p> <p>Average 3</p> <p>Smaller than average 4</p> <p>Very small..... 5</p> <p>DK..... 8</p>	
<p>MN21. WAS (<i>name</i>) WEIGHED AT BIRTH?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK..... 8</p>	<p>2⇒MN23</p> <p>8⇒MN23</p>
<p>MN22. HOW MUCH DID (<i>name</i>) WEIGH?</p> <p><i>If a card is available, record weight from card.</i></p>	<p>From card 1 (kg) ____ . ____</p> <p>From recall 2 (kg) ____ . ____</p> <p>DK..... 99998</p>	
<p>MN23. HAS YOUR MENSTRUAL PERIOD RETURNED SINCE THE BIRTH OF (<i>name</i>)?</p>	<p>Yes 1</p> <p>No 2</p>	
<p>MN24. DID YOU EVER BREASTFEED (<i>name</i>)?</p>	<p>Yes 1</p> <p>No 2</p>	<p>2⇒Next Module</p>

<p>MN25. HOW LONG AFTER BIRTH DID YOU FIRST PUT (<i>name</i>) TO THE BREAST?</p> <p><i>If less than 1 hour, record "00" hours. If less than 24 hours, record hours. Otherwise, record days.</i></p>	<p>Immediately..... 000</p> <p>Hours..... 1 __ __</p> <p>Days 2 __ __</p> <p>DK/Don't remember 998</p>	
<p>MN26. IN THE FIRST THREE DAYS AFTER DELIVERY, WAS (<i>name</i>) GIVEN ANYTHING TO DRINK OTHER THAN BREAST MILK?</p>	<p>Yes 1</p> <p>No..... 2</p>	<p>2⇒Next Module</p>
<p>MN27. WHAT WAS (<i>name</i>) GIVEN TO DRINK?</p> <p><i>Probe:</i> ANYTHING ELSE?</p>	<p>Milk (other than breast milk).....A</p> <p>Plain water B</p> <p>Sugar or glucose waterC</p> <p>Gripe water.....D</p> <p>Sugar-salt-water solution E</p> <p>Fruit juice..... F</p> <p>Infant formula G</p> <p>Tea / Infusions.....H</p> <p>Honey..... I</p> <p>Other (<i>specify</i>).....X</p>	

POST-NATAL HEALTH CHECKS

PN

*This module is to be administered to all women with a live birth in the 2 years preceding the date of interview.
Record name of last-born child from CM13 here _____.
Use this child's name in the following questions, where indicated.*

PN1. Check MN18: Was the child delivered in a health facility?

- Yes, the child was delivered in a health facility (MN18=21-26 or 31, 36) ⇒ Continue with PN2.
- No, the child was not delivered in a health facility (MN18=11-12 or 96) ⇒ Go to PN6.

PN2. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT WHAT HAPPENED IN THE HOURS AND DAYS AFTER THE BIRTH OF (name).

YOU HAVE SAID THAT YOU GAVE BIRTH IN (name or type of facility in MN18). HOW LONG DID YOU STAY THERE AFTER THE DELIVERY?

*If less than one day, record hours.
If less than one week, record days.
Otherwise, record weeks.*

Hours..... 1 ___ ___
Days 2 ___ ___
Weeks 3 ___ ___
DK / Don't remember 998

PN3. I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (name)'S HEALTH AFTER DELIVERY – FOR EXAMPLE, SOMEONE EXAMINING (name), CHECKING THE CORD, OR SEEING IF (name) IS OK.

BEFORE YOU LEFT THE (name or type of facility in MN18), DID ANYONE CHECK ON (name)'S HEALTH?

Yes 1
No..... 2

PN4. AND WHAT ABOUT CHECKS ON YOUR HEALTH – I MEAN, SOMEONE ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU?

DID ANYONE CHECK ON YOUR HEALTH BEFORE YOU LEFT (name or type or facility in MN18)?

Yes 1
No..... 2

PN5. NOW I WOULD LIKE TO TALK TO YOU ABOUT WHAT HAPPENED AFTER YOU LEFT (name or type of facility in MN18).

DID ANYONE CHECK ON (name)'S HEALTH AFTER YOU LEFT (name or type of facility in MN18)?

Yes 1
No..... 2

1⇒PN11
2⇒PN16

PN6. Check MN17: Did a health professional or traditional birth attendant assist with the delivery?

- Yes, delivery assisted by a health professional or traditional birth attendant (MN17=A-F) ⇒ Continue with PN7.
- No, delivery not assisted by a health professional or traditional birth attendant (A-F not circled in MN17) ⇒ Go to PN10.

<p>PN7. YOU HAVE ALREADY SAID THAT (<i>person or persons in MN17</i>) ASSISTED WITH THE BIRTH. NOW I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (<i>name</i>)’S HEALTH AFTER DELIVERY, FOR EXAMPLE EXAMINING (<i>name</i>), CHECKING THE CORD, OR SEEING IF (<i>name</i>) IS OK.</p> <p>AFTER THE DELIVERY WAS OVER AND BEFORE (<i>person or persons in MN17</i>) LEFT YOU, DID (<i>person or persons in MN17</i>) CHECK ON (<i>name</i>)’S HEALTH?</p>	<p>Yes 1 No..... 2</p>	
<p>PN8. AND DID (<i>person or persons in MN17</i>) CHECK ON <u>YOUR</u> HEALTH BEFORE LEAVING?</p> <p>BY CHECK ON YOUR HEALTH, I MEAN ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU.</p>	<p>Yes 1 No..... 2</p>	
<p>PN9. AFTER THE (<i>person or persons in MN17</i>) LEFT YOU, DID ANYONE CHECK ON THE HEALTH OF (<i>name</i>)?</p>	<p>Yes 1 No..... 2</p>	<p>1⇒PN11 2⇒PN18</p>
<p>PN10. I WOULD LIKE TO TALK TO YOU ABOUT CHECKS ON (<i>name</i>)’S HEALTH AFTER DELIVERY – FOR EXAMPLE, SOMEONE EXAMINING (<i>name</i>), CHECKING THE CORD, OR SEEING IF (<i>name</i>) IS OK.</p> <p>AFTER (<i>name</i>) WAS DELIVERED, DID ANYONE CHECK ON HIS/HER HEALTH?</p>	<p>Yes 1 No..... 2</p>	<p>2⇒PN19</p>
<p>PN11. DID SUCH A CHECK HAPPEN ONLY ONCE, OR MORE THAN ONCE?</p>	<p>Once..... 1 More than once 2</p>	<p>1⇒PN12A 2⇒PN12B</p>
<p>PN12A. HOW LONG AFTER DELIVERY DID THAT CHECK HAPPEN?</p> <p>PN12B. HOW LONG AFTER DELIVERY DID THE FIRST OF THESE CHECKS HAPPEN?</p> <p><i>If less than one day, record hours. If less than one week, record days. Otherwise, record weeks.</i></p>	<p>Hours..... 1 ___ ___ Days 2 ___ ___ Weeks 3 ___ ___ DK / Don’t remember 998</p>	
<p>PN13. WHO CHECKED ON (<i>name</i>)’S HEALTH AT THAT TIME?</p>	<p>Health professional DoctorA Nurse / MidwifeB FeldsherD</p> <p>Other person Traditional birth attendantF Relative / FriendH</p> <p>Other (<i>specify</i>)X</p>	

<p>PN14. WHERE DID THIS CHECK TAKE PLACE?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Home</p> <p>Respondent's home 11</p> <p>Other home 12</p> <p>Public sector</p> <p>Government hospital 21</p> <p>Government clinic / health centre 22</p> <p>Government health post 23</p> <p>Other public (<i>specify</i>) 26</p> <p>Private medical sector</p> <p>Private hospital 31</p> <p>Other private medical (<i>specify</i>) 36</p> <p>Other (<i>specify</i>) 96</p>	
<p>PN15. Check MN18: Was the child delivered in a health facility?</p> <p><input type="checkbox"/> Yes, the child was delivered in a health facility (MN18 = 21-26 or 31, 36) ⇒ Continue with PN16.</p> <p><input type="checkbox"/> No, the child was not delivered in a health facility (MN18 = 11-12 or 96) ⇒ Go to PN17.</p>		
<p>PN16. AFTER YOU LEFT (name or type of facility in MN18), DID ANYONE CHECK ON <u>YOUR</u> HEALTH?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1 ⇒ PN20</p> <p>2 ⇒ Next Module</p>
<p>PN17. Check MN17: Did a health professional or traditional birth attendant assist with the delivery?</p> <p><input type="checkbox"/> Yes, delivery assisted by a health professional or traditional birth attendant (MN17 = A-F) ⇒ Continue with PN18</p> <p><input type="checkbox"/> No, delivery not assisted by a health professional or traditional birth attendant (A-F not circled in MN17) ⇒ Go to PN19</p>		
<p>PN18. AFTER THE DELIVERY WAS OVER AND (person or persons in MN17) LEFT, DID ANYONE CHECK ON <u>YOUR</u> HEALTH?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1 ⇒ PN20</p> <p>2 ⇒ Next Module</p>
<p>PN19. AFTER THE BIRTH OF (name), DID ANYONE CHECK ON <u>YOUR</u> HEALTH?</p> <p>I MEAN SOMEONE ASSESSING YOUR HEALTH, FOR EXAMPLE ASKING QUESTIONS ABOUT YOUR HEALTH OR EXAMINING YOU.</p>	<p>Yes 1</p> <p>No 2</p>	<p>2 ⇒ Next Module</p>
<p>PN20. DID SUCH A CHECK HAPPEN ONLY ONCE, OR MORE THAN ONCE?</p>	<p>Once 1</p> <p>More than once 2</p>	<p>1 ⇒ PN21A</p> <p>2 ⇒ PN21B</p>
<p>PN21A. HOW LONG AFTER DELIVERY DID THAT CHECK HAPPEN?</p> <p>PN21B. HOW LONG AFTER DELIVERY DID THE FIRST OF THESE CHECKS HAPPEN?</p> <p><i>If less than one day, record hours.</i></p> <p><i>If less than one week, record days.</i></p> <p><i>Otherwise, record weeks.</i></p>	<p>Hours 1 ___</p> <p>Days 2 ___</p> <p>Weeks 3 ___</p> <p>DK / Don't remember 998</p>	

<p>PN22. WHO CHECKED ON <u>YOUR</u> HEALTH AT THAT TIME?</p>	<p>Health professional Doctor A Nurse / Midwife B Feldsher D</p> <p>Other person Traditional birth attendant F Relative / Friend H</p> <p>Other (<i>specify</i>) X</p>	
<p>PN23. WHERE DID THIS CHECK TAKE PLACE?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p>(<i>Name of place</i>)</p>	<p>Home Respondent's home 11 Other home 12</p> <p>Public sector Government hospital 21 Government clinic / health centre 22 Government health post 23 Other public (<i>specify</i>) 26</p> <p>Private medical sector Private hospital 31</p> <p>Other private medical (<i>specify</i>) 36</p> <p>Other (<i>specify</i>) 96</p>	

IS1. Check List of Household Members, columns HL7B and HL15:

Is the respondent the mother or caretaker of any child under age 5?

Yes ⇒ Continue with IS2.

No ⇒ Go to Next Module.

IS2. SOMETIMES CHILDREN HAVE SEVERE ILLNESSES AND SHOULD BE TAKEN IMMEDIATELY TO A HEALTH FACILITY. WHAT TYPES OF SYMPTOMS WOULD CAUSE YOU TO TAKE A CHILD UNDER THE AGE OF 5 TO A HEALTH FACILITY RIGHT AWAY?

Probe:

ANY OTHER SYMPTOMS?

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 difficulty breathing E
- Child has blood in stool F
- Child is drinking poorly G

Other (*specify*) _____ X

Other (*specify*) _____ Y

Other (*specify*) _____ Z

MARRIAGE/UNION		MA
MA1. ARE YOU CURRENTLY MARRIED OR LIVING TOGETHER WITH A MAN IN AN UNREGISTERED MARRIAGE?	Yes, currently married 1 Yes, living with a man in an unregistered marriage 2 No, not in union 3	3⇒MA5
MA2. HOW OLD IS YOUR HUSBAND/PARTNER? <i>Probe:</i> HOW OLD WAS YOUR HUSBAND/PARTNER ON HIS LAST BIRTHDAY?	Age in years.....__ __ DK.....98	⇒MA7 98⇒MA7
MA5. HAVE YOU EVER BEEN MARRIED OR LIVED TOGETHER WITH A MAN IN AN UNREGISTERED MARRIAGE?	Yes, formerly married 1 Yes, formerly lived with a man in an unregistered marriage 2 No 3	3⇒Module DV
MA6. WHAT IS YOUR MARITAL STATUS NOW: ARE YOU WIDOWED, DIVORCED OR SEPARATED?	Widowed 1 Divorced 2 Separated 3	
MA7. HAVE YOU BEEN MARRIED OR LIVED WITH A MAN IN AN UNREGISTERED MARRIAGE ONLY ONCE OR MORE THAN ONCE?	Only once 1 More than once..... 2	1⇒MA8A 2⇒MA8B
MA8A. IN WHAT MONTH AND YEAR DID YOU MARRY OR START LIVING WITH A MAN AS IF MARRIED? MA8B. IN WHAT MONTH AND YEAR DID YOU FIRST MARRY OR START LIVING WITH A MAN IN AN UNREGISTERED MARRIAGE?	Date of (first) marriage Month.....__ __ DK month.....98 Year__ __ __ __ DK year.....9998	⇒Next Module
MA9. HOW OLD WERE YOU WHEN YOU FIRST STARTED LIVING WITH YOUR (FIRST) HUSBAND/PARTNER?	Age in years.....__ __	

CP0. I WOULD LIKE TO TALK WITH YOU ABOUT ANOTHER SUBJECT – FAMILY PLANNING.

COUPLES USE VARIOUS WAYS OR METHODS TO DELAY OR AVOID A PREGNANCY.

HAVE YOU HEARD ABOUT:

[A] FEMALE STERILIZATION?

Probe: WOMEN CAN HAVE AN OPERATION TO AVOID HAVING ANY MORE CHILDREN.

Yes 1
No 2

[B] MALE STERILIZATION?

Probe: MEN CAN HAVE AN OPERATION TO AVOID HAVING ANY MORE CHILDREN.

Yes 1
No 2

[C] IUD?

Probe: WOMEN CAN HAVE A LOOP OR COIL PLACED INSIDE THEM BY A DOCTOR OR A NURSE.

Yes 1
No 2

[D] INJECTABLES?

Probe: WOMEN CAN HAVE AN INJECTION BY A HEALTH PROVIDER THAT STOPS THEM FROM BECOMING PREGNANT FOR ONE OR MORE MONTHS.

Yes 1
No 2

[E] IMPLANTS?

Probe: WOMEN CAN HAVE ONE OR MORE SMALL RODS PLACED IN THEIR UPPER ARM BY A DOCTOR OR NURSE WHICH CAN PREVENT PREGNANCY FOR ONE OR MORE YEARS.

Yes 1
No 2

[F] PILL?

Probe: WOMEN CAN TAKE A PILL EVERY DAY TO AVOID BECOMING PREGNANT.

Yes 1
No 2

[G] MALE CONDOM?

Probe: MEN CAN PUT A RUBBER SHEATH ON THEIR PENIS BEFORE SEXUAL INTERCOURSE.

Yes 1
No 2

[H] FEMALE CONDOM?

Probe: WOMEN CAN PLACE A SHEATH IN THEIR VAGINA BEFORE SEXUAL INTERCOURSE.

Yes 1
No 2

[I] DIAPHRAGM?

Probe: WOMEN CAN INSERT A SOFT RUBBER CUP IN THEIR VAGINA TO BLOCK THE SPERM FROM ENTERING THEIR UTERUS OR FALLOPIAN TUBES.

Yes 1
No 2

[J] FOAM / JELLY?

Probe: WOMEN MAY USE SPERMICIDAL PRODUCTS (E.G. FOAM, JELLY, CREAM) THAT CAN KILL OR PREVENT THE SPERM FROM MOVING AND REACHING THE EGG.

Yes 1
No 2

[L] PERIODIC ABSTINENCE / RHYTHM METHOD?

Probe: TO AVOID PREGNANCY, WOMEN DO NOT HAVE SEXUAL INTERCOURSE ON THE DAYS OF THE MONTH THEY THINK THEY CAN GET PREGNANT.

Yes 1
No 2

<p>[M] WITHDRAWAL? <i>Probe: MEN CAN BE CAREFUL AND PULL OUT BEFORE CLIMAX.</i></p> <p>[N] EMERGENCY / POSTCOITAL CONTRACEPTION? <i>Probe: AS AN EMERGENCY MEASURE, WITHIN THREE DAYS AFTER THEY HAVE UNPROTECTED SEXUAL INTERCOURSE, WOMEN CAN TAKE SPECIAL PILLS TO PREVENT PREGNANCY.</i></p> <p>[X] HAVE YOU HEARD OF ANY OTHER WAYS OR METHODS THAT WOMEN OR MEN CAN USE TO AVOID PREGNANCY?</p>	<p>Yes 1 No..... 2</p> <p>Yes 1 No..... 2</p> <p>Yes 1</p> <p>_____</p> <p style="text-align: center;"><i>(specify)</i></p> <p>_____</p> <p style="text-align: center;"><i>(specify)</i></p> <p>No..... 2</p>	
<p>CP1. ARE YOU PREGNANT NOW?</p>	<p>Yes, currently pregnant..... 1 No..... 2 Unsure or DK 8</p>	<p>1⇒CP2A</p>
<p>CP2. ARE YOU CURRENTLY DOING SOMETHING OR USING ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?</p>	<p>Yes 1 No..... 2</p>	<p>1⇒CP3</p>
<p>CP2A. HAVE YOU EVER DONE SOMETHING OR USED ANY METHOD TO DELAY OR AVOID GETTING PREGNANT?</p>	<p>Yes 1 No..... 2</p>	<p>1⇒Next Module 2⇒Next Module</p>
<p>CP3. WHAT ARE YOU DOING TO DELAY OR AVOID A PREGNANCY?</p> <p><i>Do not prompt. If more than one method is mentioned, circle each one.</i></p>	<p>Female sterilizationA Male sterilizationB IUDC InjectablesD Implants.....E Pill.....F Male condom.....G Female condomH Diaphragm.....I Foam / JellyJ Periodic abstinence / RhythmL WithdrawalM</p> <p>Other (<i>specify</i>).....X</p>	

UN1. Check CP1: Currently pregnant?

- Yes, currently pregnant ⇒ Continue with UN2.
- No, unsure or DK ⇒ Go to UN5.

UN2. NOW I WOULD LIKE TO TALK TO YOU ABOUT YOUR CURRENT PREGNANCY. WHEN YOU GOT PREGNANT, DID YOU WANT TO GET PREGNANT AT THAT TIME?	Yes.....1	1⇒UN4
	No2	

UN3. DID YOU WANT TO HAVE A BABY LATER ON OR DID YOU NOT WANT ANY (MORE) CHILDREN?	Later.....1	
	No more2	

UN4. 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 another child.....1	1⇒UN7
	No more / None2	2⇒UN13
	Undecided / DK.....8	8⇒UN13

UN5. Check CP3: Currently using “Female sterilization” (CP3 = A)?

- Yes ⇒ Go to UN13.
- No ⇒ Continue with UN6.

UN6. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE FUTURE. WOULD YOU LIKE TO HAVE (A/ANOTHER) CHILD, OR WOULD YOU PREFER NOT TO HAVE ANY (MORE) CHILDREN?	Have (a/another) child1	
	No more / None2	2⇒UN9
	Says she cannot get pregnant.....3	3⇒UN11
	Undecided / DK.....8	8⇒UN9

UN7. HOW LONG WOULD YOU LIKE TO WAIT BEFORE THE BIRTH OF (A/ANOTHER) CHILD? <i>Record the answer as stated by respondent.</i>	Months 1 __ __	
	Years 2 __ __	
	Does not want to wait (soon / now) 993	994⇒UN11
	Says she cannot get pregnant..... 994	
	After marriage 995	
	Other 996	
DK..... 998		

UN8. Check CP1: Currently pregnant?

- Yes, currently pregnant ⇒ Go to UN13.
- No, unsure or DK ⇒ Continue with UN9.

UN9. Check CP2: Currently using a method? <input type="checkbox"/> <i>Yes</i> ⇒ <i>Go to UN13.</i> <input type="checkbox"/> <i>No</i> ⇒ <i>Continue with UN10.</i>		
UN10. DO YOU THINK YOU ARE PHYSICALLY ABLE TO GET PREGNANT AT THIS TIME?	Yes.....1 No2 DK.....8	1 ⇒UN13 8 ⇒UN13
UN11. WHY DO YOU THINK YOU ARE NOT PHYSICALLY ABLE TO GET PREGNANT?	Infrequent sex / No sex..... A Menopausal B Never menstruated C Hysterectomy (surgical removal of uterus)..... D Has been trying to get pregnant for 2 years or more without result E Postpartum amenorrheic F Breastfeeding..... G Too old H Fatalistic..... I Other (<i>specify</i>) X DK..... Z	
UN12. Check UN11: “Never menstruated” mentioned? <input type="checkbox"/> <i>Mentioned</i> ⇒ <i>Go to Next Module.</i> <input type="checkbox"/> <i>Not mentioned</i> ⇒ <i>Continue with UN13.</i>		
UN13. WHEN DID YOUR LAST MENSTRUAL PERIOD START? <i>Record the answer using the same unit stated by the respondent.</i>	Days ago..... 1 __ __ Weeks ago..... 2 __ __ Months ago 3 __ __ Years ago 4 __ __ In menopause / Has had hysterectomy 994 Before last birth..... 995 Never menstruated 996	

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:

		Yes	No	DK
[A] IF SHE GOES OUT WITHOUT TELLING HIM?	Goes out without telling.....	1	2	8
[B] IF SHE NEGLECTS THE CHILDREN?	Neglects children.....	1	2	8
[C] IF SHE ARGUES WITH HIM?	Argues with him.....	1	2	8
[D] IF SHE REFUSES TO HAVE SEX WITH HIM?	Refuses sex	1	2	8
[E] IF SHE BURNS THE FOOD?	Burns food.....	1	2	8
[F] IF SHE DOES NOT RESPECT HER HUSBAND'S PARENTS?	Does not respect her husband's parents.....	1	2	8

HIV/AIDS		HA
HA1. NOW I WOULD LIKE TO TALK WITH YOU ABOUT SOMETHING ELSE. HAVE YOU EVER HEARD OF AN ILLNESS CALLED AIDS?	Yes 1	2⇒WM11
	No.....2 DK.....8	
HA2. CAN PEOPLE REDUCE THEIR CHANCE OF GETTING THE AIDS VIRUS BY HAVING JUST ONE UNINFECTED SEX PARTNER WHO HAS NO OTHER SEX PARTNERS?	Yes 1 No.....2 DK.....8	
HA3. CAN PEOPLE GET THE AIDS VIRUS BECAUSE OF WITCHCRAFT OR OTHER SUPERNATURAL MEANS?	Yes 1 No.....2 DK.....8	
HA3A. CAN PEOPLE GET THE AIDS VIRUS BY HUGGING OR SHAKING HANDS WITH A PERSON WHO IS INFECTED WITH THE AIDS VIRUS?	Yes 1 No.....2 DK.....8	
HA3B. CAN PEOPLE GET THE AIDS VIRUS BY KISSING WITH A PERSON WHO IS INFECTED WITH THE AIDS VIRUS?	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 GET THE AIDS VIRUS BY SHARING FOOD WITH A PERSON WHO HAS THE AIDS VIRUS?	Yes 1 No.....2 DK.....8	
HA7. IS IT POSSIBLE FOR A HEALTHY-LOOKING PERSON TO HAVE THE AIDS VIRUS?	Yes 1 No.....2 DK.....8	
HA8. CAN THE VIRUS THAT CAUSES AIDS BE TRANSMITTED FROM A MOTHER TO HER BABY:		
	Yes No DK	
[A] DURING PREGNANCY?	During pregnancy 1 2 8	
[B] DURING DELIVERY?	During delivery 1 2 8	
[C] BY BREASTFEEDING?	By breastfeeding 1 2 8	
HA9. IN YOUR OPINION, 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	
HA10. 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	

HA11. IF A MEMBER OF YOUR FAMILY GOT INFECTED WITH THE AIDS VIRUS, WOULD YOU WANT IT TO REMAIN A SECRET?	Yes 1 No 2 DK / Not sure / Depends 8																					
HA12. IF A MEMBER OF YOUR FAMILY BECAME SICK WITH AIDS, WOULD YOU BE WILLING TO CARE FOR HER OR HIM IN YOUR OWN HOUSEHOLD?	Yes 1 No 2 DK / Not sure / Depends 8																					
HA12A. DO YOU THINK CHILDREN LIVING WITH THE AIDS VIRUS SHOULD BE ALLOWED TO ATTEND SCHOOL WITH CHILDREN WHO ARE NOT INFECTED WITH THE AIDS VIRUS?	Yes 1 No 2 DK / Not sure / Depends 8																					
HA13. Check CM13: Any live birth in last 2 years? <input type="checkbox"/> No live birth in last 2 years (CM13 = "No" or blank) ⇒ Go to HA24. <input type="checkbox"/> One or more live births in last 2 years ⇒ Continue with HA14.																						
HA14. Check MN1: Received antenatal care? <input type="checkbox"/> Received antenatal care ⇒ Continue with HA15. <input type="checkbox"/> Did not receive antenatal care ⇒ Go to HA24.																						
HA15. DURING ANY OF THE ANTENATAL VISITS FOR YOUR PREGNANCY WITH (<i>name</i>), WERE YOU GIVEN ANY INFORMATION ABOUT: [A] BABIES GETTING THE AIDS VIRUS FROM THEIR MOTHER? [B] THINGS THAT YOU CAN DO TO PREVENT GETTING THE AIDS VIRUS? [C] GETTING TESTED FOR THE AIDS VIRUS? WERE YOU: [D] OFFERED A TEST FOR THE AIDS VIRUS?	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;">Y</th> <th style="width: 10%; text-align: center;">N</th> <th style="width: 10%; text-align: center;">DK</th> </tr> </thead> <tbody> <tr> <td>AIDS from mother</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>Things to do</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>Tested for AIDS</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> <tr> <td>Offered a test</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">8</td> </tr> </tbody> </table>		Y	N	DK	AIDS from mother	1	2	8	Things to do	1	2	8	Tested for AIDS	1	2	8	Offered a test	1	2	8	
	Y	N	DK																			
AIDS from mother	1	2	8																			
Things to do	1	2	8																			
Tested for AIDS	1	2	8																			
Offered a test	1	2	8																			
HA16. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE AIDS VIRUS AS PART OF YOUR ANTENATAL CARE?	Yes 1 No 2 DK 8	2 ⇒ HA19 8 ⇒ HA19																				
HA17. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes 1 No 2 DK 8	2 ⇒ HA22 8 ⇒ HA22																				
HA18. REGARDLESS OF THE RESULT, ALL WOMEN WHO ARE TESTED ARE SUPPOSED TO RECEIVE COUNSELLING AFTER GETTING THE RESULT. AFTER YOU WERE TESTED, DID YOU RECEIVE COUNSELLING?	Yes 1 No 2 DK 8	1 ⇒ HA22 2 ⇒ HA22 8 ⇒ HA22																				
HA19. Check MN17: Birth delivered by health professional (A, B or D)? <input type="checkbox"/> Yes, birth delivered by health professional (MN17 = A, B or D) ⇒ Continue with HA20. <input type="checkbox"/> No, birth not delivered by health professional (MN17 = else) ⇒ Go to HA24.																						

HA20. I DON'T WANT TO KNOW THE RESULTS, BUT WERE YOU TESTED FOR THE AIDS VIRUS BETWEEN THE TIME YOU WENT FOR DELIVERY BUT BEFORE THE BABY WAS BORN?	Yes 1 No..... 2	2⇒HA24
HA21. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes 1 No..... 2	
HA22. HAVE YOU BEEN TESTED FOR THE AIDS VIRUS SINCE THAT TIME YOU WERE TESTED DURING YOUR PREGNANCY?	Yes 1 No..... 2	1⇒HA25
HA23. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED FOR THE AIDS VIRUS?	Less than 12 months ago..... 1 12-23 months ago 2 2 or more years ago 3	1⇒WM11 2⇒WM11 3⇒WM11
HA24. I DON'T WANT TO KNOW THE RESULTS, BUT HAVE YOU EVER BEEN TESTED TO SEE IF YOU HAVE THE AIDS VIRUS?	Yes 1 No..... 2	2⇒HA27
HA25. WHEN WAS THE MOST RECENT TIME YOU WERE TESTED?	Less than 12 months ago..... 1 12-23 months ago 2 2 or more years ago 3	
HA26. I DON'T WANT TO KNOW THE RESULTS, BUT DID YOU GET THE RESULTS OF THE TEST?	Yes 1 No..... 2 DK 8	1⇒WM11 2⇒WM11 8⇒WM11
HA27. DO YOU KNOW OF A PLACE WHERE PEOPLE CAN GO TO GET TESTED FOR THE AIDS VIRUS?	Yes 1 No..... 2	

WM11. Record the time.	Hour and minutes__ : __
-------------------------------	-------------------------------

<p>WM12. Check List of Household Members, columns HL7B and HL15: Is the respondent the mother or caretaker of any child age 0-4 living in this household?</p> <p><input type="checkbox"/> Yes ⇒ Proceed to complete the result of woman's interview (WM7) on the cover page and then go to QUESTIONNAIRE FOR CHILDREN UNDER FIVE for that child and start the interview with this respondent.</p> <p><input type="checkbox"/> No ⇒ End the interview with this respondent by thanking her for her cooperation and proceed to complete the result of woman's interview (WM7) on the cover page.</p>

Interviewer's Observations

Supervisor's Observations



QUESTIONNAIRE FOR CHILDREN UNDER FIVE

2015 TURKMENISTAN MULTIPLE INDICATOR CLUSTER SURVEY

UNDER-FIVE CHILD INFORMATION PANEL		UF
<p><i>This questionnaire is to be administered to all mothers or caretakers (see List of Household Members, column HL15) who care for a child that lives with them and is under the age of 5 years (see List of Household Members, column HL7B).</i></p> <p><i>A separate questionnaire should be used for each eligible child.</i></p>		
<p>UF1. Cluster number:</p> <p>_____</p>	<p>UF2. Household number:</p> <p>_____</p>	
<p>UF3. Child's name:</p> <p>Name _____</p>	<p>UF4. Child's line number:</p> <p>_____</p>	
<p>UF5. Mother's / Caretaker's name:</p> <p>Name _____</p>	<p>UF6. Mother's / Caretaker's line number:</p> <p>_____</p>	
<p>UF7. Interviewer's name and number:</p> <p>Name _____</p>	<p>UF8. Day / Month / Year of interview:</p> <p>_____ / _____ / 201_____</p>	

<p><i>Repeat greeting if not already read to this respondent:</i></p> <p>WE ARE FROM THE STATE STATISTICS COMMITTEE. WE ARE CONDUCTING A SURVEY ABOUT THE SITUATION OF CHILDREN, FAMILIES AND HOUSEHOLDS. I WOULD LIKE TO TALK TO YOU ABOUT (<i>child's name from UF3</i>)'S HEALTH AND WELL-BEING. THE INTERVIEW WILL TAKE ABOUT 15 MINUTES. ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>	<p><i>If greeting at the beginning of the household questionnaire has already been read to this person, then read the following:</i></p> <p>NOW I WOULD LIKE TO TALK TO YOU MORE ABOUT (<i>child's name from UF3</i>)'S HEALTH AND OTHER TOPICS. THIS INTERVIEW WILL TAKE ABOUT 15 MINUTES. AGAIN, ALL THE INFORMATION WE OBTAIN WILL REMAIN STRICTLY CONFIDENTIAL AND ANONYMOUS.</p>
<p>MAY I START NOW?</p> <p><input type="checkbox"/> Yes, permission is given ⇒ Go to UF12 to record the time and then begin the interview.</p> <p><input type="checkbox"/> No, permission is not given ⇒ Circle '03' in UF9. Discuss this result with your supervisor.</p>	

<p>UF9. Result of interview for children under 5</p> <p><i>Codes refer to mother/caretaker.</i></p>	<p>Completed01</p> <p>Not at home02</p> <p>Refused03</p> <p>Partly completed04</p> <p>Incapacitated05</p> <p>Other (<i>specify</i>) _____ 96</p>
--	--

UF12. Record the time.	Hour and minutes..... ____ : ____	
-------------------------------	-----------------------------------	--

AGE	AG
<p>AG1. NOW I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE DEVELOPMENT AND HEALTH OF <i>(name)</i>.</p> <p>ON WHAT DAY, MONTH AND YEAR WAS <i>(name)</i> BORN?</p> <p><i>Probe:</i> WHAT IS HIS/HER BIRTHDAY?</p> <p><i>If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day.</i></p> <p><i>Month and year must be recorded.</i></p>	<p>Date of birth</p> <p>Day ____</p> <p>DK day..... 98</p> <p>Month..... ____</p> <p>Year 201 ____</p>
<p>AG2. HOW OLD IS <i>(name)</i>?</p> <p><i>Probe:</i> HOW OLD WAS <i>(name)</i> AT HIS/HER LAST BIRTHDAY?</p> <p><i>Record age in completed years.</i></p> <p><i>Record '0' if less than 1 year.</i></p> <p><i>Compare and correct AG1 and/or AG2 if inconsistent.</i></p>	<p>Age (in completed years) ____</p>

BIRTH REGISTRATION		BR
BR1. DOES (name) HAVE A BIRTH CERTIFICATE? <i>If yes, ask:</i> MAY I SEE IT?	Yes, seen..... 1	1⇒Next Module 2⇒Next Module
	Yes, not seen.....2	
	No.....3	
	DK.....8	
BR2. HAS (name)'S BIRTH BEEN REGISTERED WITH THE CIVIL REGISTRY OFFICE?	Yes 1	1⇒Next Module
	No 2	
	DK.....8	
BR3. DO YOU KNOW HOW TO REGISTER (name)'S BIRTH?	Yes 1	
	No2	

EARLY CHILDHOOD DEVELOPMENT		EC																
<p>EC1. HOW MANY CHILDREN’S BOOKS OR PICTURE BOOKS DO YOU HAVE FOR (<i>name</i>)?</p>	<p>None00</p> <p>Number of children’s books.....0 __</p> <p>Ten or more books 10</p>																	
<p>EC2. I AM INTERESTED IN LEARNING ABOUT THE THINGS THAT (<i>name</i>) PLAYS WITH WHEN HE/SHE IS AT HOME.</p> <p>DOES HE/SHE PLAY WITH:</p> <p>[A] HOMEMADE TOYS (SUCH AS DOLLS, CARS, OR OTHER TOYS MADE AT HOME)?</p> <p>[B] TOYS FROM A SHOP OR MANUFACTURED TOYS?</p> <p>[C] HOUSEHOLD OBJECTS (SUCH AS BOWLS OR POTS) OR OBJECTS FOUND OUTSIDE (SUCH AS STICKS, ROCKS, ANIMAL SHELLS OR LEAVES)?</p> <p><i>If the respondent says “YES” to the categories above, then probe to learn specifically what the child plays with to ascertain the response.</i></p>	<table border="0"> <tr> <td></td> <td style="text-align: right;">Y</td> <td style="text-align: right;">N</td> <td style="text-align: right;">DK</td> </tr> <tr> <td>Homemade toys</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> <td style="text-align: right;">8</td> </tr> <tr> <td>Toys from a shop.....</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> <td style="text-align: right;">8</td> </tr> <tr> <td>Household objects or outside objects</td> <td style="text-align: right;">1</td> <td style="text-align: right;">2</td> <td style="text-align: right;">8</td> </tr> </table>		Y	N	DK	Homemade toys	1	2	8	Toys from a shop.....	1	2	8	Household objects or outside objects	1	2	8	
	Y	N	DK															
Homemade toys	1	2	8															
Toys from a shop.....	1	2	8															
Household objects or outside objects	1	2	8															
<p>EC3. 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.</p> <p>ON HOW MANY DAYS IN THE PAST WEEK WAS (<i>name</i>):</p> <p>[A] LEFT ALONE FOR MORE THAN AN HOUR?</p> <p>[B] LEFT IN THE CARE OF ANOTHER CHILD, THAT IS, SOMEONE LESS THAN 10 YEARS OLD, FOR MORE THAN AN HOUR?</p> <p><i>If ‘none’ enter ‘0’. If ‘don’t know’ enter ‘8’.</i></p>	<p>Number of days left alone for more than an hour</p> <p>Number of days left with other child for more than an hour</p>																	
<p>EC4. Check AG2: Age of child.</p> <p><input type="checkbox"/> Child age 0, 1 or 2 ⇒ Go to Next Module.</p> <p><input type="checkbox"/> Child age 3 or 4 ⇒ Continue with EC5.</p>																		
<p>EC5. DOES (<i>name</i>) ATTEND ANY ORGANIZED LEARNING OR EARLY CHILDHOOD EDUCATION PROGRAMME, SUCH AS A PRIVATE OR GOVERNMENT FACILITY, INCLUDING KINDERGARTEN OR COMMUNITY CHILD CARE?</p>	<p>Yes 1</p> <p>No2</p> <p>DK.....8</p>																	

<p>EC7. IN THE PAST 3 DAYS, DID YOU OR ANY HOUSEHOLD MEMBER AGE 15 OR OVER ENGAGE IN ANY OF THE FOLLOWING ACTIVITIES WITH <i>(name)</i>:</p> <p><i>If yes, ask:</i> WHO ENGAGED IN THIS ACTIVITY WITH <i>(name)</i>?</p> <p><i>Circle all that apply.</i></p> <p>[A] READ BOOKS TO OR LOOKED AT PICTURE BOOKS WITH <i>(name)</i>?</p> <p>[B] TOLD STORIES TO <i>(name)</i>?</p> <p>[C] SANG SONGS TO <i>(name)</i> OR WITH <i>(name)</i>, INCLUDING LULLABIES?</p> <p>[D] TOOK <i>(name)</i> OUTSIDE THE HOME, COMPOUND, YARD OR ENCLOSURE?</p> <p>[E] PLAYED WITH <i>(name)</i>?</p> <p>[F] NAMED, COUNTED, OR DREW THINGS TO OR WITH <i>(name)</i>?</p>	<table border="1"> <thead> <tr> <th></th> <th>Mother</th> <th>Father</th> <th>Other</th> <th>No one</th> </tr> </thead> <tbody> <tr> <td>Read books</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Told stories</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Sang songs</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Took outside</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Played with</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> <tr> <td>Named/counted</td> <td>A</td> <td>B</td> <td>X</td> <td>Y</td> </tr> </tbody> </table>		Mother	Father	Other	No one	Read books	A	B	X	Y	Told stories	A	B	X	Y	Sang songs	A	B	X	Y	Took outside	A	B	X	Y	Played with	A	B	X	Y	Named/counted	A	B	X	Y	
	Mother	Father	Other	No one																																	
Read books	A	B	X	Y																																	
Told stories	A	B	X	Y																																	
Sang songs	A	B	X	Y																																	
Took outside	A	B	X	Y																																	
Played with	A	B	X	Y																																	
Named/counted	A	B	X	Y																																	
<p>EC8. I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE HEALTH AND DEVELOPMENT OF <i>(name)</i>. CHILDREN DO NOT ALL DEVELOP AND LEARN AT THE SAME RATE. FOR EXAMPLE, SOME WALK EARLIER THAN OTHERS. THESE QUESTIONS ARE RELATED TO SEVERAL ASPECTS OF <i>(name)</i>'S DEVELOPMENT.</p> <p>CAN <i>(name)</i> IDENTIFY OR NAME AT LEAST TEN LETTERS OF THE ALPHABET?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC9. CAN <i>(name)</i> READ AT LEAST FOUR SIMPLE, POPULAR WORDS?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC10. DOES <i>(name)</i> KNOW THE NAME AND RECOGNIZE THE SYMBOL OF ALL NUMBERS FROM 1 TO 10?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC11. CAN <i>(name)</i> PICK UP A SMALL OBJECT WITH TWO FINGERS, LIKE A STICK OR A ROCK FROM THE GROUND?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC12. IS <i>(name)</i> SOMETIMES TOO SICK TO PLAY?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC13. DOES <i>(name)</i> FOLLOW SIMPLE DIRECTIONS ON HOW TO DO SOMETHING CORRECTLY?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				
<p>EC14. WHEN GIVEN SOMETHING TO DO, IS <i>(name)</i> ABLE TO DO IT INDEPENDENTLY?</p>	<p>Yes1</p> <p>No2</p> <p>DK.....8</p>																																				

EC15. DOES (<i>name</i>) GET ALONG WELL WITH OTHER CHILDREN?	Yes1 No2 DK.....8	
EC16. DOES (<i>name</i>) KICK, BITE, OR HIT OTHER CHILDREN OR ADULTS?	Yes1 No2 DK.....8	
EC17. DOES (<i>name</i>) GET DISTRACTED EASILY?	Yes1 No2 DK.....8	

BREASTFEEDING AND DIETARY INTAKE
BD
BD1. Check AG2: Age of child

- Child age 0, 1 or 2 ⇒ Continue with BD2.
- Child age 3 or 4 ⇒ Go to CARE OF ILLNESS Module.

BD2. HAS (name) EVER BEEN BREASTFED?	Yes1 No2 DK.....8	2⇒BD4 8⇒BD4
BD3. IS (name) STILL BEING BREASTFED?	Yes1 No2 DK.....8	
BD4. YESTERDAY, DURING THE DAY OR NIGHT, DID (name) DRINK ANYTHING FROM A BOTTLE WITH A NIPPLE?	Yes1 No2 DK.....8	
BD5. DID (name) DRINK ORS (ORAL REHYDRATION SOLUTION) YESTERDAY, DURING THE DAY OR NIGHT?	Yes1 No2 DK.....8	
BD6. DID (name) DRINK OR EAT VITAMIN OR MINERAL SUPPLEMENTS OR ANY MEDICINES YESTERDAY, DURING THE DAY OR NIGHT?	Yes1 No2 DK.....8	
BD7. NOW I WOULD LIKE TO ASK YOU ABOUT (OTHER) LIQUIDS THAT (name) MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. I AM INTERESTED TO KNOW WHETHER (name) HAD THE ITEM EVEN IF COMBINED WITH OTHER FOODS. PLEASE INCLUDE LIQUIDS CONSUMED OUTSIDE OF YOUR HOME. DID (name) DRINK (name of item) YESTERDAY DURING THE DAY OR THE NIGHT:		
[A] PLAIN WATER?	Plain water	Yes No DK 1 2 8
[B] JUICE OR JUICE DRINKS?	Juice or juice drinks	1 2 8
[C] CLEAR BROTH?	Clear broth	1 2 8
[D] MILK SUCH AS TINNED, POWDERED, OR FRESH ANIMAL MILK?	Milk	1 2 8
<i>If yes:</i> HOW MANY TIMES DID (name) DRINK MILK? <i>If 7 or more times, record '7'.</i> <i>If unknown, record '8'.</i>	Number of times drank milk	

[E] INFANT FORMULA SUCH AS NESTLE (NESTOGEN, NAN), NUTRILAC, BELLACT, SEMILAC?	Infant formula	1	2	8
<i>If yes: HOW MANY TIMES DID (name) DRINK INFANT FORMULA? If 7 or more times, record '7'. If unknown, record '8'.</i>	Number of times drank infant formula	_____		
[P1] CLEAR TEA/TEA <u>WITHOUT</u> MILK OR DAIRY PRODUCTS?	Water-based tea	1	2	8
[F] ANY OTHER LIQUIDS? (Specify)_____	Other liquids	1	2	8
BD8. NOW I WOULD LIKE TO ASK YOU ABOUT (OTHER) FOODS THAT (name) MAY HAVE HAD YESTERDAY DURING THE DAY OR THE NIGHT. AGAIN, I AM INTERESTED TO KNOW WHETHER (name) HAD THE ITEM EVEN IF COMBINED WITH OTHER FOODS.				
PLEASE INCLUDE FOODS CONSUMED OUTSIDE OF YOUR HOME.				
DID (name) EAT (name of food) YESTERDAY DURING THE DAY OR THE NIGHT:		Yes	No	DK
[A] YOGURT OR KEFIR (GATYK)?	Yogurt or kefir (gatyk)	1	2	8
<i>If yes: HOW MANY TIMES DID (name) DRINK OR EAT YOGURT OR KEFIR (GATYK)? If 7 or more times, record '7'. If unknown, record '8'.</i>	Number of times drank/ate yogurt or kefir (gatyk)	_____		
[B] ANY COMMERCIALLY FORTIFIED BABY FOODS MADE FROM GRAINS, SUCH AS NESTLE, NUTRILAC, BELLACT, SEMILAC?	Nestle, Nutrilac, Bellact, Semilac	1	2	8
[C] BREAD, RICE, NOODLES, SEMOLINA, PORRIDGE, OR OTHER FOODS MADE FROM GRAINS?	Foods made from grains	1	2	8
[D] PUMPKIN OR CARROTS?	Pumpkin or carrots	1	2	8
[E] POTATOES OR ANY OTHER FOODS MADE FROM ROOTS?	Potatoes or any food made from roots, etc.	1	2	8
[F] ANY DARK GREEN, LEAFY VEGETABLES?	Dark green, leafy vegetables	1	2	8
[G] RIPE PERSIMMON AND DRIED OR FRESH APRICOTS?	Ripe persimmon and dried or fresh apricot	1	2	8
[H] ANY OTHER FRUITS OR VEGETABLES?	Other fruits or vegetables	1	2	8
[I] LIVER, KIDNEY, HEART OR OTHER ORGAN MEATS?	Liver, kidney, heart or other organ meats	1	2	8
[J] ANY MEAT, SUCH AS BEEF, CAMEL, PORK, LAMB, GOAT, CHICKEN, OR DUCK?	Meat, such as beef, lamb, camel, pork, , goat, chicken, duck etc.	1	2	8
[K] EGGS?	Eggs	1	2	8
[L] FRESH OR DRIED FISH?	Fresh or dried fish	1	2	8
[M] ANY FOODS MADE FROM BEANS, PEAS, LENTILS, MASH (MUNG BEAN) OR NUTS?	Foods made from beans, peas, etc.	1	2	8

[N] CHEESE, SHEEP CHEESE, COTTAGE CHEESE OR OTHER FOOD MADE FROM MILK?	Cheese, sheep cheese, cottage cheese or other food made from milk <table border="0" style="float: right; margin-left: 20px;"> <tr> <td style="padding-right: 10px;">1</td> <td style="padding-right: 10px;">2</td> <td>8</td> </tr> </table>	1	2	8	
1	2	8			
[O] ANY OTHER SOLID, SEMI-SOLID, OR SOFT FOOD THAT I HAVE NOT MENTIONED? (Specify) _____	Other solid, semi-solid, or soft food <table border="0" style="float: right; margin-left: 20px;"> <tr> <td style="padding-right: 10px;">1</td> <td style="padding-right: 10px;">2</td> <td>8</td> </tr> </table>	1	2	8	
1	2	8			
BD9. Check BD8 (Categories "A" through "O"). <input type="checkbox"/> At least one "Yes" or all "DK" ⇒ Go to BD11. <input type="checkbox"/> Else ⇒ Continue with BD10.					
BD10. Probe to determine whether the child ate any solid, semi-solid or soft foods yesterday during the day or night. <input type="checkbox"/> The child did not eat or the respondent does not know ⇒ Go to Next Module. <input type="checkbox"/> The child ate at least one solid, semi-solid or soft food item mentioned by the respondent ⇒ Go back to BD8 and record food eaten yesterday [A to O]. When finished, continue with BD11.					
BD11. HOW MANY TIMES DID (name) EAT ANY SOLID, SEMI-SOLID OR SOFT FOODS YESTERDAY DURING THE DAY OR NIGHT? <i>If 7 or more times, record '7'.</i>	Number of times — DK 8				

IMMUNIZATION		IM	
If an immunization passport/card available, copy the dates in IM3 for each type of immunization recorded on the passport/card. IM6-IM17 will only be asked if a card is not available.			
IM1. DO YOU HAVE AN IMMUNIZATION PASSPORT/CARD AT HOME WHERE (name)'S VACCINATIONS ARE WRITTEN DOWN? If yes: MAY I SEE IT PLEASE?	Yes, seen passport / card 1 Yes, not seen passport / card 2 No immunization passport / card..... 3	1⇒IM3 2⇒IM6	
IM2. DID YOU EVER HAVE A VACCINATION PASSPORT/CARD AT HOME FOR (name)?	Yes 1 No 2	1⇒IM6 2⇒IM6	
IM3. (a) Copy dates for each vaccination from the passport/card. (b) Write '44' in day column if passport/card shows that the vaccination was given but no date recorded.	Date of Immunization		
	Day	Month	Year
BCG (2 ND -3 RD DAYS OF LIFE) BCG			
POLIO (2 ND -3 RD DAYS OF LIFE) OPV0			
POLIO 1 OPV1			
POLIO 2 OPV2			
POLIO 3 OPV3			
POLIO 4 OPV4			
PENTAVALENT1 DPT1-HEPB2-HIB1 PENTA1			
PENTAVALENT2 DPT2-HEPB3-HIB2 PENTA2			
PENTAVALENT3 DPT3-HEPB4-HIB3 PENTA3			
DPT 1 DPT1			
DPT 2 DPT2			
DPT 3 DPT3			
DPT 4 DPT4			
HEPB AT BIRTH HEP1			
HEPB 2 HEP2			
HEPB 3 HEP3			
HEPB 4 HEP4			
HIB 1 HIB1			
HIB 2 HIB2			
HIB 3 HIB3			
MEASLES (OR MMR OR MR) MEASLES			
IM4. Check IM3. Are all vaccines (BCG to measles) recorded? <input type="checkbox"/> Yes ⇒ Go to IM19. <input type="checkbox"/> No ⇒ Continue with IM5.			

<p>IM5. IN ADDITION TO WHAT IS RECORDED ON THIS PASSPORT/CARD, DID (<i>name</i>) RECEIVE ANY OTHER VACCINATIONS – INCLUDING VACCINATIONS RECEIVED IN IMMUNIZATION DAYS?</p> <p><input type="checkbox"/> <i>Yes</i> ⇒ Go back to IM3 and probe for these vaccinations and write ‘66’ in the corresponding day column for each vaccine mentioned. When finished, skip to IM19.</p> <p><input type="checkbox"/> <i>No/DK</i> ⇒ Go to IM19.</p>		
<p>IM6. HAS (<i>name</i>) EVER RECEIVED ANY VACCINATIONS TO PREVENT HIM/HER FROM GETTING DISEASES, INCLUDING VACCINATIONS RECEIVED IN AN IMMUNIZATION DAY?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒IM19</p> <p>8⇒IM19</p>
<p>IM7. HAS (<i>name</i>) EVER RECEIVED A BCG VACCINATION AGAINST TUBERCULOSIS – THAT IS, AN INJECTION IN THE ARM OR SHOULDER THAT USUALLY CAUSES A SCAR?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	
<p>IM8. HAS (<i>name</i>) EVER RECEIVED ANY VACCINATION DROPS IN THE MOUTH TO PROTECT HIM/HER FROM POLIO?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒IM10A</p> <p>8⇒M10A</p>
<p>IM9. WAS THE FIRST POLIO VACCINE RECEIVED IN THE FIRST TWO WEEKS AFTER BIRTH?</p>	<p>Yes 1</p> <p>No 2</p>	
<p>IM10. HOW MANY TIMES WAS THE POLIO VACCINE RECEIVED?</p>	<p>Number of times __</p>	
<p>IM10A. HAS (<i>name</i>) EVER RECEIVED A PENTA VACCINATION (DPT-HEPB-HIB) – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, DIPHTHERIA, HEPATITIS B AND HAEMOPHILUS INFLUENZAE TYPE B?</p> <p><i>Probe by indicating that the pentavalent (DPT-HepB-Hib) vaccination is sometimes given at the same time as Polio.</i></p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒IM11</p> <p>8⇒IM11</p>
<p>IM10B. HOW MANY TIMES WAS THE PENTA (DPT-HEPB-HIB) VACCINE RECEIVED?</p>	<p>Number of times __</p>	
<p>IM11. HAS (<i>name</i>) EVER RECEIVED A DPT VACCINATION – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING TETANUS, WHOOPING COUGH, OR DIPHTHERIA?</p> <p><i>Probe by indicating that the DPT vaccination is sometimes given at the same time as Polio.</i></p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒IM13</p> <p>8⇒IM13</p>
<p>IM12. HOW MANY TIMES WAS THE DPT VACCINE RECEIVED?</p>	<p>Number of times __</p>	

<p>IM13. HAS (<i>name</i>) EVER RECEIVED A HEPATITIS B VACCINATION – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING HEPATITIS B?</p> <p><i>Probe by indicating that the Hepatitis B vaccine is sometimes given at the same time as Polio and DPT vaccines.</i></p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒IM15A</p> <p>8⇒IM15A</p>
<p>IM14. WAS THE FIRST HEPATITIS B VACCINE RECEIVED WITHIN 24 HOURS AFTER BIRTH?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	
<p>IM15. HOW MANY TIMES WAS THE HEPATITIS B RECEIVED?</p>	<p>Number of times ___</p>	
<p>IM15A. HAS (<i>name</i>) EVER RECEIVED A HIB VACCINATION – THAT IS, AN INJECTION IN THE THIGH TO PREVENT HIM/HER FROM GETTING HAEMOPHILUS INFLUENZA TYPE B?</p> <p><i>Probe by indicating that the Hib vaccine is sometimes given at the same time as Polio and DPT vaccines.</i></p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒IM16</p> <p>8⇒IM16</p>
<p>IM15B. HOW MANY TIMES WAS THE HIB VACCINE RECEIVED?</p>	<p>Number of times ___</p>	
<p>IM16. HAS (<i>name</i>) EVER RECEIVED A MEASLES INJECTION (OR AN MMR OR MR) – THAT IS, A SHOT IN THE ARM AT THE AGE OF 12 MONTHS OR OLDER - TO PREVENT HIM/HER FROM GETTING MEASLES?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	
<p>IM19. PLEASE TELL ME IF (<i>name</i>) HAS PARTICIPATED IN ANY OF THE POLIO CAMPAIGNS:</p> <p>[A] 1ST POLIO VACCINATION CAMPAIGN (2013, SEPTEMBER, OCTOBER)?</p> <p>[B] 2ND POLIO VACCINATION CAMPAIGN (2014, APRIL, MAY)?</p>	<p style="text-align: right;">Y N DK</p> <p>1st campaign 1 2 8</p> <p>2nd campaign 1 2 8</p>	
<p>IM20. Issue a <i>QUESTIONNAIRE FORM FOR IMMUNIZATION RECORDS AT HEALTH FACILITY</i> for this child. Complete the Information Panel on that Questionnaire and go to Next Module.</p>		
<p>IM21. CAN YOU PLEASE TELL ME THE NAME OF THE HEALTH FACILITY WHERE WE CAN FIND A MEDICAL CARD WITH (<i>name</i>)’S IMMUNIZATION RECORDS?</p> <p>_____</p>		
<p>IM22. CAN YOU PLEASE TELL ME (<i>name</i>)’S FULL NAME AND SURNAME WITH WHICH WE CAN FIND HIS/HER MEDICAL CARD IN THE HEALTH FACILITY?</p> <p>_____</p>		
<p>IM23. IS THE MEDICAL CARD WITH (<i>name</i>)’S IMMUNIZATION RECORDS KEPT IN THE HEALTH FACILITY THAT IS RESPONSIBLE FOR THIS HOUSEHOLD ADDRESS?</p>	<p>Yes 1</p> <p>No 2</p>	<p>1⇒Next Module</p>
<p>IM24. CAN YOU PLEASE TELL ME THE ADDRESS (FULL NAME OF VELAYAT, ETRAP / CITY, SETTLEMENT) WHICH CAN BE USED TO FIND THE MEDICAL CARD CONTAINING (<i>name</i>)’S IMMUNIZATION RECORDS IN THE HEALTH FACILITY?</p> <p>_____</p>		

CARE OF ILLNESS		CA
<p>CA1. IN THE LAST TWO WEEKS, HAS (<i>name</i>) HAD DIARRHOEA?</p>	Yes.....1 No2 DK.....8	2⇒CA6A 8⇒CA6A
<p>CA2. I WOULD LIKE TO KNOW HOW MUCH (<i>name</i>) WAS GIVEN TO DRINK DURING THE DIARRHOEA (INCLUDING BREASTMILK).</p> <p>DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO DRINK, ABOUT THE SAME AMOUNT, OR MORE THAN USUAL?</p> <p><i>If 'less', probe:</i> WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO DRINK, OR SOMEWHAT LESS?</p>	Much less.....1 Somewhat less2 About the same.....3 More.....4 Nothing to drink.....5 DK.....8	
<p>CA3. DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS HE/SHE GIVEN LESS THAN USUAL TO EAT, ABOUT THE SAME AMOUNT, MORE THAN USUAL, OR NOTHING TO EAT?</p> <p><i>If 'less', probe:</i> WAS HE/SHE GIVEN MUCH LESS THAN USUAL TO EAT OR SOMEWHAT LESS?</p>	Much less.....1 Somewhat less2 About the same.....3 More.....4 Stopped food5 Never gave food6 DK.....8	
<p>CA3A. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE DIARRHOEA FROM ANY SOURCE?</p>	Yes.....1 No2 DK.....8	2⇒CA4 8⇒CA4
<p>CA3B. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT?</p> <p><i>Probe:</i> ANYWHERE ELSE?</p> <p><i>Circle all providers mentioned, but do NOT prompt with any suggestions.</i></p> <p><i>Probe to identify each type of source.</i></p> <p><i>If unable to determine if public or private sector, write the name of the place.</i></p> <p>_____</p> <p>(<i>Name of place</i>)</p>	Public sector Government hospital / clinic A Health centre B Government health post C Mobile / Outreach clinic E State pharmacy F Other public (<i>specify</i>) _____ H Private medical sector Private hospital / clinic I Private physician..... J Private pharmacy K Mobile clinic L Other private medical (<i>specify</i>) _____ O Other source Relative / Friend..... P Shop Q Traditional practitioner R Other (<i>specify</i>) _____ X	
<p>CA4. DURING THE TIME (<i>name</i>) HAD DIARRHOEA, WAS (<i>name</i>) GIVEN TO DRINK A FLUID MADE FROM A SPECIAL ORS PACKET CALLED REGIDRON, APEKTRA OR REGIDRAT?</p>	Yes.....1 No2 DK.....8	2⇒CA4C 8⇒CA4C

<p>CA4B. WHERE DID YOU GET THE ORS?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Public sector</p> <p>Government hospital/clinic.....11</p> <p>Health centre12</p> <p>Government health post13</p> <p>Mobile / Outreach clinic15</p> <p>State pharmacy17</p> <p>Other public (specify)16</p> <p>Private medical sector</p> <p>Private hospital / clinic21</p> <p>Private physician.....22</p> <p>Private pharmacy23</p> <p>Mobile clinic24</p> <p>Other private medical (specify)26</p> <p>Other source</p> <p>Relative / Friend.....31</p> <p>Shop32</p> <p>Traditional practitioner33</p> <p>Already had at home40</p> <p>Other (specify)96</p>	
<p>CA4C. DURING THE TIME (name) HAD DIARRHOEA, WAS (name) GIVEN:</p> <p>[A] ZINC TABLETS?</p> <p>[B] ZINC SYRUP?</p>	<p style="text-align: right;">Y N DK</p> <p>Zinc tablets 1 2 8</p> <p>Zinc syrup 1 2 8</p>	
<p>CA4D. Check CA4C: Any zinc?</p> <p><input type="checkbox"/> Child given any zinc ('Yes' circled in 'A' or 'B' in CA4C) ⇒ Continue with CA4E.</p> <p><input type="checkbox"/> Child was not given any zinc ⇒ Go to CA5.</p>		
<p>CA4E. WHERE DID YOU GET THE ZINC?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Public sector</p> <p>Government hospital/clinic.....11</p> <p>Health centre12</p> <p>Government health post13</p> <p>Mobile / Outreach clinic15</p> <p>State pharmacy.....17</p> <p>Other public (specify)16</p> <p>Private medical sector</p> <p>Private hospital / clinic21</p> <p>Private physician.....22</p> <p>Private pharmacy23</p> <p>Mobile clinic24</p> <p>Other private medical (specify)26</p> <p>Other source</p> <p>Relative / Friend.....31</p> <p>Shop32</p> <p>Traditional practitioner33</p> <p>Already had at home40</p> <p>Other (specify)96</p>	
<p>CA5. WAS ANYTHING (ELSE) GIVEN TO TREAT THE DIARRHOEA?</p>	<p>Yes.....1</p> <p>No2</p> <p>DK.....8</p>	<p>2⇒CA6A</p> <p>8⇒CA6A</p>

<p>CA6. WHAT (ELSE) WAS GIVEN TO TREAT THE DIARRHOEA?</p> <p><i>Probe:</i> ANYTHING ELSE?</p> <p><i>Record all treatments given. Write brand name(s) of all medicines mentioned.</i></p> <p>_____</p> <p style="text-align: center;">(Name)</p>	<p>Pill or Syrup</p> <p>Antibiotic A</p> <p>Antimotility B</p> <p>Other pill or syrup (Not antibiotic, antimotility or zinc) G</p> <p>Unknown pill or syrup H</p> <p>Injection</p> <p>Antibiotic L</p> <p>Non-antibiotic M</p> <p>Unknown injection N</p> <p>Intravenous O</p> <p>Home remedy / Herbal medicine Q</p> <p>Other (<i>specify</i>) _____ X</p>	
<p>CA6A. IN THE LAST TWO WEEKS, HAS (<i>name</i>) BEEN ILL WITH A FEVER AT ANY TIME?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	
<p>CA7. AT ANY TIME IN THE LAST TWO WEEKS, HAS (<i>name</i>) HAD AN ILLNESS WITH A COUGH?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒CA9A</p> <p>8⇒CA9A</p>
<p>CA8. WHEN (<i>name</i>) HAD AN ILLNESS WITH A COUGH, DID HE/SHE BREATHE FASTER THAN USUAL WITH SHORT, RAPID BREATHS OR HAVE DIFFICULTY BREATHING?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒CA10</p> <p>8⇒CA10</p>
<p>CA9. WAS THE FAST OR DIFFICULT BREATHING DUE TO A PROBLEM IN THE CHEST OR A BLOCKED OR RUNNY NOSE?</p>	<p>Problem in chest only 1</p> <p>Blocked or runny nose only 2</p> <p>Both 3</p> <p>Other (<i>specify</i>) _____ 6</p> <p>DK 8</p>	<p>1⇒CA10</p> <p>2⇒CA10</p> <p>3⇒CA10</p> <p>6⇒CA10</p> <p>8⇒CA10</p>
<p>CA9A. Check CA6A: Had fever?</p> <p><input type="checkbox"/> Child had fever ⇒ Continue with CA10.</p> <p><input type="checkbox"/> Child did not have fever ⇒ Go to CA14.</p>		
<p>CA10. DID YOU SEEK ANY ADVICE OR TREATMENT FOR THE ILLNESS FROM ANY SOURCE?</p>	<p>Yes 1</p> <p>No 2</p> <p>DK 8</p>	<p>2⇒CA12</p> <p>8⇒CA12</p>

<p>CA11. FROM WHERE DID YOU SEEK ADVICE OR TREATMENT?</p> <p><i>Probe:</i> ANYWHERE ELSE?</p> <p><i>Circle all providers mentioned, but do NOT prompt with any suggestions.</i></p> <p><i>Probe to identify each type of source.</i></p> <p><i>If unable to determine if public or private sector, write the name of the place.</i></p> <p>_____</p> <p>(Name of place)</p>	<p>Public sector</p> <p>Government hospital/clinic..... A</p> <p>Health centre B</p> <p>Government health post C</p> <p>Mobile / Outreach clinic E</p> <p>State pharmacy..... F</p> <p>Other public (specify) _____ H</p> <p>Private medical sector</p> <p>Private hospital/clinic I</p> <p>Private physician..... J</p> <p>Private pharmacy K</p> <p>Mobile clinic L</p> <p>Other private medical (specify) _____ O</p> <p>Other source</p> <p>Relative / Friend..... P</p> <p>Shop Q</p> <p>Traditional practitioner R</p> <p>Other (specify) _____ X</p>	
<p>CA12. AT ANY TIME DURING THE ILLNESS, WAS (name) GIVEN ANY MEDICINE FOR THE ILLNESS?</p>	<p>Yes..... 1</p> <p>No 2</p> <p>DK..... 8</p>	<p>2⇒CA14</p> <p>8⇒CA14</p>
<p>CA13. WHAT MEDICINE WAS (name) GIVEN?</p> <p><i>Probe:</i> ANY OTHER MEDICINE?</p> <p><i>Circle all medicines given. Write brand name(s) of all medicines mentioned.</i></p> <p>_____</p> <p>(Names of medicines)</p>	<p>Antibiotics:</p> <p>Pill / Syrup..... I</p> <p>Injection..... J</p> <p>Other medications:</p> <p>Paracetamol / Panadol P</p> <p>Ibuprofen / Ibufen..... R</p> <p>Other (specify) _____ X</p> <p>DK..... Z</p>	

CA13A. Check CA13: Antibiotic mentioned (codes I or J)?

Yes ⇒ Continue with CA13B.

No ⇒ Go to CA14

<p>CA13B. WHERE DID YOU GET THE (name of medicine from CA13)?</p> <p><i>Probe to identify the type of source.</i></p> <p><i>If unable to determine whether public or private, write the name of the place.</i></p> <p>_____</p> <p style="text-align: center;"><i>(Name of place)</i></p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">Public sector</td> </tr> <tr> <td>Government hospital/clinic.....</td> <td style="text-align: right;">11</td> </tr> <tr> <td>Health centre</td> <td style="text-align: right;">12</td> </tr> <tr> <td>Government health post</td> <td style="text-align: right;">13</td> </tr> <tr> <td>Mobile / Outreach clinic</td> <td style="text-align: right;">15</td> </tr> <tr> <td>State pharmacy.....</td> <td style="text-align: right;">17</td> </tr> <tr> <td>Other public (specify) _____</td> <td style="text-align: right;">16</td> </tr> <tr> <td colspan="2">Private medical sector</td> </tr> <tr> <td>Private hospital / clinic</td> <td style="text-align: right;">21</td> </tr> <tr> <td>Private physician.....</td> <td style="text-align: right;">22</td> </tr> <tr> <td>Private pharmacy</td> <td style="text-align: right;">23</td> </tr> <tr> <td>Mobile clinic</td> <td style="text-align: right;">24</td> </tr> <tr> <td>Other private medical (specify) _____</td> <td style="text-align: right;">26</td> </tr> <tr> <td colspan="2">Other source</td> </tr> <tr> <td>Relative / Friend.....</td> <td style="text-align: right;">31</td> </tr> <tr> <td>Shop</td> <td style="text-align: right;">32</td> </tr> <tr> <td>Traditional practitioner</td> <td style="text-align: right;">33</td> </tr> <tr> <td>Already had at home</td> <td style="text-align: right;">40</td> </tr> <tr> <td>Other (specify) _____</td> <td style="text-align: right;">96</td> </tr> </table>	Public sector		Government hospital/clinic.....	11	Health centre	12	Government health post	13	Mobile / Outreach clinic	15	State pharmacy.....	17	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 / Friend.....	31	Shop	32	Traditional practitioner	33	Already had at home	40	Other (specify) _____	96
Public sector																																							
Government hospital/clinic.....	11																																						
Health centre	12																																						
Government health post	13																																						
Mobile / Outreach clinic	15																																						
State pharmacy.....	17																																						
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 / Friend.....	31																																						
Shop	32																																						
Traditional practitioner	33																																						
Already had at home	40																																						
Other (specify) _____	96																																						

CA14. Check AG2: Age of child.

Child age 0, 1 or 2 ⇒ Continue with CA15.

Child age 3 or 4 ⇒ Go to UF13.

<p>CA15. THE LAST TIME (name) PASSED STOOLS, WHAT WAS DONE TO DISPOSE OF THE STOOLS?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td>Child used toilet / latrine</td> <td style="text-align: right;">01</td> </tr> <tr> <td>Put / Rinsed into toilet or latrine.....</td> <td style="text-align: right;">02</td> </tr> <tr> <td>Put / Rinsed into drain or ditch</td> <td style="text-align: right;">03</td> </tr> <tr> <td>Thrown into garbage (solid waste)</td> <td style="text-align: right;">04</td> </tr> <tr> <td>Buried</td> <td style="text-align: right;">05</td> </tr> <tr> <td>Left in the open</td> <td style="text-align: right;">06</td> </tr> <tr> <td>Other (specify) _____</td> <td style="text-align: right;">96</td> </tr> <tr> <td>DK.....</td> <td style="text-align: right;">98</td> </tr> </table>	Child used toilet / latrine	01	Put / Rinsed into toilet or latrine.....	02	Put / Rinsed into drain or ditch	03	Thrown into garbage (solid waste)	04	Buried	05	Left in the open	06	Other (specify) _____	96	DK.....	98
Child used toilet / latrine	01																
Put / Rinsed into toilet or latrine.....	02																
Put / Rinsed into drain or ditch	03																
Thrown into garbage (solid waste)	04																
Buried	05																
Left in the open	06																
Other (specify) _____	96																
DK.....	98																

UF13. Record the time.	Hour and minutes..... ____ : ____
-------------------------------	-----------------------------------

UF14. Check List of Household Members, columns HL7B and HL15.

Is the respondent the mother or caretaker of another child age 0-4 living in this household?

Yes ⇒ Indicate to the respondent that you will need to measure the weight and height of the child later. Go to the next QUESTIONNAIRE FOR CHILDREN UNDER FIVE to be administered to the same respondent.

No ⇒ End the interview with this respondent by thanking her/him for her/his cooperation and tell her/him that you will need to measure the weight and height of the child before you leave the household.

Check to see if there are other woman 's, or under-5 questionnaires to be administered in this household.

ANTHROPOMETRY
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 in the List of Household Members before recording measurements.

AN1. Measurer's name and number:	Name _____	
AN2. Result of height/length and weight measurement:	Either or both measured 1	
	Child not present 2	2⇒AN6
	Child or mother/caretaker refused 3	3⇒AN6
	Other (specify) _____ 6	6⇒AN6
AN3. Child's weight:	Kilograms (kg) ____ . ____	
	Weight not measured 99.9	
AN3A. Was the child undressed to the minimum?		
<input type="checkbox"/> Yes. <input type="checkbox"/> No, the child could not be undressed to the minimum.		
AN3B. Check age of child in AG2:		
<input type="checkbox"/> Child under 2 years old ⇒ Measure length (lying down). <input type="checkbox"/> Child age 2 or more years ⇒ Measure height (standing up).		
AN4. Child's length or height:	Length / Height (cm)..... ____ . ____	
	Length / Height not measured..... 999.9	⇒AN6
AN4A. How was the child actually measured? Lying down or standing up?	Lying down 1	
	Standing up 2	

AN6. Is there another child in the household who is eligible for measurement?

- Yes ⇒ Record measurements for next child.
- No ⇒ Check if there are any other individual questionnaires to be completed in the household.

Interviewer's Observations

Supervisor's Observations

Measurer's Observations

Appendix F4. Questionnaire Form for Immunization Records at Health Facility



QUESTIONNAIRE FORM FOR IMMUNIZATION RECORDS AT HEALTH FACILITY

2015 TURKMENISTAN MULTIPLE INDICATOR CLUSTER SURVEY

UNDER-FIVE CHILD INFORMATION PANEL		HF
<p><i>This questionnaire form is to be used at health facilities to record information on the immunization for children age 0-2 years. A separate questionnaire form should be used for each eligible child.</i></p> <p><i>The QUESTIONNAIRE FOR CHILDREN UNDER FIVE must be completed for the child prior to completing this form. This panel should be completed before visiting the health facility.</i></p> <p><i>This questionnaire form must be appended to the QUESTIONNAIRE FOR CHILDREN UNDER FIVE for each child.</i></p>		
HF1. Cluster number: _____	HF2. Household number: _____	
HF3. Child's name: Name _____	HF4. Child's line number: _____	
HF5. Mother's / Caretaker's name: Name _____	HF6. Mother's / Caretaker's line number: _____	
HF7. Interviewer's name and number: Name _____	HF9. Day, month and year of birth <i>(from AG1 in Questionnaire for Children Under-5)</i> _____ / _____ / 2 01 ____	
HF9A. Address required to find the child's vaccination record/form 63 in the health facility _____		

HF8. Day / Month / Year of facility visit: _____ / _____ / 2 01 ____	HF8A. Supervisor's name and number: Name _____
HF10. Name of health facility: _____	HF10A. Address of health facility: _____
HF11. Result of health facility visit	Vaccination record seen 01 Vaccination record not seen 02 Other (<i>specify</i>) _____ 96

IMMUNIZATION											HF
HF12. Record day, month and year of birth as written on immunization record.				____ / ____ / 201 ____							
HF13. (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			
BCG (2 ND -3 RD DAYS OF LIFE)	BCG										
POLIO (2 ND -3 RD DAYS OF LIFE)	OPV0										
POLIO 1	OPV1										
POLIO 2	OPV2										
POLIO 3	OPV3										
POLIO 4	OPV4										
PENTAVALENT1 DPT1-HEPB2-HIB1	PENTA1										
PENTAVALENT2 DPT2-HEPB3-HIB2	PENTA2										
PENTAVALENT3 DPT3-HEPB4-HIB3	PENTA3										
DPT 1	DPT1										
DPT 2	DPT2										
DPT 3	DPT3										
DPT 4	DPT4										
HEPB AT BIRTH	HEP1										
HEPB 2	HEP2										
HEPB 3	HEP3										
HEPB 4	HEP4										
HIB 1	HIB1										
HIB 2	HIB2										
HIB 3	HIB3										
MEASLES (OR MMR OR MR)	MEASLES										

Appendix G. Primary school entry (calculated by age until 1 September 2015)

Table ED.3A: Primary school entry		
Percentage of children of primary school entry age entering grade 1 (net intake rate), Turkmenistan, 2015-2016		
	Percentage of children of primary school entry age entering grade 1	Number of children of primary school entry age
Total	98.5	654
Sex		
Male	98.6	336
Female	98.5	318
Region		
Ashgabat city	95.0	67
Ahal velayat	100.0	89
Balkan velayat	99.1	38
Dashoguz velayat	100.0	153
Lebap velayat	98.3	136
Mary velayat	97.9	171
Area		
Urban	97.9	237
Rural	98.9	417
Mother's education		
Secondary	98.4	540
Primary vocational	(98.4)	43
Secondary vocational	(100.0)	43
Higher	(100.0)	28
Wealth index quintile		
Poorest	97.9	167
Second	100.0	128
Middle	99.2	133
Fourth	99.7	117
Richest	95.8	109
Language of household head		
Turkmen	98.7	554
Uzbek	98.9	78
Russian	(*)	15
Other	(*)	8
() Figures that are based on 25–49 unweighted cases.		
(*) Figures that are based on fewer than 25 unweighted cases.		