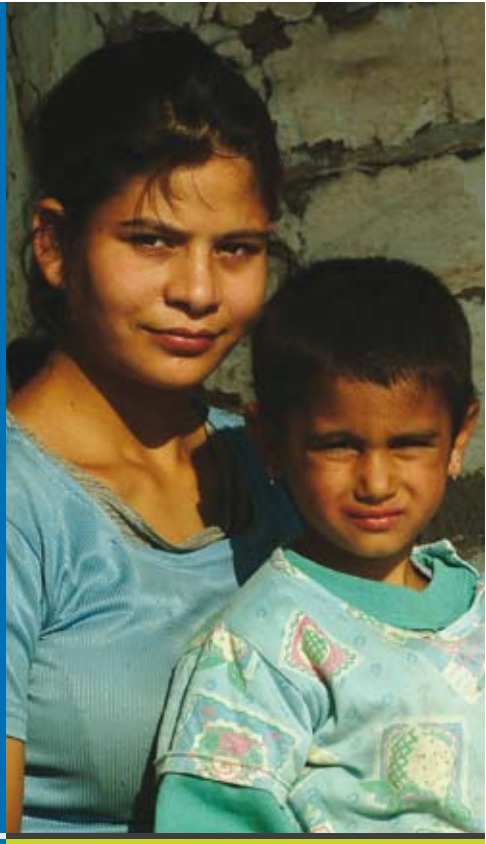
Republic of Macedonia



Monitoring the situation of children and women

Multiple Indicator Cluster Survey 2005-2006

State Statistical Office

MICS

REPUBLIC OF MACEDONIA

Multiple Indicator Cluster Survey 2005-2006

STATE STATISTICAL OFFICE
September 2007

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The Multiple Indicator Cluster Survey (MICS) in the Republic of Macedonia was carried by the State Statistical Office in cooperation and with technical and financial support from the United Nations Children's Fund (UNICEF).

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

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Summary Table of Findings

Multiple Indicator Cluster Surveys (MICS)
and Millennium Development Goals (MDG) Indicators,
Republic of Macedonia, 2005-2006

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value	
CHILD MORTALITY					
Child mortality	1	13	Under-five mortality rate	17	per 1000
	2	14	Infant mortality rate	16	per 1000
NUTRITION					
Nutritional status	6	4	Underweight prevalence	2	percent
	7		Stunting prevalence	9	percent
	8		Wasting prevalence	2	percent
Breastfeeding	45		Timely initiation of breastfeeding	27	percent
	15		Exclusive breastfeeding rate	16	percent
	16		Continued breastfeeding rate		
			at 12-15 months	45	percent
			at 20-23 months	22	percent
	17		Timely complementary feeding rate	18	percent
	18		Frequency of complementary feeding	17	percent
	19		Adequately fed infants	16	percent
	9		Proportion of low-birth -weight infants	6	percent
	10		Proportion of infants weighed at birth	93	percent
CHILD HEALTH					
Immunization	25		Tuberculosis immunization coverage	97	percent
	26		Polio immunization coverage	81	percent
	27		DPT immunization coverage	82	percent
	28	15	Measles/Mumps/Rubella immunization coverage	80	percent
	31		Fully immunized children	60	percent
	34		Home management of diarrhoea	6	percent
	35		Received ORT or increased fluids, and continued feeding	45	percent
	23		Care seeking for suspected pneumonia	93	percent
	22		Antibiotic treatment of suspected pneumonia	74	percent
Solid fuel use	24	29	Solid fuels	36	percent
ENVIRONMENT					
Water and Sanitation	11	30	Use of improved drinking water sources	99	percent
	13		Water treatment	11	percent
	12	31	Use of improved sanitation facilities	93	percent
	14		Disposal of child's faeces	50	percent
REPRODUCTIVE HEALTH					
Contraception and unmet need	21	19c	Contraceptive prevalence	14	percent
	98		Unmet need for family planning	34	percent
	99		Demand satisfied for family planning	29	percent
Maternal and newborn health	20		Antenatal care	98	percent
	44		Content of antenatal care	99	percent
	4	17	Skilled attendant at delivery	98	percent
	5		Institutional deliveries	98	percent
CHILD DEVELOPMENT					
Child development	46		Support for learning	85	percent
	47		Father's support for learning	61	percent
	48		Support for learning: children's books	49	percent
	49		Support for learning: non-children's books	51	percent
	50		Support for learning: materials for play	1	percent
	51		Non-adult care	9	percent
EDUCATION					

Topic	MICS Indicator Number	MDG Indicator Number	Indicator	Value	
Education	52		Pre-school attendance (age 3-4 years)	11	percent
	53		School readiness	76	percent
	54		Net intake rate in primary education	95	percent
	55	6	Net primary school attendance rate	95	percent
	56		Net secondary school attendance rate	63	percent
	58		Transition rate to secondary school	95	percent
	59	7b	Primary completion rate	83	percent
	61	9	Gender parity index		
			primary school	0.96	ratio
			secondary school	1.15	ratio
Literacy	60	8	Adult literacy rate	97	percent
CHILD PROTECTION					
Birth registration	62		Birth registration	94	percent
Child labour	71		Child labour	6	percent
	72		Labourer students	94	percent
	73		Student labourers	6	percent
Child discipline	74		Child discipline		
			Any psychological/physical punishment	69	percent
Early marriage	67		Marriage before age 15	1	percent
			Marriage before age 18	12	percent
	68		Young women aged 15-19 currently married/in union	2	percent
	69		Spousal age difference	10	percent
Domestic violence	100		Attitudes towards domestic violence	21	percent
Disability	101		Child disability	10	percent
HIV/AIDS, SEXUAL BEHAVIOUR, AND ORPHANED AND VULNERABLE CHILDREN					
HIV/AIDS knowledge and attitudes	82	19b	Comprehensive knowledge about HIV prevention among young people	24	percent
	89		Knowledge of mother- to-child transmission of HIV	56	percent
	86		Attitude towards people with HIV/AIDS	16	percent
	87		Women who know where to be tested for HIV	45	percent
	88		Women who have been tested for HIV	3	percent
	90		Counselling coverage for the prevention of mother-to-child transmission of HIV	12	percent
Sexual behaviour	84		Age at first sex among young people	1	percent
	92		Age-mixing among sexual partners	5	percent
	83	19a	Condom use with non-regular partners	70	percent
	85		Higher risk sex in the last year	80	percent
Orphanhood	75		Prevalence of orphans	2	percent
	78		Children's living arrangements	0.4	percent

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BCG	Bacillis-Cereus-Geuerin (Tuberculosis)
CSPro	Census and Survey Processing System
DPT	Diphteria Pertussis Tetanus
EPI	Expanded Programme on Immunization
GPI	Gender Parity Index (female to male ratio of primary school or secondary school attendance)
HIV	Human Immunodeficiency Virus
IUD	Intrauterine Device
LAM	Lactational Amenorrhea Method
MDG	Millennium Development Goals
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health
NAR	Net Attendance Rate
ppm	Parts Per Million
ORT	Oral Rehydration Treatment
SPSS	Statistical Package for Social Sciences
UNAIDS	United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
UNICEF	United Nations Children's Fund
WFFC	World Fit for Children
WHO	World Health Organization

Acknowledgements

The State Statistical Office, responsible for implementing MICS-2005 in Republic of Macedonia (Multiple Indicator Cluster Survey on children's and women's situation) expresses its gratitude to the United Nations Children's Fund (UNICEF) for providing methodological and advisory assistance in conducting the survey.

We would particularly like to thank the British Embassy, UNICEF and UNDP for their generous financial contributions. UNICEF also contributed funding for training and equipment and technical support through its offices in Republic of Macedonia, Geneva and New York. The UNICEF country and regional offices and the Global MICS team provided invaluable and ongoing support and we hope to continue to work in such a productive way in future. The four regional workshops arranged for survey teams for thirteen countries currently using this methodology were very useful to ensure that the survey met high international standards and increased the skills and knowledge of our survey teams.

Special thanks to Mr. Trevor Croft for his kind and professional technical assistance and for providing quality control.

We address special thanks to the survey team comprised of a large number of people and institutions. Over one hundred people were involved in technical and field work. The survey teams, including coordinators, field staff and data entry staff, carried out the work diligently. We would like to thank the 5 287 households, which agreed to participate and be interviewed.

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Ministry of Health - including the Republic Institute for Health Protection;
Ministry of Education and Science;
Ministry of Local-Self Governance;
Ministry of Labour and Social Policy;
Ministry of Environment and Physical Planning; and
World Health Organization.

Executive Summary

The 2005 Republic of Macedonia Multiple Indicator Cluster Survey (MICS) is a nationally representative survey of households, women and children. The main objectives of the survey are to provide up-to-date information for assessing the situation of children and women in Republic of Macedonia, and to supply the data needed for monitoring progress towards the World Fit for Children goals. In addition, the purpose of the MICS survey is to provide data needed for evaluating how far we have come midway into the decade in reaching the child-related Millennium Development Goals (MDGs).
Fieldwork was conducted in the period November 2005.

Education

Eleven percent of children aged 36-59 months are attending early childhood education. The attendance is almost ten times higher in urban areas than rural areas.
Overall, 95 percent of children of primary school age (ages7-14) in Republic of Macedonia are attending primary school (at 2005/2006 school year). There is virtually no difference between male/female and urban/rural rates.
Overall, 63 percent of children of secondary school age (ages 15–18) in Republic of Macedonia are attending secondary school. There is a higher proportion of girls (68 percent) of this age attending secondary school than that of boys (59 percent). In urban areas, 71 percent of children attend school while in rural areas 56 percent attend.

Water and Sanitation

Ninety one percent of the population has water that is piped either into the dwelling or the yard/plot. Such access is higher in urban areas (96 percent) than in rural areas (84 percent). In rural areas, 10 percent of the population has a tubewell/borehole with a pump and 4 percent has a protected well.
Ninety three percent of the population use sanitary means of excreta disposal. Ninety percent have a flush toilet connected either to a sewage system or septic tank. Septic tanks are much more common in rural areas; 53 percent of the rural population use a septic tank, whereas in urban areas 12 percent of the population fall into this category.

Child Malnutrition

Two percent of children under age five are underweight, 9 percent are too short for their age (stunted) and 2 percent are too thin for their height (wasted).
Children whose mothers have secondary education are the least likely to be underweight and stunted compared to children of mothers with less education.

Breastfeeding

Approximately 16 percent of children aged less than six months are exclusively breastfed, a level considerably lower than recommended. At age 6-9 months, 18 percent of children are receiving breast milk and solid or semi-solid foods. By age 20-23 months, 22 percent continue to be breastfed.

Immunization

Ninety seven percent of children aged 18-29 months received a BCG vaccination by the age of 12 months and the first dose of DPT was given to 94 percent. The percentage declines for subsequent doses of DPT to 90 percent for the second dose, and 82 percent for the third dose. Similarly, 95 percent of children received Polio 1 by age 12 months and this declines to 81 percent by the third dose.
Eighty percent of children received a measles vaccine (in the form of the measles -mumps - rubella (MMR) vaccine) by the age of 18 months.
Sixty percent of children had all eight recommended vaccinations according to the national immunization schedule.

Acute Respiratory Infection

Six percent of under five children had an acute respiratory infection in the two weeks prior to the survey. Virtually all of these children were taken to an appropriate health provider.

Integrated Management of Childhood Infections (IMCI)

Among children under five who were reported to have had diarrhoea in the two weeks preceding the MICS, 45 percent received ORT or increased fluids and continued feeding as recommended under the IMCI program.
Thirty seven percent of mothers/caretakers who recognized the two danger signs of pneumonia indicating that a child should be taken immediately to a health facility.
Seventy four percent of mothers reported administering an antibiotic to a child suffering from suspected pneumonia in the two last weeks.

HIV/AIDS

Twenty two percent of women aged 15-49 know three ways to prevent the sexual transmission of HIV transmission: 61 percent believe that having only one faithful uninfected sex partner can prevent HIV transmission, 60 percent believe that using a condom during each act of sexual intercourse, and abstaining from sex (28 percent), can prevent HIV transmission. This proportion is higher among women with more education.
Thirty two percent of women aged 15-49 correctly identified three misconceptions about HIV transmission and infection -that HIV cannot be transmitted by sharing food, or by supernatural means, and that a healthy-looking person can be infected with HIV.
Sixty two percent of women of reproductive age know all three ways in which HIV can be transmitted from mother to child.
Forty five percent of women know a place to get tested for HIV. Three percent had been tested of whom 92 percent had been given the result.
Eighty four percent of women express a discriminatory attitude towards people with HIV/AIDS.
Twenty four percent of women have comprehensive knowledge of HIV/AIDS transmission, with the proportion having comprehensive knowledge being strongly positively associated with the woman`s level of education.

Contraception

Current use of contraception was reported by 14 percent of married or in union women. The most popular method is condom, which is used by 5 percent of married women, followed by pill and diaphragm.

Antenatal Care

Virtually all women in Republic of Macedonia receive some type of prenatal care and 98 percent receive antenatal care from skilled personnel (doctor, nurse, midwife).

Assistance at Delivery

In the two years prior to the survey, 84 percent of deliveries were assisted by a medical doctor and 14 percent by a nurse/midwife. Less than 1 percent of deliveries did not have any assistance at delivery.

Birth Registration

The births of 94 percent of children under five years of age in Republic of Macedonia have been registered. There are no significant variations in birth registration across sex, age, urban/rural or education categories.

Child Labour

Six percent of children age 5-14 are involved in some form of child labour. Less than 1 percent of children 5-14 years old engage in paid work. About 3 percent participate in unpaid work outside the household, and 3 percent of children are engaged in family businesses.

Orphaned Children and Living Arrangements of Children

Overall 94 percent of children aged 0-17 are living with both parents. Children who are not living with a biological parent comprise 0.4 percent, but children for whom one or both parents are dead amount to almost 2 percent of all children aged 0-17 years. It is more likely that a father will be dead than a mother.

1 Introduction

Background

This report is based on the Republic of Macedonia Multiple Indicator Cluster Survey, conducted in 2005 by the State Statistical Office (SSO). The survey provides valuable information on the situation of children and women in Republic of Macedonia and was based, in large part, on the needs to monitor progress towards goals and targets emanating from recent international agreements: the Millennium Declaration, adopted by all 191 United Nations Member States in September 2000, and the Plan of Action of A World Fit For Children, adopted by 189 Member States at the United Nations Special Session on Children in May 2002. Both of these commitments build upon promises made by the international community at the 1990 World Summit for Children.

In signing these international agreements, governments committed themselves to improving conditions for their children and to monitoring progress towards that end. UNICEF was assigned a supporting role in this task (see table below). The Macedonian Government released its first report on the Millennium Development Goals

Table 1.1
A Commitment to Action: National and International Reporting Responsibilities

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

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

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

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

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

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

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

(MDGs) in June 2005. The report was structured around the eight MDGs and provided MDG indicators which were adapted to the country's national development context. Of the 48 MDG indicators, there are currently 12 for which the SSO has appropriate data. The MICS survey has generated data for another 9 indicators, not previously available in the country.

A National Action Plan for Children was adopted by the government in February 2005, which reviewed progress made and steps to take to improve the situation of children in the country. The plan will serve as the basis for policy formulation on children's rights for the next 10 years.

The Macedonian government has prepared its first report to the Committee on the Rights of the Child (CRC) and has reported on the progress made against the World Fit for Children (WFFC) goals.

The MICS data is very timely for providing a valuable evidence-base for these ongoing processes.

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

Survey Objectives

The 2005 Republic of Macedonia Multiple Indicator Cluster Survey has as its primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Republic of Macedonia;
- To furnish data needed for monitoring progress toward goals established by the Millennium Declaration, the goals of A World Fit For Children (WFFC), and other internationally agreed upon goals, as a basis for future action;
- To contribute to the improvement of data and monitoring systems in Republic of Macedonia and to strengthen technical expertise in the design, implementation, and analysis of such systems.

II Sample and Survey Methodology

Sample Design

The sample for the Republic of Macedonia Multiple Indicator Cluster Survey (MICS) was designed to provide estimates on a large number of indicators on the situation of children and women at the national level, and for some of the indicators at lower levels (urban and rural areas, and for eight regions). In addition, the sample was designed to provide reliable estimates of many indicators for the Roma population.

The Republic of Macedonia MICS 2005 sample design used a stratified two stage model, where geographical strata are 8 NUTS3 (Nomenclature of territorial units for statistics) regions (Skopski Region, Pelagoniski Region, Vardarski Region, North-East Region, South-West Region, South-East Region, Poloski Region and East Region.), and 2 strata (urban and rural) in each region, yielding 16 strata.

A total sample of 5250 households was designed, with 350 clusters selected and 15 households selected within each cluster.

The sample is further stratified to include specific strata for the Roma population, dividing all strata into Roma and non-Roma strata, yielding an additional 12 strata (4 of the original strata did not have clusters selected for the Roma sub-sample), with 70 clusters being allocated for the Roma population of the original 350.

The sample frame is the Population Census from 2002, using data on subpopulations of women aged from 12-46 year, children from 0-2 and the Roma population.

The allocation of clusters to each domain was performed by taking the number of women aged 12-46 from the Census 2002 data and using the ratio of the number of women in each stratum to the total to determine the distribution of the clusters to each stratum ($350 * m_j / \sum m_j$, where m_j is the number of woman aged 12-46 in the strata according to the 2002 Census), as follows:

Region	Region (HH7)	Urban/ Rural (HH6)	Total ED	Total Women 12-46	Roma Women 12-46	Total Clusters	Roma Clusters	Non-Roma Clusters
Skopski	1	1	1435	113833	6627	75	31	44
(Skopje)	1	2	400	37555	426	25	1	24
Pelagoniski	2	1	593	40204	1987	26	9	17
(Bitola)	2	2	478	17239	28	12	0	12
Vardarski	3	1	293	24752	425	16	1	15
(Veles)	3	2	202	9096	158	6	2	4
North-East	4	1	246	27219	1383	18	6	12
(Kumanovo)	4	2	374	17391	24	12	0	12
South-West	5	1	278	27273	751	18	4	14
(Ohrid)	5	2	438	31472	99	21	1	20
South-East	6	1	267	19655	98	14	0	14
(Strumica)	6	2	353	24291	58	16	0	16
Poloski	7	1	267	25404	1267	17	4	13
(Tetovo)	7	2	590	60613	137	40	1	39
East	8	1	472	34709	1877	23	9	14
(Stip)	8	2	419	16804	100	11	1	10
Total			**7105**	**527510**	**15445**	**350**	**70**	**280**

Selection of clusters

The selection of clusters was performed by generating a list of all clusters in each stratum, ordered by the total number of women aged 12-46 at the time of the census in 2002 (who would be 15-49 at the time of the survey in 2005), with the cluster with the largest number of women listed first. From this list, the first K clusters were selected, where K is the number of clusters to be selected in the stratum, according to the selection table above. This selection of the clusters with the largest numbers of women has led to a bias in the overall sample selected, in particular clusters containing households with larger than average numbers of household members. As households with large numbers of members tend to be from the poorer communities, this bias is likely to produce results that are somewhat worse than the true picture of the population. After reviewing the results, however, the overall bias does not appear to be large, but may vary in different regions.

Selection of households within clusters

Fertility levels in Republic of Macedonia are low and households with a child under 5 account for less than 20 percent of households nationally. As these levels would require a very large overall sample to provide a sufficiently large sample for estimates for children under 5, households with children under the age of 5 were over sampled.

The selection of households was performed by sorting the list of households in each cluster into two groups: households with children under 5, and those without children under 5. From these two groups, 12 households were to be selected from the first group and 3 households from the second group. The information concerning the identification of households with children under 5 was based on the 2002 census data, for children aged 0, 1 and 2 at the time of the census (Nov. 1, 2002), and updated with information on households registering a birth in 2003 and 2004 according to vital registration data for 2003 and 2004 respectively.

The selection of the 12 households was performed by using random selection within the first group. Within the second group, the households were ordered according to whether the household had an eligible woman (eligibility for the women's survey was defined as women aged 12-46 according to the census data) or not, with households with eligible women being listed before those without eligible women. The selection of the 3 households in the second group was again performed randomly.

Separate weighting of data is necessary for each household depending on the urban and rural strata in the 8 regions, as well whether the sample cluster was from the Roma sub sample or not, and whether it belonged to the group of households with children under 5 or the group of households without children under 5. Additionally, the household member data and the individual women's questionnaire data are further weighted

to adjust for biases in the distribution by age group and sex to match the census distribution.

Questionnaires

Three sets of questionnaires were used in the survey: 1) a household questionnaire which was used to collect information on all *de jure* household members (usual residents of the household), the household, and the dwelling; 2) a women's questionnaire administered in each household to all women aged 15-49 years; and 3) an under-5 children's questionnaire, administered to mothers or caretakers of all children under 5 living in the household. The questionnaires included the following modules:

The Household Questionnaire included the following modules:

- Household Listing
- Education
- Water and Sanitation
- Household Characteristics
- Child Labour
- Child Discipline
- Disability

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

- Child Mortality
- Maternal and Newborn Health
- Marriage/Union
- Contraception
- Attitudes Towards Domestic Violence
- Sexual Behaviour
- HIV/AIDS

The Questionnaire for Children under-5 was administered to mothers or caretakers of children under-5 years of age[1] 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:

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

The questionnaires are based on the MICS3 model questionnaire[2]. From the MICS3 model English version, the questionnaires were translated into Macedonian and Albanian languages and were pre-tested in eight municipalities in urban and rural areas, during 13-14 October 2005. Based on the results of the pre-test, modifications were made to the wording and translation of the questionnaires. A copy of the Republic of Macedonia MICS questionnaires is provided in Appendix F.

Training and Fieldwork

Training for the fieldwork was conducted for 15 days in 5 cities: Kumanovo, Tetovo, Skopje, Stip and Ohrid, (3 days at each point) from October 17 to October 31, 2005. Training included lectures on interviewing techniques and the contents of the questionnaires, and mock interviews between trainees to gain practice in asking questions. Towards the end of the training period, trainees spent 2 days in practice interviewing in 8 municipalities within the Skopski region.

Data was collected by 20 teams; each comprised 4 interviewers, one driver, one editor/measurer and a supervisor. Fieldwork began on November 4 and concluded on November 30, 2005.

Data Processing

Data was entered using the CSPro software. The data was entered on 20 microcomputers and carried out by 20 data entry operators and 4 data entry supervisors. In order to ensure quality control, all questionnaires were double entered and internal consistency checks were performed. Procedures and standard programs developed under the global MICS3 project and adapted to Republic of Macedonia questionnaire were used throughout. Data processing began simultaneously with data collection on November 10, 2005 and was completed on December 15, 2005. Data was analysed using the Statistical Package for Social Sciences (SPSS) software program, Version 14, and the model syntax and tabulation plans developed by UNICEF for this purpose.

III Sample Coverage and the Characteristics of Households and Respondents

Sample Coverage

Originally, 5250 households were selected for the sample. During the fieldwork the number of households identified increased to 5379, due to the fact that in some cases, more than one household was found in one dwelling. In these cases, the MICS3 guidelines were followed, and in the cases where two households were found in one dwelling, both households were included in the survey. Of the total of 5379 households, 5287 were found to be occupied. Of these, 4701 were successfully interviewed for a household response rate of 89 percent. In the interviewed households, 7539 women (age 15-49) were identified. Of these, 7397 were successfully interviewed, yielding a response rate of 98 percent. In addition, 4578 children under age five were listed in the household questionnaire. Of these, questionnaires were completed for 4548, which corresponds to a response rate of 99 percent. Overall response rates of 87 and 88 percent are calculated for the women's and under-5's interviews respectively (Table HH.1). The response rates were similar across regions and areas.

Characteristics of Households

The 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 4701 households successfully interviewed in the survey, 26 423 household members were listed. Of these, 13 249 were male, and 13 174 were female. These figures also indicate that the survey estimated the average household size at 5.6 household members which is appropriate to the data from the 2002 census (5.5).

Figure HH.1: Age and sex distribution of household population, Republic of Macedonia, 2005

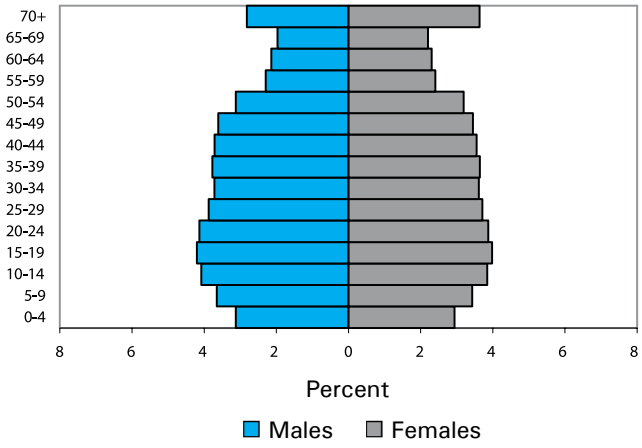


Table HH.2 and Figure HH.1 show the five-year age distribution of household members by sex. This distribution is almost the same for male and female. Due to the low fertility, there is a small number of children in the 0-4 age group. The largest number of persons is found in the 15-19 age group. The number in each age group then steadily declines up to the age group 30-34 with a slight increase in the 35-39 age group. After 40 years of age, the population starts to fall slowly, until age 55 when there is a bigger decline. The male/female ratio shows some variations over the first 50 years of life and then the number of women definitely exceeds that of men. Twenty six percent of the population comprises the group of children aged 0-17. The proportion of males who are children is slightly higher compared to females who are children (27 versus 25 percent).

The artificially large population at the end of the curve results from the fact that all people over the age of 70 were considered a single group.

Table HH.3 provides basic background information on the households. Within households, the sex of the household head, region, urban/rural status, number of household members, and ethnicity[3] group of the household head are shown in the table. These background characteristics are also 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.

The weighted and unweighted numbers of households are equal, since sample weights were normalized (See Appendix B). The table also shows the proportions of households where at least one child under 18, at least one child under 5, and at least one eligible woman age 15-49 were found. About 61 percent of the households are urban and 39 percent of households are rural. The Skopski region comprises the largest of the eight regions with 26 percent of households while East region is the next largest with 14 percent. According to the ethnic group of the head of the household, 65 percent are Macedonian, 25 percent are Albanian and about 3 percent are Roma. Most of the households have between 2 and 7 members. Twenty percent of the households contain at least one child under age five and 97 percent contain at least one woman age 15-49. Note that the weighted and unweighted numbers of cases varies quite widely for some characteristics, such as the number of household members and ethnic group of head. This is due to the over sampling of households with children under the age of 5 and of Roma households and is to be expected with the complex sample design used in this survey. Because of the complex nature of the sample design, even after weighting of the data there may be some characteristics for which the sample distribution according to certain characteristics does not match with the census distribution for those same characteristics.

Characteristics of Respondents

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 both 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, 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 provides background characteristics of female respondents 15-49 years of age. The table includes information on the distribution of women according to region, urban-rural areas, age, marital status, motherhood status, education[4], wealth index quintiles[5], and ethnicity. Women aged 15-19 comprise the greatest percentage of the sample at around 15 percent. This percentage declines steadily across age groups until age 45-49 where it is 13 percent. Approximately 58 percent of women in the sample are currently married and 59 percent have ever had a birth. The majority of women have had at least some secondary education while only 4 percent have had no education. According to the ethnic group of the head of the household, the percentage of women is larger in the Macedonian group (61 percent) than the Albanian group (29 percent). Women from Roma ethnic group comprise 3 percent of the sample.

Some background characteristics of children under 5 are presented in Table HH.5. These include distribution of children by several attributes: sex, region and area of residence, age in months, mother's or caretaker's education, wealth, and ethnicity. Fifty three percent of the children are male and forty seven percent are female. The age distribution of children under five is well balanced. Approximately 7 percent of mothers of children under age five have no education, while the majority of mothers (55 percent) have primary education. Note that, for children whose mothers did not live in the household, the education of the child's caretaker is used. According to the ethnic group of the head of the household, the percentage of children under five is larger in the Albanian group (about 46 percent) than the Macedonian group (38 percent). This differs from the distribution of children by ethnic group found in the census where 6 percent of the total population of children under-5 are Macedonian and 2 percent of children under 5 are Albanian. This difference may be the result of the complex sample design and the potential bias described earlier.

IV Child Mortality

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

The infant mortality rate is the probability of dying before the first birthday. The under-five mortality rate is the probability of dying before the fifth birthday. In the Republic of Macedonia MICS, infant and under five mortality rates are calculated based on a variant of the indirect estimation technique known as the Brass method (United Nations, 1983; 1990a; 1990b).

For the application of the technique, women are classified into 5-year groups of time since first birth (TSFB), namely 0-4, 5-9, 10-14, 15-19 and 20-24 years, and average numbers of children ever born and proportion dead among these children are calculated for each group of women. The proportions dead calculated for each group are very closely related to mortality risks. The technique converts the proportions dead into conventional mortality risks by using several assumptions in regard to the length of exposure to the risk of dying among children born to each group of women, on the distribution of deaths of children over time, and on the level and pattern of fertility prevalent in the population. Simulations on model data have shown that proportions dead by TSFB groups of women can be converted into probabilities of dying by using modelled relationships, namely into $_2q_0$ (probability of dying before age 2) for proportion dead among children of women in the 0-4 years TSFB group, under-5 mortality rates for the 5-9, 10-14 and 15-19 year TSFB groups, and $_{15}q_0$ (probability of dying before age 15) for the 20-24 years TSFB group. The technique also time-locates these estimates, again by using several assumptions. This is necessary because children of women who have had their first births long ago have been exposed to mortality risks for a longer period of time, and therefore, their mortality experience refers to farther back in time, compared to that of children born to women who have had their first births recently.

The final step in the calculations is the conversion of the estimated mortality risks into comparable probabilities of dying for each estimate derived from different TSFB groups of women. The so-called Coale-Demeny model life tables are used for this purpose. Coale-Demeny model life tables are life table schedules at different levels of mortality, that embody typical age patterns of mortality in human populations, categorized into 4 'families' of such typical patterns – North, South, East and West models. Using typical relationships between $_2q_0$, $_5q_0$ and $_{15}q_0$ and the infant mortality rate embodied in these model life tables, the initial estimates of mortality are converted into

infant mortality rates, while the estimates of $_2q_0$ and $_{15}q_0$ are converted into estimates of $_5q_0$ (Note that the 5-9, 10-14 and 15-19 year TSFB groups produce estimates of under-5 mortality rates at the initial calculation stage). By expressing mortality risks at different points in time with the same indicator, it then becomes possible to show trends in mortality during the last 15-20 years.

For the calculations in this report, the East model life table was selected as most appropriate, based on previous information on the age pattern of mortality in Republic of Macedonia.

Although relatively small, the survey estimates give higher infant and under five mortality rates than the official statistics. According to data from the Institute for Mother and Child Health Protection 2005, infant mortality rate is 12.8 per 1000 live births and under 5 mortality rate is 14.4 per 1000 live births. This difference may have been due to sample design, but may also reflect some under–reporting in the health statistics. Nevertheless, the focus in the use of these data should not be on the absolute level of mortality, but rather on the differences between groups of the population where substantial differences can be observed.

Table CM.1 provides estimates of child mortality by various background characteristics, while Table CM.2 provides the basic data used in the calculation of the mortality rates for the national total. The infant mortality rate is estimated at 16 per thousand, while the probability of dying under-5 (U5MR) is around 17 per thousand. These estimates are based on the information collected from women who have had their first birth 0-4 years ago, and refer to mid-2003. There is some difference between the probabilities of dying between urban and rural areas; 10 versus 26 per 1000. There are also differences in mortality in terms of educational levels and wealth. Differentials in under-5 mortality rates by background characteristics are also shown in Figure CM.1.

Figure CM.1 Under-5 mortality rates by background characteristics, Republic of Macedonia, 2005

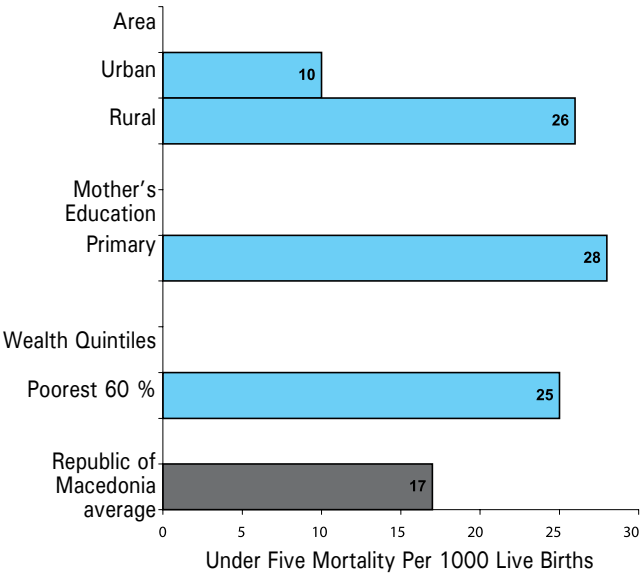
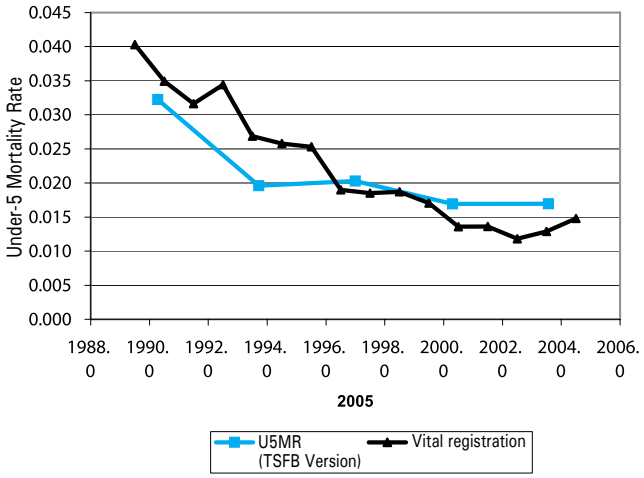


Figure CM.2 shows the series of U5MR estimates of the survey, based on responses of women in different age groups, and referring to various points in time, thus showing the estimated trend in U5MR based on the survey. The MICS estimates indicate a decline in mortality during the last 15 years. The trend indicated by the survey results are in broad agreement with those from the vital registration data and are positive.

Figure CM.2: Trend in under-5 mortality rates, Republic of Macedonia, 2005



V Nutrition

Nutritional Status

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

Malnutrition is associated with more than half of all children 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 the children who die from causes related to malnutrition were only mildly or moderately malnourished – showing no outward sign of their vulnerability. The Millennium Development target is to reduce by half the proportion of people who suffer from hunger between 1990 and 2015. The World Fit for Children goal is to reduce the prevalence of malnutrition among children under five years of age by at least one-third (between 2000 and 2010), with special attention to children under 2 years of age. A reduction in the prevalence of malnutrition will assist in the goal 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 the WHO/CDC/NCHS reference, which was recommended for use by UNICEF and the World Health Organization at the time the survey was implemented. Each of the three nutritional status indicators can be expressed in standard deviation units (z-scores) from the median of the reference population.

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

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

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

In MICS, weights and heights of all children under-5 years of age were measured using

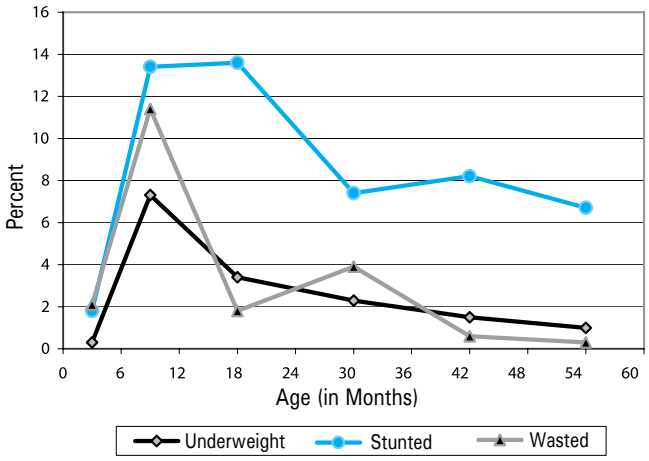
anthropometric equipment recommended by UNICEF (UNICEF, 2006). Findings in this section are based on the results of these measurements.

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

In Table NU.1, children who were not weighed and measured (approximately 7 percent of children) and those whose measurements are outside a plausible range are excluded. In addition, a small number of children whose birth dates are not known are excluded.

About 2 percent of children under age five in Republic of Macedonia are moderately underweight and less than half a percent are classified as severely underweight (Table NU.1). Nine percent of children are stunted or too short for their age and 2 percent are wasted or too thin for their height.

Figure NU.1: Percentage of children under-5 who are



There is no difference between the percentage of male and female children that are moderately underweight. Boys appear to be more likely to be stunted than girls, while the girls appear to be more likely to be wasted than boys.

Children in the South West region are more likely to be underweight, while the children in the South East and North East regions are more likely to be stunted than other children. Those children whose mothers have secondary education are the least likely to be underweight and stunted compared to children of mothers with no education. Roma children are twice as likely to be stunted and are more likely to be underweight than Macedonian or Albanian children.

The age pattern shows that a higher percentage of children aged 6-11 months are undernourished according to all three indices in comparison to children who are younger and older (Figure NU.1). This pattern is expected and is related to the age at which many children cease to be breastfed and are exposed to contamination in water, food, and environment.

More than 10 percent of children are overweight, with children in urban areas and children in richer households more likely to be overweight.

Breastfeeding

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

WHO/UNICEF have the following feeding recommendations:

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

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

The indicators of recommended child feeding practices are as follows:

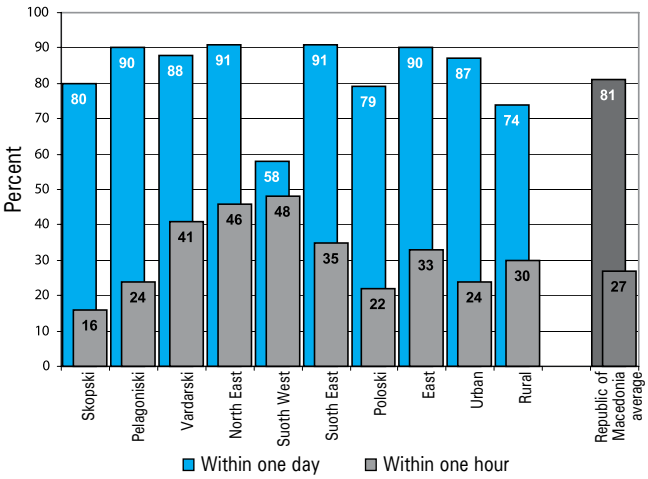
- Exclusive breastfeeding rate (< 6 months & < 4 months)
- Timely complementary feeding rate (6-9 months)
- Continued breastfeeding rate (12-15 & 20-23 months)

- Timely initiation of breastfeeding (within 1 hour of birth)
- Frequency of complementary feeding (6-11 months)
- Adequately fed infants (0-11 months)

Table NU.2 provides the proportion of women who started breastfeeding their infants within one hour of birth, and women who started breastfeeding within one day of birth (which includes those who started within one hour). Within the 2 years prior to the MICS survey, 81 percent of women aged 15-49 years started breastfeeding within one day of birth. Twenty seven percent started breastfeeding within one hour of birth. Rural women are more likely to start breastfeeding in the first hour after birth (30 percent) than women from urban areas (24 percent). The women's level of education is negatively related to the likelihood of starting breastfeeding within the first hour, but positively related to starting breastfeeding in the first day. The percentage of women who breastfed within the first hour declines with increasing education from 33 percent among those with no education to 28 percent among women with primary education, and to 23 percent among women with secondary education.

In Table NU.3, breastfeeding status is based on the reports of mothers/caretakers of children's consumption of food and fluids in the 24 hours prior to the interview. *Exclusively breastfed*

Figure NU.2 Percentage of mothers who started breastfeeding within one hour and within one day of birth, Republic of Macedonia, 2005



refers to infants who received only breast milk (and possibly vitamins, mineral supplements, or medicine). The table shows exclusive breastfeeding of infants during the first six months of life (separately for 0-3 months and 0-5 months), as well as complementary feeding of children 6-9 months and continued breastfeeding of children at 12-15 and 20-23 months of age.

Approximately 16 percent of children aged less than six months are exclusively breastfed, a level considerably lower than recommended. A higher percentage of children from urban areas are exclusively breastfed (20 percent), against

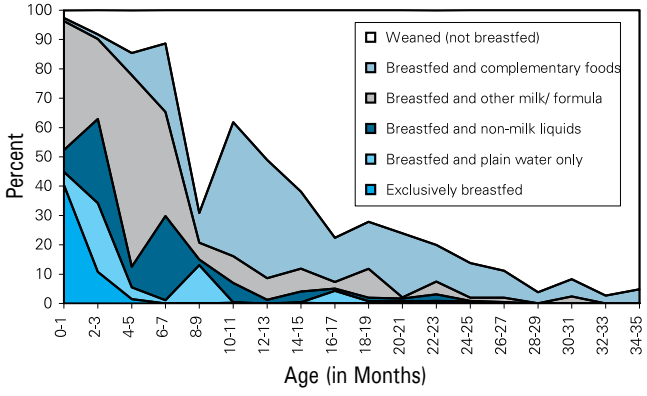
10 percent of rural children. Poorer children are more likely to be breastfed then children from the richest quintiles (10 percent versus 2 percent). Twenty one percent of Albanian children are exclusively breastfed, compared with only 3 percent of Roma children.

At age 6-9 months, 18 percent of children are receiving breast milk and solid or semi-solid foods. By age 12-15 months, 45 percent of children are still being breastfed and by age 20-23 months, 22 percent are still breastfed. Girls were more likely to be exclusively breastfed than boys, while boys had higher levels than girls for timely complementary feeding.

Continued breastfeeding at age 20-23 months is more prevalent in urban areas (26 percent) than in rural areas (17 percent), although there is little difference at ages 12-25 months. The percentage of children who are breastfed at 12-15 months varies according to the mother's education, and there are also significant differences when the child is aged 20-23 months. In this latter age group, children of mothers with no education have a significantly higher breastfeeding rate (48 percent) than for children whose mothers have a secondary education (8 percent). In the same age group, there is a big disparity in breastfeeding rate among the children from Roma and Macedonian ethnic group. This percentage is significantly higher among the Roma children (53 percent) than among the Macedonian children (12 percent).

Figure NU.3 shows the detailed pattern of breastfeeding status by the child's age in months. Even at the earliest ages, the majority of children are receiving liquids or foods other than breast milk. About 40 percent of infants aged 0-1 months are exclusively breastfeed, and this proportion drops rapidly until it is close to zero by four months. (See Table NU.3w)

Figure NU.3 Infant feeding patterns by age: Percent distribution of children aged under 3 years by feeding pattern by age group, Republic of Macedonia, 2005



The adequacy of infant feeding in children under 12 months is provided in Table NU.4. Different criteria of adequate feeding are used depending on the age of the child. For infants aged 0-5 months, exclusive breastfeeding is considered as adequate feeding. Infants aged 6-8 months are considered to be adequately fed if they are receiving breastmilk plus complementary food at least two times per day, while infants aged 9-11 months are considered to be adequately fed if they are receiving breastmilk and eating complementary food at least three times a day.

Seventeen percent of infants aged 6-11 months received breastmilk and complementary food at least the minimum recommended number of times per day. The administration of breastmilk and complementary food is much common among male infants (18 percent) than among female infants (15 percent). Rural children appear more likely to be adequately fed than urban. Infants whose mothers have secondary education are less likely to be adequately fed (8 percent) compared with those whose mothers have primary education (23 percent). Twenty nine percent of infants from the poorest quintile and only 7 percent from the richest one are adequately fed. While 15 percent of Macedonian and 39 percent of Roma received breastmilk and complementary food at least the minimum recommended number of times per day, this percentage is only 9 among Albanian infants.

Sixteen percent of all infants (aged 0-11) are appropriately fed. The results show no real difference between the sexes, nor between children in urban versus rural areas, but show a decline from around 20 percent for the children of mother's with no education and primary education groups to less than 10 percent for the children of mother's with secondary education.

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 (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 months and years. Those who survive have impaired immune function and increased risk of disease; they are likely to remain undernourished, with reduced muscle strength, throughout their lives, and suffer a higher incidence of diabetes and heart disease in later life. Children born underweight also tend to have a lower IQ and

cognitive disabilities, affecting their performance in school and their job opportunities as adults.

In the developing world, low birth weight stems primarily from the mother's poor health and nutrition. Three factors have 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 the 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.

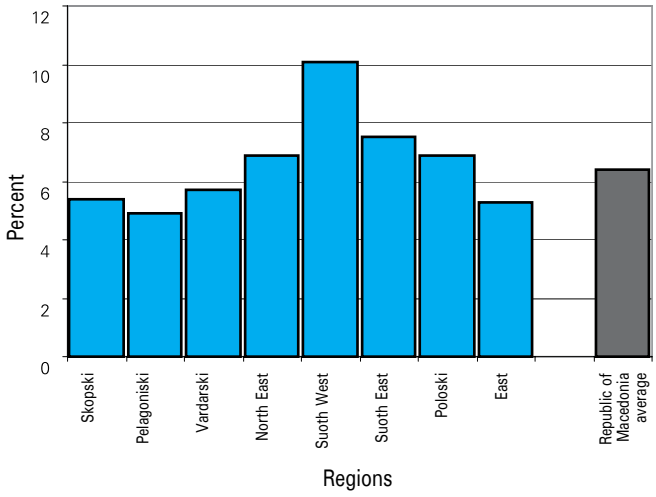
In the industrialized world, cigarette smoking during pregnancy is the leading cause of low birth weight. In developed and developing countries alike, teenagers who give birth when their own bodies have yet to finish growing run the risk of bearing underweight babies.

One of the major challenges in measuring the incidence of low birth weight is the fact that more than half of infants in the developing world are not weighed. In the past, most estimates of low birth weight for developing countries were based on data compiled from health facilities. However, these estimates are biased 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[6] .

Overall, ninety-three percent of births were weighed at birth and approximately 6 percent of infants are estimated to weigh less than 2500 grams at birth (Table NU.8). The prevalence of low birth weight does not vary much by urban and rural areas or by mother's education.

Figure NU.5 Percentage of Infants Weighing Less Than 2500 Grams at Birth, Republic of Macedonia, 2005



VI Child Health

Immunization

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. Immunizations have saved the lives of millions of children in the three decades since the launch of the Expanded Programme on Immunization (EPI) in 1974. Worldwide there are still 27 million children overlooked by routine immunization and as a result, vaccine-preventable diseases cause more than 2 million deaths to children under the age of five every year.

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

According to UNICEF and WHO guidelines, a child in Republic of Macedonia should receive a BCG vaccination to protect against tuberculosis, three doses of DPT to protect against diphtheria, pertussis, and tetanus, three doses of polio vaccine, and a measles vaccination, all within the first few months of life (at 13 months for Measles). Mothers were asked to provide vaccination cards for children under the age of five. Interviewers copied vaccination information from the cards onto the MICS3 questionnaire.

Overall, the mother or caretaker was able to show the health card (health record book) for 75 percent of children aged 18-29 months, 14 percent reported that they had the health card but were not able to show it and 11 percent reported that they did not have a health card for the child. If the child did not have a card or the mother was not able to show the card, the mother was asked to recall whether or not the child had received each of the vaccinations and, for DPT and Polio, how many times. The percentage of children aged 18 to 29 months who received each of the vaccinations is shown in Table CH.1. The denominator for the table is comprised of children aged 18-29 months so that only children who are old enough to be fully vaccinated are counted. In the top panel, the numerator includes all children who were vaccinated at any time before the survey according to the vaccination card or the mother's report. In the bottom panel, only those who were vaccinated before 12 months of age (18 months for measles) are included. For children without vaccination cards, the proportion of vaccinations given before 12 months of age is assumed to be the same as for children with vaccination cards.

Approximately 97 percent of children aged 18-29 months received a BCG vaccination by the age of 12 months and the first dose of DPT was given to 94 percent. The percentage declines for subsequent doses of DPT to 90 percent for the second dose, and 82 percent for the third dose (Figure CH.1). Similarly, 95 percent of children received Polio 1 by age 12 months and this declines to 81 percent by the third dose. The coverage for measles vaccine by 18 months is 80 percent. The percentage of children who had all eight recommended vaccinations by 12 months of age (18 months for measles) is 60 percent.

The coverage figures for whether a child has ever received BCG, DPT1, Polio 1, and Measles seem to be in line with the official statistics, however, the DPT3 and Polio 3 figures show a drop off.

Looking more closely at table CH.1, this drop of is largely in the cases where the mother reported the vaccinations, and not in the vaccinations according to the health card. It seems likely that at least some of this is because mothers do not remember the number of DPT and Polio vaccinations, although they remember that the child received at least one vaccination. This has been found in other surveys where mother's reporting has been compared directly with the vaccination card held at the health centre. However it is also likely that there is some drop off in the vaccination rates from DPT1 to DPT3 and from Polio 1 to Polio 3 in certain groups of the population. This appears to be the case, for example, for child whose mother's are less educated and for Roma children (see CH.2).

Figure CH.1: Percentage of children aged 18-29 months who received the recommended vaccinations by 12 months, Republic of Macedonia, 2005[7]

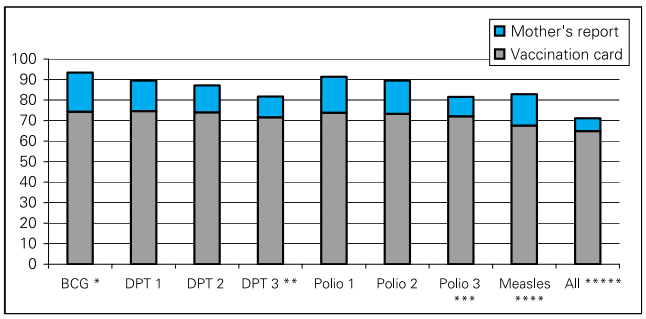
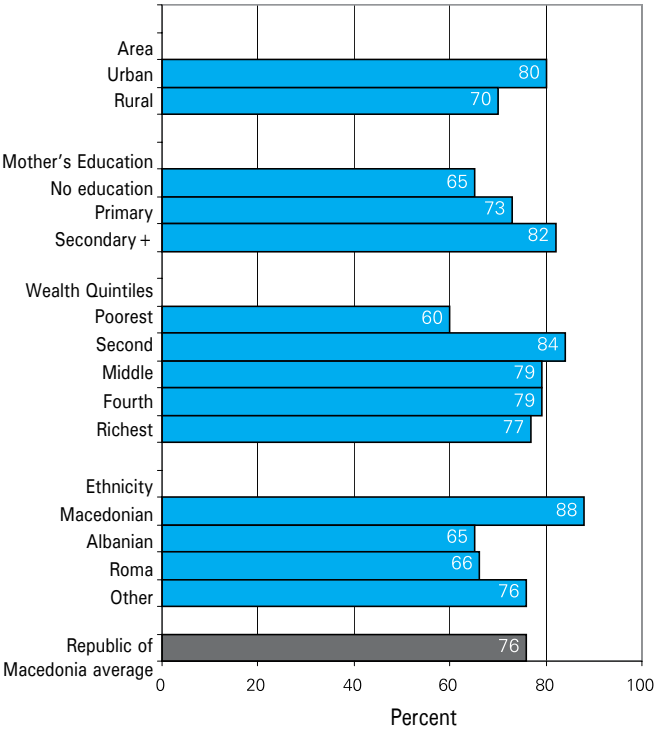


Table CH.2 shows vaccination coverage rates among children 18-29 months by background characteristics. The figures indicate children receiving the vaccinations at any time up to the date of the survey, and are based on information from both the vaccination cards and mothers'/ caretakers' reports. The percentage of children currently vaccinated against childhood diseases is 76. Male and female children are vaccinated at roughly the same rate. Urban children are more likely to be vaccinated (80 percent) than rural children (70 percent). Vaccination coverage is higher among children whose mothers have secondary education. Albanian (65 percent) and Roma (66 percent) children are less likely to be vaccinated, compared to Macedonian children (88 percent).

Figure CH.2 Percentage of children aged 18-29 months currently vaccinated against childhood diseases, Republic of Macedonia, 2005



Oral Rehydration Treatment

Diarrhoea is the second 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. Preventing dehydration and malnutrition by increasing fluid intake and continuing to feed the child are also important strategies for managing diarrhoea.

The goals are to: 1) reduce by one half death due to diarrhoea among children under five by 2010 compared to 2000 (A World Fit for Children); and 2) reduce by two thirds the mortality rate among children under five by 2015 compared to 1990 (Millennium Development Goals). In addition, the World Fit for Children calls for a reduction in the incidence of diarrhoea by 25 percent.

The indicators are:
Prevalence of diarrhoea
Oral rehydration therapy (ORT)
Home management of diarrhoea
(ORT or increased fluids) ***AND*** continued feeding

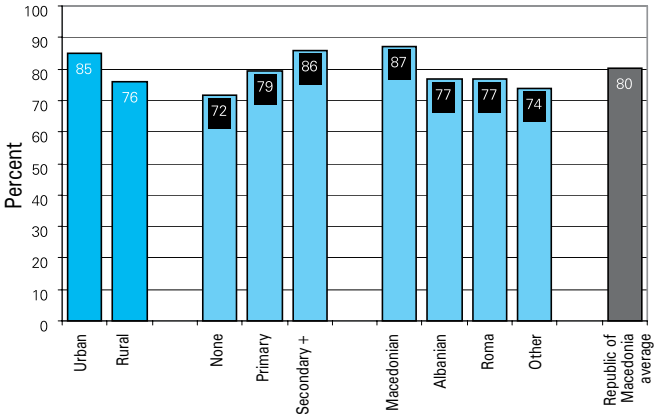
* Measles includes children who received the vaccination by 18 months

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

Overall, 7 percent of children under five had diarrhoea in the two weeks preceding the survey (Table CH.4). Diarrhoea prevalence was highest in Pelagoniski region at 25 percent. The prevalence of diarrhoea among girls (9 percent) was higher than among boys (6 percent). The peak of diarrhoea prevalence occurs in the weaning period, among children age 0-11 months at 20 percent.

Table CH.4 also shows the percentage of children receiving various types of recommended liquids during the episode of diarrhoea. Since mothers were able to name more than one type of liquid, the percentages do not necessarily add to 100. About 24 percent received fluids from ORS packets and 63 percent received recommended homemade fluids. Eighty one percent of children aged 0-59 months with diarrhoea received oral rehydration treatment. Children from urban areas were more likely to receive ORT (85 percent) than those from rural areas (76 percent). Eighty six percent of children of mothers with secondary education received ORT, compared to seventy two percent of children whose mothers have no education. The ORT use rate is highest among the Macedonian children (87 percent). The ORT use rate among children from Albanian, Roma and other ethnic groups is virtually the same (around 74 – 77 percent).

Figure CH.3 Percentage of children aged 0-59 months with diarrhoea who received oral rehydration treatment, Republic of Macedonia, 2005

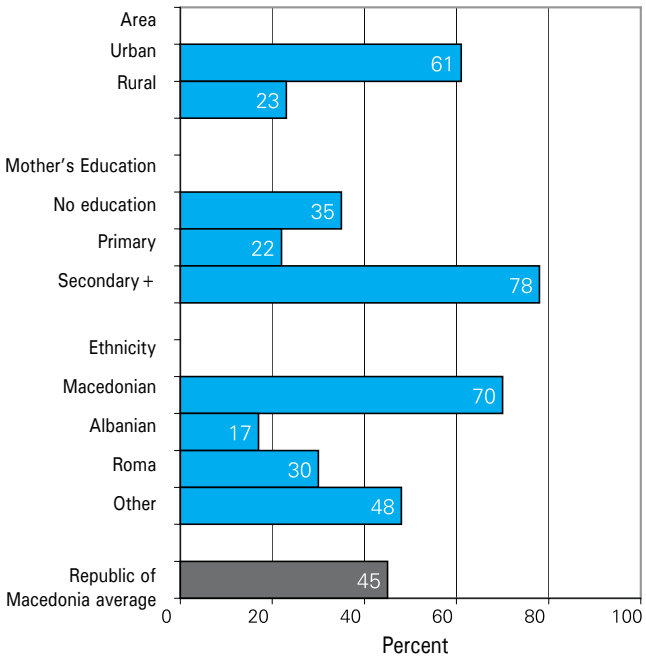


Fourteen percent of under five children with diarrhoea drank more than usual while 84 percent drank the same or less (Table CH.5). Fifty five percent ate somewhat less, the same or more (continued feeding), but forty two ate much less or ate almost none. Girls are more likely to eat somewhat less, the same or more (66 percent) than boys (40 percent).

The indicator of home management of diarrhoea is defined as children with diarrhoea who drank more and continued feeding (eating the same, more, or somewhat less). This follows WHO/ UNICEF recommendations that children should drink more than usual and should continue eating while being treated at home for diarrhoea. Overall 6 percent of children are receiving increased fluids and continuing to eat while being treated for diarrhoea. There are significant differences in the home management of diarrhoea by background characteristics.

Combining the information in Table CH.5 with those in Table CH.4 on oral rehydration therapy, it is observed that 45 percent of children either received ORT or fluid intake was increased, and at the same time, feeding was continued, as is the recommendation. Children from the rural areas are almost three times less likely to follow recommended treatment (23 percent) than children from urban areas (61 percent). There is important association between the mother's education level and socio-economic status of the households. Twenty two percent of children whose mothers have primary education received ORT or increased fluids and continued feeding, compared with 78 percent whose mothers have secondary education. There are differences across ethnic groups. Only 17 percent of children from Albanian ethnic group received increased fluids and continued feeding compared to 30 percent of Roma children and 70 percent of Macedonian children.

Figure CH.4 Percentage of children aged 0-59 with diarrhoea who received ORT or increased fluids, AND continued feeding Republic of Macedonia, 2005



Care Seeking and Antibiotic Treatment of Pneumonia

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

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

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

Table CH.6 presents the prevalence of suspected pneumonia and, if care was sought outside the home, the site of care. Six percent of children aged 0-59 months were reported to have had symptoms of pneumonia during the two weeks preceding the survey. Of these children, 93 percent were taken to an appropriate provider. 26 percent of these children were taken to a hospital, 16 percent to a health centre, 29 percent to a government health post, and 12 percent to a private hospital clinic. There are no differences between regions, urban/rural and wealth quintiles in terms of children taken to an appropriate provider. Small differences were observed among children whose mothers have secondary education. These children were more likely to be taken to a private hospital clinic than to a government hospital (39 versus 23 percent). Roma children were less likely to be taken to any appropriate provider (92 percent).

Table CH.7 presents the use of antibiotics for the treatment of suspected pneumonia in under-5s by sex, age, residence, and socioeconomic factors. In Republic of Macedonia, 74 percent of under-5 children with suspected pneumonia during the two weeks prior to the survey had received an antibiotic. The table also shows that the percentage of under-5 children with suspected pneumonia who received antibiotics varies among education groups and it is higher among those whose mother's have at least secondary education. This percent is also higher for boys than for girls, and among the children that belong to the Roma ethnic group.

Issues related to knowledge of danger signs of pneumonia are presented in Table CH.7A. Obviously, mothers' knowledge of the danger signs is an important determinant of care-seeking behaviour. Overall, 37 percent of women know of the two danger signs of pneumonia – fast breathing and difficult breathing. The most common response, given by 91 percent of mothers, is that they would take their child to a health facility right away if he/she developed a fever. Fifty five percent said that the child becoming sicker would cause them to take the child to a health facility and 54 percent mentioned difficulty breathing. Forty three percent of mothers cited fast breathing, and 37 percent blood in the stools, as reasons for taking a child to a health facility right away. The less frequently reported signs were drinking poorly (26 percent) and inability to drink or breastfeed (25 percent).

Rural mothers and those with primary education were more likely to mention at least two signs for seeking care than other mothers.

Solid Fuel Use

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

Information on the type of fuel used for cooking is another measure of the socio-economic status of the household. Table CH.8 shows that 36 percent of the households use solid fuel for cooking (principally wood). About 61 percent use electricity. Households in urban areas are more likely to use electricity for cooking. The use of wood is higher among the poorest households (78 percent) and households where the head of the household is without education (63 percent). There is a substantial difference in use of electricity for cooking between the richest and the poorest households (89 versus 21 percent).

Solid fuel use alone is a poor proxy for indoor air pollution, since the concentration of the pollutants is different when the same fuel is burnt in different stoves or fires. Use of closed stoves with chimneys minimizes indoor pollution, while open stove or fire with no chimney or hood means that there is no protection from the harmful effects of solid fuels. The type of stove used with a solid fuel is depicted in Table CH.9. Of the households using solid fuels, 87 percent of households use a closed stove with chimney, and only 13 percent use open stove of fire with chimney or hood. There are no differences between regions, urban/rural and different wealth quintiles.

VII Environment

Water and Sanitation

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

The MDG goal is to reduce by half, between 1990 and 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. The World Fit for Children goal calls for a reduction in the proportion of households without access to hygienic sanitation facilities and affordable and safe drinking water by at least one-third.

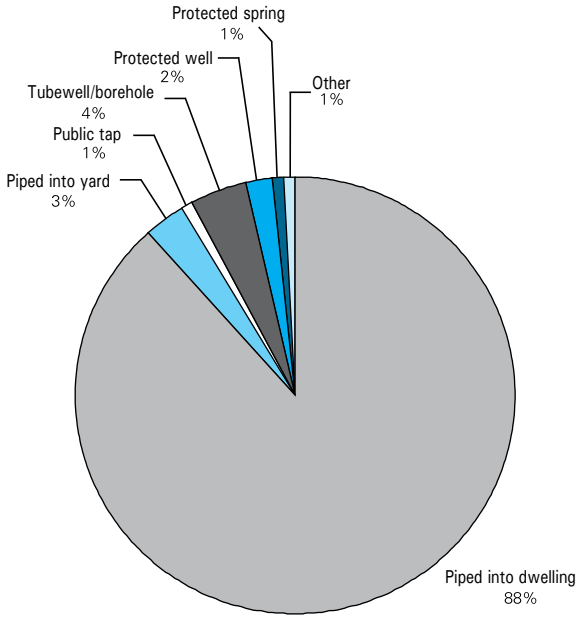
The list of indicators used in MICS is as follows:

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

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

The distribution of the population by source of drinking water is shown in Table EN.1 and Figure EN.1. The population using *improved sources* of drinking water are those using any of the following types of supply: piped water (into dwelling, yard or plot), public tap/standpipe, tubewell/borehole, protected well, protected spring, 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 hand washing and cooking.

Figure EN.1: Percent distribution of the population by source of drinking water, Republic of Macedonia, 2005



Ninety one percent of the population has water that is piped either into the dwelling or the yard/plot. Such access is higher in urban areas (96 percent) than in rural areas (84 percent). In rural areas, 9 percent of the population has a tubewell/borehole with a pump and 4 percent has a protected well.

The source of drinking water for the population varies by region (Table EN.1). In the Skopski region, 95 percent of the population uses drinking water that is piped into their dwelling or into their yard or plot. In contrast, only about 73 percent of those residing in the South East region have piped water.

There are differences in terms of access to a water supply piped into the dwelling or yard/plot among the richest and poorest households (100 versus 74 percent), and in terms of education of the head of the household -- 96 percent into the households where the household head has secondary education or more and 85 percent into the households where the household head has no education.

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

Eleven percent of the household population use an appropriate water treatment method. Eight seven percent of household members used no water treatment method. The most common method is boiling. Households using water sources from rural areas are more likely to use an appropriate water treatment than those from urban areas (14 versus 10 percent). The poorest households are more likely to use a water treatment method than the richest one.

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

Table EN.3 shows that for 96 percent of households, the drinking water source is on the premises. For 0.3 percent of households, it takes less than 30 minutes to get to the water source and bring water, while 0.5 percent of households spend more than 1 hour for this purpose. Excluding those households with water on the premises, the average time to the source of drinking water is 19 minutes. For those households without access to water on the premises, the time spent in urban areas in collecting water is higher than in rural areas.

Table EN.4 shows that for the majority of households, an adult female is usually the person collecting the water (63 percent), when the source of drinking water is not on the premises. Adult men collect water in 33 percent of cases, while almost no female or male children under age 15 collect water.

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

Ninety three percent of the population in Republic of Macedonia is living in households with a sanitary means of excreta disposal - 97 percent in urban areas and 88 percent in rural areas (Table EN.5). Ninety percent have a flush toilet connected either to a sewage system or septic tank. Septic tanks are much more common in rural areas; 53 percent of the rural population use a septic tank, whereas in urban areas 12 percent of the population fall into this category. In urban areas less than 1 percent uses a pit latrine with slab, while the proportion in rural areas is around 2 percent.

The coverage of the population with a flush toilet linked to a sewage system is lowest in the Poloski region (23 percent), which also has the highest proportion of toilets linked to aseptic tank (72 percent). There are some disparities in the use of flush toilet piped to the sewer system between the household population from the Albanian ethnic group (only 34 percent use this type of sanitation facility) and the Macedonian and Roma population (75 and 80 percent).

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. Disposal of faeces of children 0-2 years of age is presented in Table EN.6. The proportion of children whose stools are disposed of safely is 50 percent. The likelihood of safely disposing of the child's faeces increases with the education of the mother or caretaker. The percentage of children whose stools are thrown into garbage is almost 40 percent. Twenty one percent of children used a toilet or latrine. This percentage is higher in urban areas (26 percent) than in rural areas (14 percent). Roma children are less likely to use a toilet or latrine (10 percent). The disposal of stools by putting or rinsing them into a toilet or latrine is

more common among rural children (34 percent) compared to children from urban areas (25 percent).

An overview of the percentage of household members who use improved sources of drinking water and sanitary means of excreta disposal is presented in Table EN.7. Overall, 92 percent of the population use improved sources of drinking water and sanitary means of excreta disposal. Ninety nine percent use improved sources of drinking water and 93 percent use sanitary means of excreta disposal. The percentage who use both improved sources of drinking water and sanitary means of excreta disposal is higher in urban than in rural areas (97 versus 87 percent), increases with the level of education of the head of household.

There is important association between the use of improved water sources and improved sanitation and socio-economic status of the households. Only 76 percent of the poorest household population use improved sources of drinking water and sanitary means of excreta disposal, compared to 100 percent of the household population from the richest quintiles.

VIII Reproductive health

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 number of children. A World Fit for Children goal is access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late or too many.

Current use of contraception was reported by 14 percent of women currently married or in union (Table RH.1). The most popular method is the condom which is used by 5 percent of women currently married or in union, followed by the pill, which accounts for 3 percent of married women. One percent of married women use diaphragm, foam or jelly as a contraceptive method. Less than 1 percent use periodic abstinence, withdrawal, female sterilization, vaginal methods, or the lactational amenorrhea method (LAM). Use of any traditional method is three times as high in rural areas as compared with urban places. Use of the pill is higher in urban areas.

Contraceptive prevalence is highest in the South West region at 19 percent and almost as high in the Skopski region at 18 percent. Fifteen percent of married women in the Pelagoniski and Poloski region and 12 percent in the East use a method of contraception.In the Vardarski, North East and South East, contraceptive use is rare; less than 10 percent of married women reported using any method.Adolescents are far less likely to use contraception than older women. Only about 1 percent of married or in union women aged 15-19 currently use a method of contraception compared to 12 percent of 20-24 year olds.

Women's education level is strongly associated with contraceptive prevalence. Use increases with educational level. The percentage of women using any method of contraception rises from 8 percent among those with no education to 12 percent among women with primary education, and to 17 percent among women with secondary or higher education. In addition to differences in prevalence, the method mix varies by education. About 3 percent of contraceptive users with primary education use the condom. Similarly, 7 percent of contraceptive users with secondary or higher education use the condom and 3 percent use pill.

There are no significant differences between the women from different ethnic groups. The modern methods of contraception prevail in women from the richest quintiles, while traditional methods are more frequently used by poorer women. However, even the poorest women are more likely to use a modern method than a traditional method. Interestingly, the middle income group of women have the lowest rate of contraceptive use overall.

Unmet need[8] for contraception refers to fecund women who are not using any method of contraception, but who wish to postpone the next birth or who wish to stop childbearing altogether. Unmet need is identified in MICS by using a set

of questions eliciting current behaviours and preferences pertaining to contraceptive use, fecundity, and fertility preferences.

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

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

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

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

Table RH.2 shows the results of the survey on contraception, unmet need, and the demand for contraception satisfied. While 14 percent of women aged 15-49 years currently married or in union use contraception, the total unmet need for contraception is 34 percent. There are some differences among women by age group, urban/rural and educational level.

Five percent of women have unmet need for spacing. This percentage is highest among women aged 20-29. Women with no education are less likely to have unmet need for spacing (2 percent), compared to women with secondary education (6 percent). Albanian women and women from the category of other ethnic groups are most likely to have an unmet need for spacing.

Twenty nine percent of women have unmet need for limiting. Urban women are more likely to have unmet need for limiting than rural. The percentage is highest among women aged 40-44.

The percentage of demand for contraception satisfied is 29 percent. This percentage is higher in rural areas (35 percent) than in urban (24 percent). Women with no education are less likely to have demand for contraception satisfied, than women with secondary education (13 percent versus 33 percent). The percent is lowest among Roma women (20 percent).

Antenatal Care

The antenatal period presents important opportunities for reaching pregnant women with a number of interventions that may be vital to their health and well-being and that of their infants. Better understanding of foetal growth and development and its relationship to the mother's health has resulted in increased attention to the potential of antenatal care as an intervention to improve both maternal and newborn health. For example, if the antenatal period is used to inform women and families about the danger signs and symptoms and about the risks of labour and delivery, it may provide the route for ensuring that pregnant women do, in practice, deliver with the assistance of a skilled health care provider. The antenatal period also provides an opportunity to supply information on birth spacing, which is recognized as an important factor in improving infant survival. Tetanus immunization during pregnancy can be life-saving for both the mother and infant. According to the Republic of Macedonia immunization protocol tetanus immunization is not standard practice. Management of anaemia during pregnancy and treatment of STIs can significantly improve foetal outcomes and improve maternal health. Adverse outcomes such as low birth weight can be reduced through a combination of interventions to improve women's nutritional status and prevent infections during pregnancy. More recently, the potential of the antenatal period as an entry point for HIV prevention and care, in particular for the prevention of HIV transmission from mother to child, has led to renewed interest in access to and use of antenatal services.

WHO recommends a minimum of four antenatal visits based on a review of the effectiveness of different models of antenatal care. WHO

guidelines are specific on the content of antenatal care visits, which include:

- Blood pressure measurement
- Urine testing for bateriuria and proteinuria
- Blood testing to detect syphilis and severe anemia
- Weight/height measurement (optional)

In Republic of Macedonia blood testing during antenatal care is only conducted to detect sever anemia and syphilis testing is only conducted on signs of the infection as determined by the medical practitioner.

Coverage of antenatal care by skilled personnel (a doctor, nurse, midwife or auxiliary midwife) is almost universal in Republic of Macedonia with 98 percent of women receiving antenatal care at least once during the pregnancy. Antenatal care coverage is almost the same in urban and rural areas.

The type of personnel providing antenatal care to women aged 15-49 years who gave birth in the two years preceding is presented in Table RH.3. 94 percent of women with a birth in the two years prior to the survey received antenatal care from a doctor and 4 percent from a nurse or midwife. Health assistance providing antenatal care for women with no education is 85 percent and for those with secondary education is 99 percent. Women from the Roma ethnic group are less likely to receive antenatal care from a doctor than Macedonian women (79 versus 98 percent).

The types of services pregnant women received are shown in table RH.4. Virtually all women in Republic of Macedonia received specific care as part of the antenatal care during pregnancy. 96 percent of women aged 15-49 had blood sample taken, 93 percent had blood pressure measured, 96 percent had urine specimen taken and 94 percent had their weight measured. These percentages are lowest among pregnant women from the poorest quintile, the Roma ethnic group and among women with no education. There are no significant differences between women from urban/rural areas.

Assistance at Delivery

Globally, three quarters of all maternal deaths occur during delivery and the immediate post-partum period. The single most critical intervention for safe motherhood is to ensure a competent health worker with midwifery skills is present at every birth, and transport is available to a referral facility for obstetric care in case of emergency. A World Fit for Children goal is to ensure that women have ready and affordable access to skilled attendance at delivery. The indicators are the proportion of births with a skilled attendant and proportion of institutional deliveries. The skilled attendant at delivery indicator is also used to track progress toward the Millennium Development target of reducing the maternal mortality ratio by three quarters between 1990 and 2015.

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

About 98 percent of births occurring in the year prior to the MICS survey were delivered by skilled personnel (Table RH.5). The more educated a woman is, the more likely she is to have delivered with the assistance of a skilled person.

About 84 percent of births in the year prior to the MICS survey were delivered with assistance by a doctor. Nurses or midwives assisted with the delivery of 14 percent of births. The percentage assisted by a doctor is lower among Roma women (70 percent) and women with no education (78 percent). About 1 percent of births were delivered with the assistance of a relative or friend, and less than 1 percent with the assistance of a traditional birth attendant.

IX Child Development

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

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

For 85 percent of children under the age of five, an adult engaged in four or more activities that promote learning and school readiness during the 3 days preceding the survey (Table CD.1). The average number of activities that adults engaged in with children is 5. The table also indicates that the father's involvement in one or more activities occurred for 61 percent of children. Only 3 percent of children are living in a household without their fathers.

Exposure to books in the 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 and IQ scores.

In Republic of Macedonia, 51 percent of children are living in households where at least 3 non-children's books are present (Table CD.2). Forty nine percent of children aged 0-59 months have 3 or more children's books. While no gender differentials are observed, urban children appear to have more access to both types of books than those living in rural households. The proportion of under-5 children who have 3 or more children's books is 60 percent in urban areas, compared to 36 percent in rural areas. Children from the poorest households appear to have less access to both types of books than those living in the richest households. Twenty one percent of under-5 children living in poorest households live in households with more than 3 children's books, while the figure is 89 percent in the richest households. Children from the Roma and Albanian ethnic groups have the lowest access to children's books (32 and 27 percent).

Table CD.2 also shows that 65 percent of children play with toys that come from a store, about 19 percent of children play with homemade toys, 6 percent of children play with household objects and 6 percent with objects found outside the home (note that percentages do not add up to 100 as children may play with more than one type of toy). About 8 percent had none of the playthings asked to the mothers/caretakers. The highest percentages of children who have none of the playthings are from the Roma population (about 17 percent) and the group where the mother has no education (about 17 percent).
Leaving children alone or in the presence of other young children is known to increase the risk of accidents. In MICS, two questions were asked to find out whether children aged 0-59 months were left alone during the week preceding the

interview, and whether children were left in the care of other children under 10 years of age.

Table CD.3 shows that 8 percent of children aged 0-59 months were left in the care of other children, while 3 percent were left alone during the week preceding the interview. Combining the two care indicators, it is calculated that 9 percent of children were left with inadequate care during the week preceding the survey. No clear differences are observed by the level of mother's education or between urban and rural areas. On the other hand, inadequate care was more prevalent among female children (11 percent), as opposed to male (8 percent). Children aged 24-59 months were left with inadequate care more (12 percent) than those who were aged 0-23 months (4 percent). Small differences are observed in regard to socioeconomic status of the household.

X Education

Pre-School Attendance and School Readiness

Attendance to pre-school education in an organized learning or child education program is important for the readiness of children to school. One of the World Fit for Children goals is the promotion of early childhood education.

Only 11 percent of children aged 36-59 months are attending pre-school (Table ED.1). A higher percentage of boys (15 percent) compared to girls (6 percent) are attending pre-school. Urban-rural and regional differentials are significant – children in urban areas are about ten times as likely to attend early learning activities (the figure is as high as 19 percent in urban areas, compared to less than 2 percent in rural areas). There are regional variations ranging from 1 percent in Poloski to 23 percent in Vardarski region. Differentials by socioeconomic status are significant. Twenty five percent of children living in the richest households attend pre-school, while the figure drops to only 1 percent in the poorest households. Relatively few children attend at age 48-59 months (8 percent) when compared to children aged 36-47 months (13 percent). There are some differences in the attendance rate of children from different ethnic groups - only 2 percent of Albanian children attend pre-school education compared to 17 percent of Macedonian children. This figure is 4 percent for the Roma children. Finally, mother's education appears to be strongly related to the likelihood that a child will attend an early childhood education. The percentage of children attending increases from less than 2 percent to 23 percent as the mother's education increases from primary to secondary or higher education.

The table also shows the proportion of children in the first grade of primary school who attended pre-school the previous year (Table ED.1), an important indicator of school readiness. Overall, 76 percent of children who are currently age 6 or 7 and attending the first grade of primary school

were attending pre-school the previous year. The proportion among males is higher (87 percent) than females (64 percent), while this proportion is almost the same among children living in urban and rural areas.

Primary and Secondary School Participation

Universal access to basic education and the achievement of primary education by the world's children is one of the most important goals of the Millennium Development Goals and A World Fit for Children. 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.

The indicators for primary and secondary school attendance include:

- Net intake rate in primary education
- Net primary school attendance rate
- Net secondary school attendance rate
- Net primary school attendance rate of children of secondary school age
- Female to male education ratio (or gender parity index - GPI)

The indicators of school progression include:

- Transition rate to secondary school
- Net primary completion rate

Of children who are of primary school entry age (age 7) in Republic of Macedonia, 95 percent are attending the first grade of primary school (ED.2).

There are no significant differences between boys and girls, urban and rural areas and regions. A positive correlation with mother's education and socioeconomic status is observed; for children age 7 whose mothers have at least secondary school education, 98 percent were attending the first grade, compared to 83 percent of children whose mothers have no education. In the richest households, the proportion is around 98 percent, while it is 86 percent among children living in the poorest households. Roma children have the lowest levels with only 63 percent attending the first grade of primary school.

Table ED.3 provides the percentage of children of primary school age attending primary or secondary school. Overall, 95 percent of children of primary school age (ages 7-14) in Republic of Macedonia are attending primary school or secondary school (Table ED.3). The lowest proportion of children attending primary school can be observed in the poorest wealth quintile. This proportion varies from 87 percent in the poorest wealth quintile to

100 percent in the richest one. The attendance rate of Roma children is lower in comparison to other ethnic groups (61 percent). In urban areas, 93 percent of children attend school while in rural areas 97 percent attend. This difference is principally because of the lower attendance rate for the Roma population, and the Roma live predominantly in the urban areas. School attendance in the South East and Pelagoniski region is lower than in the other regions at 81 percent. At the national level, there is a small difference between male and female primary school attendance.

The secondary school net attendance ratio is presented in Table ED.4. Overall, 63 percent of children of secondary school age (ages 15–18) in Republic of Macedonia are attending secondary school (Table ED.4). This percentage is the lowest in the South East region, (37) and among the children of the Roma population, only 17 percent. In urban areas, 71 percent of children attend school while in rural areas 56 percent attend. The attendance of secondary school is strongly determined by the socio-economic status of the households. It ranges from 34 percent in the poorest quintile to 90 percent in the richest quintile. Seventy four percent of Macedonian children of secondary school age attend secondary school, while only 17 percent of Roma children of the same age attend secondary school. There is a higher proportion of girls (68 percent) of this age attending secondary school than of boys (59 percent).

The primary school net attendance ratio of children of secondary school age is presented in Table ED.4W. Three percent of the children of secondary school age are attending primary school when they should be attending secondary school. This percentage is higher among the children from the poorest households (3 percent), than among the children from the richest households (1 percent). The highest percentage of children of secondary school age that should be attending secondary school is among the children from Albanian ethnic group - 7 percent, compared with the Macedonian children where this percentage is less than 1 percent. Overall 5 percent of boys of secondary school age are still in primary school, whereas only 1 percent of girls of the same age are in primary school.

The net primary school completion rate and transition rate to secondary education are presented in Table ED.6. At the time of the survey, 83 percent of the children of primary school completion age (age 14) were attending the last grade of primary education. This value should be distinguished from the gross primary completion ratio which includes children of any age attending the last grade of primary. The primary school completion rate measures the proportion of children completing primary school at (or before) the recommended age. There are no significant variations in primary school completion across sex or urban and rural areas. However, the lowest percentage of children attending the last grade of primary education can be observed in the poorest wealth quintile. This percentage is lower among children who belong to the Roma ethnic group (45 percent), compared to 87 percent of Macedonian children, and among children whose mothers have no education. The secondary school transition rate measures the proportion of children transitioning directly from primary school to secondary school. Ninety five percent of children that attended the last grade of primary school in the previous year were found at the time of the survey to be attending the first grade of secondary school. There is virtually no difference between urban and rural children, or males and females, however Roma children are significantly less likely to transition to secondary school (only 27 percent) than other children (more than 90 percent).

The ratio of girls to boys attending primary and secondary education is provided in Table ED.7. The table shows that gender parity for primary school is 0.96, indicating that boys have a slight advantage in attendance at primary school. However, the indicator rises to 1.15 for secondary education indicating that girls are substantially more likely to attend secondary school.

Adult Literacy

One of the World Fit for Children goals is to assure adult literacy. Adult literacy is also an MDG indicator, relating to both men and women. In MICS, since only a women's questionnaire was administered, the results are based only on females age 15-24. Literacy was assessed on the ability of women to read a short simple statement or on school attendance. The percentage literate is presented in Table ED.8. The vast majority of the women (97 percent) aged 15-24 in Republic of Macedonia are literate. Overall, there are no substantial differences in the literacy rate among the regions as well as urban and rural areas. The literacy level is strongly associated with women's education. The literacy percentage declines from 100 percent among those with secondary education to 19 percent among the women with no education. Roma women are less likely to be literate than Macedonian or Albanian women (61 versus 99 percent).

XI Child Protection

Birth Registration

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

The births of 94 percent of children under-5 years in Republic of Macedonia have been registered (Table CP.1). There are no significant variations in birth registration across sex, age, or socio-economic categories. Children in the Pelagoniski region are significantly less likely to have their births registered than other children. There are also somewhat lower levels of birth registration of children of mother's with no or primary education compared with those with secondary education. Macedonian children are registered at slightly higher rates than children of other ethnic groups. Eighty nine percent of infants (children aged 0-11 months) were registered, while 95 percent of those aged 24 months and older were registered, suggesting that some children's births may be registered not at their birth, but a little later in life.

Child Labour

Article 32 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…" The World Fit for Children mentions nine strategies to combat child labour and the MDGs call for the protection of children against exploitation. In the MICS questionnaire, a number of questions addressed the issue of child labour, that is, children 5-14 years of age involved in labour activities. A child is considered to be involved in child labour activities at the moment of the survey if during the week preceding the survey:

- Ages 5-11: at least one hour of economic work or 28 hours of domestic work per week.
- Ages 12-14: at least 14 hours of economic work or 28 hours of domestic work per week.

This definition allows differentiation between child labour and child work to identify the type of work that should be eliminated. As such, the estimate provided here is a minimum of the prevalence of child labour since some children may be involved in hazardous labour activities for a number of hours that could be less than the numbers specified in the criteria explained above. Table CP.2 presents the results of child labour by the type of work. Percentages do not add up to the total child labour as children may be involved in more than one type of work.

In Republic of Macedonia, the MICS survey estimates that 6 percent of children aged 5-14 years are involved in child labour activities. Much less than 1 percent of children are engaged in paid

work. About 3 percent participate in unpaid work for someone other than a household member and 3 percent are working for family business. Boys are somewhat more likely to participate in unpaid work outside household and for family business than girls, and younger children (aged 5-11) are more likely than older children (aged 12-14) to be involved in activities considered as child labour, however, this is due to the stricter definition of child labour for the younger children. Levels of child labour vary from less than 1 percent in South East region to almost 15 percent in Vardarski region.

Table CP.3 presents the percentage of children classified as student labourers or as labourer students. Student labourers are the children attending school that were involved in child labour activities at the moment of the surveys. More specifically, of the 85 percent of the children 5-14 years of age attending school, 6 percent are also involved in child labour activities. On the other hand, out of the 6 percent of the children classified as child labourers, the majority of them are also attending school (95 percent).

Child Discipline

As stated in A World Fit for Children, "children must be protected against any acts of violence ..." and the Millennium Declaration calls for the protection of children against abuse, exploitation and violence. In the Republic of Macedonia MICS survey, mothers/caretakers of children age 2-14 years were asked a series of questions on the ways parents tend to use to discipline their children when they misbehave. Note that for the child discipline module, one child aged 2-14 per household was selected randomly during fieldwork. Out of these questions, the two indicators used to describe aspects of child discipline are: 1) the number of children 2-14 years that experience psychological aggression as punishment ***or*** minor physical punishment ***or*** severe physical punishment; and 2) the number of parents/caretakers of children 2-14 years of age that believe that in order to raise their children properly, they need to physically punish them.

In Republic of Macedonia almost 70 percent of children aged 2-14 years are subjected to at least one form of psychological or physical punishment by their mothers/caretakers or other household members. More importantly, 16 percent of children are subjected to severe physical punishment. On the other hand, mothers/caretakers who believed that children should be physically punished are only 7 percent, which implies an interesting contrast with the actual prevalence of physical discipline.

Male children are subjected more to severe physical discipline (19 percent) than female children (11 percent). It is very interesting that differentials with respect to many of the background variables are relatively small. Children aged between 5-9 years, Roma children and children from other ethnic groups as well as children from the poorest groups are more likely to experience severe

physical punishment. In contrast, children living in the richest households, children in Macedonian households and children whose mother's have at least secondary education are all more likely to have been disciplined only using non-violent means, that is not using psychological or physical means to discipline the child.

Early Marriage

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

In many parts of the world parents encourage the marriage of their daughters while they are still children in hopes that the marriage will benefit them both financially and socially, while also relieving financial burdens on the family. In actual fact, child marriage is a violation of human rights, compromising the development of girls and often resulting in early pregnancy and social isolation, with little education and poor vocational training reinforcing the gendered nature of poverty. The right to 'free and full' consent to a marriage is recognized in the Universal Declaration of Human Rights - with the recognition that consent cannot be 'free and full' when one of the parties involved is not sufficiently mature to make an informed decision about a life partner. The Convention on the Elimination of all Forms of Discrimination against Women mentions the right to protection from child marriage in article 16, which states: "The betrothal and the marriage of a child shall have no legal effect, and all necessary action, including legislation, shall be taken to specify a minimum age for marriage…" While marriage is not considered directly in the Convention on the Rights of the Child, child marriage is linked to other rights - such as the right to express their views freely, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices - and is frequently addressed by the Committee on the Rights of the Child. Other international agreements related to child marriage are the Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages and the African Charter on the Rights and Welfare of the Child and the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa. Child marriage was also identified by the Pan-African Forum against the Sexual Exploitation of Children as a type of commercial sexual exploitation of children.

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

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

Closely related to the issue of child marriage is the age at which girls become sexually active. Women who are married before 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 may put them at increased risk of HIV infection. Parents seek to marry off their girls to protect their honour. The demand for this young wife to reproduce and the power imbalance resulting from the age differential lead to very low condom use among such couples.

Two of the indicators are to estimate the percentage of women married before 15 years

of age and percentage married before 18 years of age. The legal age of marriage in Republic of Macedonia is 18 without parental consent. A competent court can in a non-contentious decision permit a person who has attained 16 years of age to enter into marriage, provided that the court is of the opinion that the person possesses the physical and psychological maturity required. The court bases its opinion on the findings provided by a medical institution, as well as through the expert assistance provided by the Centre for Social Work.

The percentage of women married at various ages is provided in Table CP.5. At the national level the percentage married before age 15 is just 1 percent, while the percentage married before age 18 is 12 percent. This percentage varies among the women from different ethnic groups. The percentage married before age 15 and before age 18 is the highest among the women of the Roma ethnic group (11 percent before age 15 and 49 percent before age 18). There is no difference in the percentage married before age 15 in urban and rural areas, but a difference appears in the percentage married before age 18 (10 percent in urban areas compared with 16 percent in rural areas). Women with no education are more likely to have married before age 15 (11 percent). Overall, 2 percent of women currently 15-19 years of age are married/in union. For this age group, the proportions currently married are highest in the Roma population and in the group with no education.

Another component is the spousal age difference with an indicator being the percentage of married/in union women 10 or more years younger than their current spouse. Table CP.6 presents the results of the age difference between husbands and wives. The majority of women aged 20-24 have spouses aged 0-4 years older. Ten percent of women have a husband/partner 10 and more years older. There is no significant difference between women from urban and rural areas. Women with lower educational level are less likely to have a 10 and more years older spouse than more educated women (2 versus 14 percent). Macedonian women are more likely to have their husband/partner 10+ years older, than women from other ethnic groups.

Domestic Violence

A number of questions were asked to women age 15-49 years to assess their attitudes towards whether husbands are justified to hit or beat their wives/partners for a variety of scenarios. These questions were asked to have an indication of cultural beliefs that tend to be associated with the prevalence of violence against women by their husbands/partners. The main assumption here is that women that agree with the statements indicating that husbands/partners are justified to beat their wives/partners under the situations described in reality tend to be abused by their own husbands/partners. The responses to these questions can be found in Table CP.9. Twenty one percent of women aged 15-49 believe a husband is justified in beating his wife/partner in various circumstances. Women from rural areas are more likely to believe a husband is justified in beating his wife when she goes out without telling him, when she neglects the children and when she argues with him. Attitudes toward domestic violence are strongly associated with women's education. Thirty six percent of women with no education agree with any of these reasons, while this percentage is lower among women with secondary education (11 percent). Women in the poorest quintile (32 percent) are more likely to believe one or more of the reasons are justified than women in the richest quintile (8 percent). Women from the Roma ethnic group are more likely to believe a husband is justified in beating his wife when she goes out, neglects the children and argues with him, than Macedonian women.

Child Disability

One of the World Fit for Children goals is to protect children against abuse, exploitation, and violence, including the elimination of discrimination against children with disabilities. For children age 2 through 9 years, a series of questions were asked to assess a number of disabilities or impairments, such as sight impairment, deafness, and difficulties with speech. This approach rests in the concept of functional disability developed by WHO and aims to identify the implications of any impairment or disability for the development of the child (e.g. health, nutrition, education, etc.). Table CP.10 presents the results of these questions. Ten percent of children 2-9 years of age have at least one reported disability. This percentage is higher in the poorest quintile at 12 percent compared to 8 percent in the richest quintile. Roma children are more likely to have at least one reported disability. Three percent of children are not learning to do things like other children his/her age, 2 percent of children have no understanding of instructions and 1 percent has difficulty seeing, either in the daytime or at night. In thirteen percent of children aged 3-9, their mothers or caretakers believe that their speech is not normal. Nine percent of children aged 2 are reported as not being able to name at least one object.

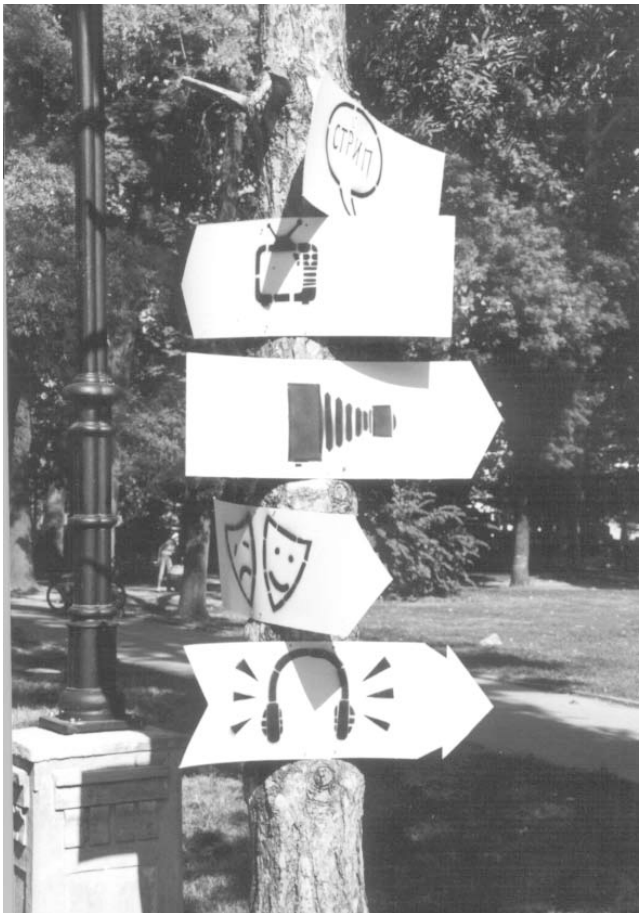
XII

HIV/AIDS, Sexual Behaviour, and Orphaned Children

Knowledge of HIV Transmission and Condom Use

One of the most important prerequisites for reducing the rate of HIV infection is accurate knowledge of how HIV is transmitted and strategies for preventing transmission. Correct information is the first step toward raising awareness and giving young people the tools to protect themselves from infection. Misconceptions about HIV/AIDS are common and can confuse young people and hinder prevention efforts. Different regions are likely to have variations in misconceptions although some appear to be universal (for example that sharing food can transmit HIV or mosquito bites can transmit HIV). 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. The HIV/AIDS module was administered to women 15-49 years of age.

One indicator which is both an MDG and UNGASS indicator is the percentage of young women who have comprehensive and correct knowledge of HIV prevention and transmission. Women were asked whether they knew of the three main ways of HIV transmission – having only one faithful uninfected partner, using a condom every time, and abstaining from sex. The results are presented in Table HA.1. In Republic of Macedonia 80 percent of interviewed women aged 15-49 have heard of AIDS. There was a significant difference between women with no education (34 percent) and women with secondary education (96 percent). The poorest quintile (58 percent) is significantly less likely to have heard of AIDS than the richest quintile (96 percent). Ninety five percent of Macedonian women have heard of AIDS, but less than 60 percent of women from other ethnic groups have heard of AIDS.



Women in the MICS were read several statements about means of HIV transmission and asked to state whether they believed the three statements on main ways of preventing HIV were true. The three main ways are "having only one faithful uninfected sex partner", "using a condom every time" and "abstaining from sex".

Among women aged 15-49, 61 percent believed that having only one uninfected sex partner can prevent HIV transmission, 60 percent know using a condom every time can prevent HIV transmission, and 28 percent know of abstaining from sex as a way of preventing HIV transmission. Overall, 22 percent know all three ways and 71 percent are aware of at least one of the means of preventing transmission. Thirty percent of women do not know any of these three ways.

Regionally, women in Vardarski region (85 percent aware of at least one way) are better informed than in Poloski region (57 percent). Women in urban areas (80 percent) are better informed than women in rural areas (58 percent).

Knowledge of preventing HIV transmission increased significantly with educational level. The percentage of women (15-49) who know all three ways of preventing transmission is lowest among women with no education (4 percent), while it is 27 percent among women with secondary education, and knowledge of at least one way of preventing transmission is only 22 percent for women with no education but 91 percent for women with at least secondary education. Differences in knowledge across age groups are not particularly large.

In general, women from Albanian and Roma ethnic group are less informed than Macedonian women. While 77 percent of Macedonian women believe that using a condom every time can prevent HIV/AIDS transmission, this percentage is significantly lower among women from Albanian and Roma ethnic groups (34 percent).

Table HA.2 presents the percentage of women who can correctly identify misconceptions concerning HIV. The indicator is based on the two most common and relevant misconceptions in Republic of Macedonia, that HIV can be transmitted by supernatural means and sharing food. The table also provides information on whether women know that HIV cannot be transmitted by mosquito bites, and that HIV can be transmitted by sharing needles. Of the interviewed women, 32 percent reject the two most common misconceptions and know that a healthy-looking person can be infected. Seventy one percent of women know that HIV cannot be transmitted by supernatural means, and 41 percent of women know that HIV cannot be transmitted by mosquito bites, while 57 percent of women know that a healthy-looking person can be infected.

Women in rural areas are less likely to identify both misconceptions than urban women (19 versus 41 percent). Women with secondary education (49 percent) are more likely to recognize both misconceptions than women with primary (11 percent) or no education (3 percent). There are significant differences among women from different ethnic groups. Only 8 percent of Roma women can identify both misconceptions, compared with Macedonian women where this percentage is 43. Identification of both misconceptions is also positively correlated with the socio-economic status measured by the wealth quintiles – 9 percent of the poorest quintile identified both misconceptions, compared with 52 percent of the richest quintile.

Table HA.3 summarizes information from Tables HA.1 and HA.2 and presents the percentage of women who know two ways of preventing HIV transmission and reject three common misconceptions. Comprehensive knowledge of HIV prevention methods and transmission is still fairly low although there are differences by area of residence.

The first column shows the percentage of women who know two ways of preventing HIV transmission-having one faithful uninfected partner and using a condom every time. Roughly half of women know these two ways. The second column shows the percentage of women who correctly identify two misconceptions about HIV transmission-that it can be transmitted through mosquito bites, and that a healthy looking person cannot be infected. Roughly one third of women correctly identified these as misconceptions. Finally, the third column of the table shows the percentage of women who have comprehensive knowledge of HIV transmission. These are women who know two prevention methods and three misconceptions. Twenty four percent of women aged 15-49 fell into this category.

Overall, 51 percent of women report knowing two prevention methods while in urban areas 57 percent of women identified both methods. Seventy percent of the richest quintile know two prevention methods compared with only 29 percent of the poorest quintile.

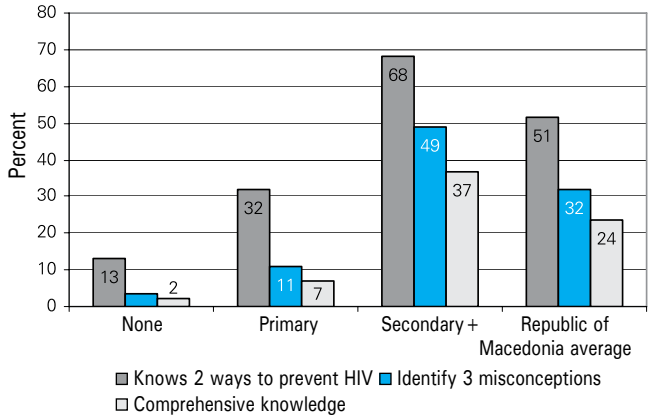
Level of education is highly associated with knowledge of HIV. Knowledge of preventing

HIV transmission increased significantly with educational level. The percentage of women (15-49) who know both means of preventing transmission is lowest among women with no education (13 percent) or primary education (32 percent), while it is 68 percent among women with secondary education.

Twenty four percent of women aged 15-49 correctly identified the two ways to prevent HIV transmission and rejected the three misconceptions about HIV/AIDS. Women in rural areas are less likely to have comprehensive correct knowledge about HIV/AIDS than urban women (14 versus 30 percent). Comprehensive correct knowledge is highest among the Macedonian population (33 percent) than the other ethnic groups (less than 8 percent for either the Albanian population or the Roma population). Thirty seven percent of secondary educated women have comprehensive correct knowledge about HIV/AIDS, compared with only 7 percent or less of women with primary or no education. In the poorest quintile only 5 percent have comprehensive correct knowledge while that figure rises to 40 percent in the richest quintile. Comprehensive correct knowledge varies by region from a low of 12 percent in Poloski region to a high of 39 percent in Vardarski region.

A key indicator used to measure countries' responses to the HIV/AIDS epidemic is the proportion of young people 15-24 years who know two methods of preventing HIV reject two misconceptions and know that a healthy looking person can have HIV. Twenty seven percent of young women have comprehensive correct knowledge of HIV/AIDS (Figure HA.1).

Figure HA.1 Percent of women who have comprehensive knowledge of HIV/AIDS transmission, Republic of Macedonia, 2005



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, delivery, and through breastfeeding. The level of knowledge among women age 15-49 years concerning mother-to-child transmission is presented in Table HA.4. Overall, seventy one 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 56 percent, while 9 percent of women did not know of any specific way.

Knowledge of all three ways in which HIV can be transmitted from mother to child is higher in urban areas (61 percent) than in rural areas (47 percent); it is also significantly higher among the more educated women (72 percent among women with secondary education against 17 percent among women with no education). Women from the Albanian and Roma ethnic group are less likely to correctly identify means of HIV transmission from mother to child than Macedonian women (29 percent versus 70 percent). When asked specifically about the mechanisms through which mother to child transmission can take place, about 69 percent said that transmission during pregnancy was possible, 60 percent said that transmission at delivery was possible, and 62 percent agreed that HIV can be transmitted through breast milk.

The indicators on attitudes toward people living with HIV measure stigma and discrimination in the community. Stigma and discrimination are low if respondents report an accepting attitude on the following four questions: 1) would care for family member sick with AIDS; 2) would buy fresh vegetables from a vendor who was HIV positive; 3) thinks that a female teacher who is HIV positive should be allowed to teach in school; and 4) would ***not*** want to keep HIV status of a family member a secret. Table HA.5 presents the attitudes of women towards people living with HIV/AIDS. Eighty four percent of women aged 15-49 agreed with at least one discriminatory statement towards people with HIV/AIDS, while only 16 percent expressed accepting attitudes. Only 5 percent of women would not care for a family member who was sick with AIDS, 65 percent would not buy fresh vegetables from person with HIV/AIDS and 55 percent believe that a female teacher with HIV should not be allowed to work. Urban women (18 percent) are more likely to express accepting attitudes than rural women (13 percent). Women aged 25-29 are most likely to show accepting attitudes. Twenty eight percent of women with no education agree with none of the discriminatory statements, compared to only 9 percent of those with primary education. Roma women are most likely to

express no discriminatory attitudes (23 percent). For all background categories, including region, urban/rural, age groups, education, wealth index and ethnic group, the proportion expressing a discriminatory attitude increases from the first to the fourth question.

Another important indicator is the knowledge of where to be tested for HIV and use of such services. The indicators shown in Table HA.6 are designed to monitor whether women are aware of places to get tested for HIV, the extent to which they have been tested, and the extent to which those tested have been told the results of the test. In some places, a relatively large proportion of people who are tested do not return to get their results due to fear of having the disease, fear that their privacy will be violated, or other reasons.

Forty five percent of women of reproductive age in Republic of Macedonia know a place to get tested for HIV. Women living in urban areas are most likely to know a place compared to those of rural areas. Women living in Pelagoniski region know a place to be tested (64 percent) more than any other region, followed by East region (55 percent), while this percent is lowest in the Poloski region (28 percent). Only 17 percent of women with primary education know a place to get tested compared to 68 percent of women with secondary education. Women from the Albanian ethnic group are less likely to know a place to get tested (18 percent) compared to Macedonian women (60 percent).

Only 3 percent of women have actually been tested. Again this percentage is higher among women with secondary education (5 percent) than among those with no or primary education (0.3 percent). The vast majority of women who have been tested were told their results (92 percent).

Among women who had given birth within the two years preceding the survey, the percentage who received HIV/AIDS counselling during antenatal care is presented in Table HA.7. Ninety eight percent of women in Republic of Macedonia received antenatal care from a health professional for last pregnancy, however, only 12 percent of women were provided information about HIV prevention during antenatal care visit. The percentage is higher in urban areas (14 percent) than in rural areas (9 percent). Receipt of HIV counselling increased with level of education from 7 percent for women with no education to 17 percent for women with secondary education. Macedonian women were the most likely (20 percent) of any ethnic group to have been provided information about HIV prevention.

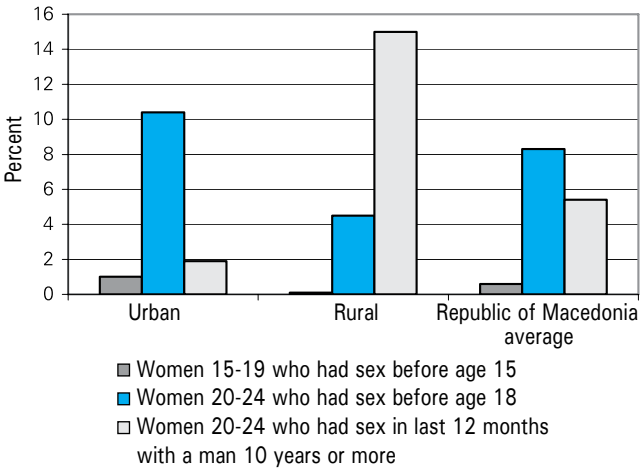
Sexual Behaviour Related to HIV Transmission

Promoting safer sexual behaviour is critical for reducing HIV prevalence. The use of condoms during sex, especially with non-regular partners, is especially important for reducing the spread of HIV. In most countries over half of new HIV infections are among young people 15-24 years thus a change in behaviour among this age group will be especially important to reduce new infections. A module of questions was administered to women 15-24 years of age to assess their risk of HIV infection. Risk factors for HIV include sex at an early age, sex with older men, sex with a non-marital non-cohabitating partner, and failure to use a condom.

The frequency of sexual behaviours that increase the risk of HIV infection among women is presented in Table HA.8 and Figure HA.2. Among women aged 15-19 in Republic of Macedonia, less than 1 percent had sex before age 15. Eight percent of women aged 20-24 years had sex before age 18. There is a significant difference between women from urban areas (10 percent) and rural areas (5 percent) and between women with no education (26 percent) and those with secondary education (7 percent). Women from the Roma ethnic group are more likely to had sex before 18 (27 percent), compared with women from other ethnic groups.

Five percent of women aged 15-24 who had sex in the 12 months prior to the survey stated that they had sex with a man 10 or more years older. Women in urban areas are less likely to have had sex with a man 10+ years older than rural women (2 versus 15 percent).

Figure HA.2 Sexual behaviour that increases risk of HIV infection, Republic of Macedonia, 2005



Promoting safer sexual behaviour is critical for reducing HIV prevalence. The use of condoms during sex, especially with non-regular partners is especially important for reducing the spread of HIV. Over half of new HIV infections are among young people 15-24 years, thus a change in behaviour among this age group will be especially important to reduce new infections.

Condom use during sex with men other than husbands or live-in partners (non-marital, non-cohabiting) was assessed in women 15-24 years of age who had sex with such a partner in the previous year (Table HA.9). Almost 80 percent of women 15-24 years who had sex in the 12 months prior to the survey report having sex with a non-regular partner in the 12 months prior to the survey. Of those women, 70 percent report using a condom when they had sex with their last high risk partner. Twenty four percent of women with primary education report using a condom during higher risk sex in the year before the survey while 73 percent of women with secondary or more education used a condom with such a partner. Seventy six percent of women in urban areas used a condom during the last high risk sex compared to 46 percent of women in rural areas.

Children's living arrangements and orphanhood

Children who are orphaned or living away from their parents may be at increased risk of impoverishment, discrimination, denial of property rights to inheritance, various forms of abuse, neglect, and exploitation of their labor or sexuality. Monitoring the condition level of orphaned children and the living arrangements of children assists in identifying those who may be at risk and in tracking changes over time.

The frequency of children living with neither parent, mother only, and father only is presented in Table HA.10. Overall 94 percent of children aged 0-17 are living with both parents. Children who are not living with either biological parent comprise 0.4 percent, but children one or both of whose parents are dead amount to almost 2 percent of all children aged 0-17 years. It is more likely that the child's father will be dead than their mother. Four percent of children live with their mother only and their father lives elsewhere, but that percentage reaches almost 12 percent in the South East region.

Endnotes

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

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

3 This was determined by asking "To what ethnic group does the head of the household belong?".

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

5 Principal components analysis was performed by using information on the ownership of household goods and amenities (assets) to assign weights to each household asset, and obtain wealth scores for each household in the sample (The assets used in these calculations were as follows: persons per sleeping room, type of the floor, type of the roof, type of the walls, type of cooking fuel and other assets: electricity, radio, television, mobile telephone, non-mobile telephone, refrigerator, dish washer, computer, washing machine, watch, bicycle, motorcycle/scooter, animal drawn-cart, car/truck, boat with motor, tractor. Each household was then weighted by the number of household members, and the household population was divided into five groups of equal size, from the poorest quintile to the richest quintile, based on the wealth scores of households they were living in. The wealth index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels, and the wealth scores calculated are applicable for only the particular data set they are based on. Further information on the construction of the wealth index can be found in Rutstein and Johnson, 2004, and Filmer and Pritchett, 2001.

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

7 All means "percent of children who missed out on at least one of the eight recommended doses"

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

Tables

The Tables included in this final report are grouped into the following topics:

Sample and Survey characteristics
Child mortality
Nutrition
Child Health
Environment
Reproductive Health
Child Development
Education
Child protection
HIV/AIDS, Sexual Behaviour and Orphaned Children

Tables are shown with breakdowns by background characteristics such as sex, region, urban-rural residence, mother's education, wealth index quintiles and ethnicity. The sample sizes are not always large enough to produce reliable estimates for all these breakdowns, so for proportions or percentages, the recommended minimum size of the denominator is 25 unweighted cases. A percentage with an unweighted denominator less than 25 cases is not shown in the table, while a percentage based on less than 50 cases is shown in parentheses.

Each table has footnotes which indicate the MICS and MDG indicators included in the table.

Table HH.1: Results of household and individual interviews

Number of households, women, and children under 5 by results of the household, women's and under-five's interviews, and household, women's and under-five's response rates, Republic of Macedonia, 2005

	Residence		Region								
	Urban	Rural	Skop-ski	Pelagoni-ski	Vardar-ski	North East	South West	South East	Poloski	East	**Total**
Number of households											
Sampled households	3170	2209	1511	606	330	450	625	462	858	537	5379
Occupied households	3119	2168	1463	602	328	443	610	459	848	534	5287
Interviewed households	2751	1950	1271	575	313	412	524	442	686	478	4701
Household response rate	88.2	89.9	86.9	95.5	95.4	93.0	85.9	96.3	80.9	89.5	88.9
Number of women											
Eligible women	4266	3273	2188	810	435	747	761	658	1263	677	7539
Interviewed women	4187	3210	2160	808	433	742	734	652	1218	650	7397
Women response rate	98.1	98.1	98.7	99.8	99.5	99.3	96.5	99.1	96.4	96.0	98.1
Women's overall response rate	86.6	88.2	85.8	95.3	95.0	92.4	82.9	95.4	78.0	85.9	87.2
Number of children under 5											
Eligible children under 5	2637	1941	1486	474	289	471	414	408	659	377	4578
Mother/Caretaker Interviewed	2615	1933	1475	471	289	471	411	407	651	373	4548
Child response rate	99.2	99.6	99.3	99.4	100.0	100.0	99.3	99.8	98.8	98.9	99.3
Children's overall response rate	87.5	89.6	86.2	94.9	95.4	93.0	85.3	96.1	79.9	88.6	88.3

Table HH.2: Household age distribution by sex

Percentage distribution of the household population by five-year age groups and dependency age groups, and number of children aged 0-17 years, by sex, Republic of Macedonia, 2005

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Age						
0-4	823	6.2	774	5.9	1597	6.0
5-9	960	7.2	903	6.9	1863	7.1
10-14	1074	8.1	1012	7.7	2086	7.9
15-19	1105	8.3	1048	8.0	2152	8.1
20-24	1087	8.2	1020	7.7	2107	8.0
25-29	1019	7.7	977	7.4	1997	7.6
30-34	978	7.4	951	7.2	1929	7.3
35-39	992	7.5	958	7.3	1950	7.4
40-44	976	7.4	935	7.1	1911	7.2
45-49	949	7.2	908	6.9	1857	7.0
50-54	822	6.2	840	6.4	1662	6.3
55-59	604	4.6	635	4.8	1239	4.7
60-64	562	4.2	607	4.6	1169	4.4
65-69	517	3.9	581	4.4	1099	4.2
70+	741	5.6	956	7.3	1698	6.4
Missing/DK	38	.3	69	.5	107	.4
Dependency age groups						
< 15	2858	21.6	2689	20.4	5546	21.0
15-64	9095	68.6	8878	67.4	17973	68.0
65 +	1259	9.5	1537	11.7	2796	10.6
Missing/DK	38	.3	69	.5	107	.4
Children aged 0-17	3547	26.8	3260	24.7	6806	25.8
Adults 18+/Missing/ DK	9703	73.2	9914	75.3	19617	74.2
Total	13249	100,0	13174	100,0	26423	100,0

Table HH.3: Household composition

Percentage distribution of households by selected characteristics, Republic of Macedonia, 2005

		Number of households	
	Weighted percent	Weighted	Unweighted
Sex of household head			
Male	92.4	4343	4294
Female	7.6	358	407
Region			
Skopski	26.1	1226	1271
Pelagoniski	12.7	597	575
Vardarski	6.8	320	313
North-East	7.4	347	412
South-West	11.9	559	524
South-East	9.0	422	442
Poloski	12.6	593	686
East	13.5	635	478
Residence			
Urban	60.8	2857	2751
Rural	39.2	1844	1950
Number of household members			
1	.7	33	39
2-3	13.9	651	618
4-5	56.5	2655	1920
6-7	20.0	940	1348
8-9	5.4	255	450
10+	3.6	167	326
Ethnicity			
Macedonian	65.2	3064	2265
Albanian	25.0	1176	1407
Roma	2.6	120	701
Other	7.2	340	328
Total	100,0	4701	4701
At least one child aged < 18 years	68.0	-	-
At least one child aged < 5 years	20.1	-	-
At least one woman aged 15-49 years	96.8	-	-

Table HH.4: Women's background characteristics

Percentage distribution of women aged 15-49 years by background characteristics, Republic of Macedonia, 2005

		Number of households	
	Weighted percent	Weighted	Unweighted
Region			
Skopski	28.0	2069	2160
Pelagoniski	11.0	817	808
Vardarski	6.3	467	433
North-East	8.2	605	742
South-West	10.9	808	734
South-East	8.3	613	652
Poloski	14.4	1068	1218
East	12.8	949	650
Residence			
Urban	60.1	4445	4187
Rural	39.9	2952	3210
Age			
15-19	15.3	1129	1158
20-24	14.9	1103	1528
25-29	14.6	1078	1637
30-34	14.1	1041	1072
35-39	14.2	1054	630
40-44	13.9	1027	659
45-49	13.0	965	713
Marital/Union status			
Currently married/in union	57.5	4251	5165
Formerly married/in union	3.3	242	251
Never married/in union	39.3	2904	1981
Motherhood status			
Ever gave birth	58.7	4346	5188
Never gave birth	41.3	3051	2209
Education			
None	3.6	263	779
Primary	40.4	2988	3822
Secondary +	56.0	4146	2796
Wealth index quintiles			
Poorest	18.3	1354	2275
Second	18.1	1336	1569
Middle	20.2	1498	1348
Fourth	21.3	1577	1265
Richest	22.1	1632	940
Ethnicity			
Macedonian	61.4	4545	3193
Albanian	29.0	2145	2468
Roma	2.5	184	1246
Other	7.1	522	490
Total	100,0	7397	7397

Table HH.5: Children's background characteristics

Percentage distribution of children under five years of age by background characteristics, Republic of Macedonia, 2005

		Number of households	
	Weighted percent	Weighted	Unweighted
Sex			
Male	53.4	2428	2322
Female	46.6	2118	2223
Region			
Skopski	37.2	1691	1473
Pelagoniski	9.1	415	471
Vardarski	6.1	279	289
North-East	7.2	329	471
South-West	8.7	397	410
South-East	8.3	377	407
Poloski	16.3	742	651
East	7.0	316	373
Residence			
Urban	54.3	2467	2615
Rural	45.7	2080	1930
Age			
< 6 months	7.2	326	233
6-11 months	9.3	421	275
12-23 months	18.4	837	924
24-35 months	19.4	881	939
36-47 months	23.5	1067	1039
48-59 months	22.3	1016	1135
Mother's education			
None	7.1	324	588
Primary	54.8	2491	2595
Secondary +	38.1	1732	1362
Wealth index quintiles			
Poorest	28.2	1282	1653
Second	21.7	988	931
Middle	19.4	883	789
Fourth	19.3	879	705
Richest	11.3	515	467
Ethnicity			
Macedonian	37.5	1704	1698
Albanian	46.1	2097	1661
Roma	5.1	231	829
Other	11.3	514	357
Total	100,0	4547	4545

Table CM.1: Early child mortality

Infant and under-five mortality rates by background characteristics, Republic of Macedonia, 2005

	Infant mortality rate*	Under-five mortality rate**
Sex		
Male	19	21
Female	9	10
Residence		
Urban	9	10
Rural	23	26
Women's education		
None/Primary	25	28
Secondary +	-	-
Wealth index quintiles		
Poorest 60%	22	25
Richest 40%	-	-
Total	16	17

East Model. Reference date: June 2003
* MICS indicator 2; MDG indicator 14
** MICS indicator 1; MDG indicator 13

Table CM.2: Children ever born and proportion dead

Mean number of children ever born, children surviving and proportion dead by age of women, Republic of Macedonia, 2005

	Mean number of children ever born	Mean number of children surviving	Proportion dead	Number of women
Age				
15-19	.003	.002	.045	1129
20-24	.069	.065	.057	1103
25-29	.429	.425	.009	1078
30-34	.872	.855	.020	1041
35-39	.960	.893	.069	1054
40-44	.561	.520	.073	1027
45-49	.726	.671	.076	965
Total	.505	.479	.051	7397

Table NU.1: Child malnourishment

Percentage of children aged 0-59 months who are severely or moderately malnourished, Republic of Macedonia, 2005

	Weight for age			Height for age		Weight for height			
	% below - 2 SD*	% below - 3 SD*	% above + 2 SD	% below - 2 SD**	% below - 3 SD**	% below - 2 SD***	% below - 3 SD***	% above + 2 SD	Number of children aged 0-59 months
Sex									
Male	2.3	.3	9.2	10.4	2.7	1.9	.2	10.6	9.2
Female	2.3	.2	7.2	6.8	1.8	2.8	1.3	10.6	7.2
Region									
Skopski	2.2	.2	9.9	6.5	1.5	2.4	.2	7.7	9.9
Pelagoniski	3.6	.6	9.2	7.5	3.3	1.4	.3	9.1	9.2
Vardarski	.2	.0	4.9	9.2	2.6	1.1	.0	13.8	4.9
North-East	3.5	.2	9.7	17.7	4.1	.6	.4	19.9	9.7
South-West	8.4	.9	9.2	8.1	5.2	13.9	7.6	13.9	9.2
South-East	1.1	.2	5.1	18.4	2.0	.7	.2	14.3	5.1
Poloski	.4	.1	5.6	7.1	1.6	.6	.0	7.2	5.6
East	1.0	.0	10.1	3.4	.8	.2	.0	13.9	10.1
Residence									
Urban	2.4	.4	9.7	8.2	2.5	1.3	.3	12.3	9.7
Rural	2.2	.1	6.7	9.2	2.1	3.5	1.3	8.7	6.7
Age									
< 6 months	.3	.0	13.5	1.8	.0	2.1	.6	8.0	13.5
6-11 months	7.3	.7	3.1	13.4	1.6	11.4	.2	4.7	3.1
12-23 months	3.4	.5	5.7	13.6	4.4	1.7	.5	13.9	5.7
24-35 months	2.3	.1	8.2	7.5	2.2	3.9	2.9	9.1	8.2
36-47 months	1.6	.4	9.0	8.3	2.0	.6	.1	9.0	9.0
48-59 months	1.0	.0	9.8	6.7	1.8	.3	.1	13.8	9.8
Mother's education									
None	5.3	.5	11.5	17.4	5.2	1.2	.2	7.2	11.5
Primary	3.0	.4	5.5	9.2	2.5	3.3	1.2	9.7	5.5
Secondary +	.7	.0	11.8	6.2	1.4	1.1	.2	12.7	11.8
Wealth index quintiles									
Poorest	3.9	.3	6.9	11.2	3.0	3.5	.1	9.9	6.9
Second	2.0	.4	5.8	7.7	1.8	1.1	.3	9.0	5.8
Middle	2.2	.2	7.5	10.3	2.9	1.0	.4	10.6	7.5
Fourth	1.2	.3	7.9	6.4	1.6	4.3	3.3	12.4	7.9
Richest	.8	.0	18.5	4.8	1.3	1.5	.4	13.1	18.5
Ethnicity									
Macedonian	1.5	.2	11.6	7.8	2.0	2.3	1.6	13.4	11.6
Albanian	2.8	.3	5.1	8.0	2.2	2.8	.3	8.3	5.1
Roma	5.8	.8	17.1	16.6	5.4	1.5	.5	6.9	17.1
Other	1.1	.0	5.5	11.2	1.9	.4	.0	13.4	5.5
Total	2.3	.3	8.3	8.7	2.3	2.3	.8	10.6	8.3

* MICS indicator 6; MDG indicator 4
** MICS indicator 7
*** MICS indicator 8

Table NU.2: Initial breastfeeding

Percentage of women aged 15-49 years with a birth in the two years preceding the survey who breastfed their baby within one hour of birth and within one day of birth, Republic of Macedonia, 2005

	Percent who started breastfeeding within one hour of birth*	Percent who started breastfeeding within one day of birth	Number of women with a live birth in the two years preceding the survey
Region			
Skopski	16.0	80.0	213
Pelagoniski	23.8	90.4	46
Vardarski	41.3	88.2	18
North-East	46.2	90.7	39
South-West	48.1	57.7	59
South-East	34.9	91.0	36
Poloski	22.2	79.1	115
East	33.0	90.4	41
Residence			
Urban	23.6	86.7	308
Rural	30.1	73.7	257
Months since birth			
< 6 months	27.7	93.3	103
6-11 months	22.8	85.5	150
12-23 months	28.0	74.4	313
Mother's education			
None	32.9	68.0	35
Primary	27.9	77.4	334
Secondary +	23.1	88.6	197
Wealth index quintiles			
Poorest	36.3	80.2	158
Second	25.4	75.4	102
Middle	29.4	86.4	104
Fourth	14.8	80.5	138
Richest	25.3	82.1	64
Ethnicity			
Macedonian	31.0	80.4	174
Albanian	26.8	77.7	306
Roma	24.6	82.0	19
Other	14.6	95.1	67
Total	26.6	80.8	566

* MICS indicator 45

Table NU.3: Breastfeeding

Percentage of living children according to breastfeeding status at each age group, Republic of Macedonia, 2005

	Children 0-3 months		Children 0-5 months		Children 6-9 months		Children 12-15 months		Children 20-23 months	
	Percent exclusively breastfed	Number of children	Percent exclusively breastfed*	Number of children	Percent receiving breastmilk and solid/ mushy food**	Number of children	Percent breastfed***	Number of children	Percent breastfed***	Number of children
Sex										
Male	21.8	154	15.8	217	21.2	185	44.9	184	16.7	130
Female	30.2	57	16.8	108	11.2	109	44.5	112	28.0	111
Residence										
Urban	25.3	157	20.1	198	11.5	167	47.6	144	26.4	122
Rural	20.6	54	10.0	128	25.5	126	42.1	153	17.3	119
Mother's education										
None	(*)	(*)	(8.4)	49	(34.9)	9	(81.0)	38	(47.9)	11
Primary	34.9	115	21.0	199	33.0	118	43.4	185	27.5	148
Secondary +	12.6	54	8.7	78	(5.5)	165	29.7	73	8.1	82
Wealth index quintiles										
Poorest	15.6	73	10.0	124	34.2	84	44.8	111	40.4	57
Second	(13.6)	45	(8.9)	69	(45.3)	24	52.2	73	9.9	61
Middle	(12.7)	44	(10.0)	56	(11.5)	58	(48.5)	48	(23.8)	47
Fourth	(*)	40	(47.1)	60	(*)	71	(34.9)	33	17.1	49
Richest	(*)	9	(*)	18	(*)	56	(32.2)	31	(15.5)	27
Ethnicity										
Macedonian	(13.7)	66	9.8	92	9.1	111	48.4	89	12.1	85
Albanian	37.9	100	21.4	185	(14.8)	79	41.8	173	24.4	125
Roma	(2.8)	33	(3.0)	36	(48.0)	12	56.7	14	53.3	9
Other	(*)	15	(*)	12	(*)	91	(*)	21	(*)	23
Total	24.1	211	16.2	326	17.5	293	44.8	296	21.9	241

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

Table NU.3w. Infant feeding patterns by age

Percentage distribution of children aged under 3 years by feeding pattern by age group, Republic of Macedonia, 2005

	Infant feeding pattern							
	Exclusively breastfed	Breastfed and plain water only	Breastfed and non-milk liquids	Breastfed and other milk / formula	Breastfed and other complimentary foods	Weaned (not breastfed)	**Total**	Number of children
Age in months								
0-1	40.4	4.5	7.4	44.1	1.1	2.5	100.0	95
2-3	10.8	23.4	28.7	27.3	1.6	8.2	100.0	116
4-5	1.5	4.0	7.0	65.3	7.8	14.4	100.0	114
6-7	.0	1.1	28.7	35.5	23.4	11.3	100.0	163
8-9	.0	13.1	1.9	5.7	10.1	69.2	100.0	130
10-11	.2	.2	6.6	9.1	45.7	38.2	100.0	127
12-13	.0	.0	1.3	7.3	40.4	51.0	100.0	181
14-15	.2	.2	3.7	7.8	26.2	61.9	100.0	115
16-17	.0	4.3	.8	2.2	15.1	77.6	100.0	170
18-19	.1	.7	1.2	9.8	16.0	72.2	100.0	130
20-21	.7	.0	1.0	0.9	21.7	75.7	100.0	117
22-23	.0	.9	2.2	4.0	12.5	80.4	100.0	124
24-25	.0	.8	.1	1.1	11.8	86.2	100.0	181
26-27	.0	.0	.5	1.5	9.1	88.8	100.0	136
28-29	.0	.0	.0	.1	3.7	96.3	100.0	197
30-31	.0	.0	.0	2.4	5.9	91.7	100.0	129
32-33	.0	.0	.0	.0	3.5	96.5	100.0	146
34-35	.0	.0	.0	.0	3.6	96.4	100.0	92
Total	2.2	2.7	4.9	11.2	15.0	64.0	100.0	2464

Table NU.4: Adequately fed infants

Percentage of infants under 6 months of age exclusively breastfed, percentage of infants 6-11 months who are breastfed and who ate solid/semi-solid food at least the minimum recommended number of times yesterday and percentage of infants adequately fed, Republic of Macedonia, 2005

	Percentage of infants					
	0-5 months exclusively breastfed	6-8 months who received breastmilk and complementary food at least 2 times in prior 24 hours	9-11 months who received breastmilk and complementary food at least 3 times in prior 24 hours	6-11 months who received breastmilk and complementary food at least the minimum recommended number of times per day*	0-11 months who were appropriately fed**	Number of infants aged 0-11 months
Sex						
Male	15.8	18.9	14.8	17.7	16.8	466
Female	16.8	(10.5)	18.7	15.0	15.7	280
Residence						
Urban	20.1	7.9	27.4	14.1	16.9	422
Rural	10.0	(29.1)	9.1	19.4	15.7	324
Mother's education						
None	(8.4)	(30.4)	(42.1)	37.5	17.5	71
Primary	21.0	39.0	9.6	22.5	21.7	401
Secondary +	8.7	(2.8)	(29.5)	8.1	8.3	274
Wealth index quintiles						
Poorest	10.0	(41.6)	16.3	29.5	20.0	252
Second	(8.9)	(46.7)	(16.4)	28.0	16.7	116
Middle	(10.0)	(7.9)	(7.4)	7.7	8.6	143
Fourth	(47.1)	(*)	(25.7)	(7.7)	23.0	153
Richest	(*)	(*)	(*)	(*)	(6.3)	82
Ethnicity						
Macedonian	9.8	(5.6)	37.3	15.3	13.2	236
Albanian	21.4	(15.2)	5.6	8.8	15.6	343
Roma	(3.0)	(42.0)	(33.9)	38.8	14.7	54
Other	(*)	(*)	(*)	(*)	(26.2)	114
Total	16.2	16.3	17.0	16.6	16.4	746

* MICS indicator 18
** MICS indicator 19

Table NU.8: Low birth weight infants

Percentage of live births in the 2 years preceding the survey that weighed below 2500 grams at birth, Republic of Macedonia, 2005

	Percentage of live births:		
	Below 2500 grams*	Weighed at birth**	Number of live births
Region			
Skopski	5.4	88.1	213
Pelagoniski	4.9	95.0	46
Vardarski	5.7	98.7	18
North East	6.9	95.7	39
South West	10.1	93.3	59
South East	7.5	98.7	36
Poloski	6.9	95.8	115
East	5.3	95.2	41
Residence			
Urban	5.3	94.8	308
Rural	7.8	90.4	257
Mother's education			
None	10.5	83.3	35
Primary	6.6	90.8	334
Secondary +	5.4	97.9	197
Wealth index quintiles			
Poorest	7.8	85.0	158
Second	7.2	92.3	102
Middle	5.5	95.9	104
Fourth	5.3	97.9	138
Richest	5.4	96.7	64
Ethnicity			
Macedonian	5.4	97.0	174
Albanian	7.0	90.6	306
Roma	6.9	76.9	19
Other	6.3	96.9	67
Total	6.4	92.8	566

* MICS indicator 9
** MICS indicator 10

Table CH.1: Vaccinations in first year of life

Percentage of children aged 18-29 months immunized against childhood diseases at any time before the survey and before the first birthday, Republic of Macedonia, 2005

	Percentage of children who received:										Number of children aged 18-29 months
	BCG*	DPT1	DPT2	DPT3**	Polio1	Polio2	Polio3***	Measles****	All*****	None	
Vaccinated at any time before the survey											
According to:											
Vaccination card	74.3	74.6	74.0	71.6	73.8	73.3	72.1	67.6	64.9	.0	884
Mother's report	19.1	14.9	13.2	10.1	17.6	16.2	9.4	15.2	6.2	.9	884
Either	98.0	96.6	94.3	88.3	97.0	95.0	86.4	88.4	75.5	1.0	884
Vaccinated by 12 months of age	97.2	94.0	90.1	82.1	94.6	91.7	80.8	80.4	60.2	1.0	884

* MICS indicator 25
** MICS indicator 27
*** MICS indicator 26
**** MICS indicator 28; MDG indicator 15; note that for Measles this is the proportion vaccinated by 18 months of age
***** MICS indicator 31

Table CH.2: Vaccinations by background characteristics

Percentage of children aged 18-29 months currently vaccinated against childhood diseases, Republic of Macedonia, 2005

	Percentage of children who received:											
	BCG	DPT1	DPT2	DPT3	Polio1	Polio2	Polio3	Measles	All	None	Percent with health card	Number of children aged 18-29 months
Sex												
Male	97.9	95.7	93.2	86.6	96.5	94.4	82.3	88.3	71.5	1.0	70.5	401
Female	98.0	97.3	95.2	89.7	97.4	95.4	90.0	88.5	78.9	1.0	79.0	483
Residence												
Urban	97.5	97.0	95.0	89.5	96.1	95.1	91.7	89.2	80.4	1.5	82.6	479
Rural	98.5	96.0	93.3	86.7	98.0	94.9	80.1	87.6	69.5	.3	66.3	406
Mother's education												
None	91.2	88.4	86.1	83.3	90.8	87.9	84.4	70.8	64.6	5.3	68.8	42
Primary	98.6	97.2	94.9	87.0	97.3	94.8	83.8	87.6	72.5	.7	71.5	533
Secondary +	97.8	96.6	94.3	91.1	97.2	96.2	91.1	91.9	81.7	.9	82.1	309
Wealth index quintiles												
Poorest	95.9	93.9	91.6	85.2	94.7	90.2	75.1	79.8	60.1	2.8	67.1	220
Second	98.8	97.4	96.2	93.8	98.1	97.3	92.1	92.2	84.0	.0	83.8	239
Middle	100.0	99.4	96.7	88.5	99.1	98.2	91.2	88.9	79.2	.0	73.2	176
Fourth	97.9	96.5	93.3	85.3	95.9	93.4	89.1	91.4	79.1	.7	81.4	154
Richest	96.9	95.7	92.9	85.5	97.7	97.7	85.9	93.2	77.1	1.2	65.1	95
Ethnicity												
Macedonian	98.5	97.6	96.9	95.3	97.8	97.5	94.1	93.7	88.3	.9	89.8	351
Albanian	97.8	96.3	92.7	82.3	96.4	93.1	78.8	86.2	65.0	1.0	61.4	439
Roma	95.6	91.1	85.4	82.6	94.3	88.5	84.8	74.7	66.4	3.4	75.5	40
Other	97.0	96.2	94.2	89.8	98.5	96.5	93.3	80.5	76.2	.0	90.8	55
Total	98.0	96.6	94.3	88.3	97.0	95.0	86.4	88.4	75.5	1.0	75.1	884

Table CH.4: Oral rehydration treatment

Percentage of children aged 0-59 months with diarrhoea in the last two weeks and treatment with oral rehydration solution (ORS) or other oral rehydration treatment (ORT), Republic of Macedonia, 2005

	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Children with diarrhoea who received:			ORT Use Rate *	Number of children aged 0-59 months with diarrhoea
			Fluid from ORS packet	Recommended homemade fluid	No treatment		
Sex							
Male	5.6	2428	25.0	58.5	22.6	77.4	136
Female	9.1	2118	22.8	65.8	15.9	84.1	193
Region							
Skopski	3.7	1691	32.1	43.4	31.6	68.4	63
Pelagoniski	24.5	415	(5.8)	(94.0)	(3.4)	(96.6)	101
Vardarski	2.4	279	(*)	(*)	(*)	(*)	7
North-East	4.6	329	(21.5)	(46.5)	(32.9)	(67.1)	15
South-West	9.7	397	(59.2)	(15.7)	(27.4)	(72.6)	39
South-East	4.6	377	(*)	(*)	(*)	(*)	18
Poloski	3.6	742	(40.1)	(48.4)	(29.6)	(70.4)	27
East	18.8	316	(13.3)	(82.5)	(6.4)	(93.6)	59
Residence							
Urban	7.6	2467	18.6	69.9	14.7	85.3	187
Rural	6.8	2080	30.3	53.5	23.9	76.1	142
Age							
< 6 months	5.6	326	(*)	(*)	(*)	(*)	18
0-11 months	20.1	421	(33.3)	(61.7)	(6.1)	(93.9)	85
12-23 months	14.1	837	16.4	77.2	13.6	86.4	118
24-35 months	4.9	881	16.1	51.3	37.4	62.6	44
36-47 months	3.3	1067	29.6	44.9	32.6	67.4	35
48-59 months	2.9	1016	(33.0)	(51.8)	(24.8)	(75.2)	30
Mother's education							
None	6.2	324	26.3	48.2	28.3	71.7	20
Primary	7.2	2491	31.0	54.6	20.8	79.2	179
Secondary +	7.5	1732	13.3	76.4	14.3	85.7	130
Wealth index quintiles							
Poorest	10.0	1282	33.7	56.2	14.1	85.9	129
Second	8.3	988	15.5	66.0	20.9	79.1	82
Middle	4.3	883	(30.6)	(49.3)	(31.6)	(68.4)	38
Fourth	2.4	879	(26.5)	(39.9)	(44.2)	(55.8)	21
Richest	11.5	515	(*)	(*)	(*)	(*)	59
Ethnicity							
Macedonian	9.1	1704	12.5	77.4	13.3	86.7	155
Albanian	6.4	2097	32.1	51.6	23.2	76.8	134
Roma	9.0	231	33.9	49.9	22.7	77.3	21
Other	3.7	514	(44.6)	(37.4)	(26.4)	(73.6)	19
Total	7.2	4547	23.7	62.8	18.7	81.3	329

* MICS indicator 33

Table CH.5: Home management of diarrhoea

Percentage of children aged 0-59 months with diarrhoea in the last two weeks who took increased fluids and continued to feed during the episode, Republic of Macedonia, 2005

			Children with diarrhoea who:						
	Had diarrhoea in last two weeks	Number of children aged 0-59 months	Drank more	Drank the same or less	Ate somewhat less, same or more	Ate much less or none	Home management of diarrhoea (increased fluids and continued feeding)*	Received ORT or increased fluids AND continued feeding**	Number of children aged 0-59 months with diarrhoea
Sex									
Male	5.6	2428	20.7	74.1	39.8	59.6	8.5	26.4	136
Female	9.1	2118	9.0	90.2	65.9	29.7	4.3	57.3	193
Region									
Skopski	3.7	1691	18.9	78.3	39.2	60.6	6.0	26.1	63
Pelagoniski	24.5	415	(6.5)	(91.7)	51.2	(40.6)	(1.6)	(48.0)	101
Vardarski	2.4	279	(*)	(*)	(*)	(*)	(*)	(*)	7
North-East	4.6	329	(37.8)	(56.6)	(65.9)	(34.1)	(13.6)	(46.9)	15
South-West	9.7	397	(5.3)	(89.4)	(45.2)	(52.4)	(3.7)	(22.0)	39
South-East	4.6	377	(*)	(*)	(*)	(*)	(*)	(*)	18
Poloski	3.6	742	(36.1)	(60.0)	(47.8)	(52.2)	(22.3)	(37.2)	27
East	18.8	316	(9.7)	(90.0)	(83.5)	(16.5)	(2.8)	(80.3)	59
Residence									
Urban	7.6	2467	14.1	84.7	69.4	26.6	6.1	61.2	187
Rural	6.8	2080	13.5	82.0	36.3	62.5	6.0	22.6	142
Age									
0-11 months	13.8	746	6.4	90.1	57.5	35.9	2.7	52.9	103
12-23 months	14.1	837	9.7	87.8	60.1	39.7	5.4	50.6	118
24-35 months	4.9	881	25.7	72.2	43.5	54.5	9.4	26.0	44
36-47 months	3.3	1067	21.9	74.7	53.5	42.5	11.4	33.4	35
48-59 months	2.9	1016	(29.3)	(70.7)	(45.7)	(54.3)	(9.3)	(31.2)	30
Mother's education									
None	6.2	324	9.9	76.4	49.8	41.8	6.4	34.8	20
Primary	7.2	2491	16.9	79.8	33.0	62.8	5.0	21.5	179
Secondary +	7.5	1732	10.2	89.8	86.2	13.8	7.4	77.5	130
Wealth index quintiles									
Poorest	10.0	1282	12.7	84.8	27.4	65.3	5.0	20.3	129
Second	8.3	988	13.7	82.1	71.3	28.7	4.4	60.6	82
Middle	4.3	883	(29.7)	(67.4)	(39.6)	(60.4)	(9.7)	(20.7)	38
Fourth	2.4	879	(8.3)	(87.1)	(75.2)	(24.8)	(8.3)	(41.0)	21
Richest	11.5	515	(*)	(*)	(*)	(*)	(*)	(*)	59
Ethnicity									
Macedonian	9.1	1704	8.8	91.1	79.0	16.2	5.4	69.6	155
Albanian	6.4	2097	16.3	81.0	29.5	69.2	4.5	17.3	134
Roma	9.0	231	30.5	60.2	39.8	59.6	9.9	29.7	21
Other	3.7	514	(19.2)	(65.3)	(57.3)	(42.7)	(18.5)	(48.4)	19
Total	7.2	4547	13.8	83.5	55.1	42.1	6.1	44.5	329

* MICS indicator 34
** MICS indicator 35

Table CH.6: Care seeking for suspected pneumonia

Percentage of children aged 0-59 months with suspected pneumonia in the last two weeks taken to a health provider, Republic of Macedonia, 2005

			Children with suspected pneumonia who were taken to:									
			Public sources				Private sources					
	Had acute respiratory infection[1]	Number of children aged 0-59 months	Govt. Hospital	Govt. health centre	Govt. health post	Other public	Private hospital/ clinic	Private physician	Pharmacy	Mobile clinic	Any appropriate provider*	Number of children aged 0-59 months with suspected pneumonia
Sex												
Male	7.2	2428	22.6	13.0	31.6	2.7	16.9	8.8	.0	1.1	95.0	176
Female	4.7	2118	31.3	22.2	24.3	1.4	4.2	2.0	1.1	3.9	88.5	100
Region												
Skopski	3.0	1691	21.5	3.8	54.2	.0	.2	8.3	.0	11.9	97.4	50
Pelagoniski	16.1	415	(10.4)	(27.5)	(46.4)	(2.5)	(.0)	(8.5)	(.0)	(.0)	(95.4)	67
Vardarski	15.2	279	(9.5)	(3.9)	(8.8)	(.0)	(77.9)	(1.7)	(.0)	(.0)	(*)	43
North-East	3.2	329	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	10
South-West	6.8	397	(39.3)	(24.6)	(18.2)	(.0)	(2.2)	(8.0)	(4.1)	(.0)	(85.8)	27
South-East	11.9	377	51.0	17.2	12.1	2.9	.0	.0	.0	.0	83.2	45
Poloski	3.6	742	38.6	24.6	5.7	8.6	.0	6.3	.0	.0	83.8	27
East	2.4	316	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	100.0	8
Residence												
Urban	5.6	2467	22.5	20.7	15.0	1.9	24.3	6.4	.0	4.3	93.7	139
Rural	6.6	2080	29.0	11.9	43.1	2.6	.0	6.2	.8	.0	91.6	137
Age												
0-11 months	3.4	746	(26.3)	(23.8)	(25.0)	(2.8)	(2.4)	(10.7)	(.0)	(.0)	(91.0)	25
12-23 months	10.6	837	23.4	11.3	44.5	.6	2.9	12.5	.0	2.2	95.1	88
24-35 months	4.6	881	35.3	14.3	28.4	1.6	2.5	1.8	2.7	4.8	88.6	41
36-47 months	7.7	1067	20.6	19.9	13.1	2.1	35.7	1.2	.0	.0	91.5	82
48-59 months	3.9	1016	31.6	17.4	30.3	6.7	.8	4.9	.0	5.1	94.8	39
Mother's education												
None	9.3	324	13.7	40.6	11.7	.0	2.3	18.8	.0	.0	87.1	30
Primary	6.6	2491	29.4	13.4	39.5	.9	1.1	4.4	.7	3.6	90.8	166
Secondary +	4.6	1732	22.7	13.2	13.7	5.9	39.1	5.6	.0	.0	98.7	80
Wealth index quintiles												
Poorest	9.8	1282	27.3	19.7	37.3	2.3	1.2	5.5	.0	.0	92.6	126
Second	7.3	988	20.1	8.8	22.0	.0	39.3	6.0	.0	2.7	96.4	72
Middle	4.0	883	(30.3)	(17.1)	(23.3)	(6.9)	(.0)	(12.1)	(.0)	(.0)	(89.7)	35
Fourth	2.9	879	(20.2)	(23.4)	(16.9)	(.0)	(9.7)	(.0)	(4.3)	(15.3)	(85.5)	26
Richest	3.3	515	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	17
Ethnicity												
Macedonian	6.9	1704	21.5	21.5	14.5	3.3	28.0	7.7	.0	.0	96.6	117
Albanian	5.5	2097	21.4	10.8	49.0	2.0	.0	7.1	1.0	5.1	92.8	115
Roma	5.7	231	52.0	12.1	24.6	.0	7.6	1.0	.0	.0	91.5	13
Other	5.9	514	(47.3)	(19.4)	(10.5)	(.0)	(.0)	(.0)	(.0)	(.0)	(77.2)	30
Total	6.1	4547	25.8	16.3	29.0	2.2	12.3	6.3	.4	2.1	92.7	276

* MICS indicator 23

Table CH.7: Antibiotic treatment of pneumonia

Percentage of children aged 0-59 months with suspected pneumonia who received antibiotic treatment, Republic of Macedonia, 2005

	Had acute respiratory infection	Number of children aged 0-59	Percent of children aged 0-59 months with suspected pneumonia who received antibiotics in the last two weeks*	Number of children aged 0-59 months with suspected pneumonia in the two weeks prior to the survey
Sex				
Male	7.2	2428	81.2	176
Female	4.7	2118	60.6	100
Residence				
Urban	5.6	2467	75.9	139
Rural	6.6	2080	71.5	137
Age				
0-11 months	3.4	746	(46.4)	25
12-23 months	10.6	837	84.6	88
24-35 months	4.6	881	59.1	41
36-47 months	7.7	1065	81.2	82
48-59 months	3.9	1016	66.2	39
Mother's education				
None	9.3	324	68.1	30
Primary	6.6	2491	70.1	166
Secondary +	4.6	1732	83.4	80
Wealth index quintiles				
Poorest	9.8	1282	73.4	126
Second	7.3	988	82.0	72
Middle	4.0	883	(63.8)	35
Fourth	2.9	879	(71.0)	26
Richest	3.3	515	(*)	17
Ethnicity				
Macedonian	6.9	1704	74.2	117
Albanian	5.5	2097	76.1	115
Roma	5.7	231	82.9	13
Other	5.9	514	(58.7)	30
Total	6.1	4547	73.7	276

* MICS indicator 22

Table CH.7A: Knowledge of the two danger signs of pneumonia

Percentage of mothers/caretakers of children aged 0-59 months by knowledge of types of symptoms for taking a child immediately to a health facility, and percentage of mothers/caretakers who recognize fast and difficult breathing as signs for seeking care immediately, Republic of Macedonia, 2005

	Percentage of mothers/caretakers of children aged 0-59 months who think that a child should be taken immediately to a health facility if the child:								Mothers/ caretakers who recognize the two danger signs of pneumonia*	Number of mothers/ caretakers of children aged 0-59 months
	Is not able to drink or breastfeed	Becomes sicker	Develops a fever	Has fast breathing	Has difficult breathing	Has blood in stool	Is drinking poorly	Has other symptoms		
Region										
Skopski	21.6	61.9	93.7	48.5	61.5	45.5	32.0	10.8	44.0	1691
Pelagoniski	6.7	30.6	90.6	11.1	41.5	19.2	11.2	41.8	10.7	415
Vardarski	3.6	21.7	72.4	12.5	18.9	.9	13.2	35.8	.8	279
North-East	20.4	68.6	93.9	64.3	49.5	42.8	14.3	10.1	39.8	329
South-West	38.5	46.8	89.5	31.0	44.5	31.6	16.5	7.2	21.5	397
South-East	41.3	39.2	98.5	41.6	50.4	44.4	35.0	45.1	40.0	377
Poloski	39.9	78.0	91.4	64.0	71.6	44.1	37.5	7.5	56.6	742
East	24.7	39.7	88.6	28.5	33.4	25.8	4.8	14.2	25.8	316
Residence										
Urban	21.9	48.5	93.2	39.1	48.5	37.2	18.9	18.8	33.3	2467
Rural	29.4	62.7	89.4	47.8	59.4	37.3	33.5	15.7	40.3	2080
Mother's education										
None	36.0	53.2	94.8	44.0	52.7	39.6	36.9	13.4	37.9	324
Primary	27.6	63.2	92.3	49.3	60.9	40.5	29.1	12.7	41.9	2491
Secondary +	20.1	43.4	89.6	33.9	43.0	32.2	18.4	24.9	28.6	1732
Wealth index quintiles										
Poorest	28.4	53.3	92.0	42.8	57.1	39.1	32.6	19.8	36.7	1282
Second	24.7	58.4	93.4	44.3	53.5	41.5	25.5	13.2	35.6	988
Middle	18.9	56.3	86.5	41.0	49.5	31.9	17.7	24.8	35.0	883
Fourth	34.6	56.3	91.8	46.6	53.5	36.9	30.2	13.3	41.2	879
Richest	14.4	47.8	94.1	38.7	51.0	34.5	14.0	13.3	32.4	515
Ethnicity										
Macedonian	18.3	34.8	89.9	26.3	33.9	27.8	11.8	27.3	19.5	1704
Albanian	26.0	71.4	93.6	53.4	67.2	42.6	31.1	7.6	46.2	2097
Roma	24.0	43.0	90.8	37.9	37.4	24.3	18.6	11.3	27.9	231
Other	46.8	60.0	87.9	58.9	69.7	52.8	51.9	27.2	57.6	514
Total	25.3	55.0	91.4	43.1	53.5	37.3	25.6	17.4	36.5	4547

Table CH.8: Solid fuel use

Percentage distribution of households according to type of cooking fuel, and percentage of households using solid fuels for cooking Republic of Macedonia, 2005

	Electricity	Liquefied Petroleum Gas (LPG)	Wood	Other source	**Total**	Solid fuels for cooking*	Number of households
Region							
Skopski	82.8	1.0	15.3	1.0	100.0	15.3	1226
Pelagoniski	66.3	3.7	30.0	.0	100.0	30.0	597
Vardarski	58.5	13.0	28.5	.0	100.0	28.5	320
North-East	43.7	.1	54.3	2.0	100.0	54.3	347
South-West	37.8	.1	62.1	.0	100.0	62.1	559
South-East	56.8	.1	41.9	1.2	100.0	41.9	422
Poloski	55.7	.0	44.2	.1	100.0	44.2	593
East	51.7	6.7	41.6	.0	100.0	41.6	635
Residence							
Urban	71.5	3.8	23.8	.8	100.0	23.8	2857
Rural	44.4	.5	55.1	.1	100.0	55.1	1844
Education of household head							
None	36.3	.4	63.2	.1	100.0	63.2	159
Primary	50.0	1.3	48.5	.1	100.0	48.5	2115
Secondary +	71.9	3.7	23.4	.9	100.0	23.4	2425
Wealth index quintiles							
Poorest	21.4	.2	78.2	.2	100.0	78.2	837
Second	43.2	2.0	54.8	.1	100.0	54.8	913
Middle	57.2	.2	42.4	.2	100.0	42.4	963
Fourth	85.1	3.4	10.8	.8	100.0	10.8	956
Richest	89.4	6.3	2.9	1.4	100.0	2.9	1032
Ethnicity							
Macedonian	65.6	3.8	29.8	.7	100.0	29.8	3064
Albanian	51.4	.1	48.4	.2	100.0	48.4	1176
Roma	64.7	.0	34.5	.9	100.0	34.5	120
Other	49.0	.5	50.5	.0	100.0	50.5	340
Total	60.8	2.5	36.1	.5	100.0	36.1	4701

* MICS indicator 24; MDG Indicator 29

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

Percentage of households using solid fuels for cooking by type of stove or fire, Republic of Macedonia, 2005

	Percentage of households using solid fuels for cooking:				Number of households using solid fuels for cooking
	Closed stove with chimney	Open stove or fire with chimney or hood	Other stove	**Total**	
Region					
Skopski	85.9	14.1	.0	100.0	199
Pelagoniski	77.7	22.2	.1	100.0	179
Vardarski	99.8	.2	.0	100.0	91
North-East	87.9	12.1	.0	100.0	195
South-West	78.8	18.2	3.0	100.0	347
South-East	78.9	20.8	.3	100.0	177
Poloski	96.2	3.7	.1	100.0	262
East	92.7	7.3	.0	100.0	264
Residence					
Urban	88.9	11.0	.1	100.0	699
Rural	84.8	14.1	1.1	100.0	1017
Education of household head					
None	91.5	4.4	4.0	100.0	101
Primary	85.2	14.1	.7	100.0	1029
Secondary +	87.9	12.0	.0	100.0	585
Wealth index quintiles					
Poorest	84.3	14.1	1.7	100.0	655
Second	90.8	9.1	.0	100.0	501
Middle	85.6	14.4	.0	100.0	410
Fourth	78.8	20.9	.3	100.0	110
Richest	(99.5)	(.5)	(.0)	100.0	39
Ethnicity					
Macedonian	88.2	11.3	.5	100.0	931
Albanian	86.0	12.9	1.1	100.0	570
Roma	94.0	6.0	.0	100.0	43
Other	76.9	22.8	.3	100.0	172
Total	86.5	12.9	.7	100.0	1715

Table EN.1: Use of improved water sources

Percentage distribution of household population according to main source of drinking water and percentage of household members using improved drinking water sources, Republic of Macedonia, 2005

	Improved sources										
	Piped into dwelling	Piped into yard/ plot	Public tap/ stand-pipe	Tube-well/ bore-hole	Pro-tected well	Pro-tected spring	Bottled water	Unimproved sources	**Total**	Improved source of drinking water*	Number of household members
Region											
Skopski	91.5	3.5	1.5	2.4	.1	1.0	.0	.0	100.0	100.0	6596
Pelagoniski	93.6	2.1	.4	.9	.0	2.8	.1	.1	100.0	99.9	2585
Vardarski	83.4	7.5	.2	.6	8.2	.0	.0	.1	100.0	99.9	1453
North-East	77.7	.4	.1	8.3	4.4	9.1	.0	.0	100.0	100.0	1785
South-West	93.1	1.0	.1	.1	4.5	.0	.0	1.3	100.0	98.7	2820
South-East	68.2	4.3	7.2	16.9	.2	.2	.0	3.1	100.0	96.9	1871
Poloski	88.1	1.6	0.8	7.4	.7	.0	.0	1.5	100.0	98.5	3773
East	96.8	.7	.7	.0	1.4	.1	.0	.3	100.0	99.7	2585
Residence											
Urban	95.3	1.1	1.8	.1	.3	1.2	.0	.2	100.0	99.8	13355
Rural	79.7	4.3	.5	9.1	3.5	1.4	.0	1.4	100.0	98.6	10114
Education of household head											
None	75.6	8.9	5.2	3.3	5.5	.4	.0	1.1	100.0	98.9	1009
Primary	83.5	3.8	1.6	6.1	2.0	1.6	.0	1.3	100.0	98.7	11497
Secondary +	95.1	.5	.5	1.8	1.0	1.1	.0	.0	100.0	100.0	10957
Wealth index quintiles											
Poorest	62.0	11.5	4.1	9.7	6.2	4.1	.0	2.4	100.0	97.6	4703
Second	89.3	.9	0.9	6.2	1.5	1.1	.0	.0	100.0	100.0	4698
Middle	93.7	.0	1.3	2.7	.0	1.3	.0	1.0	100.0	99.0	4681
Fourth	97.9	.0	.0	1.2	.7	.1	.0	.0	100.0	100.0	4708
Richest	99.9	.0	.0	.0	.0	.0	.1	.0	100.0	100.0	4679
Ethnicity											
Macedonian	91.3	1.8	1.0	2.9	1.1	1.8	.0	.1	100.0	99.9	13365
Albanian	85.8	3.2	.1	5.6	3.3	.9	.0	1.0	100.0	99.0	7777
Roma	86.3	9.0	2.4	1.2	.0	.0	.0	1.0	100.0	99.0	689
Other	80.1	1.8	8.0	6.0	.1	.1	.0	3.9	100.0	96.1	1637
Total	88.6	2.5	1.3	4.0	1.7	1.3	.0	.7	100.0	99.3	23468

* MICS indicator 11; MDG indicator 3

Table EN.2: Household water treatment

Percentage distribution of household population according to drinking water treatment method used in the household, and percentage of household population that applied an appropriate water treatment method, Republic of Macedonia, 2005

	Water treatment method used in the household									All drinking water sources	
	None	Boil	Add bleach/ chlorine	Strain through a cloth	Use water filter	Solar dis-infection	Let it stand and settle	Other	Don't know	Appropriate water treatment method*	Number of household members
Region											
Skopski	95.5	1.0	.0	.2	3.1	.0	.0	.1	.1	4.1	6596
Pelagoniski	95.8	4.0	.0	.0	.0	.0	.0	.1	.0	4.0	2585
Vardarski	99.1	.8	.0	.2	.0	.0	.0	.0	.0	.8	14537
North-East	84.8	15.1	2.3	.5	.0	.0	.0	.0	.0	15.1	1785
South-West	61.9	30.4	13.8	2.5	14.9	1.6	7.6	.1	.2	34.5	2820
South-East	98.1	1.9	.0	.0	.1	.0	.0	.0	.0	1.9	1871
Poloski	76.8	15.8	.7	4.9	0.3	.0	2.5	.0	.0	16.8	3773
East	84.6	8.4	.0	.1	4.9	.0	2.0	.1	.0	13.3	2585
Residence											
Urban	89.0	7.1	1.0	.3	3.2	.0	1.1	.1	.1	9.5	13355
Rural	84.2	12.0	3.2	2.4	3.3	.4	2.1	.0	.0	13.5	10114
Education of household head											
None	87.8	11.3	5.7	.9	4.9	.3	.1	.0	.0	11.7	1009
Primary	86.5	10.0	2.3	1.5	2.3	.0	2.0	.0	.1	10.9	11497
Secondary +	87.3	8.1	1.2	1.0	4.1	.4	1.2	.1	.0	11.6	10957
Wealth index quintiles											
Poorest	83.8	14.0	5.4	2.1	5.1	.1	.2	.1	.0	14.1	4703
Second	87.9	9.7	2.1	1.1	1.3	.0	1.1	.0	.2	10.6	4698
Middle	86.5	10.2	.5	.6	2.1	.0	2.7	.0	.0	12.2	4681
Fourth	90.3	4.6	.7	1.2	3.1	.0	.3	.1	.0	8.2	4708
Richest	86.0	7.4	1.0	1.0	4.7	.9	3.5	.1	.0	11.2	4679
Ethnicity											
Macedonian	89.4	6.8	1.2	.6	3.3	.3	1.4	.1	.0	9.3	13365
Albanian	79.5	15.7	3.9	2.5	3.9	.0	2.2	.0	.1	17.5	7777
Roma	93.4	2.2	.0	2.0	1.4	.0	.0	.3	0.8	3.6	689
Other	99.0	.7	.1	.1	.2	.0	.0	.1	.0	.9	1637
Total	86.9	9.2	1.9	1.2	3.3	.2	1.5	.1	.1	11.3	23468

* MICS indicator 13

Table EN.3: Time to source of water

Percentage distribution of households according to time to go to source of drinking water, get water and return, and mean time to source of drinking water, Republic of Macedonia, 2005

	Time to source of drinking water								
	Water on premises	Less than 15 minutes	15 minutes to less than 30 minutes	30 minutes to less than 1 hour	1 hour or more	Don't know	Total	Mean time to source of drinking water*	Number of households
Region									
Skopski	98.9	.4	.1	.0	.3	.3	100.0	(*)	1226
Pelagoniski	99.0	.1	.1	.0	.1	.7	100.0	(*)	597
Vardarski	99.7	.3	.0	.0	.0	.0	100.0	(*)	320
North-East	83.4	9.6	.5	6.2	.3	.0	100.0	(18.4)	347
South-West	99.8	.1	.0	.0	.0	.0	100.0	(*)	559
South-East	80.8	12.2	1.3	1.6	4.0	.1	100.0	19.6	422
Poloski	97.0	1.0	1.2	.0	.0	.8	100.0	13.3	593
East	98.6	1.0	.1	.2	.0	.2	100.0	(13.6)	635
Residence									
Urban	97.1	1.1	.1	1.0	.7	.0	100.0	28.9	2857
Rural	94.4	3.9	.7	.1	.2	.7	100.0	10.0	1844
Education of household head									
None	89.6	6.5	.6	2.6	.7	.0	100.0	(15.9)	159
Primary	93.0	4.3	.7	.7	.8	.5	100.0	16.9	2115
Secondary +	99.1	.1	.0	.4	.2	.2	100.0	(*)	2425
Wealth index quintiles									
Poorest	83.1	10.1	.9	2.2	2.6	1.1	100.0	18.9	837
Second	97.7	2.0	.1	.1	.1	.0	100.0	(8.5)	913
Middle	97.6	.1	.7	1.1	.0	.4	100.0	(*)	963
Fourth	99.9	.0	.0	.0	.0	.0	100.0	(*)	956
Richest	100.0	.0	.0	.0	.0	.0	100.0	(*)	1032
Ethnicity									
Macedonian	96.8	2.3	.1	.7	.1	.0	100.0	14.3	3064
Albanian	97.5	.4	.7	.1	.3	1.0	100.0	(*)	1176
Roma	97.1	2.6	.3	.0	.0	.0	100.0	(6.9)	120
Other	83.3	7.7	1.4	2.2	5.0	.4	100.0	26.2	340
Total	96.0	2.2	.3	.6	.5	.3	100.0	19.0	4701

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

Table EN.4: Person collecting water

Percentage distribution of households according to the person collecting drinking water used in the household, Republic of Macedonia, 2005

	Person collecting drinking water						
	Adult woman	Adult man	Female child under age 15	Male child under age 15	Don't know	Total	Number of households
Residence							
Urban	51.6	46.9	.1	.0	1.4	100.0	84
Rural	71.6	20.7	.2	.0	7.4	100.0	103
Education of household head							
None	(87.9)	(10.6)	(1.3)	(.2)	(.0)	100.0	17
Primary	67.8	26.2	.0	.0	6.0	100.0	148
Secondary +	(10.7)	(89.3)	(.0)	(.0)	(.0)	100.0	22
Total	62.7	32.4	.1	.0	4.7	100.0	187

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

Percentage distribution of household population according to type of toilet facility used by the household, and the percentage of household population using sanitary means of excreta disposal, Republic of Macedonia, 2005

	Type of toilet facility used by household												
	Improved sanitation facility					Unimproved sanitation facility						Percent of population using sanitary means of excreta disposal*	Number of household members
	Flush/pour flush to:												
	Piped sewer system	Septic tank	Pit latrine	Ventilated improved pit latrine	Pit latrine with slab	Flush/ pour flush to some-where else	Flush/pour flush to unknown place/not sure/ don't know	Pit latrine without slab/ open pit	Other	No facilities/ bush/field	Total		
Region													
Skopski	67.0	27.7	.3	.0	.0	2.6	2.2	.0	.2	.0	100.0	95.0	6596
Pelagoniski	60.9	17.2	.5	.0	.3	13.1	.4	5.5	.1	2.1	100.0	78.9	2585
Vardarski	78.7	11.0	.9	.0	.1	1.9	.0	7.4	.0	.0	100.0	90.7	1453
North-East	66.8	18.8	.2	.0	8.0	5.5	.0	.8	.0	.0	100.0	93.8	1785
South-West	57.0	34.5	.2	.0	.1	6.1	.0	.8	1.2	.0	100.0	91.8	2820
South-East	47.3	28.5	9.7	.0	.1	.0	.0	14.3	.0	.1	100.0	85.7	1871
Poloski	23.4	72.3	.8	.0	3.4	.1	.0	.0	.0	.0	100.0	99.8	3773
East	96.9	.2	.8	.3	.1	.0	.0	1.6	.0	.0	100.0	98.3	2585
Residence													
Urban	83.1	12.4	.7	.1	.7	1.7	.1	1.1	.1	.0	100.0	96.9	13355
Rural	30.7	53.0	2.0	.0	1.9	5.8	1.4	4.4	.3	.5	100.0	87.5	10114
Education of household head													
None	47.1	28.7	6.0	.0	.7	11.7	1.5	3.5	.2	.5	100.0	82.5	1009
Primary	48.6	38.6	1.7	.1	1.5	3.7	.9	4.5	.4	.2	100.0	90.3	11497
Secondary +	74.4	20.8	.3	.0	1.0	2.5	.3	.4	.0	.3	100.0	96.5	10957
Wealth index quintiles													
Poorest	31.3	37.9	5.3	.2	2.9	9.6	3.0	7.7	1.0	1.2	100.0	77.5	4703
Second	51.8	36.8	.2	.0	2.1	5.6	.2	3.3	.0	.0	100.0	90.9	4698
Middle	58.3	38.4	.6	.0	.0	1.3	.0	1.4	.0	.0	100.0	97.3	4681
Fourth	69.9	27.8	.0	.0	1.0	.8	.1	.4	.0	.0	100.0	98.7	4708
Richest	91.6	8.4	.0	.0	.0	.0	.0	.0	.0	.0	100.0	99.9	4679
Ethnicity													
Macedonian	75.3	16.7	1.0	.0	1.1	2.4	.1	3.3	.0	.0	100.0	94.2	13365
Albanian	33.8	55.0	.6	.0	1.7	5.8	1.8	.9	.4	.0	100.0	91.1	7777
Roma	80.3	10.3	2.1	1.1	.1	2.7	1.4	.4	1.6	.0	100.0	93.9	689
Other	58.9	26.1	5.4	.0	.1	1.8	.2	4.5	.0	3.1	100.0	90.4	1637
Total	60.5	29.9	1.2	.0	1.2	3.5	.7	2.5	.2	.2	100.0	92.9	23468

* MICS indicator 12; MDG indicator 31

Table EN.6: Disposal of child's faeces

Percentage distribution of children aged 0-2 years according to place of disposal of child's faeces, and the percentage of children aged 0-2 years whose stools are disposed of safely, Republic of Macedonia, 2005

	Place of disposal of child's faeces								Proportion of children whose stools are disposed of safely*	Number of children aged 0-2 years
	Child used toilet	Put/rinsed into toilet or latrine	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Don't know	**Total**		
Region										
Skopski	30.7	18.0	7.3	35.3	.0	7.2	1.5	100.0	48.6	875
Pelagoniski	9.8	31.7	2.1	54.0	1.3	.7	.3	100.0	41.5	250
Vardarski	22.4	70.2	.0	7.1	.0	.0	.4	100.0	92.6	104
North-East	8.0	67.5	.0	16.7	.1	7.2	.4	100.0	75.6	178
South-West	22.3	17.3	.9	47.3	.6	9.1	2.5	100.0	39.6	258
South-East	6.3	7.9	12.5	63.5	1.4	4.6	3.9	100.0	14.1	201
Poloski	10.8	42.9	.5	33.3	.2	6.9	5.3	100.0	53.7	450
East	34.6	24.7	.3	36.5	.4	3.5	.1	100.0	59.3	175
Residence										
Urban	26.1	25.1	2.4	38.1	.3	6.7	1.3	100.0	51.2	1348
Rural	13.8	34.0	5.9	37.7	.4	5.0	3.2	100.0	47.8	1144
Mother's education										
None	6.2	31.5	3.9	46.8	2.3	7.9	1.3	100.0	37.7	197
Primary	15.9	33.0	5.5	34.8	.3	7.4	3.1	100.0	48.9	1446
Secondary +	31.5	22.2	1.5	41.1	.0	3.0	.7	100.0	53.6	849
Wealth index quintiles										
Poorest	11.6	30.1	8.9	37.8	1.1	6.7	3.8	100.0	41.7	757
Second	21.2	35.3	1.9	33.1	.0	7.1	1.3	100.0	56.6	570
Middle	19.4	26.9	2.5	44.5	.2	5.0	1.6	100.0	46.3	457
Fourth	27.1	26.3	1.8	38.3	.0	5.7	.8	100.0	53.5	441
Richest	34.6	22.0	.9	36.8	.0	3.2	2.5	100.0	56.6	267
Ethnicity										
Macedonian	22.9	25.5	1.4	46.4	.5	2.5	.8	100.0	48.4	898
Albanian	17.2	35.2	4.8	31.9	.1	7.5	3.3	100.0	52.4	1217
Roma	9.9	23.8	2.9	47.3	.4	14.7	1.1	100.0	33.7	141
Other	34.4	15.3	10.8	30.8	1.3	5.4	2.0	100.0	49.7	235
Total	20.5	29.2	4.0	37.9	.4	5.9	2.1	100.0	49.6	2492

* MICS indicator 14

Table EN.7: Use of improved water sources and improved sanitation

Percentage of household population using both improved drinking water sources and sanitary means of excreta disposal, Republic of Macedonia, 2005

	Percentage of household population:			
	Using improved sources of drinking water*	Using sanitary means of excreta disposal**	Using improved sources of drinking water and using sanitary means of excreta disposal	Number of household members
Region				
Skopski	100.0	95.0	95.0	6596
Pelagoniski	99.9	78.9	78.9	2585
Vardarski	99.9	90.7	90.6	1453
North-East	100.0	93.8	93.8	1785
South-West	98.7	91.8	91.6	2820
South-East	96.9	85.7	82.7	1871
Poloski	98.5	99.8	98.4	3773
East	99.7	98.3	98.0	2585
Residence				
Urban	99.8	96.9	96.8	13355
Rural	98.6	87.5	86.5	10114
Education of household head				
None	98.9	82.5	81.7	1009
Primary	98.7	90.3	89.3	11497
Secondary +	100.0	96.5	96.5	10957
Wealth index quintiles				
Poorest	97.6	77.5	75.9	4703
Second	100.0	90.9	90.9	4698
Middle	99.0	97.3	96.3	4681
Fourth	100.0	98.7	98.7	4708
Richest	100.0	99.9	99.9	4679
Ethnicity				
Macedonian	99.9	94.2	94.1	13365
Albanian	99.0	91.1	90.4	7777
Roma	99.0	93.9	93.1	689
Other	96.1	90.4	86.6	1637
Total	99.3	92.9	92.3	23468

* MICS indicator 11; MDG indicator 30
** MICS indicator 12; MDG indicator 31

Table RH.1: Use of contraception

Percentage of women aged 15-49 years currently married or in union who are using (or whose partner is using) a contraceptive method, Republic of Macedonia, 2005

	Percentage of women (currently married or in union) who are using:														Number of women currently married or in union
	Not using any method	Female sterili-zation	Pill	IUD	Condom	Diaph-ragm/ foam/ jelly	Other modern methods	LAM	Periodic abstin-ence	With-drawal	Other	Any modern method	Any traditional method	Any method*	
Region															
Skopski	82.5	.4	.8	1.1	9.3	.8	.8	.3	.1	.1	3.7	13.4	4.2	17.5	1119
Pelagoniski	84.7	1.5	2.2	.5	2.7	4.1	.0	.0	.2	.0	4.2	11.0	4.3	15.3	485
Vardarski	92.1	.0	.5	.0	7.3	.0	.0	.0	.0	.0	.1	7.8	.1	7.9	225
North-East	94.4	4.2	.6	.0	.7	.0	.0	.0	.0	.0	.1	5.5	.1	5.6	339
South-West	80.6	.0	6.6	.5	4.2	.9	.1	.0	1.6	5.4	.0	12.4	7.0	19.4	480
South-East	99.1	.0	.1	.0	.4	.2	.0	.0	.2	.0	.0	.7	.2	.9	375
Poloski	84.6	.5	4.3	.0	4.6	3.2	.1	2.2	.0	.1	.3	12.8	2.7	15.4	640
East	87.7	.0	3.8	.1	.9	1.0	.0	.0	1.8	.0	4.7	5.8	6.5	12.3	587
Residence															
Urban	88.5	.3	1.9	.7	4.7	1.6	.3	.7	.4	.1	.7	9.6	1.9	11.5	2447
Rural	83.7	1.2	3.2	.1	4.3	1.2	.1	.0	.6	1.5	4.1	10.1	6.2	16.3	1805
Age															
15-19	98.7	.0	.0	.0	1.2	.0	.0	.0	.0	.1	.1	1.2	.1	1.3	20
20-24	88.3	.0	1.2	.1	4.6	.6	.0	3.8	.1	.9	.2	6.7	5.1	11.7	91
25-29	91.4	.3	1.4	.3	3.8	.5	.2	.2	.5	.4	1.1	6.4	2.3	8.6	519
30-34	82.8	.1	2.5	.2	10.3	.5	.1	.0	.4	.3	2.6	13.8	3.4	17.2	783
35-39	81.3	1.6	3.4	.0	4.8	2.0	.1	1.3	.0	.9	4.5	11.9	6.8	18.7	964
40-44	89.9	.8	3.0	1.5	1.4	1.6	.0	.0	.7	.9	.1	8.4	1.7	10.1	963
45-49	88.2	.5	1.6	.0	3.1	2.0	.9	.0	.8	.6	2.3	8.1	3.7	11.8	911
Number of living children**															
0	99.1	.0	.0	.0	.4	.0	.0	.0	.0	.5	.0	.4	.5	.9	138
1	79.2	.0	4.3	.0	14.0	.1	.0	1.3	.2	.2	.5	18.5	2.3	20.8	321
2	86.1	.2	3.1	.2	4.6	1.3	.5	.0	.6	.4	3.0	9.9	4.0	13.9	2074
3	89.0	1.6	1.9	.1	2.9	1.4	.1	1.2	.6	.1	1.1	7.9	3.1	11.0	1099
4+	84.2	1.3	.9	2.0	3.2	3.0	.1	.0	.1	2.7	2.5	10.5	5.3	15.8	619
Education															
None	91.7	.3	.3	.0	1.2	.9	.0	1.6	.0	.2	3.7	2.8	5.5	8.3	192
Primary	88.5	1.1	2.3	.0	2.6	1.2	.1	.6	.4	1.2	1.9	7.4	4.2	11.5	2269
Secondary +	83.4	.3	2.9	1.0	7.3	1.8	.5	.0	.6	.0	2.3	13.6	3.0	16.6	1791
Wealth index quintiles															
Poorest	85.7	.5	2.1	.0	4.4	1.1	.1	.4	.2	3.2	2.1	8.3	6.0	14.3	786
Second	84.8	2.5	3.0	1.6	2.3	.3	.0	.0	1.0	.2	4.3	9.7	5.5	15.2	807
Middle	91.6	.1	1.2	.1	2.3	1.7	.0	1.7	.3	.1	.8	5.5	2.9	8.4	845
Fourth	90.6	.2	.9	.2	5.2	1.5	.1	.0	.9	.1	.5	8.0	1.5	9.4	889
Richest	79.9	.4	5.0	.3	8.0	2.3	.9	.0	.0	.0	3.1	16.9	3.2	20.1	924
Ethnicity															
Macedonian	86.8	.7	2.8	.7	4.3	1.5	.3	.0	.8	.0	2.2	10.2	3.0	13.2	2537
Albanian	85.6	.6	1.8	.1	4.5	1.6	.2	1.1	.1	2.1	2.3	8.8	5.6	14.4	1281
Roma	82.6	2.7	.4	.0	4.7	1.7	.0	2.5	.2	.4	4.8	9.5	7.9	17.4	129
Other	89.1	.1	3.7	.0	6.4	.2	.0	.0	.1	.0	.5	10.3	.6	10.9	305
Total	86.5	.7	2.5	.4	4.5	1.4	.3	.4	.5	.7	2.2	9.8	3.7	13.5	4251

* MICS indicator 21; MDG indicator 19C

Table RH.2: Unmet need for contraception

Percentage of women aged 15-49 years currently married or in union with an unmet need for family planning and percentage of demand for contraception satisfied, Republic of Macedonia, 2005

		Unmet need for contraception					
	Current use of contraception*	For spacing**	For limiting***	**Total****	Number of women currently married or in union	Percentage of demand for contraception satisfied*****	Number of women currently married or in union with need for contraception
Region							
Skopski	17.5	8.7	32.1	40.7	1119	30.1	653
Pelagoniski	15.3	2.7	30.6	33.2	485	31.6	236
Vardarski	7.9	.8	26.0	26.8	225	22.7	78
North-East	5.6	1.5	20.2	21.7	339	20.4	92
South-West	19.4	3.6	20.2	23.8	480	44.9	207
South-East	.9	2.3	43.8	46.1	375	2.0	176
Poloski	15.4	8.0	20.6	28.6	640	35.1	282
East	12.3	3.8	31.5	35.4	587	25.8	280
Residence							
Urban	11.5	4.9	31.3	36.2	2447	24.1	1166
Rural	16.3	5.3	24.8	30.1	1805	35.1	838
Age							
15-19	1.3	10.2	2.0	12.2	20	9.7	(3)
20-24	11.7	19.5	19.9	39.4	91	22.9	46
25-29	8.6	16.8	28.1	44.9	519	16.1	278
30-34	17.2	11.3	30.7	42.0	783	29.0	463
35-39	18.7	1.4	27.1	28.5	964	39.7	455
40-44	10.1	.0	38.4	38.4	963	20.8	467
45-49	11.8	.8	19.4	20.3	911	36.9	292
Education							
None	8.3	2.4	54.3	56.7	192	12.7	125
Primary	11.5	4.5	26.8	31.2	2269	27.0	970
Secondary +	16.6	6.2	28.0	34.1	1791	32.7	909
Wealth index quintiles							
Poorest	14.3	6.6	26.3	32.9	786	30.3	371
Second	15.2	4.0	30.1	34.1	807	30.8	398
Middle	8.4	2.5	26.7	29.2	845	22.2	318
Fourth	9.4	6.8	26.4	33.3	889	22.1	380
Richest	20.1	5.5	32.7	38.2	924	34.4	538
Ethnicity							
Macedonian	13.2	2.8	30.0	32.7	2537	28.7	1166
Albanian	14.4	7.3	26.4	33.7	1281	29.9	616
Roma	17.4	2.5	19.4	21.9	129	44.3	51
Other	10.9	16.3	29.0	45.3	305	19.4	171
Total	13.5	5.1	28.5	33.6	4251	28.7	2004

* MICS indicator 21; MDG indicator 19C
**** MICS indicator 98
***** MICS indicator 99

Table RH.3: Antenatal care provider

Percentage distribution of women aged 15-49 who gave birth in the two years preceding the survey by type of personnel providing antenatal care. Republic of Macedonia, 2005

	Person providing antenatal care**								
	Medical doctor	Nurse/ midwife	Auxiliary midwife	Traditional birth attendant	Other	No antenatal care received	Total	Any skilled personnel*	Number of women who gave birth in the preceding two years
Region									
Skopski	89.8	6.9	1.3	.0	1.5	.5	100.0	98.0	213
Pelagoniski	97.4	.4	.0	.0	.0	1.8	100.0	97.8	46
Vardarski	98.1	.3	.0	.0	.0	1.6	100.0	98.4	18
North-East	99.1	.0	.0	.0	.0	.9	100.0	99.1	39
South-West	98.3	.0	.0	.4	.0	1.3	100.0	98.3	59
South-East	96.9	.0	.0	.0	.0	3.1	100.0	96.9	36
Poloski	92.1	5.3	.0	.0	.3	2.3	100.0	97.4	115
East	99.7	.0	.0	.0	.0	.3	100.0	99.7	41
Residence									
Urban	95.1	2.6	.0	.0	1.0	1.2	100.0	97.7	308
Rural	92.4	5.0	1.1	.1	.1	1.2	100.0	98.5	257
Age									
15-19	96.5	.6	.0	.0	.0	2.9	100.0	97.1	7
20-24	85.4	5.9	.0	.0	7.0	1.3	100.0	91.3	45
25-29	92.4	5.6	.8	.1	.0	1.1	100.0	98.8	186
30-34	95.8	3.1	.0	.0	.0	1.1	100.0	98.9	242
35+	95.8	.4	1.6	.0	.4	1.8	100.0	97.8	85
Education									
None	84.6	.2	.0	.0	9.1	5.7	100.0	84.8	35
Primary	92.0	5.8	.9	.1	.1	1.2	100.0	98.7	334
Secondary +	98.6	.8	.0	.0	.0	.6	100.0	99.4	197
Wealth index quintiles									
Poorest	86.5	6.8	1.1	.2	2.0	3.4	100.0	94.3	158
Second	95.1	3.3	1.2	.0	.0	.5	100.0	99.5	102
Middle	92.9	6.5	.0	.0	.3	.2	100.0	99.5	104
Fourth	99.9	.1	.0	.0	.0	.0	100.0	100.0	138
Richest	98.4	.0	.0	.0	.0	1.6	100.0	98.4	64
Ethnicity									
Macedonian	98.3	.1	.0	.2	.0	1.3	100.0	98.4	174
Albanian	91.3	6.8	.9	.0	.1	.9	100.0	99.0	306
Roma	78.5	.0	.0	.0	16.2	5.3	100.0	78.5	19
Other	98.5	.0	.0	.0	.0	1.5	100.0	98.5	67
Total	93.9	3.7	.5	.0	.6	1.2	100.0	98.1	566

* MICS indicator 20

Table RH.4: Antenatal care

Percentage of pregnant women receiving antenatal care among women aged 15-49 years who gave birth in two years preceding the survey and percentage of pregnant women receiving specific care as part of the antenatal care received, Republic of Macedonia, 2005

	Percentage of pregnant women receiving ANC one or more times during pregnancy	Percentage of pregnant women who had:				Number of women who gave birth in two years preceding survey
		Blood test taken*	Blood pressure measured*	Urine specimen taken*	Weight measured*	
Region						
Skopski	99.5	97.3	96.7	97.3	95.3	213
Pelagoniski	98.2	96.0	93.0	96.0	88.1	46
Vardarski	98.4	97.5	97.5	97.5	97.5	18
North-East	99.1	98.2	99.1	96.8	99.1	39
South-West	98.7	87.2	75.0	86.3	98.5	59
South-East	96.9	91.8	95.1	91.3	93.0	36
Poloski	97.7	96.5	90.6	96.0	88.6	115
East	99.7	99.0	99.3	98.5	99.6	41
Residence						
Urban	98.8	95.9	96.3	95.5	95.4	308
Rural	98.8	95.7	89.4	95.4	92.8	257
Age						
15-19	97.1	96.5	96.7	96.5	96.4	7
20-24	98.7	87.2	87.4	85.4	86.9	45
25-29	98.9	94.7	96.8	94.5	95.5	186
30-34	98.9	97.7	92.7	97.5	96.8	242
35+	98.2	97.3	89.5	96.9	87.7	86
Education						
None	94.3	79.7	61.5	79.9	60.2	35
Primary	98.8	95.7	93.2	95.2	95.4	334
Secondary +	99.4	98.8	98.8	98.7	98.2	197
Wealth index quintiles						
Poorest	96.6	87.7	91.2	87.6	88.8	158
Second	99.5	98.9	91.5	98.3	91.1	102
Middle	99.8	99.5	99.2	99.3	96.3	104
Fourth	100.0	99.4	89.7	98.9	99.2	138
Richest	98.4	97.1	98.4	96.4	98.4	64
Ethnicity						
Macedonian	98.7	97.4	89.4	97.0	96.8	174
Albanian	99.1	96.2	95.6	96.0	93.7	306
Roma	94.7	73.4	75.6	72.9	75.7	19
Other	98.5	96.3	96.9	95.5	95.4	67
Total	98.8	95.8	93.2	95.5	94.2	566

* MICS indicator 44

Table RH.5: Assistance during delivery

Percentage distribution of women aged 15-49 with a birth in two years preceding the survey by type of personnel assisting at delivery, Republic of Macedonia, 2005

	Person assisting at delivery									
	Medical doctor	Nurse/ mid-wife	Aux-iliary mid-wife	Trad-itional birth attend-ant	Other	No attend-ant	Total	Any skilled pers-onnel*	Deliv-ered in health facility**	Number of women who gave birth in preceding two years
Region										
Skopski	86.7	9.9	.5	.1	2.8	.0	100.0	97.1	97.2	213
Pelagoniski	92.2	7.8	.0	.0	.0	.0	100.0	100.0	100.0	46
Vardarski	66.5	33.4	.0	.0	.1	.0	100.0	99.9	99.9	18
North-East	87.6	10.4	.4	.0	1.5	.0	100.0	98.5	98.5	39
South-West	98.2	1.7	.0	.1	.0	.0	100.0	99.9	99.9	59
South-East	93.6	5.2	.4	.0	.9	.0	100.0	99.1	98.7	36
Poloski	67.0	30.8	.0	.3	1.3	.6	100.0	97.8	98.0	115
East	83.2	14.1	.0	.3	.0	2.4	100.0	97.3	97.6	41
Residence										
Urban	83.2	15.0	.0	.1	1.2	.4	100.0	98.3	98.4	308
Rural	84.8	12.6	.5	.1	1.8	.2	100.0	97.9	97.9	257
Age										
15-19	96.3	3.3	.0	.2	.2	.0	100.0	99.6	99.6	7
20-24	72.3	19.8	.3	.3	7.2	.0	100.0	92.5	92.4	45
25-29	84.3	14.8	.1	.1	.5	.2	100.0	99.2	99.4	186
30-34	83.0	15.0	.0	.1	1.5	.4	100.0	98.0	98.0	242
35-39	91.6	5.7	1.4	.0	0.7	.5	100.0	98.7	98.7	81
40-44	72.3	27.7	.0	.0	.0	.0	100.0	100.0	100.0	4
45-49	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	0
Education										
None	78.7	10.4	.4	.3	10.2	.0	100.0	89.4	89.6	35
Primary	81.6	16.0	.4	.2	1.4	.4	100.0	98.0	98.0	334
Secondary +	88.9	11.0	.0	.0	.0	.1	100.0	99.9	100.0	197
Wealth index quintiles										
Poorest	83.1	11.8	.5	.3	3.5	.9	100.0	95.3	95.2	158
Second	82.4	15.4	.7	.0	1.4	.0	100.0	98.5	98.6	102
Middle	81.6	16.5	.0	.2	1.3	.3	100.0	98.2	98.6	104
Fourth	82.4	17.6	.0	.0	.0	.0	100.0	100.0	100.0	138
Richest	95.4	4.6	.0	.0	.0	.0	100.0	100.0	100.0	64
Ethnicity										
Macedonian	86.7	12.3	.0	.0	.2	.7	100.0	99.0	99.2	174
Albanian	80.9	17.1	.4	.1	1.4	.1	100.0	98.3	98.3	306
Roma	69.9	11.9	.0	.9	17.3	.0	100.0	81.8	82.1	19
Other	95.0	4.2	.2	.2	.5	.0	100.0	99.4	99.3	67
Total	83.9	13.9	.3	.1	1.5	.3	100.0	98.1	98.2	566

* MICS indicator 4; MDG indicator 17
** MICS indicator 5

Table CD.1: Family support for learning

Percentage of children aged 0-59 months for whom household members are engaged in activities that promote learning and school readiness, Republic of Macedonia, 2005

	Percentage of children aged 0-59 months					
	For whom household members engaged in four or more activities that promote learning and school readiness*	Mean number of activities household members engage in with the child	For whom the father engaged in one or more activities that promote learning and school readiness**	Mean number of activities the father engaged in with the child	Living in a household without their natural father	Number of children aged 0-59 months
Sex						
Male	84.9	4.9	62.3	1.3	2.2	2428
Female	85.6	5.0	58.8	1.3	3.2	2118
Region						
Skopski	90.1	5.1	69.4	1.4	.9	1691
Pelagoniski	82.6	4.9	49.1	1.2	11.2	415
Vardarski	86.2	5.1	20.1	.4	10.9	279
North East	84.7	4.8	56.4	1.1	1.2	329
South West	85.7	5.1	68.4	1.4	2.1	397
South East	84.4	4.8	66.5	1.8	1.4	377
Poloski	70.9	4.4	54.4	1.3	.8	742
East	96.5	5.6	68.0	1.6	1.4	316
Residence						
Urban	87.2	5.1	62.0	1.5	4.0	2467
Rural	83.0	4.8	59.2	1.1	1.0	2080
Age						
0-23 months	72.3	4.3	50.3	1.0	4.3	1583
24-59 months	92.2	5.3	66.2	1.5	1.8	2963
Mother's education						
None	57.7	4.0	48.3	1.2	2.7	324
Primary	82.8	4.8	59.2	1.2	1.2	2491
Secondary +	93.9	5.4	65.2	1.6	4.7	1732
Father's education						
None	56.3	3.9	47.6	1.2	.0	158
Primary	80.6	4.7	57.1	1.1	.0	2129
Secondary +	91.8	5.3	68.2	1.6	.0	2139
Father not in HH	89.6	5.4	8.4	.2	100.0	120
Wealth index quintiles						
Poorest	76.0	4.5	53.6	1.1	2.1	1282
Second	84.6	4.9	49.5	.9	7.8	988
Middle	86.4	5.1	55.9	1.2	.6	883
Fourth	91.7	5.2	80.2	1.6	.7	879
Richest	96.4	5.6	74.9	2.1	1.2	515
Ethnicity						
Macedonian	92.5	5.3	62.8	1.6	5.2	1704
Albanian	80.1	4.7	57.5	1.1	.8	2097
Roma	72.2	4.3	55.3	1.3	3.4	231
Other	88.0	4.9	69.2	1.4	1.3	514
Total	85.2	5.0	60.7	1.3	2.6	4547

* MICS indicator 46
** MICS Indicator 47

Table CD.2: Learning materials

Percentage of children aged 0-59 months living in households containing learning materials. Republic of Macedonia. 2005

	Children living in households with:	Child has:	Child plays with:						
	3 or more non-children's books*	3 or more children's books**	House-hold objects	Objects and materials found outside the home	Home-made toys	Toys that came from a store	No play-things ment-ioned	3 or more types of play-things ***	Number of children aged 0-59 months
Sex									
Male	48.6	47.8	4.9	6.8	15.4	65.4	9.8	.5	2428
Female	53.4	50.3	6.3	5.2	22.9	63.5	5.0	.5	2118
Region									
Skopski	41.2	47.0	6.6	4.8	21.3	66.0	4.3	.6	1691
Pelagoniski	60.3	56.5	7.0	6.2	12.2	60.8	13.8	.0	415
Vardarski	30.4	61.5	.0	8.0	2.9	81.3	7.8	.0	279
North East	46.3	33.1	3.0	2.3	18.7	72.1	4.2	.0	329
South West	64.8	61.2	9.6	5.3	8.2	67.2	11.2	.3	397
South East	61.3	55.3	3.5	9.7	8.5	67.3	12.2	.5	377
Poloski	55.6	33.3	3.4	8.1	30.4	50.2	10.5	.3	742
East	71.1	68.9	7.8	7.1	27.8	65.9	2.8	1.7	316
Residence									
Urban	51.6	59.9	4.6	5.9	17.2	68.0	8.1	.7	2467
Rural	49.8	35.9	6.7	6.3	20.9	60.4	7.0	.2	2080
Age									
0-23 months	45.2	41.9	5.2	2.0	14.6	60.0	19.4	.2	1583
24-59 months	53.8	52.7	5.7	8.2	21.2	66.9	1.2	.6	2963
Mother's education									
None	24.4	10.9	7.4	12.9	26.2	38.0	16.9	.1	324
Primary	42.7	29.2	6.5	7.4	19.0	62.2	7.9	.6	2491
Secondary +	67.3	84.5	3.8	2.9	17.4	72.8	5.3	.4	1732
Wealth index quintiles									
Poorest	30.5	21.3	8.7	8.9	17.6	55.7	10.5	.2	1282
Second	52.9	40.4	5.0	6.7	26.0	57.6	6.4	.2	988
Middle	55.4	51.1	3.7	2.1	16.6	70.1	9.8	.3	883
Fourth	55.0	73.3	4.8	5.8	18.1	71.4	5.3	1.4	879
Richest	82.2	88.9	2.8	5.1	13.6	78.5	2.4	.4	515
Ethnicity									
Macedonian	71.4	77.6	5.0	5.2	16.7	67.7	7.6	.4	1704
Albanian	42.4	26.5	6.7	6.3	21.4	61.2	7.3	.6	2097
Roma	36.5	32.0	6.3	8.2	28.1	47.2	16.6	1.2	231
Other	23.1	52.9	2.0	7.0	11.5	75.3	4.3	.0	514
Total	50.8	48.9	5.5	6.1	18.9	64.5	7.6	.5	4547

* MICS indicator 49
** MICS indicator 48
*** MICS indicator 50

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

Percentage of children aged 0-59 months left in the care of other children under the age of 10 years or left alone in the past week, Republic of Macedonia, 2005

	Percentage of children aged 0-59 months			
	Left in the care of children under the age of 10 years in past week	Left alone in the past week	Left with inadequate care in past week*	Number of children aged 0-59 months
Sex				
Male	5.8	3.2	7.9	2428
Female	10.0	2.2	10.9	2118
Region				
Skopski	6.6	2.9	8.9	1691
Pelagoniski	8.6	1.5	9.0	415
Vardarski	3.4	1.1	4.5	279
North East	13.2	1.8	13.9	329
South West	15.0	3.8	16.3	397
South East	5.6	2.7	7.0	377
Poloski	6.9	2.2	6.9	742
East	6.6	5.7	10.5	316
Residence				
Urban	7.4	2.4	8.7	2467
Rural	8.2	3.1	10.0	2080
Age				
0-23 months	3.8	1.2	4.4	1583
24-59 months	9.9	3.5	11.9	2963
Mother's education				
None	6.3	4.2	8.0	324
Primary	7.8	1.7	8.3	2491
Secondary +	7.9	3.9	10.9	1732
Wealth index quintiles				
Poorest	6.6	2.3	7.3	1282
Second	12.6	1.6	13.3	988
Middle	8.0	.8	8.4	883
Fourth	4.6	2.3	5.9	879
Richest	6.3	9.6	13.6	515
Ethnicity				
Macedonian	9.3	4.2	12.3	1704
Albanian	8.1	1.6	8.5	2097
Roma	3.3	2.3	4.6	231
Other	3.1	2.8	4.6	514
Total	7.8	2.7	9.3	4547

* MICS indicator 51

Table ED.1: Early childhood education

Percentage of children aged 36-59 months who are attending some form of organized early childhood education programme and percentage of first graders who attended pre-school, Republic of Macedonia,2005

	Percent of children aged 36-59 months currently attending early childhood education*	Number of children aged 36-59 months	Percent of children attending first grade who attended preschool program in previous year**	Number of children attending first grade
Sex				
Male	15.1	1103	86.9	143
Female	5.8	979	63.6	132
Region				
Skopski	13.7	825	73.6	75
Pelagoniski	8.8	166	(80.5)	24
Vardarski	22.6	175	(*)	5
North East	5.8	152	(*)	8
South West	6.5	140	(51.3)	61
South East	9.5	177	(*)	8
Poloski	.9	308	94.6	64
East	13.1	141	(91.6)	29
Residence				
Urban	18.5	1127	77.2	152
Rural	1.5	956	73.8	123
Age of child				
36-47 months	12.9	1067	-	-
48-59 months	8.4	1016	-	-
6 years	-	-	85.3	84
7 years	-	-	71.5	191
Mother's education				
None	.7	142	(86.7)	32
Primary	1.8	1057	68.2	170
Secondary +	23.0	883	88.2	73
Wealth index quintiles				
Poorest	1.4	529	83.0	83
Second	9.0	435	80.2	47
Middle	4.5	428	75.2	35
Fourth	21.7	442	63.4	86
Richest	24.7	249	(*)	23
Ethnicity				
Macedonian	16.9	809	77.3	142
Albanian	1.5	902	76.5	118
Roma	3.5	92	56.6	6
Other	25.0	279	(*)	9
Total	10.7	2082	75.7	275

* MICS indicator 52
** MICS indicator 53

Table ED.2: Primary school entry

Percentage of children of primary school entry age attending grade 1, Republic of Macedonia,2005

	Percent of children of primary school entry age currently attending grade 1*	Number of children of primary school entry age**
Sex		
Male	95.8	162
Female	94.6	173
Region		
Skopski	96.3	95
Pelagoniski	82.8	16
Vardarski	(*)	32
North East	(*)	8
South West	98.7	76
South East	(73.9)	14
Poloski	97.5	64
East	(93.5)	30
Residence		
Urban	94.4	189
Rural	96.2	146
Mother's education		
None	82.6	47
Primary	96.6	184
Secondary +	98.2	104
Wealth index quintiles		
Poorest	86.3	87
Second	98.9	62
Middle	96.5	65
Fourth	99.0	106
Richest	(98.1)	14
Ethnicity		
Macedonian	96.2	137
Albanian	97.4	132
Roma	63.1	10
Other	(93.0)	56
Total	95.2	335

* MICS indicator 54

** Primary school entry age is 7

Table ED.3: Primary school net attendance ratio

Percentage of children of primary school age** attending primary or secondary school (NAR), Republic of Macedonia, 2005

	Male		Female		Total	
	Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
Region						
Skopski	97.7	464	94.5	391	96.2	855
Pelagoniski	86.0	108	78.1	151	81.4	260
Vardarski	97.9	55	99.4	92	98.8	147
North-East	93.6	132	92.8	70	93.3	201
South-West	99.2	209	99.3	331	99.3	540
South-East	90.8	126	67.2	85	81.3	211
Poloski	99.2	388	97.2	287	98.3	674
East	97.4	146	95.7	98	96.7	244
Residence						
Urban	95.3	791	89.3	675	92.6	1466
Rural	97.8	837	96.3	829	97.0	1666
Age						
7	96.3	162	95.5	173	95.9	335
8	95.8	201	90.4	159	93.4	360
9	97.6	191	97.9	160	97.7	351
10	97.7	181	90.5	214	93.8	395
11	95.8	168	90.5	198	92.9	366
12	97.7	152	94.2	134	96.1	287
13	95.6	377	96.5	195	95.9	572
14	97.3	196	91.6	271	94.0	467
Mother's education						
None	79.5	113	82.5	167	81.3	280
Primary	96.9	1047	92.8	990	94.9	2036
Secondary +	99.9	468	99.4	347	99.7	815
Wealth index quintiles						
Poorest	89.9	458	82.1	409	86.2	867
Second	98.7	350	94.1	329	96.5	678
Middle	99.6	337	96.7	296	98.2	632
Fourth	98.8	267	99.8	304	99.4	572
Richest	99.9	216	100.0	166	99.9	382
Ethnicity						
Macedonian	99.1	627	95.7	589	97.5	1217
Albanian	98.0	798	97.7	752	97.8	1550
Roma	65.9	55	57.8	82	61.1	137
Other	89.7	147	67.7	81	81.9	229
Total	96.6	1628	93.2	1504	94.9	3132

* MICS indicator 55; MDG indicator 6

** Primary school age range covers ages 7-14

Table ED.4: Secondary school net attendance ratio

Percentage of children of secondary school age** attending secondary school or higher (NAR), Republic of Macedonia, 2005

	Male		Female		Total	
	Net attendance ratio	Number of children	Net attendance ratio	Number of children	Net attendance ratio*	Number of children
Region						
Skopski	64.9	206	62.8	189	63.9	395
Pelagoniski	(58.5)	164	74.1	78	63.5	242
Vardarski	(*)	28	(64.6)	60	45.8	88
North-East	(92.2)	74	81.3	70	86.9	143
South-West	(57.3)	82	60.5	86	59.0	167
South-East	(25.5)	106	49.3	91	36.5	197
Poloski	55.2	188	67.8	123	60.2	312
East	(*)	72	89.4	93	89.2	166
Residence						
Urban	64.1	353	77.5	427	71.4	781
Rural	55.6	568	56.4	362	55.9	930
Age						
15	63.3	298	71.2	152	65.9	450
16	71.7	191	74.4	204	73.1	395
17	44.0	200	75.1	215	60.1	415
18	55.4	232	52.2	219	53.8	450
Wealth index quintiles						
Poorest	33.0	250	34.6	166	33.7	416
Second	47.6	231	55.8	181	51.2	412
Middle	71.4	180	70.6	121	71.1	301
Fourth	(83.4)	110	88.1	135	86.0	245
Richest	(85.9)	151	92.6	186	89.6	337
Ethnicity						
Macedonian	63.1	393	82.4	479	73.7	872
Albanian	61.4	402	50.8	240	57.4	642
Roma	15.7	37	20.5	20	17.4	57
Other	(46.3)	88	28.4	50	39.8	139
Total	58.8	921	67.8	790	63.0	1710

* MICS indicator 56

** Secondary school age range covers ages 15-18

Table ED.4w: Secondary school age children attending primary school

Percentage of children of secondary school age** attending primary school, Republic of Macedonia, 2005

	Male		Female		Total	
	Percent attending primary school	Number of children	Percent attending primary school	Number of children	Percent attending primary school	Number of children
Region						
Skopski	4.8	206	2.4	189	3.7	395
Pelagoniski	(.4)	164	.0	78	.3	242
Vardarski	(*)	28	(.2)	60	.5	88
North-East	(.1)	74	.0	70	.1	143
South-West	(13.4)	82	1.3	86	7.2	167
South-East	(.0)	106	.1	91	.1	197
Poloski	12.0	188	1.2	123	7.7	312
East	(*)	72	.5	93	2.0	166
Residence						
Urban	2.1	353	1.2	427	1.6	781
Rural	7.0	568	.7	362	4.6	930
Age**						
15	12.3	298	4.7	152	9.7	450
16	4.4	191	.2	204	2.2	395
17	.0	200	.0	215	.0	415
18	1.1	232	.1	219	.6	450
Wealth index quintiles						
Poorest	4.8	250	1.0	166	3.3	416
Second	4.5	231	.2	181	2.6	412
Middle	5.3	180	1.6	121	3.8	301
Fourth	(13.2)	110	1.1	135	6.5	245
Richest	(.7)	151	1.3	186	1.0	337
Ethnicity						
Macedonian	1.0	393	.5	479	.7	872
Albanian	9.7	402	1.9	240	6.8	642
Roma	3.8	37	3.5	20	3.7	57
Other	(3.6)	88	.2	50	2.4	139
Total	5.2	921	1.0	790	3.2	1710

Table ED.6: Primary school completion and transition to secondary education

Primary school completion rate and transition rate to secondary education, Republic of Macedonia, 2005

	Net primary school completion rate*	Number of children of primary school completion age	Transition rate to secondary education**	Number of children who were in the last grade of primary school the previous year
Sex				
Male	85.0	196	93.7	241
Female	80.8	271	96.1	143
Region				
Skopski	80.0	90	88.9	88
Pelagoniski	94.4	38	100.0	22
Vardarski	100.0	36	98.6	8
North-East	61.3	46	97.8	19
South-West	79.2	67	86.3	61
South-East	84.8	54	99.2	39
Poloski	80.9	110	97.4	57
East	98.8	26	99.6	89
Residence				
Urban	81.3	174	95.1	177
Rural	83.3	293	94.1	208
Mother's education				
None	75.7	47	100.0	9
Primary	79.0	325	99.1	87
Secondary +	98.3	94	96.3	23
Wealth index quintiles				
Poorest	61.9	114	91.7	46
Second	87.8	129	99.2	79
Middle	92.1	95	84.2	89
Fourth	75.8	60	99.7	70
Richest	99.6	69	97.9	100
Ethnicity				
Macedonian	86.6	209	99.7	199
Albanian	80.5	225	90.8	157
Roma	44.6	11	26.9	8
Other	84.3	22	98.5	21
Total	82.6	467	94.6	385

* MICS indicator 59; MDG indicator 7b
** MICS indicator 58

Table ED.7: Education gender parity

Ratio of girls to boys attending primary education and ratio of girls to boys attending secondary education, Republic of Macedonia, 2005

	Primary school net attendance ratio (NAR), girls	Primary school net attendance ratio (NAR), boys	Gender parity index (GPI) for primary school NAR*	Secondary school net attendance ratio (NAR), girls	Secondary school net attendance ratio (NAR), boys	Gender parity index (GPI) for secondary school NAR*
Region						
Skopski	94.5	97.7	.97	62.8	64.9	.97
Pelagoniski	78.1	86.0	.91	74.1	(58.5)	(1.27)
Vardarski	99.4	97.9	1.02	(64.6)	(*)	(*)
North-East	92.8	93.6	.99	81.3	(92.2)	(.88)
South-West	99.3	99.2	1.00	60.5	(57.3)	(1.06)
South-East	67.2	90.8	.74	49.3	(25.5)	(1.94)
Poloski	97.2	99.2	.98	67.8	55.2	1.23
East	95.7	97.4	.98	89.4	(*)	(*)
Residence						
Urban	89.3	95.3	.94	77.5	64.1	1.21
Rural	96.3	97.8	.99	56.4	55.6	1.01
Mother's education						
None	82.5	79.5	1.04	-	-	-
Primary	92.8	96.9	.96	-	-	-
Secondary +	99.4	99.9	1.00	-	-	-
Wealth index quintiles						
Poorest	82.1	89.9	.91	34.6	33.0	1.05
Second	94.1	98.7	.95	55.8	47.6	1.17
Middle	96.7	99.6	.97	70.6	71.4	.99
Fourth	99.8	98.8	1.01	88.1	(83.4)	(1.06)
Richest	100.0	99.9	1.00	92.6	(85.9)	(1.08)
Ethnicity						
Macedonian	95.7	99.1	.97	82.4	63.1	1.31
Albanian	97.7	98.0	1.00	50.8	61.4	.83
Roma	57.8	65.9	.88	20.5	15.7	1.31
Other	67.7	89.7	.75	28.4	(46.3)	(.61)
Total	93.2	96.6	.96	67.8	58.8	1.15

* MICS indicator 61; MDG indicator 9

Table ED.8: Adult literacy

Percentage of women aged 15-24 years that are literate*, Republic of Macedonia, 2005

	Percent literate*	Percent not known**	Number of women aged 15-24 years
Region			
Skopski	97.0	.0	614
Pelagoniski	96.4	.0	251
Vardarski	99.4	.0	183
North-East	98.5	.0	175
South-West	95.8	.1	216
South-East	87.6	2.8	199
Poloski	99.0	.6	342
East	99.1	.0	253
Residence			
Urban	97.2	.2	1331
Rural	96.4	.6	902
Education			
None	18.5	.1	46
Primary	93.3	1.6	495
Secondary +	100.0	.0	1692
Age			
15-19	96.9	.4	1129
20-24	96.8	.3	1103
Wealth index quintiles			
Poorest	88.3	1.0	395
Second	95.2	.8	430
Middle	99.7	.1	407
Fourth	99.7	.0	458
Richest	99.9	.0	542
Ethnicity			
Macedonian	98.7	.0	1424
Albanian	98.7	.4	613
Roma	60.4	.0	52
Other	83.4	4.0	143
Total	96.8	.4	2233

* MICS indicator 60; MDG indicator 8

Table CP.1: Birth registration

Percentage distribution of children aged 0-59 months by whether birth is registered and reasons for non-registration, Republic of Macedonia, 2005

	Birth is registered*	Don't know	Number of children aged 0-59 months without birth registration
Sex			
Male	92.8	1.5	2428
Female	95.0	1.7	2118
Region			
Skopski	98.7	.8	1691
Pelagoniski	68.4	5.7	415
Vardarski	99.5	.2	279
North-East	96.6	.0	329
South-West	93.8	3.1	397
South-East	97.5	1.1	377
Poloski	90.8	1.6	742
East	95.9	2.0	316
Residence			
Urban	94.6	1.5	2467
Rural	92.9	1.7	2080
Age			
0-11 months	88.7	2.7	746
12-23 months	92.9	1.1	837
24-35 months	95.8	1.2	881
36-47 months	95.9	.9	1067
48-59 months	94.4	2.3	1016
Mother's education			
None	91.5	4.3	324
Primary	91.8	1.9	2491
Secondary +	97.1	.6	1732
Wealth index quintiles			
Poorest	88.5	3.8	1282
Second	93.5	.7	988
Middle	97.3	1.1	883
Fourth	95.3	.4	879
Richest	99.1	.6	515
Ethnicity			
Macedonian	96.2	1.1	1704
Albanian	92.4	1.9	2097
Roma	91.9	1.6	231
Other	92.5	1.7	514
Total	93.8	1.6	4547

* MICS indicator 62

Table CP.2: Child labour

Percentage of children aged 5-14 years who are involved in child labour activities by type of work, Republic of Macedonia, 2005

	Working outside household		Household chores for 28+ hours/ week	Working for family business	**Total** child labour*	Number of children aged 5-14 years
	Paid work	Unpaid work				
Sex						
Male	.1	4.1	.0	3.1	6.8	2034
Female	.2	2.5	.1	2.2	4.6	1915
Region						
Skopski	.1	.7	.0	1.6	2.4	1171
Pelagoniski	.2	6.6	.0	8.3	13.1	332
Vardarski	.0	.2	.0	14.6	14.8	173
North-East	.1	.5	.0	.8	1.4	259
South-West	.0	4.7	.0	1.6	5.0	643
South-East	.0	.2	.0	.4	.6	276
Poloski	.2	8.2	.1	.1	8.6	791
East	.4	.6	.0	6.5	7.5	304
Residence						
Urban	.1	2.6	.1	3.9	6.6	1962
Rural	.1	4.0	.0	1.5	4.8	1987
Age						
5-11 years	.2	4.5	.0	4.0	8.1	2624
12-14 years	.0	.9	.0	.1	1.0	1325
School participation						
Yes	.1	3.6	.0	3.1	6.4	3343
No	.2	1.4	.0	.5	2.2	606
Mother's education						
None	.3	1.2	.0	.4	2.0	370
Primary	.1	3.6	.0	1.0	4.5	2466
Secondary +	.0	3.2	.1	7.0	9.5	1112
Wealth index quintiles						
Poorest	.3	3.4	.0	1.8	4.1	1097
Second	.1	4.5	.0	.1	4.6	836
Middle	.1	4.8	.1	4.8	9.8	746
Fourth	.1	1.5	.0	.9	2.5	727
Richest	.0	1.5	.0	7.8	9.3	543
Ethnicity						
Macedonian	.1	1.8	.1	3.5	4.9	1567
Albanian	.1	4.4	.0	.9	5.3	1902
Roma	1.2	3.4	.0	2.0	6.6	186
Other	.0	3.5	.0	10.7	12.1	294
Total	.1	3.3	.0	2.7	5.7	3949

* MICS indicator 71

Table CP.3: Labourer students and student labourers

Percentage of children aged 5-14 years who are labourer students and student labourers, Republic of Macedonia, 2005

	Percent of children in child labour*	Percent of children attending school***	Number of children 5-14 years of age	Percent of child labourers who are also attending school**	Number of child labourers aged 5-14	Percent of students who are also involved in child labour****	Number of students aged 5-14
Sex							
Male	6.8	86.5	2034	95.0	138	7.4	1760
Female	4.6	82.7	1915	93.0	88	5.1	1583
Region							
Skopski	2.4	83.3	1171	(77.1)	28	2.2	975
Pelagoniski	13.1	75.2	332	96.6	44	16.9	250
Vardarski	14.8	92.1	173	(*)	26	16.0	160
North-East	1.4	81.3	259	(*)	4	1.6	211
South-West	5.0	87.9	643	(97.3)	32	5.6	565
South-East	.6	77.8	276	(*)	2	.6	214
Poloski	8.6	88.7	791	95.6	68	9.3	702
East	7.5	87.6	304	(*)	23	8.2	266
Residence							
Urban	6.6	80.0	1962	92.4	130	7.6	1570
Rural	4.8	89.2	1987	96.7	96	5.2	1773
Age							
5-11 years	8.1	79.3	2624	94.2	212	9.6	2080
12-14 years	1.0	95.3	1325	(*)	14	1.0	1263
Mother's education							
None	2.0	64.7	370	(46.8)	8	1.5	240
Primary	4.5	85.9	2466	94.3	112	5.0	2118
Secondary +	9.5	88.6	1112	97.5	106	10.5	986
Wealth index quintiles							
Poorest	4.1	75.9	1097	88.0	45	4.8	833
Second	4.6	86.4	836	(95.5)	39	5.1	722
Middle	9.8	91.0	746	(100.0)	73	10.7	679
Fourth	2.5	90.0	727	(90.7)	18	2.5	654
Richest	9.3	83.8	543	(*)	50	10.1	455
Ethnicity							
Macedonian	4.9	86.9	1567	94.7	76	5.3	1362
Albanian	5.3	86.9	1902	96.9	102	6.0	1652
Roma	6.6	55.0	186	(51.4)	12	6.1	102
Other	12.1	77.1	294	(*)	36	15.7	227
Total	5.7	84.7	3949	94.2	226	6.4	3343

** MICS indicator 72
**** MICS indicator 73

Table CP.4: Child discipline

Percentage of children aged 2-14 years according to method of disciplining the child, Republic of Macedonia, 2005

	Percentage of children 2-14 years of age who experience:							
	Only non-violent discipline	Psych-ological punishment	Minor physical punishment	Severe physical punishment	Any psych-ological or physical punishment*	No discipline or punishment	Mother/ caretaker believes that the child needs to be physically punished	Number of children aged 2-14 years**
Sex								
Male	22.5	59.5	53.8	19.0	72.7	4.4	7.6	1176
Female	26.8	53.9	51.3	10.8	64.6	6.5	6.1	838
Region								
Skopski	25.9	56.4	57.8	21.2	70.3	2.4	4.7	608
Pelagoniski	24.5	67.9	46.5	20.3	74.3	1.2	9.6	176
Vardarski	19.0	56.4	44.2	7.1	63.7	6.4	14.6	118
North-East	34.9	39.3	53.9	14.4	56.6	8.5	2.1	135
South-West	21.7	54.4	54.7	19.9	76.6	1.7	10.6	269
South-East	16.3	73.7	60.3	19.6	83.1	.7	1.3	180
Poloski	28.7	51.4	42.3	7.4	58.8	12.5	9.9	367
East	16.4	63.0	58.4	3.6	71.8	11.8	4.6	162
Residence								
Urban	27.8	52.2	50.8	14.7	65.7	5.2	8.4	1040
Rural	20.5	62.5	54.9	16.6	73.2	5.4	5.4	974
Age								
2-4 years	22.7	56.2	57.3	15.0	71.4	5.9	5.4	470
5-9 years	20.9	60.5	59.5	20.5	72.2	6.9	10.0	600
10-14 years	27.3	55.6	46.3	12.7	66.5	4.0	5.8	944
Mother's education								
None	9.6	54.2	65.0	12.6	75.3	9.8	6.6	144
Primary	19.7	62.9	54.4	15.8	72.4	7.1	6.5	1157
Secondary +	34.7	48.5	47.6	15.9	63.2	1.4	7.7	714
Wealth index quintiles								
Poorest	21.4	62.3	52.7	23.1	72.1	6.4	7.5	535
Second	15.5	59.8	60.7	12.8	77.7	3.9	7.6	398
Middle	17.2	65.4	59.7	11.8	76.1	6.7	7.2	401
Fourth	24.3	54.1	57.2	19.2	68.8	5.5	10.0	375
Richest	50.1	37.9	28.1	6.6	45.4	3.1	1.0	306
Ethnicity								
Macedonian	32.7	48.6	48.3	13.6	63.1	3.6	5.4	932
Albanian	19.8	64.6	54.6	14.2	73.6	5.5	7.3	815
Roma	10.1	65.7	69.4	20.2	77.7	12.2	12.5	82
Other	8.3	63.6	59.7	29.5	78.2	9.5	11.0	185
Total	24.3	57.2	52.8	15.6	69.3	5.3	7.0	2015

* MICS indicator 74

Table CP.5: Early marriage

Percentage of women aged 15-49 years in marriage or union before their 15th birthday, percentage of women aged 20-49 years in marriage or union before their 18th birthday, percentage of women aged 15-19 years currently married or in union, Republic of Macedonia, 2005

	Percent married before age 15*	Number of women aged 15-49 years	Percent married before age 18*	Number of women aged 20-49 years	Percent of women 15-19 married/in union**	Number of women aged 15-19 years
Region						
Skopski	.7	2069	6.8	1791	.4	277
Pelagoniski	1.5	817	13.4	690	2.3	127
Vardarski	.4	467	8.7	392	.2	75
North-East	1.1	605	16.4	509	.4	96
South-West	1.0	808	11.9	693	2.6	115
South-East	3.2	613	32.6	496	5.7	117
Poloski	.6	1068	9.9	886	.2	182
East	.5	949	10.8	810	4.1	140
Residence						
Urban	1.0	4445	9.7	3816	1.2	629
Rural	1.1	2952	15.5	2452	2.5	500
Age						
15-19	.2	1129	NA	NA	1.8	1129
20-24	.3	1103	3.6	1103	NA	NA
25-29	.8	1078	4.5	1078	NA	NA
30-34	2.3	1041	9.9	1041	NA	NA
35-39	1.9	1054	28.2	1054	NA	NA
40-44	1.2	1027	17.0	1027	NA	NA
45-49	.5	965	9.0	965	NA	NA
Education						
None	10.8	263	34.7	245	8.6	18
Primary	1.4	2988	19.6	2718	2.7	270
Secondary +	.1	4146	4.0	3304	1.4	841
Wealth index quintiles						
Poorest	2.1	1354	19.0	1132	3.2	222
Second	2.2	1336	17.6	1105	.5	231
Middle	.7	1498	12.0	1298	3.2	200
Fourth	.2	1577	7.6	1366	2.5	211
Richest	.3	1632	6.0	1367	.1	265
Ethnicity						
Macedonian	.5	4545	10.4	3862	2.2	683
Albanian	.7	2145	9.2	1799	.3	347
Roma	11.4	184	48.6	155	11.2	29
Other	3.6	522	23.7	452	1.7	71
Total	1.0	7397	12.0	6268	1.8	1129

* MICS indicator 67
** MICS indicator 68

Table CP.6: Spousal age difference

Percentage distribution of currently married/in union women aged 20-24 years according to the age difference with their husband or partner, Republic of Macedonia, 2005

	Percentage of currently married/in union women aged 20-24 years whose husband or partner is:					Number of women aged 20-24 years currently married/ in union
	Younger	0-4 years older	5-9 years older	10+ years older*	Total	
Region						
Skopski	2.5	55.0	36.6	5.9	100.0	22
Pelagoniski	10.6	40.7	18.4	30.3	100.0	11
Vardarski	.0	59.0	31.0	10.0	100.0	5
North-East	.6	51.0	39.1	9.3	100.0	5
South-West	4.2	73.8	17.7	4.2	100.0	9
South-East	1.9	45.6	49.9	2.7	100.0	14
Poloski	4.1	62.8	30.0	3.1	100.0	14
East	3.6	40.4	33.1	22.9	100.0	9
Residence						
Urban	5.0	55.9	28.8	10.3	100.0	48
Rural	2.3	50.9	37.4	9.4	100.0	43
Education						
None	9.0	72.8	16.7	1.5	100.0	12
Primary	3.5	47.1	40.0	9.4	100.0	48
Secondary +	1.9	55.6	28.6	13.9	100.0	31
Wealth index quintiles						
Poorest	5.9	57.8	31.6	4.8	100.0	32
Second	.9	50.7	27.6	20.8	100.0	25
Middle	2.7	55.7	36.1	5.4	100.0	19
Fourth	7.4	43.9	43.5	5.2	100.0	10
Richest	.0	51.2	35.8	(13.0)	100.0	5
Ethnicity						
Macedonian	3.5	50.5	31.1	15.0	100.0	40
Albanian	3.7	51.0	38.0	7.2	100.0	25
Roma	3.6	73.8	21.8	.8	100.0	13
Other	4.4	48.0	40.0	7.6	100.0	13
Total	3.7	53.5	32.9	9.8	100.0	91

* MICS indicator 69

Table CP.9: Attitudes toward domestic violence

Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner in various circumstances, Republic of Macedonia, 2005

	Percentage of women aged 15-49 years who believe a husband is justified in beating his wife/partner:						
	When she goes out without telling him	When she neglects the children	When she argues with him	When she refuses sex with him	When she burns the food	For any of these reasons*	Number of women aged 15-49 years
Region							
Skopski	16.0	12.8	17.2	5.3	6.7	25.3	2069
Pelagoniski	3.7	6.6	3.1	1.7	1.1	7.9	817
Vardarski	4.8	8.7	5.1	2.7	2.3	9.5	467
North-East	7.1	9.8	5.0	3.2	1.9	10.7	605
South-West	25.9	41.6	19.1	18.0	14.6	44.8	808
South-East	2.2	2.1	.3	1.5	.4	3.1	613
Poloski	22.7	26.4	20.0	14.5	7.3	29.1	1068
East	1.5	12.0	3.6	3.8	1.9	15.3	949
Residence							
Urban	9.4	12.4	7.8	6.3	5.2	15.4	4445
Rural	16.5	20.7	16.6	7.6	5.2	28.9	2952
Age							
15-19	7.8	11.0	8.7	4.4	5.6	14.2	1129
20-24	10.2	10.2	10.8	6.6	4.7	16.0	1103
25-29	13.9	15.1	14.4	7.6	7.6	21.3	1078
30-34	20.3	21.5	13.9	7.2	4.4	30.8	1041
35-39	9.5	20.8	8.5	6.2	1.3	23.5	1054
40-44	11.4	12.7	10.5	9.2	5.9	17.3	1027
45-49	13.2	19.6	13.0	6.5	7.0	22.9	965
Marital/Union status							
Currently married/in union	13.3	18.4	12.4	8.1	5.4	23.7	4251
Formerly married/in union	23.6	29.3	9.0	4.0	5.1	30.9	242
Never married/in union	9.8	10.7	10.0	5.1	5.0	15.5	2904
Education							
None	24.1	28.9	25.5	21.4	16.7	35.9	263
Primary	20.2	24.0	19.6	9.6	7.3	32.8	2988
Secondary +	5.7	8.9	4.5	3.8	3.0	11.1	4146
Wealth index quintiles							
Poorest	23.1	23.6	20.3	9.6	10.2	31.6	1354
Second	14.3	20.5	15.2	12.0	6.5	26.5	1336
Middle	10.4	15.7	8.4	4.4	2.2	19.4	1498
Fourth	10.6	14.0	9.4	4.9	3.6	21.0	1577
Richest	4.9	7.0	5.3	4.2	4.4	8.1	1632
Ethnicity							
Macedonian	5.7	10.4	4.6	5.0	3.8	12.6	4545
Albanian	25.0	26.6	24.1	9.6	8.4	36.5	2145
Roma	25.7	33.0	29.8	21.6	10.4	47.4	184
Other	11.7	11.3	11.2	5.6	2.3	16.9	522
Total	12.2	15.7	11.4	6.8	5.2	20.7	7397

* MICS indicator 100

Table CP.10: Child disability

Percentage of children aged 2-9 years with disability reported by their mother or caretaker according to the type of disability, Republic of Macedonia, 2005

	Percentage of children aged 2-9 years with reported disability by type of disability											3-9 years		2 years	
	Delay in sitting, standing or walking	Difficulty seeing, either in the daytime or at night	Appears to have difficulty hearing	No under-standing of instr-uctions	Difficulty in walking, moving arms, weakness or stiffness	Have fits, become rigid, lose concious-ness	Not learning to do things like other children his/her age	No speak-ing / cannot be under-stood in words	Appears mentally backward, dull, or slow	Percent of children aged 2-9 years with at least one reported disability*	Number of children aged 2-9 years	Speech is not normal	Number of children aged 3-9 years	Cannot name at least one object	Number of children aged 2 years
Region															
Skopski	1.7	2.3	.1	3.2	1.6	2.8	3.1	3.8	3.7	13.0	1019	17.2	897	5.4	121
Pelagoniski	.8	1.0	.1	6.0	.5	.9	3.1	2.7	.7	8.6	233	10.1	210	8.2	23
Vardarski	1.0	.4	1.1	.9	6.6	7.8	.9	1.2	.7	11.4	144	8.0	131	3.2	13
North-East	.3	.5	.1	.6	.3	.1	2.8	3.5	.4	6.3	194	16.7	171	14.0	23
South-West	.4	.5	.3	1.1	.2	.4	1.4	1.7	.4	3.7	401	4.6	365	22.7	36
South-East	1.0	1.0	1.3	.7	.7	.2	1.1	1.1	1.0	5.5	213	6.5	196	6.8	17
Poloski	.9	.8	.3	2.2	.9	.9	6.7	1.8	.9	10.8	446	11.0	391	4.3	55
East	2.8	1.8	2.0	2.2	1.1	1.3	1.6	5.6	1.4	12.9	238	25.4	223	13.6	15
Residence															
Urban	1.6	1.6	.5	2.4	1.8	2.5	4.1	3.3	1.2	10.6	1616	16.0	1456	6.4	160
Rural	.8	1.0	.3	2.5	.6	.8	1.7	2.4	2.5	9.1	1271	9.8	1127	10.8	144
Age of child															
2-4	.9	.8	.5	2.4	1.7	1.9	2.2	3.7	2.3	11.2	1024	14.4	721	-	-
5-6	2.7	2.7	.7	3.5	1.9	2.1	4.0	3.7	2.3	11.1	817	12.3	817	-	-
7-9	.4	.8	.2	1.7	.3	1.3	3.0	1.5	1.0	7.8	1046	13.3	1046	-	-
Mother's education															
None	.9	1.6	.5	2.5	.8	1.0	3.1	3.6	.9	9.4	242	14.1	221	6.2	21
Primary	1.6	1.7	.3	3.2	1.4	2.2	3.3	3.6	2.6	11.7	1625	13.8	1444	10.9	181
Secondary +	.6	.8	.6	1.2	1.2	1.2	2.5	1.7	.8	7.3	1021	12.2	919	4.7	102
Wealth index quintiles															
Poorest	1.7	1.3	.9	3.0	.9	1.5	2.8	3.2	3.5	12.0	734	16.8	647	8.4	87
Second	.4	.8	.1	3.1	1.9	2.1	1.4	2.3	2.0	10.5	635	15.5	555	5.5	80
Middle	.6	1.0	.2	.7	.5	2.4	5.2	3.0	1.4	12.5	548	8.0	492	17.0	55
Fourth	.7	1.0	.6	1.4	.1	.2	1.8	2.0	.7	5.9	599	12.0	551	6.3	49
Richest	3.4	3.7	.1	4.6	3.9	3.3	4.9	4.6	.4	7.5	371	12.8	339	5.2	32
Ethnicity															
Macedonian	.9	.9	.6	1.5	1.2	1.3	1.3	1.6	.6	6.4	1195	11.9	1078	5.5	117
Albanian	1.6	1.9	.1	2.3	1.5	2.3	4.6	3.8	3.0	12.4	1245	15.7	1093	9.6	152
Roma	1.6	2.7	1.5	10.3	1.3	2.3	3.4	3.5	3.6	22.0	144	10.5	127	15.8	17
Other	.9	.3	.7	3.0	.2	.9	2.9	4.0	.5	8.0	303	10.7	286	12.2	17
Total	1.2	1.4	.4	2.4	1.3	1.8	3.0	2.9	1.8	9.9	2887	13.3	2584	8.5	304

* MICS indicator 101

Table HA.1: Knowledge of preventing HIV transmission

Percentage of women aged 15-49 years who know the main ways of preventing HIV transmission, Republic of Macedonia, 2005

		Percentage who know transmission can be prevented by:						
	Heard of AIDS	Having only one faithful uninfected sex partner	Using a condom every time	Abstaining from sex	Knows all three ways	Knows at least one way	Doesn't know any way	Number of women
Region								
Skopski	74.4	53.4	53.0	19.1	14.4	65.6	34.4	2069
Pelagoniski	92.9	77.0	76.0	35.7	30.7	84.5	15.5	817
Vardarski	85.9	73.0	70.8	31.3	26.4	85.2	14.8	467
North-East	73.6	53.6	60.6	46.9	36.8	66.2	33.8	605
South-West	85.2	74.0	70.5	31.1	27.1	79.0	21.0	808
South-East	72.1	56.8	59.7	19.4	13.9	68.5	31.5	613
Poloski	67.1	47.2	44.2	28.2	19.3	56.6	43.4	1068
East	97.9	69.5	67.6	27.2	19.0	80.2	19.8	949
Residence								
Urban	87.3	68.4	67.6	29.8	23.2	80.2	19.8	4445
Rural	69.1	49.8	49.4	24.4	18.8	57.7	42.3	2952
Age								
15-19	84.6	63.3	64.2	35.9	27.4	76.5	23.5	1129
20-24	88.1	65.9	70.9	32.6	24.5	81.4	18.6	1103
25-29	84.1	62.0	60.6	21.9	17.4	73.3	26.7	1078
30-34	69.5	52.3	53.0	24.8	19.9	59.0	41.0	1041
35-39	74.7	62.8	56.9	26.1	22.3	68.0	32.0	1054
40-44	82.0	63.0	58.5	28.5	20.4	72.4	27.6	1027
45-49	76.2	56.4	57.1	22.7	17.4	66.7	33.3	965
Education								
None	34.0	20.0	14.4	6.0	4.1	22.1	77.9	263
Primary	61.7	41.9	37.0	21.0	15.7	48.4	51.6	2988
Secondary +	96.2	77.3	80.1	33.9	26.7	90.8	9.2	4146
Wealth index quintiles								
Poorest	58.1	39.4	33.9	19.9	15.2	44.8	55.2	1354
Second	74.1	51.6	53.8	24.5	15.3	63.4	36.6	1336
Middle	79.9	59.1	59.8	29.8	23.4	69.8	30.2	1498
Fourth	87.8	70.6	67.5	31.3	23.5	81.4	18.6	1577
Richest	95.8	78.8	81.3	31.3	27.9	91.1	8.9	1632
Ethnicity								
Macedonian	94.9	75.5	76.7	34.2	27.0	87.9	12.1	4545
Albanian	56.0	36.7	34.0	18.7	13.3	43.7	56.3	2145
Roma	56.4	43.1	34.1	14.8	12.2	48.2	51.8	184
Other	58.1	40.2	35.4	12.2	9.8	47.8	52.2	522
Total	80.1	61.0	60.3	27.7	21.5	71.2	28.8	7397

Table HA.2: Identifying misconceptions about HIV/AIDS

Percentage of women aged 15-49 years who correctly identify misconceptions about HIV/AIDS, Republic of Macedonia, 2005

	Percentage who know that:			Reject two most common misconceptions and know a healthy-looking person can be infected	Percentage who know that:		Number of women
	HIV cannot be transmitted by:		A healthy looking person can be infected		HIV cannot be transmitted by mosquito bites	HIV can be transmitted by sharing needles	
	Supernatural means	Sharing food					
Region							
Skopski	68.1	44.9	50.5	35.3	39.5	68.2	2069
Pelagoniski	88.9	50.4	73.4	42.9	56.1	82.5	817
Vardarski	79.3	64.5	67.6	50.5	39.7	83.9	467
North-East	64.1	38.5	38.8	26.8	36.6	67.8	605
South-West	78.1	23.4	52.8	17.1	25.1	77.0	808
South-East	63.1	47.2	54.8	29.3	29.7	70.3	613
Poloski	53.5	32.3	46.8	20.6	43.4	59.2	1068
East	80.8	43.2	76.3	36.8	54.9	87.8	949
Residence							
Urban	78.9	51.0	66.5	40.9	45.6	81.4	4445
Rural	59.1	28.5	41.6	18.5	34.7	60.5	2952
Age							
15-19	73.8	45.3	60.0	32.7	45.8	75.8	1129
20-24	81.2	53.7	69.2	43.0	50.3	82.3	1103
25-29	76.0	43.6	62.2	37.3	47.1	76.4	1078
30-34	61.0	35.3	45.0	26.5	35.9	65.1	1041
35-39	65.4	38.0	43.9	24.1	38.2	66.2	1054
40-44	73.9	38.4	59.3	29.7	38.1	76.0	1027
45-49	63.9	38.5	55.0	29.5	31.6	68.7	965
Education							
None	13.4	6.6	11.8	3.4	4.0	19.4	263
Primary	50.5	21.5	29.9	10.8	30.0	52.2	2988
Secondary +	89.4	59.0	78.6	49.1	51.8	91.5	4146
Wealth index quintiles							
Poorest	46.3	18.0	27.5	8.6	25.7	48.0	1354
Second	59.6	31.3	47.6	20.2	35.9	67.1	1336
Middle	72.5	47.4	57.1	36.9	41.1	73.2	1498
Fourth	80.3	46.2	65.1	37.2	42.9	79.8	1577
Richest	90.3	61.8	79.1	51.5	57.0	92.1	1632
Ethnicity							
Macedonian	85.0	54.3	72.9	42.9	47.5	89.7	4545
Albanian	48.3	20.5	27.4	12.2	34.1	45.4	2145
Roma	42.1	14.6	20.7	8.2	15.1	48.5	184
Other	52.0	33.4	45.9	26.6	25.5	51.2	522
Total	71.0	42.0	56.5	32.0	41.3	73.1	7397

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

Percentage of women aged 15-49 years who have comprehensive knowledge of HIV/AIDS transmission, Republic of Macedonia, 2005

	Know 2 ways to prevent HIV transmission	Correctly identify 3 misconceptions about HIV transmission	Have comprehensive knowledge (identify 2 prevention methods and 3 misconceptions)*	Number of women
Region				
Skopski	41.5	35.3	24.1	2069
Pelagoniski	68.8	42.9	35.8	817
Vardarski	59.8	50.5	39.0	467
North-East	49.7	26.8	18.8	605
South-West	66.6	17.1	14.6	808
South-East	49.5	29.3	21.7	613
Poloski	37.8	20.6	12.0	1068
East	58.2	36.8	28.8	949
Residence				
Urban	57.0	40.9	30.0	4445
Rural	42.9	18.5	13.7	2952
Age				
15-19	54.3	32.7	23.4	1129
20-24	57.3	43.0	29.9	1103
15-24	55.8	37.8	26.6	2233
25-29	49.6	37.3	24.8	1078
30-34	47.1	26.5	20.9	1041
35-39	51.9	24.1	19.9	1054
40-44	51.0	29.7	24.2	1027
45-49	47.6	29.5	20.9	965
Education				
None	12.9	3.4	2.3	263
Primary	31.7	10.8	7.1	2988
Secondary +	68.0	49.1	36.7	4146
Wealth index quintiles				
Poorest	29.4	8.6	5.4	1354
Second	44.4	20.2	16.3	1336
Middle	50.5	36.9	25.0	1498
Fourth	57.6	37.2	27.0	1577
Richest	70.1	51.5	39.6	1632
Ethnicity				
Macedonian	65.6	42.9	32.5	4545
Albanian	28.3	12.2	7.5	2145
Roma	30.4	8.2	6.2	184
Other	29.2	26.6	17.2	522
Total	51.4	32.0	23.5	7397

* MICS indicator 82; MDG indicator 19b

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

Percentage of women aged 15-49 years who correctly identify means of HIV transmission from mother to child, Republic of Macedonia, 2005

		Percentage who know AIDS can be transmitted:					
	Know AIDS can be transmitted from mother to child	During pregnancy	At delivery	Through breastmilk	All three ways*	Did not know any specific way	Number of women
Region							
Skopski	65.9	64.4	58.6	58.3	54.4	8.5	2069
Pelagoniski	87.3	82.9	73.5	82.6	70.8	5.6	817
Vardarski	79.2	77.3	74.6	71.0	67.1	6.8	467
North-East	63.3	63.1	51.9	53.6	47.8	10.3	605
South-West	71.9	71.2	58.2	62.5	55.2	13.3	808
South-East	66.1	63.0	58.0	56.4	52.8	6.0	613
Poloski	55.1	54.7	43.8	42.8	39.3	12.1	1068
East	88.7	85.4	69.3	79.9	63.8	9.2	949
Residence							
Urban	77.4	75.7	67.2	67.7	61.0	9.9	4445
Rural	61.1	59.1	48.8	53.9	47.1	8.0	2952
Age							
15-19	71.6	69.2	56.8	59.5	52.2	13.0	1129
20-24	77.3	75.7	65.0	66.8	61.4	10.8	1103
25-29	74.7	72.4	64.5	66.2	59.3	9.4	1078
30-34	60.7	59.5	49.9	53.9	47.4	8.8	1041
35-39	68.2	67.8	60.3	61.6	57.3	6.5	1054
40-44	73.7	71.7	65.8	67.9	61.4	8.3	1027
45-49	69.6	66.9	56.0	59.3	48.7	6.5	965
Education							
None	19.0	18.9	17.7	17.6	17.1	15.0	263
Primary	51.6	49.2	38.8	44.3	35.7	10.1	2988
Secondary +	88.1	86.6	77.7	78.0	72.1	8.1	4146
Wealth index quintiles							
Poorest	45.9	43.3	34.4	38.4	33.5	12.2	1354
Second	65.8	64.8	53.9	57.0	49.5	8.3	1336
Middle	68.4	66.3	60.7	59.5	54.1	11.6	1498
Fourth	79.4	77.0	65.8	69.2	60.1	8.4	1577
Richest	90.0	89.0	79.3	82.1	75.3	5.8	1632
Ethnicity							
Macedonian	86.9	84.7	75.6	77.8	70.0	8.0	4545
Albanian	42.9	42.0	31.7	34.3	29.3	13.1	2145
Roma	42.5	39.3	35.6	36.5	32.3	14.0	184
Other	56.6	54.9	46.2	50.2	44.2	1.4	522
Total	70.9	69.1	59.8	62.2	55.5	9.1	7397

* MICS indicator 89

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

Percentage of women aged 15-49 years who have heard of AIDS who express a discriminatory attitude towards people living with HIV/AIDS, Republic of Macedonia, 2005

	Percentage of women who:						
	Would not care for a family member who was sick with AIDS	If a family member had HIV would want to keep it a secret	Believe that a female teacher with HIV should not be allowed to work	Would not buy fresh vegetables from a person with HIV/AIDS	Agree with at least one discriminatory statement	Agree with none of the discriminatory statements*	Number of women who have heard of AIDS
Region							
Skopski	3.8	44.7	45.0	57.2	81.8	18.2	1540
Pelagoniski	1.7	29.5	50.7	62.7	81.4	18.6	759
Vardarski	2.0	45.1	46.4	55.8	82.7	17.3	401
North-East	4.7	32.8	56.9	64.1	81.9	18.1	445
South-West	3.7	67.3	68.5	76.5	91.3	8.7	688
South-East	3.3	25.2	48.1	55.4	71.4	28.6	442
Poloski	15.5	32.8	69.8	73.9	88.0	12.0	717
East	2.3	38.2	59.1	72.3	88.9	11.1	929
Residence							
Urban	2.7	43.0	49.3	60.1	82.2	17.8	3882
Rural	8.2	36.0	65.5	73.8	87.4	12.6	2040
Age							
15-19	6.2	42.7	54.7	62.6	83.9	16.1	956
20-24	5.0	40.6	47.6	58.6	81.0	19.0	972
25-29	4.6	37.3	46.5	60.6	79.5	20.5	907
30-34	2.9	48.3	64.3	74.0	91.1	8.9	724
35-39	7.4	30.8	60.7	72.8	81.8	18.2	787
40-44	4.2	43.9	57.5	66.8	87.3	12.7	842
45-49	1.1	41.0	56.7	61.3	85.1	14.9	735
Education							
None	8.7	25.5	48.0	52.3	72.5	27.5	89
Primary	7.1	39.1	68.3	77.7	91.0	9.0	1844
Secondary +	3.4	41.6	48.9	59.1	81.0	19.0	3989
Wealth index quintiles							
Poorest	10.7	29.7	67.2	75.8	88.5	11.5	787
Second	5.4	32.6	60.7	70.9	87.7	12.3	991
Middle	2.6	46.3	52.4	61.4	83.3	16.7	1197
Fourth	3.0	41.5	58.9	69.7	85.7	14.3	1384
Richest	3.9	45.9	43.3	53.7	78.4	21.6	1564
Ethnicity							
Macedonian	2.5	40.3	50.2	61.6	81.3	18.7	4313
Albanian	9.8	44.7	66.8	74.6	92.2	7.8	1201
Roma	9.3	26.0	53.2	61.5	76.8	23.2	104
Other	11.6	33.7	75.8	72.9	92.4	7.6	303
Total	4.6	40.6	54.9	64.8	84.0	16.0	5922

* MICS indicator 86

Table HA.6: Knowledge of a facility for HIV testing

Percentage of women aged 15-49 years who know where to get an HIV test, percentage of women who have been tested and, of those tested the percentage who have been told the result, Republic of Macedonia, 2005

	Know a place to get tested*	Have been tested**	Number of women	If tested, have been told result	Number of women who have been tested for HIV
Region					
Skopski	44.2	5.2	2069	(96.8)	108
Pelagoniski	63.6	2.8	817	(83.7)	23
Vardarski	47.8	2.9	467	(*)	14
North-East	36.4	.2	605	(*)	1
South-West	47.4	1.4	808	(*)	11
South-East	41.8	1.3	613	(*)	8
Poloski	28.0	1.5	1068	(*)	17
East	54.8	4.7	949	(83.0)	45
Residence					
Urban	55.7	4.0	4445	96.0	178
Rural	29.2	1.6	2952	(78.6)	49
Age					
15-19	48.5	2.1	1129	(*)	24
20-24	57.9	3.1	1103	(99.3)	34
25-29	51.7	3.8	1078	(78.2)	41
30-34	39.4	6.0	1041	(99.4)	62
35-39	33.1	.2	1054	(*)	2
40-44	40.4	3.1	1027	(*)	32
45-49	43.5	3.3	965	(*)	32
Education					
None	5.9	.4	263	(*)	1
Primary	16.7	.3	2988	(68.5)	8
Secondary +	68.1	5.2	4146	93.1	217
Wealth index quintiles					
Poorest	19.7	.8	1354	(*)	11
Second	29.2	1.2	1336	(98.1)	16
Middle	41.9	2.4	1498	(68.6)	37
Fourth	55.4	4.9	1577	(95.3)	77
Richest	72.2	5.2	1632	(99.8)	85
Ethnicity					
Macedonian	60.4	3.7	4545	90.9	167
Albanian	17.9	.6	2145	(*)	13
Roma	20.5	1.1	184	(*)	2
Other	32.0	8.5	522	(*)	45
Total	45.1	3.1	7397	92.3	226

* MICS indicator 87
** MICS indicator 88

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

Percentage of women aged 15-49 years who gave birth in the two years preceding the survey who were offered HIV counselling with their antenatal care, Republic of Macedonia, 2005

	Percentage of women who:		
	Received antenatal care from a health care professional for last pregnancy	Were provided information about HIV prevention during ANC visit*	Number of women who gave birth in the 2 years preceding the survey
Region			
Skopski	98.0	7.5	213
Pelagoniski	97.8	39.8	46
Vardarski	98.4	11.9	18
North-East	99.1	6.2	39
South-West	98.3	5.3	59
South-East	96.9	6.1	36
Poloski	97.4	5.2	115
East	99.7	39.0	41
Residence			
Urban	97.7	14.0	308
Rural	98.5	8.9	257
Age			
15-19	97.1	51.5	7
20-24	91.3	7.9	45
25-29	98.8	14.5	186
30-34	98.9	5.6	242
35-49	97.8	21.3	86
Education			
None	84.8	7.1	35
Primary	98.7	8.8	334
Secondary +	99.4	17.4	197
Wealth index quintiles			
Poorest	94.3	15.1	158
Second	99.5	7.6	102
Middle	99.5	5.0	104
Fourth	100.0	6.0	138
Richest	98.4	32.8	64
Ethnicity			
Macedonian	98.4	20.1	174
Albanian	99.0	8.9	306
Roma	78.5	15.0	19
Other	98.5	1.5	67
Total	98.1	11.7	566

* MICS indicator 90

Table HA.8: Sexual behaviour that increases risk of HIV infection

Percentage of young women aged 15-19 years who had sex before age 15, percentage of young women aged 20-24 who had sex before age 18, and percentage of young women aged 15-24 who had sex with a man 10 or more years older, Republic of Macedonia, 2005

	Percentage of women aged 15-19 who had sex before age 15*	Number of women aged 15-19 years	Percentage of women aged 20-24 who had sex before age 18	Number of women aged 20-24 years	Percentage who had sex in the 12 months preceding the survey with a man 10 or more years older**	Number of women who had sex in the 12 months preceding the survey
Region						
Skopski	1.0	277	3.1	337	(.8)	104
Pelagoniski	.4	127	11.3	124	(5.0)	64
Vardarski	.2	75	18.2	107	(*)	66
North-East	.1	96	14.6	79	(*)	28
South-West	.2	115	2.5	101	(*)	22
South-East	2.4	117	21.1	82	(3.7)	77
Poloski	.1	182	5.1	160	(*)	45
East	.1	140	6.9	113	(*)	38
Residence						
Urban	1.0	629	10.4	701	1.9	326
Rural	.1	500	4.5	402	(15.0)	118
Age						
15-19	.6	1129	.	0	13.6	119
20-24	.	0	8.3	1103	2.4	325
Education						
None	4.8	18	26.3	28	(*)	11
Primary	1.2	270	9.2	225	(25.0)	71
Secondary +	.3	841	7.4	850	1.7	362
Wealth index quintiles						
Poorest	1.6	222	10.2	173	(22.9)	65
Second	.2	231	3.2	199	(8.5)	62
Middle	.0	200	11.9	207	(.7)	84
Fourth	.1	211	9.7	247	(2.8)	104
Richest	1.0	265	6.7	276	.2	128
Ethnicity						
Macedonian	.8	683	9.5	742	5.6	387
Albanian	.0	347	2.1	267	(*)	23
Roma	1.3	29	27.4	23	(*)	13
Other	1.2	71	12.3	72	(*)	20
Total	.6	1129	8.3	1103	5.4	444

* MICS indicator 84
** MICS indicator 92

Table HA.9: Condom use at last high-risk sex

Percentage of young women aged 15-24 years who had high risk sex in the previous year and who used a condom at last high risk sex, Republic of Macedonia, 2005

	Ever had sex	Had sex in the last 12 months	Had sex with more than one partner in last 12 months	Number of women aged 15-24 years	Percent who had sex with non-marital, non-cohabiting partner*	Number of women aged 15-24 years who had sex in last 12 months	Percent who used a condom at last sex with a non-marital, non-cohabiting partner**	Number of women aged 15-24 years who had sex in last 12 months with a non-marital, non-cohabiting partner
Region								
Skopski	20.8	16.9	.6	614	81.6	104	(74.7)	85
Pelagoniski	41.3	25.5	1.6	251	81.3	64	(72.2)	52
Vardarski	44.8	36.1	4.5	183	92.2	66	(*)	61
North-East	19.5	16.1	.0	175	81.2	28	(*)	23
South-West	10.4	10.0	.0	216	58.8	22	(*)	13
South-East	45.4	38.8	1.7	199	81.0	77	(81.0)	62
Poloski	17.2	13.3	.7	342	70.5	45	(*)	32
East	17.9	14.9	1.5	253	63.1	38	(*)	24
Residence								
Urban	30.1	24.5	1.2	1331	85.4	326	76.0	278
Rural	18.2	13.0	1.1	902	62.1	118	(46.4)	73
Age								
15-19	11.8	10.5	1.2	1129	87.8	119	70.0	104
20-24	39.0	29.4	1.1	1103	76.0	325	69.8	247
Education								
None	34.4	24.0	.2	46	12.3	11	(*)	1
Primary	17.5	14.3	1.6	495	30.7	71	(24.0)	22
Secondary +	27.3	21.4	1.0	1692	90.7	362	73.0	328
Wealth index quintiles								
Poorest	19.6	16.5	2.3	395	49.0	65	(26.9)	32
Second	20.7	14.5	.1	430	65.6	62	(66.6)	41
Middle	26.2	20.7	1.0	407	79.5	84	(59.4)	67
Fourth	26.2	22.8	1.0	458	84.6	104	(77.6)	88
Richest	31.5	23.6	1.3	542	96.6	128	82.1	123
Ethnicity								
Macedonian	34.4	27.2	1.8	1424	88.9	387	70.1	344
Albanian	5.3	3.8	.0	613	3.4	23	(*)	1
Roma	40.8	25.6	.4	52	14.1	13	(*)	2
Other	14.3	13.7	.2	143	21.4	20	(*)	4
Total	25.3	19.9	1.1	2233	79.2	444	69.8	351

* MICS indicator 85

** MICS indicator 83; MDG indicator 19a

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

Percentage distribution of children aged 0-17 years according to living arrangements, percentage of children aged 0-17 years in households not living with a biological parent and percentage of children who are orphans, Republic of Macedonia, 2005

		Living with neither parent				Living with mother only		Living with father only						
	Living with both parents	Only father alive	Only mother alive	Both are alive	Both are dead	Father alive	Father dead	Mother alive	Mother dead	Impossible to determine	**Total**	Not living with a biological parent*	One or both parents dead**	Number of children
Sex														
Male	95.6	.0	.0	.4	.2	2.4	.7	.3	.3	.0	100.0	.6	1.3	3547
Female	92.0	.0	.0	.1	.1	4.8	2.4	.4	.1	.1	100.0	.2	2.7	3260
Region														
Skopski	95.0	.0	.0	.6	.2	.3	3.8	.1	.1	.0	100.0	.7	4.0	2039
Pelagoniski	89.0	.0	.0	.1	.9	8.2	.2	1.6	.0	.0	100.0	1.0	1.1	664
Vardarski	88.7	.0	.0	.0	.0	6.7	3.8	.3	.0	.5	100.0	.0	3.8	342
North-East	94.1	.0	.3	.1	.0	3.9	.6	.8	.1	.1	100.0	.4	1.1	486
South-West	87.7	.1	.0	.2	.0	11.9	.0	.0	.0	.0	100.0	.3	.2	905
South-East	96.9	.0	.0	.2	.0	.9	.8	1.0	.1	.1	100.0	.2	.9	533
Poloski	98.1	.0	.0	.1	.0	.3	.4	.1	.9	.0	100.0	.1	1.4	1295
East	95.7	.0	.0	.2	.0	3.8	.0	.1	.0	.1	100.0	.2	.1	543
Residence														
Urban	92.0	.0	.0	.4	.3	3.9	2.7	.5	.1	.1	100.0	.7	3.1	3428
Rural	95.7	.0	.0	.1	.0	3.2	.4	.2	.3	.0	100.0	.2	.8	3379
Age														
0-4 years	97.0	.0	.0	.1	.0	2.3	.3	.2	.1	.0	100.0	.1	.3	1597
5-9 years	94.9	.0	.1	.1	.1	3.7	1.0	.1	.1	.0	100.0	.2	1.2	1863
10-14 years	90.5	.0	.0	.7	.1	5.3	2.9	.0	.5	.0	100.0	.8	3.4	2086
15-17 years	94.0	.0	.0	.1	.6	1.8	1.8	1.3	.2	.2	100.0	.7	2.6	1260
Wealth index quintiles														
Poorest	92.5	.0	.0	.1	.0	5.9	.7	.4	.1	.1	100.0	.2	.9	1851
Second	95.3	.0	.0	.1	.0	2.6	1.7	.2	.0	.2	100.0	.1	1.7	1481
Middle	96.2	.1	.1	.2	.2	1.0	1.2	1.0	.0	.0	100.0	.5	1.6	1290
Fourth	92.2	.0	.0	.0	.0	6.3	1.3	.0	.1	.0	100.0	.1	1.4	1194
Richest	93.3	.0	.0	1.1	.7	.4	3.6	.0	1.0	.0	100.0	1.8	5.2	991
Ethnicity														
Macedonian	91.1	.0	.0	.5	.2	5.4	2.0	.7	.0	.0	100.0	.7	2.3	2793
Albanian	96.3	.0	.0	.1	.1	2.4	.6	.0	.4	.0	100.0	.2	1.2	3121
Roma	93.5	.0	.2	.2	.1	2.6	2.2	.4	.1	.6	100.0	.5	2.7	309
Other	94.3	.0	.0	.2	.1	.8	4.0	.2	.1	.3	100.0	.3	4.2	584
Total	93.9	.0	.0	.3	.1	3.5	1.5	.3	.2	.1	100.0	.4	1.9	6806

* MICS indicator 78
** MICS indicator 75

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Appendixes

Appendix A.
List of Personnel Involved in the Survey

Project Director	M.sc Blagica Novkovska
Technical Coordinator	Violeta Panovska
Field Coordinator	Suzana Stojanovska Natasa Pendevska
Data Processing/Programming	Helena Papazovska Mira Deleva Liljana Taseva Orhideja Krstanova
Sampling	Ana Adamcevska Vesna Dimitrovska
Questionnaire Design	Violeta Panovska Suzana Stojanovska Natasa Pendevska
Members of the Steering Committee	Stanka Petkovska Valentina Velickovska Svetlana Gorgieva Emica Stamenkovska Marija Kisman Biljana Ancevska Elena Koseva Rut Feuk Andrijana Micevska Vesna Bisheva Dzuteska

Appendix B. Sample Design

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

The primary objective of the sample design for the Republic of Macedonia Multiple Indicator Cluster Survey was to produce statistically reliable estimates of most indicators, at the national level, for urban and rural areas, and for the eight regions Skopski, Pelagoniski, Vardarski, North East, South West, South East, Poloski and East of the country. Urban and rural areas in each of the eight regions were defined as the sampling domains. The sample was further stratified to include specific strata for the Roma population, dividing all strata into Roma and non-Roma strata, yielding an additional 12 strata (4 of the original strata did not have clusters selected for the Roma sub sample), with 70 clusters being allocated for the Roma population of the original 350.

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

Sample Size and Sample Allocation

The target sample size for Republic of Macedonia MICS was calculated as 5250 households. For the calculation of the sample size, the key indicator used was the proportion of children which had Acute Respiratory infections during the past two weeks among children aged 0-4 years. The following formula was used to estimate the required sample size for these indicators:

$$n = \frac{[\ 4\ (r)\ (1\text{-}r)\ (f)\ (1.1)\ ]}{[\ (0.12r)^2\ (p)\ (n_h)\ ]}$$

where

- n is the required sample size, expressed as number of households
- *4* is a factor to achieve the 95 per cent level of confidence
- r proportion of children which had Acute Respiratory infections during the past two weeks
- *1.25* is the factor necessary to raise the sample size by 20 percent for non-response
- f is the shortened symbol for *deff* (design effect)
- *0.25* is the margin of error to be tolerated at the 95 per cent level of confidence, defined as 25 per cent of r (relative sampling error of r)
- p is the proportion of the total population upon which the indicator, r, is based
- n_h is the average household size.

For the calculation, r (percentage of children which had Acute Respiratory infections during the past two weeks) was assumed to be 12 percent. The value of *deff* (design effect) was taken as 1.5 based on estimates from previous surveys, p (percentage of children aged 0-4 years in the total population) was taken as 6.1 percent, and n_h (average household size) was taken as 3.56 households. With these parameters and using the formula the required sample size, expressed as the number of households, was 4052.

For the Roma population, we assumed r (percentage of children which had Acute Respiratory infections during the past two weeks) to be 20 percent. The value of *deff* (design effect) was taken as 1.5, non-response will be 20 percent or a factor of *1.2* necessary to raise the sample size, relative error will be 0.2, p (percentage of children aged 0-4 years in the total population) was taken as 0.15 percent, and n_h (average household size) was taken as 4.5. With these parameters and using the formula the required sample size, expressed as the number of households, was 1067.

The final sample size calculated as 5250 households (350 clusters * 15 households per cluster). In each region, the clusters (primary sampling units) were distributed to urban and rural domains, proportional to the size of urban and rural populations in that region. The table below (SD.1) shows the allocation of clusters to the sampling domains.

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

Region		Clusters	Non Roma Clusters	Roma Clusters
Skopksi	Urban	75	44	31
	Rural	25	24	1
Pelagoniski	Urban	26	17	9
	Rural	12	12	0
Vardarski	Urban	16	15	1
	Rural	6	4	2
North East	Urban	18	12	6
	Rural	12	12	0
South West	Urban	18	14	4
	Rural	21	20	1
South East	Urban	14	14	0
	Rural	16	16	0
Poloski	Urban	17	13	4
	Rural	40	39	1
East	Urban	23	14	9
	Rural	11	10	1
Total		350	280	70

The allocation of the total clusters to each domain was performed by taking the number of women aged 12-46 from the Census 2002 data (so that the women would be 15-49 in 2005), and using the ratio of the number of women in each stratum to the total to determine the distribution of the clusters to each stratum (350 * mj / $\sum$ mj. where mj is the number of woman aged 12-46 in the strata according to the 2002 Census).

Following the allocation of clusters to each domain, the allocation of clusters to the Roma strata was performed in a similar manner to the overall allocation of clusters, by (70 * mrj / $\sum$ mrj, where mrj is the number of Roma woman aged 12-46 in the strata). The remaining clusters in each strata were allocated to the non-Roma population

The cluster size in Republic of Macedonia MICS was determined as 15 households, based on a number of considerations, including the budget available, and the time that would be needed per team to complete one cluster.

Sampling Frame and Selection of Clusters

The sample frame is the Population Census from 2002, using data on subpopulations of women aged 12-46 year (so that the women would be 15-49 in 2005), children from 0-2, and the Roma population for the selection of clusters. Census enumeration areas were defined as primary sampling units (PSUs). Sampling was performed by generating a list of all clusters in each stratum, ordered by the total number of women aged 12-46 at the time of the census in 2002 (who would be 15-49 at the time of the survey in 2005), with the cluster with the largest number of women listed first. From this list, the first K clusters were selected, where K is the number of clusters to be selected in the stratum.

Selection of Households

The selection of households was performed by sorting the list of households in each cluster into two groups: households with children under 5, and those without children under 5. From these two groups, 12 households were to be selected from the first group and 3 households from the second group. The information concerning the identification of households with children under 5 was based on the 2002 census data, for children aged 0,1 and 2 at the time of the census (Nov. 1, 2002), and updated with information on households registering a birth in 2003 and 2004 according to vital registration data for 2003 and 2004 respectively.

Calculation of Sample Weights

The Republic of Macedonia Multiple Indicator Cluster Survey sample is not self-weighted. For weighting the data, initially, stratum level weights were calculated, based on urban-rural within region, and separately for non-Roma and for Roma, and for households with children under-5, and for households without children under-5 based on the sampling information collected. Stratum level weights would be applicable if sampling with probability proportional to size (PPS) method of selecting clusters had been used. As the method of selecting clusters was based on selecting the largest K clusters in the stratum, where K is the number of clusters to be selected, it was not possible to use this approach, and so cluster level weights have been calculated.

The cluster level weights were calculated as follows. The mathematical expression of the probability for the first stage of selection for the i^{th} cluster in each stratum is given as:

$$P_{1i} = a\ m_i/\Sigma m_i, \text{ where}$$

P_{1i} is the first-stage selection probability,
a represents the number of clusters selected in the particular stratum,
m_i is the measure of size (number of women aged 12-46 according to the census) in the i^{th} cluster of the stratum and
Σm_i is the summation of the m_i values over the entire stratum, or the total number of women in the stratum.

At the second stage of the selection, the probabilities of selection of households in the two subgroups are given as:

$$P_{2i} = n_{i(c)}/m_{i(c)} \text{ and}$$

$$P_{2i} = n_{i(nc)}/m_{i(nc)}, \text{ where}$$

$m_{i(c)}$ and $m_{i(nc)}$ represent, respectively, the total number of households in the i^{th} cluster that have children and those that do not, and $n_{i(c)}$ and $n_{i(nc)}$ represent, respectively, the number of households selected in the i^{th} cluster that have children and those that do not.

The overall probability is the product of the probabilities at the two stages, or

$$P_i = P_{1i}\ P_{2i}$$

Weights computed at the cluster level applying the inverse of the probability of selection were calculated. These were then adjusted for non-response at the stratum level, and then normalized to the total sample of households to produce the final household weights. These same weights were used for the household member data. For the women's and for the children's data, the household weights were adjusted for non-response to the women's and the children's questionnaires respectively, and normalized to the total number of women and children interviewed, as is standard in MICS (and other household surveys).

However, due to the biased age/sex distribution found in the survey data (resulting from the selection of clusters being based on those clusters with the largest number of eligible women), the data for the household members and for women were further weighted to adjust the age/sex distribution to the age/sex distribution found in the census. This adjustment was performed based on five-year groups of age. These adjusted weights were then normalized to the total number of household members and women, respectively. The same adjustment was not done for the children's data as there is only one five-year age group in the children's data. Although there are some differences in the sex distribution from the survey data compared to the census data, the differences were not considered sufficient to adjust the weighting for this group.

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

Appendix C.
Estimates of Sampling Errors

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

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

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

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

Sampling errors are calculated for indicators of primary interest, for the national total, for the regions, and for urban and rural areas. One of the selected indicators is based on household data, 6 are based on household members, 10 are based on women, and 12 are based on children under 5. All indicators presented here are in the form of proportions. Table SE.1 shows the list of indicators for which sampling errors are calculated, including the base population (denominator) for each indicator. Tables SE.2 to SE.12 show the calculated sampling errors for the total sample, urban and rural areas and for each of the eight regions.

Table SE.1: Indicators selected for sampling error calculations

List of indicators selected for sampling error calculations, and base populations (denominators) for each indicator, Republic of Macedonia, 2005

MICS Indicator		Base Population
	HOUSEHOLDS	
74	Child discipline	Children aged 2-14 years selected
	HOUSEHOLD MEMBERS	
11	Use of improved drinking water sources	All household members
12	Use of improved sanitation facilities	All household members
55	Net primary school attendance rate	Children of primary school age
56	Net secondary school attendance rate	Children of secondary school age
59	Primary completion rate	Children of primary school completion age
71	Child labour	Children aged 5-14 years
	WOMEN	
4	Skilled attendant at delivery	Women aged 15-49 years with a live birth in the last 2 years
20	Antenatal care	Women aged 15-49 years with a live birth in the last 2 years
21	Contraceptive prevalence	Women aged 15-49 currently married/in union
60	Adult literacy	Women aged 15-24 years
67	Marriage before age 18	Women aged 20-49 years
82	Comprehensive knowledge about HIV prevention among young people	Women aged 15-24 years
83	Condom use with non-regular partners	Women aged 15-24 years that had a non-marital, non-cohabiting partner in the last 12 months
84	Age at first sex among young people	Women aged 15-24 years
86	Attitude towards people with HIV/AIDS	Women aged 15-49 years
89	Knowledge of mother- to-child transmission of HIV	Women aged 15-49 years
	UNDER-5s	
6	Underweight prevalence	Children under age 5
25	Tuberculosis immunization coverage	Children aged 12-23 months
26	Polio immunization coverage	Children aged 12-23 months
27	Immunization coverage for DPT	Children aged 12-23 months
28	Measles immunization coverage	Children aged 12-23 months
31	Fully immunized children	Children aged 12-23 months
-	Acute respiratory infection in last two weeks	Children under age 5
22	Antibiotic treatment of suspected pneumonia	Children under age 5 with suspected pneumonia in the last 2 weeks
-	Diarrhoea in last two weeks	Children under age 5
35	Received ORT or increased fluids and continued feeding	Children under age 5 with diarrhoea in the last 2 weeks
46	Support for learning	Children under age 5
62	Birth registration	Children under age 5

Table SE.2: Sampling errors: Total sample

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.693	0.026	0.038	11.493	3.390	2015	3564	0.641	0.746
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.993	0.003	0.003	6.359	2.522	23468	4701	0.987	0.999
Use of improved sanitation facilities	EN.5	0.929	0.011	0.012	8.365	2.892	23468	4701	0.907	0.950
Net primary school attendance rate	ED.3	0.949	0.008	0.009	3.674	1.917	3132	2624	0.933	0.966
Net secondary school attendance rate	ED.4	0.630	0.031	0.049	5.505	2.346	1710	1336	0.568	0.692
Primary completion rate	ED.6	0.826	0.032	0.039	1.650	1.285	467	232	0.762	0.890
Child labour	CP.2	0.057	0.013	0.221	12.506	3.536	3949	4233	0.032	0.082
WOMEN										
Skilled attendant at delivery	RH.5	0.981	0.007	0.007	3.672	1.916	566	1436	0.967	0.995
Antenatal care	RH.3	0.981	0.007	0.007	3.431	1.852	566	1436	0.967	0.994
Contraceptive prevalence	RH.1	0.135	0.014	0.107	9.219	3.036	4251	5165	0.106	0.164
Adult literacy	ED.8	0.968	0.006	0.006	2.866	1.693	2233	2686	0.957	0.980
Marriage before age 18 (women age 20-24)	CP.5	0.036	0.006	0.156	1.395	1.181	1103	1528	0.025	0.047
Comprehensive knowledge about HIV prevention among young people	HA.3	0.235	0.016	0.070	11.090	3.330	7397	7397	0.202	0.268
Condom use with non-regular partners	HA.9	0.698	0.022	0.032	0.455	0.675	351	197	0.654	0.742
Age at first sex among young people	HA.8	0.006	0.003	0.513	1.846	1.359	1129	1158	0.000	0.012
Attitude towards people with HIV/AIDS	HA.5	0.160	0.016	0.098	9.341	3.056	5922	5158	0.129	0.191
Knowledge of mother- to-child transmission of HIV	HA.4	0.555	0.020	0.035	11.408	3.378	7397	7397	0.515	0.594
UNDER-5s										
Underweight prevalence	NU.1	0.023	0.004	0.191	3.621	1.903	4107	4198	0.014	0.032
Tuberculosis immunization coverage	CH.2	0.980	0.006	0.006	1.509	1.229	843	920	0.968	0.991
Polio immunization coverage	CH.2	0.864	0.022	0.025	3.629	1.905	834	910	0.821	0.908
Immunization coverage for DPT	CH.2	0.883	0.019	0.021	3.086	1.757	818	890	0.845	0.921
Measles immunization coverage	CH.2	0.884	0.017	0.019	2.548	1.596	828	895	0.850	0.919
Fully immunized children	CH.2	0.755	0.028	0.037	3.829	1.957	834	907	0.699	0.811
Acute respiratory infection in last two weeks	CH.6	0.061	0.010	0.161	7.643	2.765	4547	4545	0.041	0.080
Antibiotic treatment of suspected pneumonia	CH.7	0.737	0.050	0.068	4.145	2.036	276	321	0.637	0.837
Diarrhoea in last two weeks	CH.4	0.072	0.014	0.197	13.821	3.718	4547	4545	0.044	0.101
Received ORT or increased fluids and continued feeding	CH.5	0.445	0.083	0.186	8.318	2.884	329	302	0.280	0.610
Support for learning	CD.1	0.852	0.017	0.020	10.664	3.266	4547	4545	0.818	0.887
Birth registration	CP.1	0.938	0.012	0.013	11.868	3.445	4547	4545	0.914	0.963

Table SE.3: Sampling errors: Urban areas

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.657	0.038	0.057	12.974	3.602	1040	2054	0.582	0.733
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.998	0.001	0.001	0.703	0.838	13355	2751	0.997	1.000
Use of improved sanitation facilities	EN.5	0.969	0.011	0.011	10.703	3.272	13355	2751	0.947	0.991
Net primary school attendance rate	ED.3	0.926	0.014	0.015	4.049	2.012	1466	1375	0.897	0.954
Net secondary school attendance rate	ED.4	0.714	0.050	0.070	8.790	2.965	781	717	0.614	0.814
Primary completion rate	ED.6	0.813	0.038	0.047	0.980	0.990	174	104	0.737	0.889
Child labour	CP.2	0.066	0.022	0.337	18.490	4.300	1962	2292	0.022	0.111
WOMEN										
Skilled attendant at delivery	RH.5	0.983	0.011	0.011	6.021	2.454	308	845	0.961	1.000
Antenatal care	RH.3	0.977	0.012	0.012	5.144	2.268	308	845	0.953	1.000
Contraceptive prevalence	RH.1	0.115	0.018	0.154	9.057	3.010	2447	2935	0.079	0.150
Adult literacy	ED.8	0.972	0.005	0.006	1.677	1.295	1331	1551	0.961	0.983
Marriage before age 18 (women age 20-24)	CP.5	0.033	0.007	0.204	1.308	1.144	701	915	0.020	0.047
Comprehensive knowledge about HIV prevention among young people	HA.3	0.300	0.024	0.079	11.341	3.368	4445	4187	0.253	0.348
Condom use with non-regular partners	HA.9	0.760	0.024	0.032	0.482	0.694	278	150	0.711	0.808
Age at first sex among young people	HA.8	0.010	0.006	0.554	1.965	1.402	629	636	0.000	0.021
Attitude towards people with HIV/AIDS	HA.5	0.178	0.022	0.123	10.173	3.189	3882	3095	0.134	0.222
Knowledge of mother- to-child transmission of HIV	HA.4	0.610	0.027	0.045	13.187	3.631	4445	4187	0.555	0.665
UNDER-5s										
Underweight prevalence	NU.1	0.024	0.003	0.144	1.217	1.103	2153	2390	0.017	0.031
Tuberculosis immunization coverage	CH.2	0.975	0.009	0.009	1.664	1.290	460	530	0.958	0.993
Polio immunization coverage	CH.2	0.917	0.016	0.018	1.869	1.367	456	525	0.884	0.950
Immunization coverage for DPT	CH.2	0.895	0.028	0.031	4.235	2.058	453	520	0.840	0.951
Measles immunization coverage	CH.2	0.892	0.021	0.023	2.319	1.523	454	518	0.850	0.933
Fully immunized children	CH.2	0.805	0.036	0.045	4.325	2.080	458	525	0.732	0.877
Acute respiratory infection in last two weeks	CH.6	0.056	0.013	0.229	8.194	2.863	2467	2615	0.031	0.082
Antibiotic treatment of suspected pneumonia	CH.7	0.759	0.076	0.100	5.820	2.412	139	184	0.607	0.912
Diarrhoea in last two weeks	CH.4	0.076	0.022	0.296	18.827	4.339	2467	2615	0.031	0.121
Received ORT or increased fluids and continued feeding	CH.5	0.612	0.090	0.148	6.272	2.504	187	183	0.431	0.793
Support for learning	CD.1	0.872	0.023	0.026	12.430	3.526	2467	2615	0.826	0.918
Birth registration	CP.1	0.946	0.015	0.016	11.483	3.389	2467	2615	0.916	0.976

Table SE.4: Sampling errors: Rural areas

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.732	0.036	0.049	9.952	3.155	974	1510	0.660	0.804
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.986	0.007	0.007	7.020	2.649	10114	1950	0.972	1.000
Use of improved sanitation facilities	EN.5	0.875	0.020	0.023	7.336	2.708	10114	1950	0.835	0.916
Net primary school attendance rate	ED.3	0.970	0.010	0.010	4.316	2.078	1666	1249	0.950	0.990
Net secondary school attendance rate	ED.4	0.559	0.039	0.071	3.896	1.974	930	619	0.480	0.638
Primary completion rate	ED.6	0.833	0.046	0.055	1.932	1.390	293	128	0.741	0.925
Child labour	CP.2	0.048	0.012	0.245	5.902	2.429	1987	1941	0.025	0.072
WOMEN										
Skilled attendant at delivery	RH.5	0.979	0.007	0.008	1.590	1.261	257	591	0.964	0.994
Antenatal care	RH.3	0.985	0.005	0.005	1.040	1.020	257	591	0.975	0.995
Contraceptive prevalence	RH.1	0.163	0.024	0.148	9.495	3.081	1805	2230	0.115	0.211
Adult literacy	ED.8	0.964	0.012	0.012	4.333	2.082	902	1135	0.941	0.987
Marriage before age 18 (women age 20-24)	CP.5	0.041	0.010	0.241	1.534	1.239	402	613	0.021	0.061
Comprehensive knowledge about HIV prevention among young people	HA.3	0.137	0.018	0.131	8.669	2.944	2952	3210	0.101	0.173
Condom use with non-regular partners	HA.9	0.464	0.046	0.099	0.389	0.624	73	47	0.373	0.556
Age at first sex among young people	HA.8	0.001	0.000	0.333	0.060	0.245	500	522	0.000	0.002
Attitude towards people with HIV/AIDS	HA.5	0.126	0.018	0.145	6.230	2.496	2040	2063	0.089	0.162
Knowledge of mother- to-child transmission of HIV	HA.4	0.471	0.026	0.055	8.764	2.960	2952	3210	0.419	0.523
UNDER-5s										
Underweight prevalence	NU.1	0.022	0.008	0.383	5.979	2.445	1955	1808	0.005	0.039
Tuberculosis immunization coverage	CH.2	0.985	0.007	0.007	1.372	1.171	383	390	0.970	0.999
Polio immunization coverage	CH.2	0.801	0.035	0.044	3.037	1.743	378	385	0.730	0.872
Immunization coverage for DPT	CH.2	0.867	0.025	0.029	1.988	1.410	365	370	0.817	0.917
Measles immunization coverage	CH.2	0.876	0.028	0.032	2.704	1.645	374	377	0.820	0.932
Fully immunized children	CH.2	0.695	0.035	0.050	2.198	1.482	376	382	0.625	0.765
Acute respiratory infection in last two weeks	CH.6	0.066	0.015	0.226	6.927	2.632	2080	1930	0.036	0.096
Antibiotic treatment of suspected pneumonia	CH.7	0.715	0.066	0.092	2.917	1.708	137	137	0.583	0.847
Diarrhoea in last two weeks	CH.4	0.068	0.016	0.238	8.046	2.837	2080	1930	0.036	0.101
Received ORT or increased fluids and continued feeding	CH.5	0.226	0.052	0.231	1.835	1.355	142	119	0.121	0.330
Support for learning	CD.1	0.830	0.025	0.030	8.532	2.921	2080	1930	0.780	0.880
Birth registration	CP.1	0.929	0.020	0.022	11.740	3.426	2080	1930	0.889	0.969

Table SE.5: Sampling errors: Skopski Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.703	0.047	0.066	10.730	3.276	608	1033	0.610	0.796
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	1.000	0.000	0.000	.	.	6596	1271	1.000	1.000
Use of improved sanitation facilities	EN.5	0.950	0.015	0.015	5.725	2.393	6596	1271	0.920	0.979
Net primary school attendance rate	ED.3	0.962	0.012	0.012	3.089	1.758	855	788	0.938	0.986
Net secondary school attendance rate	ED.4	0.639	0.049	0.077	3.989	1.997	395	377	0.540	0.738
Primary completion rate	ED.6	0.800	0.103	0.129	4.006	2.002	90	61	0.593	1.000
Child labour	CP.2	0.024	0.009	0.398	4.987	2.233	1171	1307	0.005	0.042
WOMEN										
Skilled attendant at delivery	RH.5	0.971	0.017	0.017	4.644	2.155	213	463	0.938	1.000
Antenatal care	RH.3	0.980	0.015	0.015	5.470	2.339	213	463	0.950	1.000
Contraceptive prevalence	RH.1	0.175	0.030	0.171	9.199	3.033	1119	1472	0.115	0.236
Adult literacy	ED.8	0.970	0.009	0.009	2.151	1.467	614	787	0.953	0.988
Marriage before age 18 (women age 20-24)	CP.5	0.019	0.005	0.255	0.561	0.749	337	444	0.009	0.029
Comprehensive knowledge about HIV prevention among young people	HA.3	0.241	0.028	0.115	9.039	3.006	2069	2160	0.186	0.296
Condom use with non-regular partners	HA.9	(0.747)	(0.042)	(0.057)	(0.447)	(0.669)	(84.666)	(48)	(0.662)	(0.832)
Age at first sex among young people	HA.8	0.010	0.009	0.922	3.006	1.734	277	343	0.000	0.029
Attitude towards people with HIV/AIDS	HA.5	0.182	0.034	0.188	10.309	3.211	1540	1318	0.114	0.250
Knowledge of mother- to-child transmission of HIV	HA.4	0.544	0.031	0.057	8.438	2.905	2069	2160	0.481	0.606
UNDER-5s										
Underweight prevalence	NU.1	0.022	0.004	0.199	1.195	1.093	1434	1327	0.013	0.031
Tuberculosis immunization coverage	CH.2	0.975	0.012	0.012	1.622	1.273	332	295	0.952	0.998
Polio immunization coverage	CH.2	0.959	0.014	0.015	1.440	1.200	330	293	0.931	0.987
Immunization coverage for DPT	CH.2	0.936	0.020	0.021	1.955	1.398	329	292	0.895	0.976
Measles immunization coverage	CH.2	0.907	0.026	0.029	2.290	1.513	331	291	0.855	0.958
Fully immunized children	CH.2	0.863	0.035	0.041	3.040	1.744	331	294	0.793	0.933
Acute respiratory infection in last two weeks	CH.6	0.030	0.008	0.255	2.910	1.706	1691	1473	0.014	0.045
Antibiotic treatment of suspected pneumonia	CH.7	0.723	0.052	0.072	0.835	0.914	50	63	0.619	0.827
Diarrhoea in last two weeks	CH.4	0.037	0.008	0.221	2.810	1.676	1691	1473	0.021	0.054
Received ORT or increased fluids and continued feeding	CH.5	0.261	0.030	0.116	0.349	0.591	63	74	0.201	0.322
Support for learning	CD.1	0.901	0.021	0.023	7.377	2.716	1691	1473	0.859	0.943
Birth registration	CP.1	0.987	0.005	0.005	3.320	1.822	1691	1473	0.976	0.998

Table SE.6: Sampling errors: Pelagoniski Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.743	0.080	0.108	13.935	3.733	176	414	0.582	0.904
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.999	0.001	0.001	0.553	0.744	2585	575	0.997	1.000
Use of improved sanitation facilities	EN.5	0.789	0.058	0.073	11.595	3.405	2585	575	0.673	0.905
Net primary school attendance rate	ED.3	0.814	0.061	0.074	6.551	2.560	260	271	0.693	0.935
Net secondary school attendance rate	ED.4	0.635	0.134	0.211	11.763	3.430	242	153	0.367	0.903
Primary completion rate	ED.6	(0.944)	(0.028)	(0.03)	(0.38)	(0.616)	(38)	(26)	(0.887)	(1)
Child labour	CP.2	0.131	0.060	0.455	13.733	3.706	332	440	0.012	0.251
WOMEN										
Skilled attendant at delivery	RH.5	1.000	0.000	0.000	0.060	0.245	46	130	0.999	1.000
Antenatal care	RH.3	0.978	0.014	0.014	1.200	1.096	46	130	0.950	1.000
Contraceptive prevalence	RH.1	0.153	0.041	0.264	7.152	2.674	485	566	0.072	0.234
Adult literacy	ED.8	0.964	0.008	0.009	0.606	0.779	251	312	0.948	0.981
Marriage before age 18 (women age 20-24)	CP.5	0.043	0.009	0.208	0.333	0.577	124	173	0.025	0.061
Comprehensive knowledge about HIV prevention among young people	HA.3	0.358	0.063	0.176	13.870	3.724	817	808	0.232	0.483
Condom use with non-regular partners	HA.9	(0.722)	(0.079)	(0.11)	(0.847)	(0.92)	(52)	(28)	(0.563)	(0.881)
Age at first sex among young people	HA.8	0.004	0.002	0.569	0.172	0.414	127	139	0.000	0.008
Attitude towards people with HIV/AIDS	HA.5	0.186	0.038	0.205	6.471	2.544	759	672	0.110	0.262
Knowledge of mother- to-child transmission of HIV	HA.4	0.708	0.031	0.044	3.857	1.964	817	808	0.645	0.771
UNDER-5s										
Underweight prevalence	NU.1	0.036	0.008	0.208	0.712	0.844	388	439	0.021	0.051
Tuberculosis immunization coverage	CH.2	0.947	0.031	0.032	1.448	1.203	46	78	0.886	1.000
Polio immunization coverage	CH.2	0.924	0.029	0.031	0.901	0.949	46	78	0.866	0.981
Immunization coverage for DPT	CH.2	0.915	0.029	0.032	0.821	0.906	45	77	0.857	0.973
Measles immunization coverage	CH.2	0.834	0.032	0.038	0.567	0.753	46	78	0.770	0.898
Fully immunized children	CH.2	0.823	0.032	0.039	0.541	0.736	45	77	0.758	0.887
Acute respiratory infection in last two weeks	CH.6	0.161	0.057	0.353	11.255	3.355	415	471	0.048	0.275
Antibiotic treatment of suspected pneumonia	CH.7	(0.717)	(0.144)	(0.201)	(4.821)	(2.196)	(67)	(48)	(0.429)	(1)
Diarrhoea in last two weeks	CH.4	0.245	0.090	0.368	20.668	4.546	415	471	0.064	0.425
Received ORT or increased fluids and continued feeding	CH.5	(0.48)	(0.133)	(0.278)	(2.631)	(1.622)	(101)	(38)	(0.213)	(0.746)
Support for learning	CD.1	0.826	0.063	0.076	12.889	3.590	415	471	0.700	0.952
Birth registration	CP.1	0.684	0.093	0.136	18.795	4.335	415	471	0.498	0.870

Table SE.7: Sampling errors: Vardarski Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.637	0.144	0.226	19.325	4.396	118	217	0.349	0.924
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.999	0.001	0.001	0.133	0.364	1453	313	0.998	1.000
Use of improved sanitation facilities	EN.5	0.907	0.069	0.076	17.806	4.220	1453	313	0.768	1.000
Net primary school attendance rate	ED.3	0.988	0.008	0.008	0.724	0.851	147	125	0.972	1.000
Net secondary school attendance rate	ED.4	0.458	0.125	0.273	3.896	1.974	88	63	0.209	0.708
Primary completion rate	ED.6	(*)	(*)	(*)	(*)	(*)	(*)	6	(*)	(*)
Child labour	CP.2	0.148	0.143	0.969	33.844	5.818	173	209	0.000	0.434
WOMEN										
Skilled attendant at delivery	RH.5	0.999	0.001	0.001	0.103	0.321	18	90	0.997	1.000
Antenatal care	RH.3	0.984	0.012	0.012	0.757	0.870	18	90	0.961	1.000
Contraceptive prevalence	RH.1	0.079	0.054	0.686	12.211	3.494	225	304	0.000	0.187
Adult literacy	ED.8	0.994	0.004	0.004	0.453	0.673	183	170	0.987	1.000
Marriage before age 18 (women age 20-24)	CP.5	0.019	0.007	0.371	0.296	0.544	107	113	0.005	0.033
Comprehensive knowledge about HIV prevention among young people	HA.3	0.390	0.042	0.108	3.236	1.799	467	433	0.305	0.474
Condom use with non-regular partners	HA.9	(*)	(*)	(*)	(*)	(*)	(*)	23	(*)	(*)
Age at first sex among young people	HA.8	0.002	0.001	0.440	0.018	0.133	75	57	0.000	0.003
Attitude towards people with HIV/AIDS	HA.5	0.173	0.068	0.392	11.334	3.367	401	353	0.037	0.309
Knowledge of mother- to-child transmission of HIV	HA.4	0.671	0.081	0.120	12.716	3.566	467	433	0.510	0.832
UNDER-5s										
Underweight prevalence	NU.1	0.002	0.002	1.028	0.650	0.806	274	279	0.000	0.007
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	46	61	1.000	1.000
Polio immunization coverage	CH.2	0.905	0.067	0.075	3.157	1.777	46	61	0.770	1.000
Immunization coverage for DPT	CH.2	0.936	0.047	0.050	2.208	1.486	46	61	0.842	1.000
Measles immunization coverage	CH.2	0.853	0.064	0.075	1.958	1.399	46	61	0.725	0.981
Fully immunized children	CH.2	0.822	0.084	0.103	2.920	1.709	46	61	0.653	0.991
Acute respiratory infection in last two weeks	CH.6	0.152	0.090	0.589	17.948	4.236	279	289	0.000	0.332
Antibiotic treatment of suspected pneumonia	CH.7	(*)	(*)	(*)	(*)	(*)	(*)	23	(*)	(*)
Diarrhoea in last two weeks	CH.4	0.024	0.008	0.321	0.728	0.853	279	289	0.009	0.039
Received ORT or increased fluids and continued feeding	CH.5	(*)	(*)	(*)	(*)	(*)	(*)	12	(*)	(*)
Support for learning	CD.1	0.862	0.040	0.046	3.842	1.960	279	289	0.782	0.942
Birth registration	CP.1	0.995	0.003	0.003	0.605	0.778	279	289	0.989	1.000

Table SE.8: Sampling errors: North East Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.566	0.110	0.195	16.140	4.017	135	327	0.345	0.786
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	1.000	0.000	0.000	.	.	1785	412	1.000	1.000
Use of improved sanitation facilities	EN.5	0.938	0.021	0.022	3.112	1.764	1785	412	0.896	0.980
Net primary school attendance rate	ED.3	0.933	0.014	0.015	0.779	0.883	201	244	0.905	0.961
Net secondary school attendance rate	ED.4	0.869	0.034	0.039	1.342	1.158	143	131	0.801	0.938
Primary completion rate	ED.6	(0.613)	(0.064)	(0.104)	(0.46)	(0.678)	(46)	(28)	(0.486)	(0.74)
Child labour	CP.2	0.014	0.010	0.721	3.081	1.755	259	414	0.000	0.035
WOMEN										
Skilled attendant at delivery	RH.5	0.985	0.011	0.012	1.370	1.170	39	160	0.962	1.000
Antenatal care	RH.3	0.991	0.009	0.009	1.455	1.206	39	160	0.974	1.000
Contraceptive prevalence	RH.1	0.056	0.041	0.741	16.281	4.035	339	503	0.000	0.138
Adult literacy	ED.8	0.985	0.005	0.005	0.456	0.675	175	259	0.975	0.995
Marriage before age 18 (women age 20-24)	CP.5	0.031	0.007	0.229	0.259	0.509	79	155	0.017	0.045
Comprehensive knowledge about HIV prevention among young people	HA.3	0.188	0.045	0.241	9.945	3.154	605	742	0.097	0.278
Condom use with non-regular partners	HA.9	(*)	(*)	(*)	(*)	(*)	(*)	13	(*)	(*)
Age at first sex among young people	HA.8	0.001	0.000	0.424	0.016	0.127	96	104	0.000	0.002
Attitude towards people with HIV/AIDS	HA.5	0.181	0.057	0.313	9.072	3.012	445	419	0.068	0.295
Knowledge of mother- to-child transmission of HIV	HA.4	0.478	0.064	0.134	12.217	3.495	605	742	0.350	0.606
UNDER-5s										
Underweight prevalence	NU.1	0.035	0.010	0.296	1.427	1.195	318	452	0.014	0.055
Tuberculosis immunization coverage	CH.2	0.997	0.003	0.003	0.278	0.527	56	89	0.990	1.000
Polio immunization coverage	CH.2	0.932	0.025	0.027	0.857	0.926	56	89	0.883	0.982
Immunization coverage for DPT	CH.2	0.918	0.022	0.024	0.574	0.758	56	88	0.873	0.962
Measles immunization coverage	CH.2	0.923	0.029	0.031	0.968	0.984	54	85	0.866	0.980
Fully immunized children	CH.2	0.880	0.028	0.032	0.643	0.802	55	86	0.823	0.936
Acute respiratory infection in last two weeks	CH.6	0.032	0.012	0.395	2.384	1.544	329	471	0.007	0.056
Antibiotic treatment of suspected pneumonia	CH.7	(*)	(*)	(*)	(*)	(*)	(*)	22	(*)	(*)
Diarrhoea in last two weeks	CH.4	0.046	0.012	0.264	1.574	1.255	329	471	0.022	0.070
Received ORT or increased fluids and continued feeding	CH.5	(0.469)	(0.084)	(0.18)	(1.258)	(1.122)	(15)	(45)	(0.3)	(0.638)
Support for learning	CD.1	0.847	0.038	0.045	5.165	2.273	329	471	0.771	0.922
Birth registration	CP.1	0.966	0.025	0.026	8.802	2.967	329	471	0.916	1.000

Table SE.9: Sampling errors: South West Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.766	0.071	0.092	10.555	3.249	269	381	0.624	0.907
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.987	0.011	0.011	5.126	2.264	2820	524	0.965	1.000
Use of improved sanitation facilities	EN.5	0.918	0.025	0.028	4.492	2.119	2820	524	0.867	0.969
Net primary school attendance rate	ED.3	0.993	0.003	0.003	0.445	0.667	540	330	0.987	0.999
Net secondary school attendance rate	ED.4	0.590	0.093	0.158	4.567	2.137	167	129	0.404	0.775
Primary completion rate	ED.6	(0.792)	(0.124)	(0.157)	(2.533)	(1.591)	(67)	(28)	(0.543)	(1)
Child labour	CP.2	0.050	0.021	0.423	4.630	2.152	643	487	0.008	0.093
WOMEN										
Skilled attendant at delivery	RH.5	0.999	0.001	0.001	0.107	0.327	59	139	0.998	1.000
Antenatal care	RH.3	0.983	0.011	0.011	0.888	0.942	59	139	0.961	1.000
Contraceptive prevalence	RH.1	0.194	0.048	0.245	7.863	2.804	480	544	0.099	0.289
Adult literacy	ED.8	0.958	0.036	0.037	7.469	2.733	216	237	0.887	1.000
Marriage before age 18 (women age 20-24)	CP.5	0.024	0.008	0.330	0.334	0.578	101	128	0.008	0.039
Comprehensive knowledge about HIV prevention among young people	HA.3	0.146	0.040	0.272	9.224	3.037	808	734	0.066	0.225
Condom use with non-regular partners	HA.9	(*)	(*)	(*)	(*)	(*)	(*)	9	(*)	(*)
Age at first sex among young people	HA.8	0.002	0.001	0.739	0.089	0.299	115	109	0.000	0.004
Attitude towards people with HIV/AIDS	HA.5	0.087	0.037	0.420	9.144	3.024	688	542	0.014	0.161
Knowledge of mother- to-child transmission of HIV	HA.4	0.552	0.066	0.119	12.735	3.569	808	734	0.421	0.683
UNDER-5s										
Underweight prevalence	NU.1	0.084	0.047	0.559	9.780	3.127	321	344	0.000	0.177
Tuberculosis immunization coverage	CH.2	0.958	0.026	0.027	1.478	1.216	87	91	0.907	1.000
Polio immunization coverage	CH.2	0.915	0.033	0.036	1.218	1.103	87	90	0.850	0.980
Immunization coverage for DPT	CH.2	0.947	0.026	0.027	1.128	1.062	84	86	0.895	0.999
Measles immunization coverage	CH.2	0.858	0.053	0.062	2.054	1.433	86	89	0.751	0.964
Fully immunized children	CH.2	0.820	0.066	0.080	2.626	1.621	87	90	0.688	0.952
Acute respiratory infection in last two weeks	CH.6	0.068	0.014	0.201	1.206	1.098	397	410	0.041	0.095
Antibiotic treatment of suspected pneumonia	CH.7	(0.572)	(0.052)	(0.09)	(0.404)	(0.635)	(27)	(38)	(0.469)	(0.676)
Diarrhoea in last two weeks	CH.4	0.097	0.043	0.441	8.569	2.927	397	410	0.011	0.183
Received ORT or increased fluids and continued feeding	CH.5	(0.22)	(0.047)	(0.215)	(0.481)	(0.693)	(39)	(38)	(0.125)	(0.314)
Support for learning	CD.1	0.857	0.053	0.062	9.279	3.046	397	410	0.751	0.962
Birth registration	CP.1	0.938	0.032	0.034	7.058	2.657	397	410	0.874	1.000

Table SE.10: Sampling errors: South East Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.831	0.058	0.070	7.784	2.790	180	328	0.715	0.946
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.969	0.022	0.023	7.328	2.707	1871	442	442.000	1.000
Use of improved sanitation facilities	EN.5	0.857	0.057	0.067	11.693	3.420	1871	442	442.000	0.971
Net primary school attendance rate	ED.3	0.813	0.032	0.040	1.182	1.087	211	172	172.000	0.878
Net secondary school attendance rate	ED.4	0.365	0.065	0.179	2.093	1.447	197	115	173.000	0.496
Primary completion rate	ED.6	(0.848)	(0.078)	(0.092)	(1.132)	(1.064)	(54)	(25)	(174)	(1)
Child labour	CP.2	0.006	0.003	0.517	0.507	0.712	276	315	315.000	0.012
WOMEN										
Skilled attendant at delivery	RH.5	0.991	0.008	0.009	1.149	1.072	36	140	0.974	1.000
Antenatal care	RH.3	0.969	0.019	0.020	1.698	1.303	36	140	0.931	1.000
Contraceptive prevalence	RH.1	0.009	0.004	0.417	0.815	0.903	375	491	0.002	0.017
Adult literacy	ED.8	0.876	0.040	0.045	3.714	1.927	199	258	0.796	0.955
Marriage before age 18 (women age 20-24)	CP.5	0.117	0.040	0.346	2.628	1.621	82	167	0.036	0.198
Comprehensive knowledge about HIV prevention among young people	HA.3	0.217	0.054	0.248	11.157	3.340	613	652	0.109	0.325
Condom use with non-regular partners	HA.9	(0.81)	(0.061)	(0.076)	(1.104)	(1.051)	(62)	(46)	(0.687)	(0.933)
Age at first sex among young people	HA.8	0.024	0.019	0.776	1.359	1.166	117	91	0.000	0.062
Attitude towards people with HIV/AIDS	HA.5	0.286	0.067	0.233	9.965	3.157	442	459	0.152	0.419
Knowledge of mother- to-child transmission of HIV	HA.4	0.528	0.059	0.112	9.079	3.013	613	652	0.410	0.646
UNDER-5s										
Underweight prevalence	NU.1	0.011	0.006	0.551	1.276	1.130	359	388	0.000	0.023
Tuberculosis immunization coverage	CH.2	0.985	0.015	0.015	1.344	1.159	68	90	0.955	1.000
Polio immunization coverage	CH.2	0.849	0.030	0.035	0.627	0.792	68	90	0.789	0.909
Immunization coverage for DPT	CH.2	0.890	0.024	0.027	0.539	0.734	68	90	0.841	0.939
Measles immunization coverage	CH.2	0.862	0.031	0.036	0.707	0.841	68	90	0.801	0.924
Fully immunized children	CH.2	0.752	0.023	0.030	0.242	0.492	68	90	0.707	0.797
Acute respiratory infection in last two weeks	CH.6	0.119	0.042	0.350	6.732	2.595	377	407	0.036	0.203
Antibiotic treatment of suspected pneumonia	CH.7	0.615	0.130	0.211	4.038	2.010	45	58	0.356	0.874
Diarrhoea in last two weeks	CH.4	0.046	0.014	0.305	1.839	1.356	377	407	0.018	0.075
Received ORT or increased fluids and continued feeding	CH.5	(*)	(*)	(*)	(*)	(*)	(*)	24	(*)	(*)
Support for learning	CD.1	0.844	0.045	0.053	6.277	2.505	377	407	0.754	0.934
Birth registration	CP.1	0.975	0.012	0.012	2.235	1.495	377	407	0.952	0.998

Table SE.11: Sampling errors: Pololski Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.588	0.069	0.117	10.506	3.241	0	536	0.450	0.726
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.985	0.013	0.013	8.151	2.855	3773	686	0.959	1.000
Use of improved sanitation facilities	EN.5	0.998	0.001	0.001	0.392	0.626	3773	686	0.996	1.000
Net primary school attendance rate	ED.3	0.983	0.009	0.009	2.315	1.522	674	495	0.966	1.000
Net secondary school attendance rate	ED.4	0.602	0.072	0.120	5.763	2.401	312	267	0.458	0.746
Primary completion rate	ED.6	(0.809)	(0.062)	(0.076)	(1.143)	(1.069)	(110)	(47)	(0.686)	(0.933)
Child labour	CP.2	0.086	0.037	0.426	12.377	3.518	791	722	0.013	0.160
WOMEN										
Skilled attendant at delivery	RH.5	0.978	0.011	0.012	1.218	1.104	115	201	0.955	1.000
Antenatal care	RH.3	0.974	0.016	0.016	1.965	1.402	115	201	0.943	1.000
Contraceptive prevalence	RH.1	0.154	0.038	0.245	8.800	2.966	640	805	0.079	0.230
Adult literacy	ED.8	0.990	0.006	0.006	1.487	1.220	342	439	0.978	1.000
Marriage before age 18 (women age 20-24)	CP.5	0.031	0.012	0.398	1.086	1.042	160	218	0.006	0.055
Comprehensive knowledge about HIV prevention among young people	HA.3	0.120	0.029	0.242	9.655	3.107	1068	1218	0.062	0.177
Condom use with non-regular partners	HA.9	(*)	(*)	(*)	(*)	(*)	(*)	14	(*)	(*)
Age at first sex among young people	HA.8	0.001	0.000	0.416	0.020	0.143	182	221	0.000	0.001
Attitude towards people with HIV/AIDS	HA.5	0.120	0.029	0.244	6.918	2.630	717	852	0.061	0.179
Knowledge of mother- to-child transmission of HIV	HA.4	0.393	0.045	0.114	10.261	3.203	1068	1218	0.303	0.483
UNDER-5s										
Underweight prevalence	NU.1	0.004	0.002	0.591	0.906	0.952	715	620	0.000	0.009
Tuberculosis immunization coverage	CH.2	0.989	0.007	0.007	0.752	0.867	157	145	0.975	1.000
Polio immunization coverage	CH.2	0.577	0.038	0.067	0.826	0.909	149	138	0.500	0.653
Immunization coverage for DPT	CH.2	0.670	0.115	0.172	7.493	2.737	141	126	0.440	0.900
Measles immunization coverage	CH.2	0.873	0.055	0.063	3.524	1.877	145	130	0.763	0.983
Fully immunized children	CH.2	0.397	0.052	0.130	1.523	1.234	151	138	0.294	0.501
Acute respiratory infection in last two weeks	CH.6	0.036	0.010	0.267	1.723	1.313	742	651	0.017	0.055
Antibiotic treatment of suspected pneumonia	CH.7	0.851	0.027	0.032	0.284	0.533	27	51	0.797	0.905
Diarrhoea in last two weeks	CH.4	0.036	0.009	0.247	1.479	1.216	742	651	0.018	0.054
Received ORT or increased fluids and continued feeding	CH.5	(0.372)	(0.076)	(0.203)	(1.003)	(1.002)	(27)	(42)	(0.221)	(0.523)
Support for learning	CD.1	0.709	0.062	0.087	12.146	3.485	742	651	0.585	0.834
Birth registration	CP.1	0.908	0.039	0.043	11.679	3.417	742	651	0.830	0.985

Table SE.12: Sampling errors: East Region

Standard errors, coefficients of variation, design effects (deff), square root of design effects (deft) and confidence intervals for selected indicators, Republic of Macedonia, 2005

	Table	Value (*r*)	Standard error (*se*)	Coefficient of variation (*se/r*)	Design effect (*deff*)	Square root of design effect (*deft*)	Weighted count	Unweighted count	Confidence limits	
									r - 2se	*r + 2se*
HOUSEHOLDS										
Child discipline	CP.4	0.718	0.066	0.092	7.067	2.658	162	328	0.586	0.850
HOUSEHOLD MEMBERS										
Use of improved drinking water sources	EN.1	0.997	0.002	0.002	0.709	0.842	2585	478	0.993	1.000
Use of improved sanitation facilities	EN.5	0.983	0.013	0.013	4.742	2.178	2585	478	0.958	1.000
Net primary school attendance rate	ED.3	0.967	0.020	0.021	2.536	1.592	244	199	0.926	1.000
Net secondary school attendance rate	ED.4	0.892	0.029	0.032	0.856	0.925	166	101	0.834	0.949
Primary completion rate	ED.6	(*)	(*)	(*)	(*)	(*)	(*)	11	(*)	(*)
Child labour	CP.2	0.075	0.051	0.684	12.777	3.574	304	339	0.000	0.177
WOMEN										
Skilled attendant at delivery	RH.5	0.973	0.025	0.026	2.697	1.642	41	113	0.922	1.000
Antenatal care	RH.3	0.997	0.002	0.002	0.218	0.467	41	113	0.993	1.000
Contraceptive prevalence	RH.1	0.123	0.046	0.373	9.349	3.058	587	480	0.031	0.214
Adult literacy	ED.8	0.991	0.004	0.004	0.393	0.627	253	224	0.983	0.999
Marriage before age 18 (women age 20-24)	CP.5	0.060	0.037	0.613	3.096	1.760	113	130	0.000	0.134
Comprehensive knowledge about HIV prevention among young people	HA.3	0.288	0.066	0.229	13.822	3.718	949	650	0.156	0.420
Condom use with non-regular partners	HA.9	(*)	(*)	(*)	(*)	(*)	(*)	16	(*)	(*)
Age at first sex among young people	HA.8	0.001	0.001	0.835	0.063	0.252	140	94	0.000	0.003
Attitude towards people with HIV/AIDS	HA.5	0.111	0.039	0.348	8.221	2.867	929	543	0.034	0.189
Knowledge of mother- to-child transmission of HIV	HA.4	0.638	0.081	0.127	18.360	4.285	949	650	0.476	0.799
UNDER-5s										
Underweight prevalence	NU.1	0.010	0.005	0.540	1.036	1.018	297	349	0.000	0.021
Tuberculosis immunization coverage	CH.2	1.000	0.000	0.000	.	.	51	71	1.000	1.000
Polio immunization coverage	CH.2	0.869	0.046	0.053	1.305	1.142	51	71	0.776	0.961
Immunization coverage for DPT	CH.2	0.898	0.033	0.037	0.814	0.902	49	70	0.833	0.964
Measles immunization coverage	CH.2	0.879	0.071	0.081	3.316	1.821	51	71	0.737	1.000
Fully immunized children	CH.2	0.750	0.070	0.094	1.845	1.358	51	71	0.609	0.891
Acute respiratory infection in last two weeks	CH.6	0.024	0.010	0.403	1.489	1.220	316	373	0.005	0.043
Antibiotic treatment of suspected pneumonia	CH.7	(*)	(*)	(*)	(*)	(*)	(*)	18	(*)	(*)
Diarrhoea in last two weeks	CH.4	0.188	0.102	0.544	25.490	5.049	316	373	0.000	0.392
Received ORT or increased fluids and continued feeding	CH.5	(0.803)	(0.146)	(0.181)	(3.753)	(1.937)	(59)	(29)	(0.512)	(1)
Support for learning	CD.1	0.965	0.017	0.017	3.097	1.760	316	373	0.932	0.999
Birth registration	CP.1	0.959	0.017	0.018	2.685	1.639	316	373	0.925	0.993

Appendix D. Data Quality Tables

Table DQ.1: Age distribution of household population

Single-year age distribution of household population by sex (weighted), Republic of Macedonia,2005

	Males		Females			Males		Females	
	Number	Percent	Number	Percent		Number	Percent	Number	Percent
0	165	1.2	106	.8	41	95	.7	95	.7
1	150	1.1	151	1.1	42	301	2.3	301	2.3
2	137	1.0	166	1.3	43	205	1.5	205	1.5
3	206	1.6	166	1.3	44	224	1.7	224	1.7
4	165	1.2	184	1.4	45	211	1.6	211	1.6
5	250	1.9	240	1.8	46	138	1.0	138	1.0
6	156	1.2	171	1.3	47	198	1.5	198	1.5
7	162	1.2	173	1.3	48	229	1.7	229	1.7
8	201	1.5	159	1.2	49	173	1.3	173	1.3
9	191	1.4	160	1.2	50	309	2.3	309	2.3
10	181	1.4	214	1.6	51	149	1.1	149	1.1
11	168	1.3	198	1.5	52	127	1.0	127	1.0
12	152	1.1	134	1.0	53	145	1.1	145	1.1
13	377	2.8	195	1.5	54	92	.7	92	.7
14	196	1.5	271	2.1	55	231	1.7	231	1.7
15	298	2.2	152	1.2	56	142	1.1	142	1.1
16	191	1.4	204	1.5	57	89	.7	89	.7
17	200	1.5	215	1.6	58	67	.5	67	.5
18	232	1.8	219	1.7	59	75	.6	75	.6
19	184	1.4	258	2.0	60	143	1.1	143	1.1
20	252	1.9	265	2.0	61	124	.9	124	.9
21	156	1.2	244	1.9	62	98	.7	98	.7
22	212	1.6	209	1.6	63	91	.7	91	.7
23	246	1.9	169	1.3	64	106	.8	106	.8
24	221	1.7	133	1.0	65	111	.8	111	.8
25	160	1.2	322	2.4	66	46	.4	46	.4
26	204	1.5	219	1.7	67	96	.7	96	.7
27	208	1.6	183	1.4	68	154	1.2	154	1.2
28	201	1.5	136	1.0	69	109	.8	109	.8
29	247	1.9	117	.9	70	102	.8	102	.8
30	242	1.8	279	2.1	71	29	.2	29	.2
31	202	1.5	210	1.6	72	58	.4	58	.4
32	188	1.4	194	1.5	73	60	.5	60	.5
33	183	1.4	160	1.2	74	71	.5	71	.5
34	165	1.2	108	.8	75	84	.6	84	.6
35	181	1.4	158	1.2	76	79	.6	79	.6
36	219	1.7	204	1.5	77	76	.6	76	.6
37	229	1.7	191	1.4	78	33	.2	33	.2
38	202	1.5	212	1.6	79	17	.1	17	.1
39	161	1.2	193	1.5	80+	133	1.0	133	1.0
40	151	1.1	166	1.3	DK/Missing	38	.3	69	.5
					Total	13249	100.0	13174	100.0

Table DQ.2: Age distribution of eligible and interviewed women

Household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age group, Republic of Macedonia,2005

	Household population of women age 10-54	Interviewed women age 15-49		
	Number	Number	Percent	Percent of eligible women interviewed
Age				
10-14	1012			
15-19	1048	1016	15.3	97.0
20-24	1020	993	14.9	97.4
25-29	977	968	14.6	99.1
30-34	951	937	14.1	98.5
35-39	958	949	14.3	99.0
40-44	935	919	13.8	98.3
45-49	908	868	13.0	95.6
50-54	840	na	na	na
15-49	6796	6650	100.0	97.8

na: not applicable

Note: Weights for both household population of women and interviewed women are household weights. Age is based on the household schedule.

Table DQ.3: Age distribution of eligible and interviewed under-5s

Household population of children age 0-4, children whose mothers/caretakers were interviewed, and percentage of under-5 children whose mothers/caretakers were interviewed (weighted), by five-year age group, Republic of Macedonia,2005

	Household population of children age 0-7	Interviewed children age 0-4		
	Number	Number	Percent	Percent of eligible children interviewed
Age				
0	272	270	17.0	99.5
1	301	299	18.9	99.4
2	304	300	18.9	98.8
3	372	370	23.3	99.3
4	349	347	21.9	99.5
5	490	na	na	na
6	327	na	na	na
7	335	na	na	na
0-4	1597	1586	100.0	99.3

na: not applicable

Note: Weights for both household population of children and interviewed children are household weights. Age is based on the household schedule.

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

Age distribution of under-5 children by 3-month groups (weighted), Republic of Macedonia,2005

	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Age in months						
0-2	136	5.6	47	2.2	183	4.0
3-5	81	3.3	61	2.9	142	3.1
6-8	176	7.2	78	3.7	254	5.6
9-11	74	3.0	93	4.4	167	3.7
12-14	152	6.3	89	4.2	241	5.3
15-17	109	4.5	115	5.4	223	4.9
18-20	89	3.7	96	4.5	185	4.1
21-23	99	4.1	88	4.2	188	4.1
24-26	114	4.7	124	5.9	238	5.2
27-29	100	4.1	175	8.3	276	6.1
30-32	99	4.1	91	4.3	190	4.2
33-35	96	3.9	81	3.8	177	3.9
36-38	122	5.0	147	6.9	269	5.9
39-41	220	9.1	102	4.8	322	7.1
42-44	165	6.8	106	5.0	271	6.0
45-47	99	4.1	105	4.9	204	4.5
48-50	113	4.7	85	4.0	199	4.4
51-53	143	5.9	142	6.7	284	6.3
54-56	94	3.9	98	4.6	192	4.2
57-59	146	6.0	194	9.2	340	7.5
Total	2428	100.0	2118	100.0	4547	100.0

Table DQ.5: Heaping on ages and periods

Age and period ratios at boundaries of eligibility by type of information collected (weighted), Republic of Macedonia,2005

	Age and period ratios*			Eligibility boundary (lower-upper)	Module or questionnaire
	Males	Females	**Total**		
Age in household questionnaire					
1	.99	1.07	1.03		
2	.83	1.03	.93	Lower	Child discipline and child disability
3	1.22	.96	1.09		
4	.79	.94	.86	Upper	Under-5 questionnaire
5	1.32	1.21	1.26	Lower	Child labour and education
6	.82	.88	.85		
8	1.09	.97	1.03		
9	1.00	.90	.95	Upper	Child disability
10	1.01	1.12	1.06		
13	1.56	.97	1.29		
14	.68	1.31	.94	Upper	Child labour and child discipline
15	1.30	.73	1.03	Lower	Women's questionnaire
16	.83	1.07	.94		
17	.96	1.01	.99	Upper	Orphans
18	.97	.93	.95		
23	1.09	.99	1.05		
24	1.06	.64	.85	Upper	Education
25	.82	1.43	1.15		
48	1.15	1.26	1.20		
49	.73	.39	.57	Upper	Women's questionnaire
50	1.47	1.94	1.69		
Age in women's questionnaire					
23	na	.97	na		
24	na	.65	na	Upper	Sexual behaviour
25	na	1.44	na		
Months since last birth in women's questionnaire					
6-11	na	1.10	na		
12-17	na	1.06	na		
18-23	na	.90	na	Upper	Maternal and child health
24-29	na	1.17	na		
30-35	na	.83	na		

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

Table DQ.6: Completeness of reporting

Percentage of observations missing information for selected questions and indicators (weighted), Republic of Macedonia,2005

Questionnaire and Subject	Reference group	Percent with missing information*	Number of cases
Women			
Date of Birth	All women age 15-49		
Month only		1.5	7397
Month and year missing		.0	7397
Date of first birth	All women age 15-49 with at least one live birth		
Month only		2.2	4346
Month and year missing		.6	4346
Completed years since first birth	All women age 15-49 with at least one live birth	2.1	24
Date of last birth	All women age 15-49 with at least one live birth		
Month only		1.3	4346
Month and year missing		.1	4346
Date of first marriage/union	All ever married women age 15-49		
Month only		7.3	4493
Month and year missing		7.4	4493
Age at first marriage/union	All ever married women age 15-49	.7	4493
Age at first intercourse	All women age 15-24 who have ever had sex	3.5	2233
Time since last intercourse	All women age 15-24 who have ever had sex	14.2	564
Under-5			
Date of Birth	All under five children surveyed		
Month only		.4	4547
Month and year missing		.0	4547
Anthropometry	All under five children surveyed		
Height		6.4	4547
Weight		6.8	4547
Height or Weight		6.8	4547

* Includes "Don't know" responses

Table DQ.7: Presence of mother in the household and the person interviewed for the under-5 questionnaire

Distribution of children under five by whether the mother lives in the same household, and the person interviewed for the under-5 questionnaire (weighted), Republic of Macedonia,2005

	Mother in the household		Mother not in the household			
	Mother interviewed	Father interviewed	Other adult female interviewed	Other adult male interviewed	**Total**	Number of children aged 0-4 years
Age						
0	99.8	.0	.2		100.0	272
1	100.0	.0	.0		100.0	301
2	99.6	.0	.4		100.0	304
3	99.4	.0	.6		100.0	372
4	99.6	.2	.2		100.0	349
Total	99.7	.0	.3		100.0	1597

Table DQ.8: School attendance by single age Distribution of household population age 5-24 by educational level and grade attended in the current year, Republic of Macedonia, 2005

	Primary school										Secondary school							
	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	99	Grade 1	Grade 2	Grade 3	Grade 4	Higher	Not attending school	**Total**	Number
Age																		
5	26.8	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	72.6	100.0	490
6	42.4	25.5	.6	.0	.0	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	30.3	100.0	327
7	.8	57.1	38.1	.6	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	3.3	100.0	335
8	.6	2.2	48.8	39.8	2.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	100.0	360
9	.6	.3	4.6	67.2	25.0	.6	.0	.0	.0	.0	.0	.0	.1	.0	.0	1.6	100.0	351
10	.0	.2	.5	5.3	68.6	17.7	1.5	.0	.0	.0	.0	.0	.0	.0	.0	6.2	100.0	395
11	.0	.1	.5	.3	12.2	48.7	30.7	.4	.0	.0	.0	.0	.0	.0	.0	7.1	100.0	366
12	.1	.1	.0	.2	.4	2.8	64.4	19.9	8.3	.0	.0	.0	.0	.0	.0	3.8	100.0	287
13	.0	.0	.5	.1	.1	.5	10.8	52.2	31.7	.0	.0	.0	.0	.0	.0	4.1	100.0	572
14	.0	.0	.0	.0	.3	.0	.4	10.6	48.9	.0	25.3	8.5	.0	.0	.0	6.0	100.0	467
15	.0	.1	.1	.0	.0	.1	.2	.7	8.5	.0	53.4	11.3	1.2	.0	.0	24.3	100.0	450
16	.0	2.0	.0	.0	.0	.1	.0	.0	.1	.0	2.8	41.7	26.1	2.5	.0	24.7	100.0	395
17	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	1.0	38.2	20.1	.0	39.9	100.0	415
18	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	2.3	5.3	33.8	12.4	45.6	100.0	450
19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	3.9	6.6	23.6	64.8	100.0	442
20	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	38.2	61.3	100.0	517
21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	30.5	69.1	100.0	400
22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	25.3	74.6	100.0	421
23	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.8	86.2	100.0	415
24	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.1	85.9	100.0	354
Total	3.4	3.6	4.0	4.9	5.1	3.2	4.5	5.0	5.7	.0	4.6	3.3	3.8	3.4	8.5	37.0	100.0	8209

Table DQ.9: Sex ratio at birth among children ever born and living

Sex ratio at birth among children ever born, children living, and deceased children, by age of women (weighted), Republic of Macedonia, 2005

	Children Ever Born			Children Living			Children deceased			
	Number of sons ever born	Number of daughters ever born	Sex ratio	Number of sons living	Number of daughters living	Sex ratio	Number of deceased sons	Number of deceased daughters	Sex ratio	Number of women
Age										
15-19	3	7	.42	3	7	.42	0	0	.57	1129
20-24	76	63	1.20	71	62	1.16	4	1	3.21	1103
25-29	462	415	1.11	458	409	1.12	4	6	.74	1078
30-34	908	960	.95	890	947	.94	18	12	1.48	1041
35-39	1011	1810	.56	942	1764	.53	70	46	1.53	1054
40-44	576	2376	.24	534	2352	.23	42	24	1.76	1027
45-49	701	2147	.33	648	2091	.31	53	56	.95	965
Total	3738	7777	.48	3546	7632	.46	191	145	1.32	7397

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

Table DQ.10: Distribution of women by time since last birth

Distribution of women aged 15-49 with at least one live birth, by months since last birth (weighted), Republic of Macedonia, 2005

Months since last birth	Number	Percent	Months since last birth	Number	Percent
0	22	3.1	16	24	3.3
1	11	1.6	17	21	2.9
2	26	3.6	18	24	3.3
3	7	1.0	19	25	3.5
4	20	2.8	20	17	2.4
5	15	2.1	21	21	3.0
6	29	4.1	22	28	3.9
7	16	2.3	23	17	2.4
8	49	6.9	24	34	4.7
9	14	2.0	25	21	3.0
10	16	2.2	26	19	2.6
11	25	3.6	27	27	3.7
12	25	3.5	28	36	5.0
13	46	6.4	29	21	2.9
14	22	3.1	30	17	2.3
15	18	2.5			
			Total	714	100.0

Appendix E. Global MICS Indicators: Numerators and Denominators

INDICATOR		NUMERATOR	DENOMINATOR
1	Under-five mortality rate	Probability of dying by exact age 5 years	
2	Infant mortality rate	Probability of dying by exact age 1 year	
3	Maternal mortality ratio	Number of deaths of women from pregnancy-related causes in a given year	Number of live births in the year (expressed per 100,000 births)
4	Skilled attendant at delivery	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that were attended during childbirth by skilled health personnel	**Total** number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
5	Institutional deliveries	Number of women aged 15-49 years with a birth in the 2 years preceding the survey that delivered in a health facility	**Total** number of women surveyed aged 15-49 years with a birth in 2 years preceding the survey
6	Underweight prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	**Total** number of children under age five that were weighed
7	Stunting prevalence	Number of children under age five that fall below minus two standard deviations from the median height for age of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	**Total** number of children under age five measured
8	Wasting prevalence	Number of children under age five that fall below minus two standard deviations from the median weight for height of the NCHS/WHO standard (moderate and severe); number that fall below minus three standard deviations (severe)	**Total** number of children under age five weighed and measured
9	Low-birth weight infants	Number of last live births in the 2 years preceding the survey weighing below 2,500 grams	**Total** number of last live births in the 2 years preceding the survey
10	Infants weighed at birth	Number of last live births in the 2 years preceding the survey that were weighed at birth	**Total** number of last live births in the 2 years preceding the survey
11	Use of improved drinking water sources	Number of household members living in households using improved sources of drinking water	**Total** number of household members in households surveyed
12	Use of improved sanitation facilities	Number of household members using improved sanitation facilities	**Total** number of household members in households surveyed
13	Water treatment	Number of household members using water that has been treated	**Total** number of household members in households surveyed
14	Disposal of child's faeces	Number of children under age three whose (last) stools were disposed of safely	**Total** number of children under age three surveyed
15	Exclusive breastfeeding rate	Number of infants aged 0-5 months that are exclusively breastfed	**Total** number of infants aged 0-5 months surveyed
16	Continued breastfeeding rate	Number of infants aged 12-15 months, and 20-23 months, that are currently breastfeeding	**Total** number of children aged 12-15 months and 20-23 months surveyed
17	Timely complementary feeding rate	Number of infants aged 6-9 months that are receiving breastmilk and complementary foods	**Total** number of infants aged 6-9 months surveyed
18	Frequency of complementary feeding	Number of infants aged 6-11 months that receive breastmilk and complementary food at least the minimum recommended number of times per day (two times per day for infants aged 6-8 months, three times per day for infants aged 9-11 months)	**Total** number of infants aged 6-11 months surveyed
19	Adequately fed infants	Number of infants aged 0-11 months that are appropriately fed: infants aged 0-5 months that are exclusively breastfed and infants aged 6-11 months that are breastfed and ate solid or semi-solid foods the appropriate number of times (see above) yesterday	**Total** number of infants aged 0-11 months surveyed
20	Antenatal care	Number of women aged 15-49 years that were attended at least once during pregnancy in the 2 years preceding the survey by skilled health personnel	**Total** number of women surveyed aged 15-49 years with a birth in the 2 years preceding the survey
21	Contraceptive prevalence	Number of women currently married or in union aged 15-49 years that are using (or whose partner is using) a contraceptive method (either modern or traditional)	**Total** number of women aged 15-49 years that are currently married or in union
22	Antibiotic treatment of suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks receiving antibiotics	**Total** number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
23	Care-seeking for suspected pneumonia	Number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks that are taken to an appropriate health provider	**Total** number of children aged 0-59 months with suspected pneumonia in the previous 2 weeks
24	Solid fuels	Number of residents in households that use solid fuels (wood, charcoal, crop residues and dung) as the primary source of domestic energy to cook	**Total** number of residents in households surveyed
25	Tuberculosis immunization coverage	Number of children aged 12-23 months receiving BCG vaccine before their first birthday	**Total** number of children aged 12-23 months surveyed

INDICATOR		NUMERATOR	DENOMINATOR
26	Polio immunization coverage	Number of children aged 12-23 months receiving OPV3 vaccine before their first birthday	**Total** number of children aged 12-23 months surveyed
27	Immunization coverage for diphtheria, pertussis and tetanus (DPT)	Number of children aged 12-23 months receiving DPT3 vaccine before their first birthday	**Total** number of children aged 12-23 months surveyed
28	Measles immunization coverage	Number of children aged 12-23 months receiving measles vaccine before their first birthday	**Total** number of children aged 12-23 months surveyed
29	Hepatitis B immunization coverage	Number of children aged 12-23 months immunized against hepatitis before their first birthday	**Total** number of children aged 12-23 months surveyed
30	Yellow fever immunization coverage *	Number of children aged 12-23 months immunized against yellow fever before their first birthday	**Total** number of children aged 12-23 months surveyed
31	Fully immunized children	Number of children aged 12-23 months receiving DPT1-3, OPV-1-3, BCG and measles vaccines before their first birthday	**Total** number of children aged 12-23 months surveyed
32	Neonatal tetanus protection*	Number of mothers with live births in the previous year that were given at least two doses of tetanus toxoid (TT) vaccine within the appropriate interval prior to giving birth	**Total** number of women surveyed aged 15-49 years with a birth in the year preceding the survey
33	Use of oral rehydration therapy (ORT)	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received oral rehydration salts and/or an appropriate household solution	**Total** number of children aged 0-59 months with diarrhoea in the previous 2 weeks
34	Home management of diarrhoea	Number of children aged 0-59 months with diarrhoea in the previous 2 weeks that received more fluids AND continued eating somewhat less, the same or more food	**Total** number of children aged 0-59 months with diarrhoea in the previous 2 weeks
35	Received ORT or increased fluids and continued feeding	Number of children aged 0-59 months with diarrhoea that received ORT (oral rehydration salts or an appropriate household solution) or received more fluids AND continued eating somewhat less, the same or more food	**Total** number of children aged 0-59 months with diarrhoea in the previous 2 weeks
36	Household availability of insecticide-treated nets (ITNs)*	Number of households with at least one mosquito net, either permanently treated or treated within the previous year	**Total** number of households surveyed
37	Under-fives sleeping under insecticide-treated nets *	Number of children aged 0-59 months that slept under an insecticide-treated mosquito net the previous night	**Total** number of children aged 0-59 months surveyed
38	Under-fives sleeping under mosquito nets *	Number of children aged 0-59 months that slept under a mosquito net the previous night	**Total** number of children aged 0-59 months surveyed
39	Antimalarial treatment (under- fives)*	Number of children aged 0-59 months reported to have had fever in the previous 2 weeks that were treated with an appropriate antimalarial within 24 hours of onset	**Total** number of children aged 0-59 months reported to have had fever in the previous 2 weeks
40	Intermittent preventive malaria treatment (pregnant women)*	Number of women receiving appropriate intermittent medication to prevent malaria (defined as at least 2 doses of SP/Fansidar) during the last pregnancy, leading to a live birth within the 2 years preceding the survey	**Total** number of women that have had a live birth within the 2 years preceding the survey
41	Iodized salt consumption*	Number of households with salt testing 15 parts per million or more of iodine/iodate	**Total** number of households surveyed
42	Vitamin A supplementation (under-fives)*	Number of children aged 6-59 months receiving at least one high-dose vitamin A supplement in the previous 6 months	**Total** number of children aged 6-59 months surveyed
43	Vitamin A supplementation (post-partum mothers) *	Number of women with a live birth in the 2 years preceding the survey that received a high-dose vitamin A supplement within 8 weeks after birth	**Total** number of women that had a live birth in the 2 years preceding the survey
44	Content of antenatal care *	Number of women with a live birth in the 2 years preceding the survey that received antenatal care during the last pregnancy	**Total** number of women with a live birth in the 2 years preceding the survey
45	Timely initiation of breastfeeding	Number of women with a live birth in the 2 years preceding the survey that put the newborn infant to the breast within 1 hour of birth	**Total** number of women with a live birth in the 2 years preceding the survey
46	Support for learning	Number of children aged 0-59 months living in households in which an adult has engaged in four or more activities to promote learning and school readiness in the past 3 days	**Total** number of children aged 0-59 months surveyed
47	Father's support for learning	Number of children aged 0-59 months whose father has engaged in one or more activities to promote learning and school readiness in the past 3 days	**Total** number of children aged 0-59 months
48	Support for learning: children's books	Number of households with three or more children's books	**Total** number of households surveyed
49	Support for learning: non-children's books	Number of households with three or more non-children's books	**Total** number of households surveyed
50	Support for learning: materials for play	Number of households with three or more materials intended for play	**Total** number of households surveyed
51	Non-adult care	Number of children aged 0-59 months left alone or in the care of another child younger than 10 years of age in the past week	**Total** number of children aged 0-59 months surveyed
52	Pre-school attendance	Number of children aged 36-59 months that attend some form of early childhood education programme	**Total** number of children aged 36-59 months surveyed
53	School readiness	Number of children in first grade that attended some form of pre-school the previous year	**Total** number of children in the first grade surveyed
54	Net intake rate in primary education	Number of children of school-entry age that are currently attending first grade	**Total** number of children of primary- school entry age surveyed
55	Net primary school attendance rate	Number of children of primary-school age currently attending primary or secondary school	**Total** number of children of primary- school age surveyed
56	Net secondary school attendance rate	Number of children of secondary-school age currently attending secondary school or higher	**Total** number of children of secondary-school age surveyed

INDICATOR		NUMERATOR	DENOMINATOR
57	Children reaching grade five	Proportion of children entering the first grade of primary school that eventually reach grade five	
58	Transition rate to secondary school	Number of children that were in the last grade of primary school during the previous school year that attend secondary school	**Total** number of children that were in the last grade of primary school during the previous school year surveyed
59	Primary completion rate	Number of children (of any age) attending the last grade of primary school (excluding repeaters)	**Total** number of children of primary school completion age (age appropriate to final grade of primary school) surveyed
60	Adult literacy rate	Number of women aged 15-24 years that are able to read a short simple statement about everyday life	**Total** number of women aged 15-24 years surveyed
61	Gender parity index	Proportion of girls in primary and secondary education	Proportion of boys in primary and secondary education
62	Birth registration	Number of children aged 0-59 months whose births are reported registered	**Total** number of children aged 0-59 months surveyed
63	Prevalence of female genital mutilation/cutting (FGM/C) *	Number of women aged 15-49 years that reported undergoing any form of genital mutilation/cutting	**Total** number of women aged 15-49 years surveyed
64	Prevalence of extreme form of FGM/C *	Number of women aged 15-49 years that reported undergoing an extreme form of genital mutilation/cutting (such as infibulation)	**Total** number of women aged 15-49 years surveyed
65	Prevalence of FGM/C among daughters *	Number of women aged 15-49 years that reported that at least one daughter had undergone female genital mutilation/cutting	**Total** number of women aged 15-49 years surveyed that have at least one living daughter
66	Approval for FGM/C *	Number of women aged 15-49 years favouring the continuation of female genital mutilation/cutting	**Total** number of women aged 15-49 years surveyed
67	Marriage before age 15 and age 18	Number of women that were first married or in union by the exact age of 15 and the exact age of 18, by age groups	**Total** number of women aged 15-49 years and 20-49 years surveyed, by age groups
68	Young women aged 15-19 years currently married or in union	Number of women aged 15-19 years currently married or in union	**Total** number of women aged 15-19 years surveyed
69	Spousal age difference	Number of women married/in union aged 15-19 years and 20-24 years with a difference in age of 10 or more years between them and their current spouse	**Total** number of women aged 15-19 and 20-24 years surveyed that are currently married or in union
70	Polygyny *	Number of women in a polygynous union	**Total** number of women aged 15-49 years surveyed that are currently married or in union
71	Child labour	Number of children aged 5-14 years that are involved in child labour	**Total** number of children aged 5-14 years surveyed
72	Labourer students	Number of children aged 5-14 years involved in child labour activities that attend school	**Total** number of children aged 5-14 years involved in child labour activities
73	Student labourers	Number of children aged 5-14 years attending school that are involved in child labour activities	**Total** number of children aged 5-14 years attending school
74	Child discipline	Number of children aged 2-14 years that (1) experience only non-violent aggression, (2) experience psychological aggression as punishment, (3) experience minor physical punishment, (4) experience severe physical punishment	**Total** number of children aged 2-14 years selected and surveyed
75	Prevalence of orphans	Number of children under age 18 with at least one dead parent	**Total** number of children under age 18 surveyed
76	Prevalence of vulnerable children	Number of children under age 18 that have a chronically ill parent, that live in a household where an adult aged 18-59 years has died in the past year, or that live in a household where an adult aged 18-59 years has been chronically ill in the past year	**Total** number of children under age 18 surveyed
77	School attendance of orphans versus non-orphans	Proportion of double orphans (both mother and father dead) aged 10-14 years attending school	Proportion of children aged 10-14 years, both of whose parents are alive, that are living with at least one parent and are attending school
78	Children's living arrangements	Number of children aged 0-17 years not living with a biological parent	**Total** number of children aged 0-17 years surveyed
79	Malnutrition among children orphaned and made vulnerable by HIV/AIDS	Proportion of orphaned or vulnerable children under age five that are moderately or severely underweight, of all orphaned and vulnerable children under age five that are weighed	Proportion of children not classified as orphaned or vulnerable under age five that are moderately or severely underweight, of all children not classified as orphaned or vulnerable under age five that are weighed
80	Early sex among children orphaned and made vulnerable by HIV/AIDS	Proportion of orphaned and vulnerable children aged 15-17 years that had sex before age 15, of all orphaned and vulnerable children aged 15-17 years surveyed	Proportion of children not classified as orphaned or vulnerable aged 15-17 years that had sex before age 15, of all children not classified as orphaned or vulnerable aged 15-17 years surveyed
81	External support to children orphaned and made vulnerable by HIV/AIDS	Number of orphaned and vulnerable children under age 18 whose households received free basic external support in caring for the child	Number of orphaned and vulnerable children under age 18 surveyed
82	Comprehensive knowledge about HIV prevention among young people	Number of women aged 15-24 years that correctly identify two ways of avoiding HIV infection and reject three common misconceptions about HIV transmission	**Total** number of women aged 15-24 years surveyed
83	Condom use with non-regular partners	Number of women aged 15-24 years reporting the use of a condom during sexual intercourse with their last non-marital, non-cohabiting sex partner in the previous 12 months	**Total** number of women aged 15-24 years surveyed that had a non-marital, non-cohabiting partner in the previous 12 months
84	Age at first sex among young people	Number of women aged 15-24 years that have had sex before age 15	**Total** number of women aged 15-24 surveyed
85	Higher risk sex in the last year	Number of sexually active women aged 15-24 years that have had sex with a non-marital, non-cohabitating partner in the previous 12 months	**Total** number of women aged 15-24 that were sexually active in the previous 12 months
86	Attitude towards people with HIV/ AIDS	Number of women expressing acceptance on all four questions about people with HIV or AIDS	**Total** number of women surveyed
87	Women who know where to be tested for HIV	Number of women that state knowledge of a place to be tested	**Total** number of women surveyed

INDICATOR		NUMERATOR	DENOMINATOR
88	Women who have been tested for HIV	Number of women that report being tested for HIV	**Total** number of women surveyed
89	Knowledge of mother-to-child transmission of HIV	Number of women that correctly identify all three means of vertical transmission	**Total** number of women surveyed
90	Counselling coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received counselling on HIV/AIDS during this care	**Total** number of women that gave birth in the previous 24 months surveyed
91	Testing coverage for the prevention of mother-to-child transmission of HIV	Number of women that gave birth in the previous 24 months and received antenatal care reporting that they received the results of an HIV test during this care	**Total** number of women that gave birth in the previous 24 months surveyed
92	Age-mixing among sexual partners	Number of women aged 15-24 years that had sex in the past 12 months with a partner who was 10 or more years older than they were	**Total** number of sexually active women aged 15-24 years surveyed
93	Security of tenure	Number of household members living in urban households that lack formal documentation for their residence or that feel at risk of eviction	Number of urban household members in households surveyed
94	Durability of housing	Number of household members living in urban dwellings that are not considered durable	Number of urban household members in households surveyed
95	Slum household	Number of household members living in urban slums	Number of household members in urban households surveyed
96	Source of supplies	Number of children (or households) for whom supplies were obtained from public providers, presented separately for each type of supply: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials	**Total** number of children (or households) for whom supplies were obtained
97	Cost of supplies	Median cost of supplies obtained, presented separately for each type of supply and whether sourced from public or private providers: insecticide-treated mosquito nets, oral rehydration salts, antibiotics and antimalarials.	**Total** number of children (or households) for whom supplies were obtained
98	Unmet need for family planning	Number of women that are currently married or in union that are fecund and want to space their births or limit the number of children they have and that are not currently using contraception	**Total** number of women interviewed that are currently married or in union
99	Demand satisfied for family planning	Number of women currently married or in union that are currently using contraception	Number of women currently married or in union that have an unmet need for contraception or that are currently using contraception
100	Attitudes towards domestic violence	Number of women that consider that a husband/partner is justified in hitting or beating his wife in at least one of the following circumstances: (1) she goes out without telling him, (2) she neglects the children, (3) she argues with him, (4) she refuses sex with him, (5) she burns the food	**Total** number of women surveyed
101	Child disability	Number of children aged 2-9 years with at least one of nine reported disabilities: (1) delay in sitting, standing or walking, (2) difficulty seeing, either in the daytime or at night, (3) appears to have difficulty hearing, (4) difficulty in understanding instructions, (5) difficulty walking or moving arms or has weakness or stiffness of limbs, (6) has fits, becomes rigid, loses consciousness, (7) does not learn to do things like other children his/her age, (8) cannot speak or cannot be understood in words, (9) appears mentally backward, dull or slow	**Total** number of children aged 2-9 surveyed

* Global MICS indictor not included in the Macedonian 2005 MICS survey.

Appendix
F. Questionnaires

MICS HOUSEHOLD QUESTIONNAIRE

We are from the State Statistical office of the Republic of Macedonia. We are working on a project concerned with family health and education. I would like to talk to you about this. The interview will take about (number) minutes. All the information we obtain will remain strictly confidential and your answers will never be identified. During this time I would like to speak with all mothers or others who take care of children in the household.
May I start now? If permission is given, begin the interview.

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

HOUSEHOLD LISTING FORM **HL**

FIRST, PLEASE TELL ME THE NAME OF EACH PERSON WHO USUALLY LIVES HERE, STARTING WITH THE HEAD OF THE HOUSEHOLD.
LIST THE HEAD OF THE HOUSEHOLD IN LINE 01. LIST ALL HOUSEHOLD MEMBERS (HL2), THEIR RELATIONSHIP TO THE HOUSEHOLD HEAD (HL3), AND THEIR SEX (HL4).
THEN ASK:* ARE THERE ANY OTHERS WHO LIVE HERE, EVEN IF THEY ARE NOT AT HOME NOW? (THESE MAY INCLUDE CHILDREN IN SCHOOL OR AT WORK*). IF YES, COMPLETE LISTING.
THEN, ASK QUESTIONS STARTING WITH HL5 FOR EACH PERSON AT A TIME. ADD A CONTINUATION SHEET IF THERE ARE MORE THAN 15 HOUSEHOLD MEMBERS.
TICK HERE IF CONTINUATION SHEET USED ☐

					ELIGIBLE FOR:				***FOR CHILDREN*** AGE 0-17 YEARS ***ASK HL9-HL12***		
					WOMEN'S INTERVIEW	CHILD LABOUR MODULE	UNDER-5 INTERVIEW				
HL1. *Line no.*	HL2. *Name*	HL3. What is the relation-ship of *(name)* to the head of the house-hold?	HL4. Is *(name)* male or female? 1 male 2 fem.	HL5. How old is *(name)*? How old was *(name)* on his/her last birthday? ***Record in completed years*** 98 = dk*	HL6. ***Circle Line no. if woman is age 15-49***	HL7. ***For each child*** age 5-14***:*** Who is the mother or primary caretaker of this child? ***Record Line no. of mother/ caretaker***	HL8. ***For each child*** under 5***:*** Who is the mother or primary caretaker of this child? ***Record Line no. of mother/ caretaker***	HL9. Is *(name's)* natural mother alive? 1 yes 2 no⇨ HL11 8 dk⇨ HL11	HL10. *If alive:* Does *(name's)* natural mother live in this household? ***Record Line no.*** *of mother or 00 for 'no'*	HL11. Is *(name's)* natural father alive? 1 yes 2 no⇨ next line 8 dk⇨ next line	HL12. *If alive:* Does *(name's)* natural father live in this household? ***Record Line no.*** *of father or 00 for 'no'*
line	name	rel.	m f	age	15-49	mother	mother	y n dk	mother	y n dk	father
01		0 1	1 2	___ ___	01	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
02		___ ___	1 2	___ ___	02	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
03		___ ___	1 2	___ ___	03	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
04		___ ___	1 2	___ ___	04	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
05		___ ___	1 2	___ ___	05	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
06		___ ___	1 2	___ ___	06	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
07		___ ___	1 2	___ ___	07	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
08		___ ___	1 2	___ ___	08	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
09		___ ___	1 2	___ ___	09	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
10		___ ___	1 2	___ ___	10	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
11		___ ___	1 2	___ ___	11	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
12		___ ___	1 2	___ ___	12	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
13		___ ___	1 2	___ ___	13	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
14		___ ___	1 2	___ ___	14	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___
15		___ ___	1 2	___ ___	15	___ ___	___ ___	1 2 8	___ ___	1 2 8	___ ___

Are there any other persons living here – even if they are not members of your family or do not have parents living in this household?
Including children at work or at school? *If yes, insert child's name and complete form.*
Then, complete the totals below.

	Women 15-49	Children 5-14	Under-5s
Totals	___ ___	___ ___	___ ___

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

NOW FOR EACH WOMAN AGE 15-49 YEARS, WRITE HER NAME AND LINE NUMBER AND OTHER IDENTIFYING INFORMATION IN THE INFORMATION PANEL OF THE WOMEN'S QUESTIONNAIRE.
FOR EACH CHILD UNDER AGE 5, WRITE HIS/HER NAME AND LINE NUMBER AND THE LINE NUMBER OF HIS/HER MOTHER OR CARETAKER IN THE INFORMATION PANEL OF THE QUESTIONNAIRE FOR CHILDREN UNDERFIVE.
YOU SHOULD NOW HAVE A SEPARATE QUESTIONNAIRE FOR EACH ELIGIBLE WOMAN AND EACH CHILD UNDER FIVE IN THE HOUSEHOLD.

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

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

EDUCATION MODULE — ED

for household members age 5 and above | ***for household members age 5-24 years***

ED1. ***Line no.***	ED1A. *Name*	ED2. Has *(name)* ever attended school or preschool? 1 yes⇨ED3 2 no ⇨ next line	ED3. What is the highest level of school *(name)* attended? What is the highest grade *(name)* completed at this level? Level: 0 pre-school 1 primary 2 secondary 3 higher 6 non-standard curriculum 8 dk Grade: 98 dk ***if less than 1 grade, enter 00.***		ED4. During the *(2005-2006)* school year, did *(name)* attend school or preschool at any time? 1 yes 2 no⇨ED7	ED5. Since last *(day of the week)*, how many days did *(name)* attend school? ***insert number of days in space below.***	ED6. during this/that school year, which level and grade is/was *(name)* attending? level: 0 Preschool 1 primary 2 secondary 3 higher 6 non-standard curriculum 8 dk grade: 98 dk		ED7. Did *(name)* attend school or preschool at any time during the previous school year, that is (*2004-2005*)? 1 yes 2 no ↘ next line 8 dk ↘ next line			ED8. During that previous school year, which level and grade did *(name)* attend? level: 0 Preschool 1 primary 2 secondary 3 higher 6 non-standard curriculum 8 dk grade: 98 dk	
LINE		YES NO	LEVEL	GRADE	YES NO	DAYS	LEVEL	GRADE	Y	N	DK	LEVEL	GRADE
01		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
02		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
03		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
04		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
05		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
06		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
07		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
08		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
09		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
10		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
11		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
12		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
13		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
14		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___
15		1 2⇨NEXT LINE	0 1 2 3 6 8	___ ___	1 2	___	0 1 2 3 6 8	___ ___	1	2	8	0 1 2 3 6 8	___ ___

WATER AND SANITATION MODULE		WS
WS1. What is the main source of drinking water for members of your household?	Piped water Piped into dwelling ... 11 Piped into yard or plot ... 12 Public tap/standpipe ... 13 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 *(specify)* _____ 96	11⇨WS5 12⇨WS5 ⇨WS3 96⇨WS3
WS2. What is the main source of water used by your household for other purposes such as cooking and handwashing?	Piped water Piped into dwelling ... 11 Piped into yard or plot ... 12 Public tap/standpipe ... 13 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 *(specify)* _____ 96	11⇨WS5 12⇨WS5
WS3. How long does it take to go there, GET water, and come back?	No. of minutes ... __ __ __ Water on premises ... 995 DK ... 998	995⇨WS5
WS4. Who usually goes to this source to fetch the water for your household? *Probe:* Is this person under age 15? What sex? *Circle code that best describes this person.*	Adult woman ... 1 Adult man ... 2 Female child (under 15) ... 3 Male child (under 15) ... 4 DK ... 8	
WS5. Do you treat your water in any way to make it safer to drink?	Yes ... 1 No ... 2 DK ... 8	2⇨WS7 8⇨WS7
WS6. What do you usually do to the water to make it safer to drink? Anything else? *Record all items mentioned.*	Boil A Add bleach/chlorine ... B Strain it through a cloth ... C Use water filter (ceramic, sand, composite, etc.) ... D Solar disinfection ... E Let it stand and settle ... F Other *(specify)* _____ X DK ... Z	
WS7. What kind of toilet facility do members of your household usually use? *If "flush" or "pour flush", probe:* Where does it flush to? *If necessary, ask permission to observe the facility.*	Flush / pour flush Flush to piped sewer system ... 11 Flush to septic tank ... 12 Flush to pit (latrine) ... 13 Flush to somewhere else ... 14 Flush to unknown place/not sure/DK where ... 15 Ventilated Improved Pit latrine (VIP) ... 21 Pit latrine with slab ... 22 Pit latrine without slab / open pit ... 23 No facilities or bush or field ... 95 Other *(specify)* _____ 96	95⇨ NEXT MODULE
WS8. Do you share this facility with other households?	Yes ... 1 No ... 2	2⇨ NEXT MODULE
WS9. How many households use this toilet facility?	No. of households (if less than 10) ... 0 ___ Ten or more households ... 10 DK ... 98	

HOUSEHOLD CHARACTERISTICS MODULE		HC
HC1a. What is the religion of the head of this household?	Orthodox ..... 1 Islamic ..... 2 Catholics ..... 3 Protestants ..... 5 Other religion *(specify)* _____ 6 No religion ..... 7 No reply 15	
HC1b. What is the mother tongue/native language of the head of this household?	MacedonianMacedM ..... 1 Albanian ..... 3 Turkish ..... 8 Romas ..... 5 Vlach ..... 4 Serbian ..... 27 Bosniac ..... 10 Other language *(specify)* _____ 6 No reply 15	
HC1c. To what ethnic group does the head of this household belong?	MMMmmmMacedonians. ..... 1 Albanians ..... 3 Turks ..... 8 Rhomas ..... 5 Vlachs ..... 4 Serbs ..... 27 Bosniacs ..... 10 Other *(specify)* _____ 6 No reply 15	
HC2. How many rooms in this household are used for sleeping?	No. of rooms ..... __ __	
HC3. Main material of the dwelling floor: *Record observation.*	Natural floor Earth/sand ..... 11 Rudimentary floor Wood planks ..... 21 Bamboo ..... 22 Finished floor Parquet or polished wood ..... 31 Vinyl or asphalt strips ..... 32 Ceramic tiles ..... 33 Cement ..... 34 Carpet ..... 35 Other *(specify)* _____ 96	
HC4. Main material of the roof: *Record observation.*	Natural roofing No Roof ..... 11 Thatch ..... 12 Sod ..... 13 Rudimentary Roofing Rustic mat ..... 21 Bamboo ..... 22 Wood planks ..... 23 Finished roofing Metal ..... 31 Wood ..... 32 Calamine/cement fibre ..... 33 Ceramic tiles ..... 34 Cement ..... 35 Roofing shingles ..... 36 Other *(specify)* _____ 96	

HC5. Main material of the walls: *Record observation.*	Natural walls No walls ..... 11 Cane /trunks ..... 12 Dirt ..... 13 Rudimentary walls Bamboo with mud ..... 21 Stone with mud ..... 22 Uncovered adobe ..... 23 Plywood ..... 24 Carton ..... 25 Reused wood ..... 26 Finished walls Cement ..... 31 Stone with lime/cement ..... 32 Bricks ..... 33 Cement blocks ..... 34 Covered adobe ..... 35 Wood planks/shingles ..... 36 Other *(specify)* _____ 96	
HC6. What type of fuel does your household mainly use for cooking?	Electricity ..... 01 Liquid Propane Gas (LPG) ..... 02 Coal / Lignite ..... 06 Charcoal ..... 07 Wood ..... 08 Straw/shrubs/grass ..... 09 Agricultural crop residue ..... 11 Other *(specify)* _____ 96	01⇨HC8 02⇨HC8
HC7. In this household, is food cooked on a stove or an open fire? *Probe for type.*	Open fire ..... 1 Open stove ..... 2 Closed stove ..... 3 Other *(specify)* _____ 96	 3⇨HC8 6⇨HC8
HC7a. DOES THE FIRE/STOVE HAVE A CHIMNEY OR A HOOD?	Yes ..... 1 No 2	
HC8. Is the cooking usually done in the house, in a separate building, or outdoors?	In the house ..... 1 In a separate building ..... 2 Outdoors ..... 3 Other *(specify)* _____ 6	
HC9. Does your household have: Electricity? A radio? A television? A mobile telephone? A non-mobile telephone? A refrigerator? A computer?	Yes No Electricity ..... 1 2 Radio ..... 1 2 Television ..... 1 2 Mobile Telephone ..... 1 2 Non-Mobile Telephone ..... 1 2 Refrigerator ..... 1 2 Dish washing machine ..... 1 2 Computer ..... 1 2 Washing machine (clothes) 1 2	
HC10. Does any member of your household own: A watch? A bicycle? A motorcycle or scooter? An animal-drawn cart? A car or truck? A boat with a motor? A tractor?	Yes No Watch ..... 1 2 Bicycle ..... 1 2 Motorcycle/Scooter ..... 1 2 Animal drawn-cart ..... 1 2 Car/Truck ..... 1 2 Boat with motor ..... 1 2 Tractor 1 2	

CHILD LABOUR MODULE — CL

TO BE ADMINISTERED TO MOTHER/CARETAKER OF EACH CHILD IN THE HOUSEHOLD AGE 5 THROUGH 14 YEARS. FOR HOUSEHOLD MEMBERS BELOW AGE 5 OR ABOVE AGE 14, LEAVE ROWS BLANK.

Now I would like to ask about any work children in this household may do.

CL1. ***Line no.***	CL2. ***Name***	CL3. During the past week, did *(name)* do any kind of work for someone who is not a member of this household? *If yes:* for pay in cash or kind? 1 yes, for pay (cash or kind) 2 yes, unpaid 3 no ⇨to CL5			CL4. ***If yes:*** Since last *(day of the week),* about how many hours did he/she do this work for someone who is not a member of this household? ***if more than one job, include all hours at all jobs.*** ***record response then⇨cl.6***	CL5. At any time during the past year, did *(name)* do any kind of work for someone who is not a member of this household? *If yes:* for pay? 1 yes, for pay (cash or kind) 2 yes, unpaid 3 no			CL6. During the past week, did *(name)* help with household chores such as shopping, collecting firewood, cleaning, fetching water, or caring for children? 1 yes 2 no⇨to CL8		CL7. *If yes:* Since last *(day of the week),* about how many hours did he/she spend doing these chores?	CL8. During the past week, did *(name)* do any other family work (on the farm or in a business or selling goods in the street?) 1 yes 2 no ⇘ next line		CL9. *If yes:* Since last *(day of the week),* about how many hours did he/she do this work?
LINE NO.	NAME	YES PAID	UNPAID	NO	NO. HOURS	YES PAID	UNPAID	NO	YES	NO	NO. HOURS	YES	NO	NO. HOURS
01		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
02		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
03		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
04		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
05		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
06		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
07		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
08		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
09		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
10		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
11		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
12		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
13		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
14		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____
15		1	2	3	____ ____	1	2	3	1	2	____ ____	1	2	____ ____

CHILD DISCIPLINE MODULE

TABLE 1: CHILDREN AGED 2-4 YEARS ELIGIBLE FOR CHILD DISCIPLINE QUESTIONS

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

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

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

TABLE 2: SELECTION OF RANDOM CHILD FOR CHILD DISCIPLINE QUESTIONS

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

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

CD9. Record the rank number of the selected child	Rank number of child.....__ __

CHILD DISCIPLINE MODULE		CD
Identify eligible child aged 2 to 14 in the household using the tables on the preceding page, according to your instructions. Ask to interview the mother or primary caretaker of the selected child (identified by the line number in CD6).		
CD11. *Write name and line no. of the child selected for the module from CD3 and CD2, based on the rank number in CD9.*	Name _____ Line number ..... __ __	
CD12. All adults use certain ways to teach children the right behaviour or to address a behaviour problem. I will read various methods that are used and I want you to tell me if *you or anyone else in your household* has used this method with *(name)* in the past month.		
CD12a. Took away privileges, forbade something *(name)* liked or did not allow him/her to leave house).	Yes ..... 1 No 2	
CD12b. Explained why something (the behavior) was wrong.	Yes ..... 1 No 2	
CD12c. Shook him/her.	Yes ..... 1 No 2	
CD12d. Shouted, yelled at or screamed at him/her.	Yes ..... 1 No 2	
CD12e. Gave him/her something else to do.	Yes ..... 1 No 2	
CD12f. Spanked, hit or slapped him/her on the bottom with bare hand.	Yes ..... 1 No 2	
CD12g. Hit him/her on the bottom or elsewhere on the body with something like a belt, hairbrush, stick or other hard object.	Yes ..... 1 No 2	
CD12h. Called him/her dumb, lazy, or another name like that.	Yes ..... 1 No 2	
CD12i. Hit or slapped him/her on the face, head or ears.	Yes ..... 1 No 2	
CD12j. Hit or slapped him/her on the hand, arm, or leg.	Yes ..... 1 No 2	
CD12k. Beat him/her up with an implement (hit over and over as hard as one could).	Yes ..... 1 No 2	
CD13. Do you believe that in order to bring up (raise, educate) *(name)* properly, you need to physically punish him/her?	Yes ..... 1 No ..... 2 Don't know/no opinion 8	

DISABILITY **DA**

To be administered to caretakers of all children 2 through 9 years old living in the household. For household members below age 2 or above age 9, leave rows blank
I WOULD LIKE TO ASK YOU IF ANY CHILDREN IN THIS HOUSEHOLD AGED 2 THROUGH 9 HAS ANY OF THE HEALTH CONDITIONS I AM GOING TO MENTION TO YOU.

DA1. *Line no.*	DA2. *Child's name*	DA3. Compared with other children, does or did *(name)* have any serious delay in sitting, standing, or walking?	DA4. Compared with other children, does *(name)* have difficulty seeing, either in the daytime or at night?	DA5. Does *(name)* appear to have difficulty hearing? (uses hearing aid, hears with difficulty, completely deaf?)	DA6. When you tell *(name)* to do something, does he/she seem to understand what you are saying?	DA7. Does *(name)* have difficulty in walking or moving his/her arms or does he/she have weakness and/ or stiffness in the arms or legs?	DA8. Does *(name)* sometimes have fits, become rigid, or lose consc-iousness?	DA9. Does *(name)* learn to do things like other children his/her age?	DA10. Does *(name)* speak at all (can he/she make him or herself understood in words; can say any recognizable words)?	DA11. *(For 3-9 year olds):* Is *(name)*'s speech in any way different from normal (not clear enough to be understood by people other than the immediate family)?	DA12. *(For 2-year-olds):* Can *(name)* name at least one object (for example, an animal, a toy, a cup, a spoon)?	DA13. Compared with other children of the same age, does *(name)* appear in any way mentally backward, dull or slow?
LINE	NAME	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N
01		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
02		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
03		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
04		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
05		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
06		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
07		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
08		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
09		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
10		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
11		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
12		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
13		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
14		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
15		1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2

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

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

☐ *No.⇨Continue.*

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

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

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

MICS

QUESTIONNAIRE FOR INDIVIDUAL WOMEN

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

Repeat greeting if not already read to this woman:
We are from the State Statistical office of the Republic of Macedonia. We are working on a project concerned with family health and education. I would like to talk to you about this. The interview will take about (number) minutes. All the information we obtain will remain strictly confidential and your answers will never be identified. Also, you are not obliged to answer any question you don't want to, and you may withdraw from the interview at any time. May I start now?

If permission is given, begin the interview. If the woman does not agree to continue, thank her and go to the next interview.

WM8. In what month and year were you born?	Date of birth: Month..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
WM9. How old were you at your last birthday?	Age (in completed years)..... __ __	
WM10. Have you ever attended school?	Yes ..... 1 No 2	2⇨WM14
WM11. What is the highest level of school you attended: primary, secondary, or higher?	Primary..... 1 Secondary ..... 2 Higher..... 3	
WM12. What is the highest grade you completed at that level?	Grade..... __ __	
WM13. *Check WM11:* ☐ *Secondary or higher.⇨Go to Next Module* ☐ *Primary.⇨Continue with WM14*		
WM14. Now I would like you to read this sentence to me. *Show sentences to respondent.* *If respondent cannot read whole sentence, probe:* Can you read part of the sentence to me? *Example sentences for literacy test:* 1. The child is reading a book. 2. The rains came late this year. 3. Parents must care for their children. 4. Farming is hard work.	Cannot read at all ..... 1 Able to read only parts of sentence..... 2 Able to read whole sentence ..... 3 No sentence in required language _____ 4 *(specify language)* Blind/visually impaired..... 5	

CHILD MORTALITY MODULE		CM
This module is to be administered to all women age 15-49. *All questions refer only to LIVE births.*		
CM1. Now i would like to ask about all the births you have had during your life. Have you ever given birth? *If "No" probe by asking:* I mean, to a child who ever breathed or cried or showed other signs of life – even if he or she lived only a few minutes or hours?	Yes ..... 1 No 2	2⇨ marriage/union module
CM2a. What was the date of your first birth? I mean the very first time you gave birth, even if the child is no longer living, or whose father is not your current partner. *SKIP TO CM3 ONLY IF YEAR OF FIRST BIRTH IS GIVEN. OTHERWISE, CONTINUE WITH CM2B.*	Date of first birth Day ..... __ __ DK day ..... 98 Month..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	⇨CM3 ⇩CM2b
CM2b. How many years ago did you have your first birth?	Completed years since first birth..... __ __	
CM3. Do you have any sons or daughters to whom you have given birth who are now living with you?	Yes ..... 1 No 2	2⇨CM5
CM4. How many sons live with you? How many daughters live with you?	Sons at home..... __ __ Daughters at home..... __ __	
CM5. Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	Yes ..... 1 No 2	2⇨CM7
CM6. How many sons are alive but do not live with you? How many daughters are alive but do not live with you?	Sons elsewhere..... __ __ Daughters elsewhere ..... __ __	
CM7. Have you ever given birth to a boy or girl who was born alive but later died?	Yes ..... 1 No 2	2⇨CM9
CM8. How many boys have died? How many girls have died?	Boys dead..... __ __ Girls dead ..... __ __	
CM9. Sum answers to CM4, CM6, and CM8.	Sum..... __ __	
CM10. Just to make sure that i have this right, you have had in **Total** (**Total** number) births during your life. is this correct? ☐ *Yes.⇨Go to CM11* ☐ *No.⇨Check responses and make corrections before proceeding to CM11*		
CM11. Of these *(total number)* births you have had, when did you deliver the last one (even if he or she has died)? *If day is not known, enter '98' in space for day.*	Date of last birth Day/Month/Year..... __ __/__ __/__ __ __ __	
CM12. *Check CM11: Did the woman's last birth occur within the last 2 years, that is, since* _____ *If child has died, take special care when referring to this child by name in the following modules.* ☐ *Yes, live birth in last 2 years.⇨Go to MATERNAL AND NEWBORN HEALTH MODULE* *Name of child*_____ ☐ *No live birth in last 2 years.⇨Go to MARRIAG/UNION module.*		

MATERNAL AND NEWBORN HEALTH MODULE — MN

This module is to be administered to all women with a live birth in the 2 years preceding date of interview.
Check child mortality module CM12 and record name of last-born child here _____.
Use this child's name in the following questions, where indicated.

MN2. Did you see anyone for antenatal care for this pregnancy? *If yes:* Whom did you see? Anyone else? *Probe for the type of person seen and circle all answers given.*	Health professional: Doctor ..... A Nurse/midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H Other *(specify)* _____ X No one ..... Y	Y⇨MN7
MN2A. How many times did you see anyone for antenatal care for this regnancy?	Number	
MN3. As part of your antenatal care, were any of the following done at least once? MN3a. Were you weighed? MN3b. Was your blood pressure measured? MN3c. Did you give a urine sample? MN3d. Did you give a blood sample?	Yes No Weight ..... 1 2 Blood pressure ..... 1 2 Urine sample ..... 1 2 Blood sample 1 2	
MN4. During any of the antenatal visits for the pregnancy, were you given any information or counseled about AIDS or the AIDS virus?	Yes ..... 1 No ..... 2 DK 8	
MN7. Who assisted with the delivery of your last child (or name)? Anyone else? *Probe for the type of person assisting and circle all answers given.*	Health professional: Doctor ..... A Nurse/midwife ..... B Auxiliary midwife ..... C Other person Traditional birth attendant ..... F Community health worker ..... G Relative/friend ..... H Other *(specify)* _____ X No one ..... Y	
MN8. Where did you give birth to *(name)*? *If source is hospital, health center, or clinic, write the name of the place below.* *Probe to identify the type of source and circle the appropriate code.* _____ *(Name of place)*	Home Your home ..... 11 Other home ..... 12 Public sector Govt. hospital ..... 21 Govt. clinic/health center ..... 22 Other public *(specify)* _____ 26 Private Medical Sector Private hospital ..... 31 Private clinic ..... 32 Private maternity home ..... 33 Other private medical *(specify)* _____ 36 Other *(specify)* _____ 96	
MN9. When your last child *(name)* was born, was he/she very large, larger than average, average, smaller than average, or very small?	Very large ..... 1 Larger than average ..... 2 Average ..... 3 Smaller than average ..... 4 Very small ..... 5 DK 8	
MN10. Was *(name)* weighed at birth?	Yes ..... 1 No ..... 2 DK 8	2⇨MN12 8⇨MN12
MN11. How much did *(name)* weigh? *Record weight from health card, if available.*	From card ..... 1 (kilograms) __ . __ __ __ From recall ..... 2 (kilograms) __ . __ __ __ DK 99998	
MN12. did you ever breastfeed *(name)*?	Yes ..... 1 No 2	2⇨ NEXT MODULE
MN13. How long after birth did you first put *(name)* to the breast? *If less than 1 hour, record '00' hours.* *If less than 24 hours, record hours.* *Otherwise, record days.*	Immediately ..... 000 Hours ..... 1 __ __ *or* Days ..... 2 __ __ Don't know/remember 998	

MARRIAGE/UNION MODULE		MA
Ask questions for all women age 15-49.		
MA1. Are you currently married or living together with a man as if married?	Yes, currently married ..... 1 Yes, living with a man ..... 2 No, not in union 3	 3⇨MA3
MA2. How old was your husband/partner on his last birthday?	Age in years ..... __ __ DK 98	⇨MA5 98⇨MA5
MA3. Have you ever been married or lived together with a man?	Yes, formerly married ..... 1 Yes, formerly lived with a man ..... 2 No 3	 3⇨NEXT MODULE
MA4. What is your marital status now: are you widowed, divorced or separated?	Widowed ..... 1 Divorced ..... 2 Separated 3	
MA5. Have you been married or lived with a man only once or more than once?	Only once ..... 1 More than once 2	
MA6. In what month and year did you first marry or start living with a man as if married?	Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
MA7. *Check MA6:* ☐ *Both month and year of marriage/union?⇨Go to Next Module* ☐ *Either month or year of marriage/union not known?⇨Continue with MA8*		
MA8. How old were you when you started living with your first husband/ partner?	Age in years ..... __ __	

CONTRACEPTION AND UNMET NEED		CP
CP1. I would like to talk with you about another subject – family planning – and your reproductive health. Are you pregnant now?	Yes, currently pregnant ..... 1 No ..... 2 Unsure or DK 8	 2⇨CP2 8⇨CP2
CP1a. At the time you became pregnant did you want to become pregnant then, did you want to wait until later, or did you not want to have any more children?	Then ..... 1 Later ..... 2 Not want more children 3	1⇨CP4b 2⇨CP4b 3⇨CP4b
CP2. Some people use various ways or methods to delay or avoid a pregnancy. Are you currently doing something or using any method to delay or avoid getting pregnant?	Yes ..... 1 No 2	 2⇨CP4a
CP3. Which method are you using? *Do not prompt.* *If more than one method is mentioned, circle each one.*	Female sterilization ..... A Male sterilization ..... B Pill ..... C IUD ..... D Injections ..... E Implants ..... F Condom ..... G Female condom ..... H Diaphragm ..... I Foam/jelly ..... J Lactational amenorrhoea method (LAM) ..... K Periodic abstinence ..... L Withdrawal ..... M Other *(specify)*_____ X	
CP4a. Now I would like to ask some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? CP4b. *If currently pregnant:* Now I would like to ask some questions about the future. After the child you are now expecting, would you like to have another child, or would you prefer not to have any (more) children?	Have (a/another) child ..... 1 No more/none ..... 2 Says she cannot get pregnant ..... 3 Undecided/don't know 8	 2⇨CP4d 3⇨next module 8⇨CP4d
CP4c. How long would you like to wait before the birth of (a/another) child?	Months ..... 1 __ __ Years ..... 2 __ __ Soon/now ..... 993 Says she cannot get pregnant ..... 994 After marriage ..... 995 Other ..... 996 Don't know 998	 994⇨next module
CP4D. Check CP1: ☐ currently pregnant? ⇨go to next module ☐ not currently pregnant or unsure?⇨continue with cp4e		
CP4E. Do you think that you are physically able to get pregnant at this time?	Yes ..... 1 No ..... 2 DK 8	

ATTITUDES TOWARD DOMESTIC VIOLENCE				DV
DV1. Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:		Yes	No	
	DK			
DV1a. If she goes out with out telling him?	Goes out without telling 1	2	8	
DV1b. If she neglects the children?	Neglects children 1	2	8	
DV1c. If she argues with him?	Argues 1	2	8	
DV1d. If she refuses sex with him?	Refuses sex 1	2	8	
DV1e. If she burns the food?	Burns food 1	2	8	

SEXUAL BEHAVIOUR MODULE		SB
Check for the presence of others. Before continuing, ensure privacy.		
SB0. *Check WM9: Age of respondent is between 15 and 24?* ☐ *Age 25-49.⇨Go to Next Module* ☐ *Age 15-24.⇨Continue with SB1*		
SB1. Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. The information you supply will remain strictly confidential. How old were you when you first had sexual intercourse (if ever)?	Never had intercourse ..... 00 Age in years..... __ __ First time when started living with (first) husband/partner..... 95	00⇨next module
SB2. When was the last time you had sexual intercourse? *Record 'years ago' only if last intercourse was one or more years ago. If 12 months or more the answer must be recorded in years.*	Days ago ..... 1 __ __ Weeks ago ..... 2 __ __ Months ago ..... 3 __ __ Years ago ..... 4 __ __	4⇨next module
SB3. The last time you had sexual intercourse was a condom used?	Yes ..... 1 No 2	
SB4. What is your relationship to the man with whom you last had sexual intercourse? *If man is 'boyfriend' or 'fiancée', ask:* Was your boyfriend/fiancée living with you when you last had sex? *If 'yes', circle 1 .If 'no', circle 2.*	Spouse / cohabiting partner..... 1 Man is boyfriend / fiancée..... 2 Other friend ..... 3 Casual acquaintance ..... 4 Other *(specify)*_____ 6	1⇨SB6
SB5. how old is this person? *If response is DK, probe:* About how old is this person?	Age of sexual partner..... __ __ DK 98	
SB6. Have you had sex with any other man in the last 12 months?	Yes ..... 1 No 2	2⇨next module
SB7. The last time you had sexual intercourse with this other man, was a condom used?	Yes ..... 1 No 2	
SB8. What is your relationship to this man? If man is 'boyfriend' or 'fiancée', ask: Was your boyfriend/fiancée living with you when you last had sex? If 'yes', circle 1. If 'no', circle 2.	Spouse / cohabiting partner..... 1 Man is boyfriend / fiancée..... 2 Other friend ..... 3 Casual acquaintance ..... 4 Other *(specify)*_____ 6	1⇨SB10
SB9. how old is this person? *If response is DK, probe:* About how old is this person?	Age of sexual partner..... __ __ DK 98	
SB10. Other than these two men, have you had sex with any other man in the last 12 months?	Yes ..... 1 No 2	2⇨next module
SB11. In **Total**, with how many different men have you had sex in the last 12 months?	No. of partners ..... __ __	

HIV/AIDS MODULE		HA
This module is to be administered to all women age 15-49.		
HA1. Now I would like to talk with you about something else. Have you ever heard of the virus HIV or an illness called AIDS?	Yes ..... 1 No 2	 2⇨ next module
HA2. Can people protect themselves from getting infected with the AIDS virus by having one sex partner who is not infected and also has no other partners?	Yes ..... 1 No ..... 2 DK 8	
HA3. Can people get infected with the AIDS virus because of witchcraft or other supernatural means?	Yes ..... 1 No ..... 2 DK 8	
HA4. Can people reduce their chance of getting the AIDS virus by using a condom every time they have sex?	Yes ..... 1 No ..... 2 DK 8	
HA5. Can people get the AIDS virus from mosquito bites?	Yes ..... 1 No ..... 2 DK 8	
HA6. Can people reduce their chance of getting infected with the AIDS virus by not having sex at all?	Yes ..... 1 No ..... 2 DK 8	
HA7. Can people get the AIDS virus by sharing food with a person who has AIDS?	Yes ..... 1 No ..... 2 DK 8	
HA7a. Can people get the AIDS virus by getting injections with a needle that was already used by someone else?	Yes ..... 1 No ..... 2 DK 8	
HA8. Is it possible for a healthy-looking person to have the AIDS virus?	Yes ..... 1 No ..... 2 DK 8	
HA9. Can the AIDS virus be transmitted from a mother to a baby? a. During pregnancy? b. During delivery? c. By breastfeeding?	Yes No DK During pregnancy ..... 1 2 8 During delivery ..... 1 2 8 By breastfeeding 1 2 8	
HA10. If a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in school?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA11. Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA12. If a member of your family became infected with the AIDS virus, would you want it to remain a secret?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA13. If a member of your family became sick with the AIDS virus, would you be willing to care for him or her in your household?	Yes ..... 1 No ..... 2 DK/not sure/depends 8	
HA15. I do not want to know the results, but have you ever been tested to see if you have HIV, the virus that causes AIDS?	Yes ..... 1 No 2	 2⇨HA18
HA16. I do not want you to tell me the results of the test, but have you been told the results?	Yes ..... 1 No 2	
HA17. Did you, yourself, ask for the test, was it offered to you and you accepted, or was it required?	Asked for the test ..... 1 Offered and accepted ..... 2 Required 3	
HA18. At this time, do you know of a place where you can go to get such a test to see if you have the AIDS virus? HA18A. *If tested for HIV during antenatal care:* Other than at the antenatal clinic, do you know of a place where you can go to get a test to see if you have the AIDS virus?	Yes ..... 1 No 2	

MICS

QUESTIONNAIRE FOR CHILDREN UNDER FIVE

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

Repeat greeting if not already read to this respondent:

We are from the State Statistical office of the Republic of Macedonia. We are working on a project concerned with family health and education. I would like to talk to you about this. The interview will take about 20 minutes. All the information we obtain will remain strictly confidential and your answers will never be identified. Also, you are not obliged to answer any question you don't want to, and you may withdraw from the interview at any time. May I start now?

If permission is given, begin the interview. If the respondent does not agree to continue, thank him/her and go to the next interview.

UF10. Now I would like to ask you some questions about the health of each child under the age of 5 in your care, who lives with you now. Now I want to ask you about *(name)*. In what month and year was *(name)* born? *Probe:* What is his/her birthday? *If the mother/caretaker knows the exact birth date, also enter the day; otherwise, circle 98 for day.*	Date of birth: Day ..... __ __ DK day ..... 98 Month ..... __ __ DK month ..... 98 Year ..... __ __ __ __ DK year 9998	
UF11. How old was *(name)* at his/her last birthday? *Record age in completed years.*	Age in completed years ..... __	

BIRTH REGISTRATION AND EARLY LEARNING MODULE						BR
BR1. Does *(name)* have a birth certificate? May I see it?	Yes, seen ..... 1 Yes, not seen ..... 2 No ..... 3 DK 8					1⇨BR5
BR2. Has *(name's)* birth been registered with the civil authorities?	Yes ..... 1 No ..... 2 DK 8					1⇨BR5 8⇨BR4
BR3. Why is *(name's)* birth not registered?	Costs too much ..... 1 Must travel too far ..... 2 Did not know it should be registered ..... 3 Did not want to pay fine ..... 4 Does not know where to register ..... 5 Other *(specify)*_____ 6 DK 8					
BR4. Do you know how to register your child's birth?	Yes ..... 1 No 2					
BR5. Check age of child in UF11: Child is 3 or 4 years old ? ☐ *Yes.*⇨*Continue with BR6* ☐ *No.*⇨*Go to BR8*						
BR6. Does *(name)* attend any organized learning or early childhood education programme, such as a private or government facility, including kindergarten or community child care?	Yes ..... 1 No ..... 2 DK 8					2⇨BR8 8⇨BR8
BR7. Within the last seven days, about how many hours did *(name)* attend?	No. of hours ..... __ __					
BR8. In the past 3 days, did you or any household member over 15 years of age engage in any of the following activities with *(name)*: *If yes, ask:* who engaged in this activity with the child - the mother, the child's father or another adult member of the household (including the caretaker/respondent)? *Circle all that apply.*		Mother	Father	Other	No one	
BR8a. Read books or look at picture books with *(name)*?	Books	A	B	X	Y	
BR8b. Tell stories to *(name)*?	Stories	A	B	X	Y	
BR8c. Sing songs with *(name)*?	Songs	A	B	X	Y	
BR8d. Take *(name)* outside the home, compound, yard or enclosure?	Take outside	A	B	X	Y	
BR8e. Play with *(name)*?	Play with	A	B	X	Y	
BR8f. Spend time with *(name)* naming, counting, and/or drawing things?	Spend time with	A	B	X	Y	

CHILD DEVELOPMENT		CE
Question CE1 is to be administered only once to each caretaker		
CE1. How many books are there in the household? Please include schoolbooks, but not other books meant for children, such as picture books *If 'none' enter 00*	Number of non-children's books ..... 0 __ Ten or more non-children's books 10	
CE2. How many children's books or picture books do you have for *(name)*? *If 'none' enter 00*	Number of children's books ..... 0 __ Ten or more books 10	
CE3. I am interested in learning about the things that *(name)* plays with when he/she is at home. What does *(name)* play with? Does he/she play with household objects, such as bowls, plates, cups or pots? objects and materials found outside the living quarters, such as sticks, rocks, animals, shells, or leaves? homemade toys, such as dolls, cars and other toys made at home? toys that came from a store? *If the respondent says "YES" to any of the prompted categories, then probe to learn specifically what the child plays with to ascertain the response* *Code Y if child does not play with any of the items mentioned.*	Household objects (bowls, plates, cups, pots) ..... A Objects and materials found outside the living quarters (sticks, rocks, animals, shells, leaves) ..... B Homemade toys (dolls, cars and other toys made at home) ..... C Toys that came from a store ..... D No playthings mentioned ..... Y	
CE4. Sometimes adults taking care of children have to leave the house to go shopping, wash clothes, or for other reasons and have to leave young children with others. since last *(day of the week)* how many times was *(name)* left in the care of another child (that is, someone less than 10 years old)? *If 'none' enter 00*	Number of times ..... __ __	
CE5. In the past week, how many times was *(name)* left alone? *If 'none' enter 00*	Number of times ..... __ __	

BREASTFEEDING MODULE		BF
BF1. Has *(name)* ever been breastfed?	Yes ..... 1 No ..... 2 DK 8	 2⇨BF3 8⇨BF3
BF2. Is he/she still being breastfed?	Yes ..... 1 No ..... 2 DK 8	
BF3. Since this time yesterday, did he/she receive any of the following: *Read each item aloud and record response before proceeding to the next item.* BF3a. vitamin, mineral supplements or medicine? BF3b. plain water? BF3c. sweetened, flavoured water or fruit juice or tea or infusion? BF3d. oral rehydration solution (ORS)? BF3e. infant formula? BF3f. tinned, powdered or fresh milk? BF3g. any other liquids? BF3h. solid or semi-solid (mushy) food?	Y N DK A. Vitamin supplements ..... 1 2 8 B. Plain water ..... 1 2 8 C. Sweetened water or juice ..... 1 2 8 D. ORS ..... 1 2 8 E. Infant formula ..... 1 2 8 F. Milk ..... 1 2 8 G. Other liquids ..... 1 2 8 H. Solid or semi-solid food 1 2 8	
BF4. *Check BF3H: Child received solid or semi-solid (mushy) food?* ☐ *Yes.⇨Continue with BF5* ☐ *No or DK.⇨Go to Next Module*		
BF5. Since this time yesterday, how many times did *(name)* eat solid, semisolid, or soft foods other than liquids? *If 7 or more times, record '7'.*	No. of times ..... ___ Don't know 8	

CARE OF ILLNESS MODULE		CA
CA1. Has *(name)* had diarrhoea in the last two weeks, that is, since *(day of the week)* of the week before last? *Diarrhoea is determined as perceived by mother or caretaker, or as three or more loose or watery stools per day, or blood in stool.*	Yes ..... 1 No ..... 2 DK 8	 2⇨CA5 8⇨CA5
CA2. During this last episode of diarrhoea, did *(name)* drink any of the following: *Read each item aloud and record response before proceeding to the next item.* CA2a. A fluid made from a special packet called [local name or ORS packet solution]? CA2b. Government-recommended homemade fluid?	Yes No DK A. Fluid from ORS packet ..... 1 2 8 B. Recommended homemade fluid 1 2 8	
CA3. During *(name's)* illness, did he/she drink much less, about the same, or more than usual?	Much less or none ..... 1 About the same (or somewhat less) ..... 2 More ..... 3 DK 8	
CA4. During *(name's)* illness, did he/she eat less, about the same, or more food than usual? *If "less", probe:* much less or a little less?	None ..... 1 Much less ..... 2 Somewhat less ..... 3 About the same ..... 4 More ..... 5 DK 8	
CA5. Has *(name)* had an illness with a cough at any time in the last two weeks, that is, since *(day of the week)* of the week before last?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA12 8⇨CA12
CA6. When *(name)* had an illness with a cough, did he/she breathe faster than usual with short, quick breaths or have difficulty breathing?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA12 8⇨CA12
CA7. Were the symptoms due to a problem in the chest or a blocked nose?	Problem in chest ..... 1 Blocked nose ..... 2 Both ..... 3 Other *(specify)* _____ 6 DK 8	 2⇨CA12 6⇨CA12
CA8. Did you seek advice or treatment for the illness outside the home?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA10 8⇨CA10
CA9. From where did you seek care? Anywhere else? *Circle all providers mentioned,* *But do NOT prompt with any suggestions.* *If source is hospital, health center, or clinic, write the name of the place below.* *Probe to identify the type of source and circle the appropriate code.* _____ *(Name of place)*	Public Sector Govt. hospital ..... A Govt. health centre ..... B Govt. health post ..... C Village health worker ..... D Mobile/outreach clinic ..... E Other public *(specify)* _____ H Private Medical Sector Private hospital/clinic ..... I Private physician ..... J Private Pharmacy ..... K Mobile clinic ..... L Other private medical *(specify)* _____ O Other source Relative or friend ..... P Shop ..... Q Traditional practitioner ..... R Other *(specify)* _____ X	
CA10. Was *(name)* given medicine to treat this illness?	Yes ..... 1 No ..... 2 DK 8	 2⇨CA12 8⇨CA12

CA11. What medicine was *(name)* given? *Circle all medicines given.*	Antibiotic ..... A Paracetamol/Panadol/Acetaminophen ..... P Aspirin ..... Q Ibupropfen ..... R Other *(specify)*_____ X DK ..... Z	
CA12. Check UF11: Child aged under 3? ☐ *Yes.⇨Continue with CA13* ☐ *No.⇨Go to CA14*		
CA13. The last time *(name)* passed stools, what was done to dispose of the stools?	Child used toilet/latrine ..... 01 Put/rinsed into toilet or latrine ..... 02 Put/rinsed into drain or ditch ..... 03 Thrown into garbage (solid waste) ..... 04 Buried ..... 05 Left in the open ..... 06 Other *(specify)*_____ 96 DK 98	
Ask the following question (CA14) only once for each mother/caretaker. CA14. Sometimes children have severe illnesses and should be taken immediately to a health facility. What types of symptoms would cause you to take your child to a health facility right away? *Keep asking for more signs or symptoms until the mother/caretaker cannot recall any additional symptoms.* *Circle all symptoms mentioned,* *But do NOT prompt with any suggestions.*	Child not able to drink or breastfeed ..... A Child becomes sicker ..... B Child develops a fever ..... C Child has fast breathing ..... D Child has difficult breathing ..... E Child has blood in stool ..... F Child is drinking poorly ..... G Other *(specify)*_____ X Other *(specify)*_____ Y Other *(specify)*_____ Z	

IMMUNIZATION MODULE — IM

If an immunization card is available, copy the dates in IM2-IM8 for each type of immunization or vitamin A dose recorded on the card. IM10-17 are for recording vaccinations that are not recorded on the card. IM10-17 will only be asked when a card is not available.

IM1. Is there a vaccination card for *(name)*?		Yes, seen ..... 1 Yes, not seen ..... 2 No 3	 2⇨IM10 3⇨IM10
(a) Copy dates for each vaccination from the card. *(b) Write '44' in day column if card shows that vaccination was given but no date recorded.*		Date of Immunization DAY / MONTH / YEAR	
IM2.	BCG	BCG	
IM3b.	Polio 1	OPV1	
IM3c.	Polio 2	OPV2	
IM3d.	Polio 3	OPV3	
IM4a.	DPT1	DPT1	
IM4b.	DPT2	DPT2	
IM4c.	DPT3	DPT3	
IM5a.	HepB1	(DPT)H1	
IM5b.	HepB2	(DPT)H2	
IM5c.	HepB3	(DPT)H3	
IM6.	MMR	Measles	
IM10. Has (*name*) ever received any vaccinations to prevent him/her from getting diseases, including vaccinations received in a campaign or immunization day?		Yes ..... 1 No ..... 2 DK 8	 2⇨IM20 8⇨IM20
IM11. Has *(name)* ever been given a BCG vaccination against tuberculosis – that is, an injection in the arm or shoulder that caused a scar?		Yes ..... 1 No ..... 2 DK 8	
IM12. Has *(name)* ever been given any "vaccination drops in the mouth" to protect him/her from getting diseases – that is, polio?		Yes ..... 1 No ..... 2 DK 8	 2⇨IM15 8⇨IM15
IM13. How old was he/she when the first dose was given – just after birth (within two weeks) or later?		Just after birth (within two weeks) ..... 1 Later 2	
IM14. How many times has he/she been given these drops?		No. of times ..... __ __	
IM15. Has (*name*) ever been given "DPT vaccination injections" – that is, an injection in the thigh or buttocks – to prevent him/her from getting tetanus, whooping cough, diphtheria? (sometimes given at the same time as polio)		Yes ..... 1 No ..... 2 DK 8	 2⇨IM17 8⇨IM17
IM16. How many times?		No. of times ..... __ __	
IM17. Has *(name)* ever been given "MMR vaccination injections" – that is, a shot in the arm at the age of **13** months or older - to prevent him/her from getting measles?		Yes ..... 1 No ..... 2 DK 8	

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

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

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

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

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

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

☐ *Yes.⇨Record measurements for next child.*

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

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

Follow instructions in your Interviewer's Manual.

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