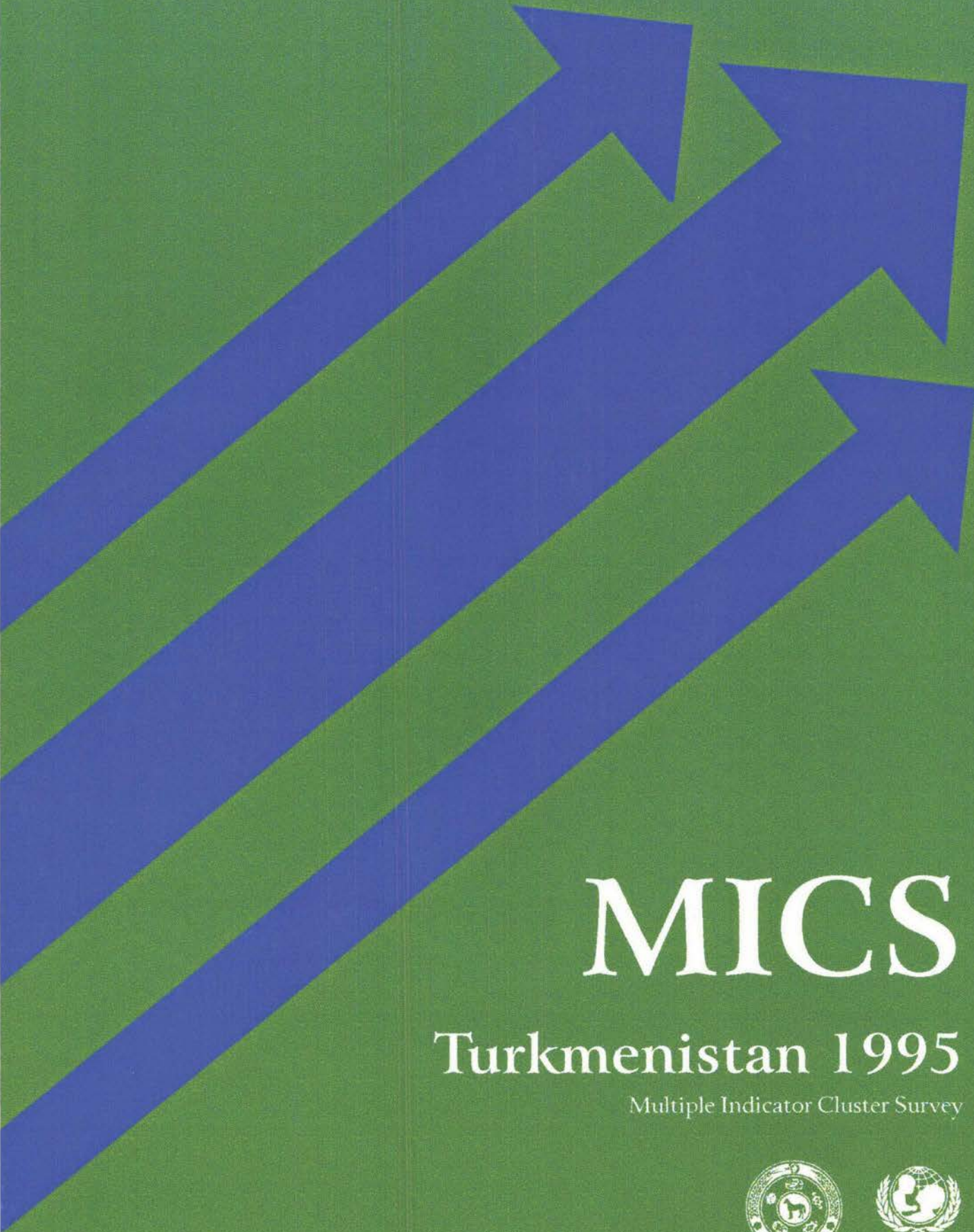




MICS

Turkmenistan 1995

Multiple Indicator Cluster Survey



Ministry of Health, Turkmenistan
UNICEF Area Office for the Central Asian Republics and Kazakstan

MICS

Multiple Indicator Cluster Survey

TURKMENISTAN
1995

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EXECUTIVE SUMMARY

Following a training workshop in July 1995 to introduce the methodology, a national Multiple Indicator Cluster Survey (MICS) was carried out in October-November 1995 in Turkmenistan. The major objective was to evaluate the situation at mid-decade and draw recommendations for programme implementation taking into account the downward trend in standards due to the economic depression and social deterioration. Specific objectives can be summarized as follows:

1. To evaluate the 1995 situation in child immunization, diarrhoeal diseases, acute respiratory infections, water and sanitation and basic education
2. To define areas for improved service delivery;
3. To define practical implications for improving country programmes
4. To define areas where stronger communication work is needed to better empower families and lower level health workers.
5. To introduce an appropriate, easy-to-use methodology to health and education officials/technicians and local researchers (mainly universities) for monitoring purposes.

The UNICEF Area Office for the Central Asian Republics and Kazakstan (CARK AO), in collaboration with the Ministry of Health, Ministry of Education, and State Statistics Committee, supported the survey as part of the Country Programme of Cooperation.

Turkmenistan and the other Central Asian Republics are in an uncommon situation. Until recently, Turkmenistan had a relatively high level of social and health indicators as well as universal literacy and access to health services. Indicators in areas related to the Mid-Decade Goals of the Declaration of the 1990 World Summit for Children, particularly in health and education, showed that required levels had already been achieved. However, because of continuing economic depression and social deterioration, these standards are in threat of declining. Growing poverty, a fall in life expectancy, increases in infant mortality, the return of several infectious diseases and outbreaks, increasing anemia, lack of teaching aids and school books, and deterioration in water and sanitation facilities are each seen as indicators of growing problems in Turkmenistan.

UNICEF intervened in Turkmenistan beginning in 1992, with the aim of reducing any falling away from previous accomplishments and to help compensate for the losses that did occur. UNICEF cooperation combines direct assistance with essential supplies, training and consultations on new or improved alternative means for basic service delivery, activities aimed at empowering families and parents, and advocacy for children and women with the government. Upon starting work in the CARK area, UNICEF has, as a priority, related programme activities to maintaining indicators related to these Mid-Decade Goals and addressing countries with the most urgent needs for children. The MICS survey in Turkmenistan was carried out in the context of this cooperation.

Summary of Findings

Compulsory Education

The Turkmenistan Compulsory Education System continues to serve all children, both boys and girls throughout the country. Enrolment and retention should be monitored carefully in some provinces.

Nationally, over 95% of children of school age are attending compulsory schools. Over 99% of the children who begin school remain in school. 99% of the children, both boys and girls, who attend first grade reach fifth grade.

Drinking Water

Safe drinking water is not available to almost 25% of the population. In one province (Mary) there is a much greater problem with well less than half the population having access to safe drinking water supplies.

Nationally 74.3% of the population has access to safe water sources that include: *piped water supply in the dwelling, tube well or borehole and protected dugwells or protected springs.*

Access to safe drinking water in all provinces except Mary is found to be over 72% (Mary 41%). Those with only trucked water services represent 42% of the population in Mary Province and 26% of the population in the Province of Ahal.

Sanitation

Over 90% of the population have access to safe sanitation facilities. In all areas except Ashgabat the most common type of latrine is the "covered dry pit" latrine. It is considered to be in the "safe" sanitation category; however, our observation for more than two years showed that most of these "covered dry pit" latrines cannot be considered as "safe" due to uncleanness. The survey measures only the "quantitative" part of the facilities, and we cannot conclude the "qualitative" part of it.

Almost 90% of homes reported have soap for washing.

Safe sanitary facilities in use include: flush to sewage, flush to septic latrines, pour flush latrines and covered dry pit latrines.

In Dashowuz Province almost a third of the population does not have access to safe sanitation facilities. It is the velayat with the lowest access to safe sanitation facilities (67.4%).

Acute Respiratory Infections

Almost 75% of the population do not know the most important signs of Acute Respiratory Infections in children. Without the parental understanding of these signs, the severity of the illness and the need to seek proper medical care may not come to attention.

Fever is found to be the sign most mothers know (84.4%), and fast breathing is known by only 13 percent of the mothers.

Diarrhoeal Diseases

Almost all children with diarrhoea are given some form of ORT (98). However, less than half of them receive the home care that are appropriate according to WHO/UNICEF guidelines.

Almost all children who have diarrhoea receive a form of ORT that does not necessarily include continued feeding (98%). ORS is used in 58 percent of diarrhoea cases, but less than half (41%) of the mothers continue to give breast milk during diarrhoea to children under 5

years of age. However, less than a third of these children receive ORT that include continued feeding during the illness. Using the up-to-date definition of ORT that includes feeding, only 14% of the children who have diarrhoea are treated with ORT in Ahal Province. This number rises to 41% in Dashowuz Province where additional training has been done. Nationally, 30% of children with diarrhoea receive unacceptable fluids.

The national incidence rate of children who have had diarrhoea in the past--first 10 months of 1995--was 5.5 per 100, but was found to be higher at the time of the survey (6.7 per 100). Mary Province had the highest incidence rate of diarrhoea in children (10.9 per 100). The survey was conducted in November, and due to cold season we were expecting to find lower incidence rate of diarrhoeal disease. Survey findings show that most of the children with diarrhoea are not taken to health facilities for care seeking and are taken care of at home by their mothers.

Breast-feeding

Mothers usually breast-feed their babies in Turkmenistan, and they do so for longer than the minimum recommended period. However, only about half (54%) of the mothers do not supplement breast milk with other substances. The practice of exclusive breast-feeding varies greatly among provinces (28% in Dashowuz and 81% in Ahal).

94 percent of all children under the age of one have been breast-fed at one time or another in their lives. 94 percent of them are still on breast-feeding. Nationally, 54% of the infants under 4 months of age are exclusively breast-fed.

Immunization

Immunization coverage of children 0-11 months of age is above 80 percent nationally for all antigens except measles (66 percent). Over 40 percent of children are vaccinated at intervals longer than recommended.

Province breakdowns show that some provinces have unacceptably low immunization rates even for the third dose of DPT (Ahal at 63 percent).

Valid immunization coverage rates	BCG	88%
	DPT3	80%
	OPV3	83%
	Measles	66%

Research Communication Planning

Based on the objectives noted above, and prior to the survey, a set of "audiences" or users of MICS data was projected and defined. An effort was made to identify all those who could benefit from the information as well as from its analysis and interpretation. On the basis of the audiences identified and their presumed use of MICS information, an initial research communication plan was developed. This "plan" was then revised after data analysis and initial interpretation prior to the Survey Results Presentation workshop in Turkmenistan in March 1996.

MICS Communication Plan

Initial implementation of the MICS Communication Plan was carried out in Ashgabat with the leaders and supervisors of the MICS. The group worked on setting priorities for work with the various audiences/users and finalized the modes of communication and time-frame for effective presentation, discussion and uses of the national survey. A draft of "audience segmentation" table is given in "Recommendations" part. This type of communication planning is also being done for the Kyrgyzstan Survey.

Summary of Method and Sample

The target population was all households of Turkmenistan which numbered 779,712 according to the last population census of 1995 (population 4.6 million).

A questionnaire and data collection followed, which were proposed by the Planning Office, and the Evaluation and Research Office of UNICEF (Monitoring progress toward the goals of the World Summit for Children, a practical handbook for multiple-indicator surveys). A total of six modules were used to design the questionnaire (Household Module, Water and Sanitation Module, Education Module, ARI Module, Diarrhoea Module, Breast-feeding Module, Immunization Module). The questionnaire was adapted, translated into Russian, and pre-tested during a MICS workshop in Ashgabat in July 1995.

A separate sampling frame was used for each velayat (province), including the capital city, in order to reflect all territories and allow valid comparison among them. A sample of 1,020 households in 34 clusters were selected as the study sample from each velayat and Ashgabat city. This made a total of 6,120 households in 204 clusters nationally. No stratification for rural and urban difference was used in the sampling design.

The field survey was conducted from 9 October to 10 November 1995, by a specially trained team of 102 interviewers and 18 supervisors (17 interviewers and 3 supervisors per velayat) under the supervision of Dr. Juma Gulievich, Head of the Sanitary and Epidemiological Department at the Ministry of Health. Team supervisors controlled the survey in all the velayats. Central headquarters, for the operation was established in the UNICEF CARK Turkmenistan country office, and daily telephone contacts were carried out with the field supervisors. The UNICEF CARK Turkmenistan country office staff also supported the supervisors and made trips to velayats during the data collection period. Ashgabat and Ahal questionnaires were returned to Goskomstat on a daily basis after completion. The others were taken back to Ashgabat by the supervisors when the 34 clusters were completed. Local headquarters were established in each velayat centre. These offices served as the operational centres for velayat activities and storage for questionnaires.

Supervisors traveled to their respective velayats immediately after the training and worked on the actual location of clusters and compiling the lists of households for each cluster. Interviewers traveled to velayats two days prior to data collection period and were met by velayat supervisors. Data collection was completed in one week starting on 30 October 1995. One nurse for each identified cluster area polyclinic was appointed by local authorities to accompany the interviewer during the study in order to eliminate suspicion from the households. Out of 6120 households in the sample, 6109 were visited (99.8%).

A "data entry room" was arranged in Goskomstat in Ashgabat. Five data clerks were trained on data entry using EPI.INFO-6. Data entry was supervised by Dr. Nicolae Beldescu, UNICEF consultant for Turkmenistan MICS. Statistical analysis was conducted by Dr. Beldescu. The survey was supervised and initial interpretation was done by UNICEF CARK Area Health Officer Dr. Ümit Kartoğlu. Country Operations were coordinated by Dr. Serap Maktav, CARK AO RPO, Turkmenistan.

1. INTRODUCTION

Following a training workshop in July 1995 to introduce the methodology, a national Multiple Indicator Cluster Survey (MICS) was carried out in October-November 1995 in Turkmenistan. Its major objective was to evaluate the national situation at mid-decade and draw recommendations for programme implementation taking into account the decline in standards due to the economic depression and social deterioration.

UNICEF Central Asian Republics and Kazakhstan (CARK) Area Office in collaboration with the Ministry of Health, Ministry of Education, and State Statistics Committee, agreed to sponsor the survey.

1.1. Background of the study

Turkmenistan, as in the other Central Asian Republics, is in an uncommon situation. Until recently, Turkmenistan had a relatively high level of social and health indicators as well as universal literacy and access to health services. The vast majority of the Mid-Decade Goals, and particularly in health and education, had already been achieved. However, due to continuing economic depression and social deterioration the standards are declining. Growing poverty rate, fall in the life expectancy, increase in infant mortality, the return of several infectious diseases and outbreaks, anemia, lack of teaching aids and school books, deterioration in water and sanitation facilities became unwelcome synonyms of today's life in Turkmenistan.

UNICEF intervened in Turkmenistan in 1992 with the aim of maintaining previous accomplishments and compensating for the loss of alternative inputs. Upon starting work in the area, our priority has been to relate programme activities targeting Mid-Decade Goals and based on the most urgent needs.

The national MICS was planned in order to evaluate the situation at mid-decade and draw recommendations for programmes.

1.2. Organization of the survey

Organizational activities for the national MICS were carried out by the UNICEF CARK Area Office. A training activity was carried out in Ashgabat from 12 to 19 July 1995 on MICS, epidemiology and vaccinology with assistance of International Children's Centre in Paris. In attendance were three participants from Sanitary Epidemiological Stations in each velayat and Ashgabat city, representatives from education, water and sanitation, and also representatives from Kyrgyzstan and Tajikistan. The training activity included theoretical and practical sessions on survey methodology, epidemiology and vaccinology. A two-day field exercise was organized in Ashgabat city in order to test questionnaires to be used in the national survey. All participants from Turkmenistan carried out responsibilities as supervisors for the national survey.

A consultant was hired to supervise national MICS and to work closely with UNICEF Turkmenistan office and the Ministry of Health. Interviewers were selected through Ministry of Health and Ministry of Education from vocational schools in Ashgabat. All interviewers were capable in communicating in Turkmen in order to prevent non-communication at household level. Interviewers and supervisors were trained by Dr. Nicolae Beldescu, UNICEF consultant in Ashgabat in October 1995 as described in the Guide.

1.3. The target population

The target population was all households of Turkmenistan, which numbered 779,712 according to the last population census of 1995 (population 4.6 million).

The elementary sampling unit was the "household", i.e. the group of people living in the same dwelling and sharing a common household economy (residing together, connected by one budget). In the case of

Turkmenistan, a household is a distinct socioeconomic unit where several couples (families) may reside (e.g. married children and even married grandchildren may live together with the parents).

The country is divided into six administrative regions (five velayats and Ashgabat city). Separate sampling was carried out for each region to represent each velayat and to compare results among velayats.

1.4. The questionnaire and data collection method

The questionnaire and data collection followed the method proposed by the Planning Office, Evaluation and Research Office and the Programme Division of UNICEF (Monitoring progress toward the goals of the World Summit for Children, A Practical Handbook for Multiple-Indicator Surveys). A total of six modules were used in questionnaire (Household Module, Water and Sanitation Module, Education Module, ARI Module, Diarrhoea Module, Breast-feeding Module, Immunization Module). At the same time, as the Guide permitted adaptation to the local conditions for each country, some of the questions were added, revised and/or excluded (See AnneV). The questionnaire was translated into Russian and tested during July 1995 MICS workshop in Ashgabat.

Interviewers were given a list of houses with family names and addresses by the supervisors on a daily basis at the field. In each household, interviewers carried out the interview with all mothers or principal caretakers of children under 11 years. Household module and water and sanitation module were completed for all household disregarding the number of children they had. Education module was given to mothers with children between the age of 6-11 (age composition for the education module is revised based on the education system in Turkmenistan). Care of Acute Respiratory Infections Module was given to all mothers with children under 5 years of age. Breast-feeding Module was used for mothers with children under 1 year of age. Immunization Module was used for children between 23 months and 12 years of age. All modules were completed at household level except the Immunization Module. Main task of the interviewers with the Immunization Module at the household level was to identify the name of the child, identify the polyclinic where immunization takes place and check whether the child had any BCG scar. Immunization dates were filled in from polyclinic records by the interviewer on the same day.

1.5. Sample size and sample design

A separate sampling frame was used for each velayat (including the capital city) in order to represent all territories and allow comparison among them. Ten percent margin error was used for sub-national sampling. The other basic assumptions used in the calculation of required number of households for each velayat were as follows: (a) design effect 2, (b) persons per household 6, (c) percentage of population under 5 years of age 0.15, and (d) prevalence of diarrhoea 15 days 0.2. As for the indicators, 70 percent was used as an estimated prevalence for DPT3, OPV3 and Measles coverage, 80 percent for BCG coverage, 70 percent for ORT use, 90 percent for school enrollment, 44 percent for safe water and 16 percent for sanitation facilities. Based on these assumptions and estimated prevalence, 933 households were needed in each velayat. Finally, a sample of 1,020 households in 34 clusters were selected as study sample from each velayat and Ashgabat city, which added up to 6,120 households in 204 clusters nationally. No stratification for rural and urban difference was used in sampling design.

A detailed list of the smallest administrative units (genislik) with population for each velayat was obtained from the Goskomstat, the State Statistical Committee. From each velayat frame, 34 clusters were selected with PPS (Probability Proportional to Size). The actual location of clusters in relatively big administrative units (i.e. city centres) was defined at the velayat level by supervisors with random selection among the zones in the city. The final stage of household selection was completed by the supervisors assigned to each velayat. Supervisors compiled the most recent census lists provided by village and/or city polyclinics (each dwelling unit re-enumerated and a list of occupants updated every year). This list of occupied dwellings was numbered and 30 households were selected randomly from each, allowing for a reserve list of households in case of the need for replacement.

1.6. Implementation of field survey

The field survey was conducted from 9 October to 10 November 1995, by a specially trained team of 102 interviewers and 18 supervisors (17 interviewers and 3 supervisors per velayat) under the supervision of Dr. Juma Gulievich, Head of Sanitary and Epidemiological Department in the Ministry of Health. Team supervisors controlled the survey in all the velayats.

Central headquarters, was established in UNICEF Turkmenistan office, and daily telephone contacts were made with the field supervisors. UNICEF Turkmenistan office staff also backed up the supervisors and carried out field trips to velayats during the data collection period. Ashgabat and Ahal questionnaires were returned to Goskomstat on a daily basis and others were returned after the completion of the 34 clusters were taken back to Ashgabat by the supervisors.

Local headquarters were established in each velayat centre. These offices served as the operational centre for velayat activities and storage for questionnaires.

Local authorities in the survey area were visited before the survey by Ms. Serap Maktav, the UNICEF Resident Project Officer for Turkmenistan, and an explanatory letter was circulated by the Ministry of Health to all local authorities for their coordination.

Supervisors traveled to their velayats right after the training and worked on the actual location of clusters and compiling the lists of households for each cluster in order to select households. Interviewers traveled to velayats two days prior to data collection period and were met by velayat supervisors. Data collection was completed in one week starting on 30 October 1995. One nurse for each identified cluster area polyclinic was appointed by local authorities to accompany the interviewer during the study in order to eliminate suspicion from the households.

1.7. Data entry, processing and statistical analysis

Data entry room was set up in Goskomstat in Ashgabat. Five data clerks were trained on EPI.INFO6, and carried out the data entry under the supervision of Dr. Nicolae Beldescu, UNICEF consultant for Turkmenistan MICS. Data entry started with completed clusters from Ashgabat and Ahal in October and continued with other velayats. Statistical analysis was carried out by Dr. Beldescu.

2. DESCRIPTION OF THE SAMPLE POPULATION

2.1. Characteristics of sample population

Households and number of persons in the household

Out of 6,120 households 6,109 were visited (99.8%). Distribution of households visited in each velayat is shown in Table 1.

Table 1. Distribution of households visited, by velayat, MICS 1995 Turkmenistan

Velayat	Number of Households visited	Percent
Ashgabat	1,020	100.0
Ahal	1,018	99.8
Balkan	1,018	99.8
Dashowuz	1,017	99.7
Lebab	1,018	99.8
Mary	1,018	99.8
TOTAL	6,109	99.8

According to the survey, the mean size of household was 6.0 persons (95% confidence limits 5.9-6.2) which matched the assumptions made prior to the sample design. The smallest size households were found in Ashgabat and Balkan (5.1). Dashowuz had the highest number of persons in a household with 7.1. Modal household size varied between 4 to 6 among velayats.

Number of rooms

The national average number of rooms was four. The average was the lowest in Ashgabat (3 rooms) and highest in Dashowuz (5 rooms). About 20 percent of the families were living in houses with fewer than 3 rooms.

Number of children and sex distribution

17,771 children under 11 years of age were found in 6,109 houses visited. Females were 65 percent while males remained at 35 percent. Sex distribution of children under 11 years of age was similar in all velayats. Sex distribution of all children up to 11 years of age by velayats is shown in Table 2.

Table 2. Sex distribution of children under 11 years of age, by velayat, MICS 1995 Turkmenistan

Sex	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Male	845	996	949	1,217	1,068	1,144	6,218
Female	1,679	1,788	1,758	2,190	2,017	2,123	11,553
Total	2,524	2,784	2,707	3,407	3,085	3,267	17,771

In 6,109 houses, 6,268 caretakers were found, 6,026 of which were mothers (96.1 percent) while the rest was relatives in charge of children (3.9 percent).

Age distribution of children by velayats is shown in Table 3.

Table 3. Age distribution of children, by velayat, MICS 1995 Turkmenistan

Age group	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
0	227	250	253	265	322	332	1,648
1	180	199	236	222	268	253	1,358
2	156	194	182	228	210	242	1,212
3	132	191	145	242	201	179	1,089
4	125	170	150	208	191	193	1,037
5	138	184	159	219	166	227	1,092
6	132	161	141	186	160	189	969
7	121	140	134	229	149	158	931
8	153	138	136	201	170	176	974
9	114	125	123	204	134	150	850
10	136	144	128	185	123	148	864
Total	1,614	1,896	1,787	2,389	2,094	2,247	12,024

2.2. Water and Sanitation

The questions in this survey focused on identifying the following with regard to water and sanitation:

- * the main sources of drinking water and, as applicable, their relative distances to the dwelling
- * the various toilet facilities used, also in relation to distance to the dwelling
- * the availability of soap as a yardstick for personal hygiene practices.

Water Sources and Distance

Nationally, 74.3 % of all respondents indicated to have access to safe water sources, i.e piped water supply in the dwelling, tube well, borehole, protected dugwells, or protected springs. Unprotected dugwells or springs, ponds, rivers or streams, and any other sources is considered unsafe in this regard.

Figures from the various regions show that almost the total population of the capital Ashgabat has access to piped water supply. Mary is the velayat with the lowest percentage of the population with access to safe water sources.

The majority of the respondents (91.6 %) indicated that an average distance between the water source and their dwellings were less than 100 meters. Dashowuz velayat is the area with the smallest number of people having to walk less than 100 meters; 71.2 % have water on the premises through house connections, standpipes in the yard or street standpipes at less than 100-meter distance. This figure is close to the national average of 91.6 % in the other areas. It is noted that trucked water service may be seen as having a source on the premises!

42% and 25.8 % of the total population in Mary and Ahal, respectively, rely on trucked water services, which is an indication of the unavailability of "safe" water sources in these velayats: this accounts for the harsh living conditions in these velayats regarding water availability compared to other velayats, where this percentage varies between 1.2- 13 %. In the other areas studied, 72-80 % have access to safe sources.

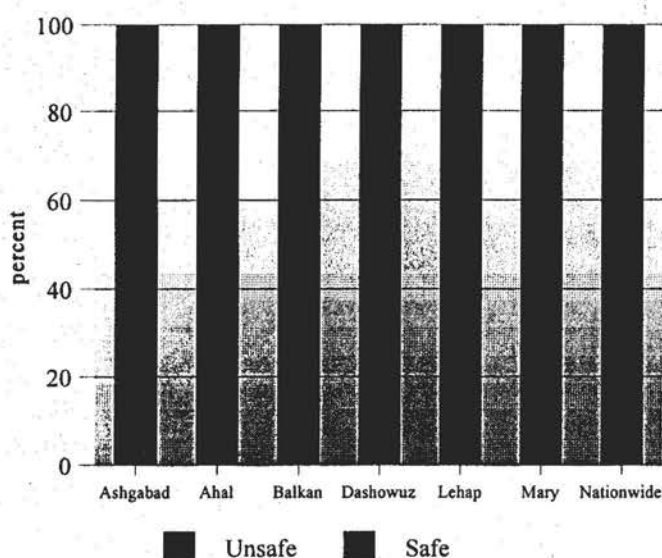


Figure 1. Access to water sources by velayat, Turkmenistan

Sanitation facilities

Various types of latrines are seen in the country such as flush-to-sewerage systems, flush-to-septic tanks, pour flush latrines, and covered dry pit latrines which are considered safe sanitary facilities, and uncovered latrines which are characterized as unsafe.

The outcome of the survey is presented in the figure below.

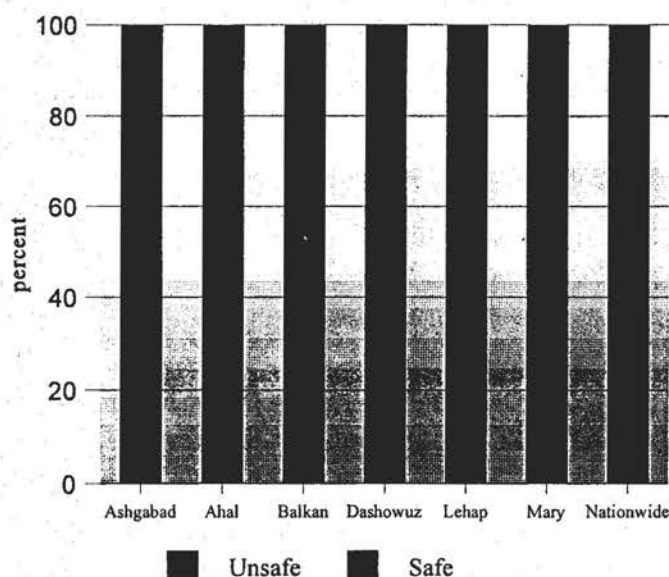


Figure 2. Access to sanitary facilities by velayat, Turkmenistan

Nationwide, 91.3 % of the respondents have access to either flush-to-sewage or flush-to-septic latrines, pour flush latrines or covered dry pit latrines. A detailed analysis of the figures from the various areas shows that 67.4 % of the total population of Dashowuz Velayat have safe sanitary facilities while the same figure for the other areas is in the range of 94 -96 %, and 99.4% for Ashgabad. The figures in the following table show that

most people in areas other than Ashgabat are mainly using covered dry pit latrines. The very low figures for flush-to-septic tank or pour flush latrines may be due to various reasons such as unfamiliarity about the flush to septic or pour flush system at community level, lack of adequate amounts of water, cultural unacceptability, etc.

Table 4. Safe toilet facilities by type and velayat, MICS 1995 Turkmenistan (in percent)

Type	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Flush to sewage system	79.2	5.9	38.5	8.5	15.3	17.7	27.5
Flush to septic tank	2.1	9.0	2.4	0.7	0.5	0.1	2.5
Pour flush latrine	-	0.2	8.8	-	-	-	1.5
Covered dry pit latrine	18.1	81.0	45.1	58.2	79.6	76.8	59.8

Many of the facilities are located within 50 meters from the dwelling except for Lebab and Dashowuz, where 23.7% and 15.1 % of the toilet facilities, respectively, are located at further distances. Nationally, 76.1 % of the toilets are located in the dwelling, with figures varying from 98.3% for Ashgabat to 46.2 % in Lebab and 71.4 % in Dashowuz.

Availability of Soap

Soap is widely available in the country, with an average use of 88.8 %. Whether soap is used for purposes such as washing hands after defecation is not clear.

Questions have been raised in the past concerning the affordability of soap. The outcome of this exercise shows that only 12 % of the population have difficulties obtaining soap.

2.3. Education

Education Module was used for all children in the household aged 6-11 years. The questions focused on identifying the following:

- * Whether the children have ever attended school
- * Current attendance
- * Attendance in the past year

Out of 4,368 respondents, 3,530 (80.8 percent) were found to have attended school at one time or another. 99.5 percent of them were currently attending school at the time of the survey. There were only 16 children who had attended school in the past but were currently not in school.

The indicator 12.1 (percentage of children entering 1st grade of primary school who eventually reach grade 5) was 99% nationally. The lowest percentage was found in the males in Lebab (89 percent). All the other areas had high percentages (over 98 percent). Indicator status by velayats is shown in Table 5.

Table 5. Indicator status 12.1 by velayat and by gender: Percentage of children entering 1st grade of primary school who eventually reach grade 5 (n=4,368), MICS 1995 Turkmenistan

Velayat	Male	Female	TOTAL
Ashgabat	99	100	99
Ahal	100	100	100
Balkan	100	100	100
Dashowuz	100	100	100
Lebab	89	100	94
Mary	100	100	100
TOTAL	98	100	99

The indicator 12.2 (proportion of children of primary-school age actually enrolled in primary school) was 80% nationally. Similarly, the lowest proportion was found in Lebab (79 percent). However, it should be noted that the great majority of children who are not attending school was at 6 years of age. Although school entry age is 6 in Turkmenistan, most of the parents prefer to send their children when they reach 7. Nationally, out of 4,368 school age children, 838 were not enrolled in school, and 83 percent of these children were at the age of 6. Table 6 shows the age distribution of school attendance in the national scale by gender.

Table 6. School attendance: distribution of school age children by age and gender, MICS, Turkmenistan, 4,369 children

Age in years	Male		Female		Total		TOTAL
	No	Yes	No	Yes	No	Yes	
6	346	81	347	69	693	150	843
7	60	418	46	377	107	795	902
8	12	508	12	420	24	928	952
9	4	435	3	397	7	832	839
10	2	384	4	420	6	804	810
11	-	9	1	12	1	21	22
TOTAL	424	1,835	414	1,695	838	3,530	4,368

Indicator status 12.2 by velayats and by gender is shown in Table 7.

Table 7. Indicator status 12.2 by velayat and gender: Proportion of children of primary school age enrolled in primary school this year (n=4,369), MICS 1995 Turkmenistan

Velayat	Male	Female	TOTAL
Ashgabat	78	80	79
Ahal	79	81	80
Balkan	84	82	83
Dashowuz	83	82	82
Lebab	79	79	79
Mary	81	79	80
TOTAL	81	80	80

The indicator 12.3 (proportion of children entering school at entry age) was 17.4% nationally. This is also due to the aforementioned reasons. Velayat figures range from 13.6 percent in Lebab to 27.5 percent in Ahal. The indicator status by velayats and gender is shown in Table 8.

Table 8. Indicator status 12.3 by velayat and gender: Proportion of children entering school at entry age, MICS 1995 Turkmenistan

Velayat	Male		Female		TOTAL	
	Total children 6 years	Attending school	Total children 6 years	Attending school	Total children 6 years	Attending school
Ashgabat	66	9 (13.6%)	51	8 (16.6%)	117	17 (14.5%)
Ahal	78	24 (30.8%)	60	14 (23.3%)	138	38 (27.5%)
Balkan	59	13 (22.0%)	57	10 (17.5%)	116	23 (19.8%)
Dashowuz	75	8 (10.7)	89	18 (20.2%)	164	26 (15.9%)
Lebab	66	9 (13.6%)	88	12 (13.6%)	154	21 (13.5%)
Mary	83	15 (18.1%)	71	7 (9.9%)	154	22 (14.3%)
TOTAL	427	78 (18.3%)	416	69 (16.6%)	843	147 (17.4%)

If the school entry age is regarded as 7, 87.6 percent of this age group was found in school (72% attending Grade 1 and 15.6% attending Grade 2).

2.4. Care of acute respiratory infections (CARI)

CARI module was directed to all mothers of children aged under five in the households. The questionnaire focused on learning what symptoms and signs would lead the mother to take the child to a health worker/doctor. Mothers were asked when their children were ill with a cough and/or cold what signs or symptoms would lead them to take the child to a clinic.

The indicator shows the proportion of mothers of children under 5 years of age who know the signs of ARI at 27 percent (with 95% confidence limits LCL 23 and UCL 31).

Table 9. ARI Indicator status by velayat (Percent of mothers who know the signs of ARI), MICS 1995 Turkmenistan

Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
45	24	24	15	30	28	27

Based on the 95% confidence limits of the national average, Ahal, Balkan, Lebab and Mary fell within limits. We can conclude that the Ashgabat mothers know significantly more than the mothers in other velayats, and Dashowuz is significantly low compared with the others. However, the percentage of mothers who knew the signs of ARI in Ashgabat was also very low.

In general, fever was the most mentioned sign of ARI (84 percent of mothers nationally). Blocked nose was in the second rank (50 percent). 408 out of 3,640 mothers (11 percent) did not know any signs or symptoms of ARI.

Table 10. Signs and symptoms mentioned by mothers for ARI, MICS 1995 Turkmenistan

Sign/symptom	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Fever	91.5	85.5	78.3	85.5	81.2	85.3	84.4
Blocked nose	47.8	56.8	35.3	39.9	67.1	48.8	50.3
Trouble sleeping/eating	31.0	28.7	26.0	27.5	23.4	36.7	28.9
Difficult breathing	44.6	27.5	26.2	12.5	23.3	24.3	25.9
Being ill for a long time	42.4	17.7	17.9	6.0	9.8	36.6	22.0
Fast breathing	26.3	9.6	8.7	4.9	13.7	13.5	12.6
Don't know	3.7	13.8	17.0	9.3	11.6	11.2	11.2

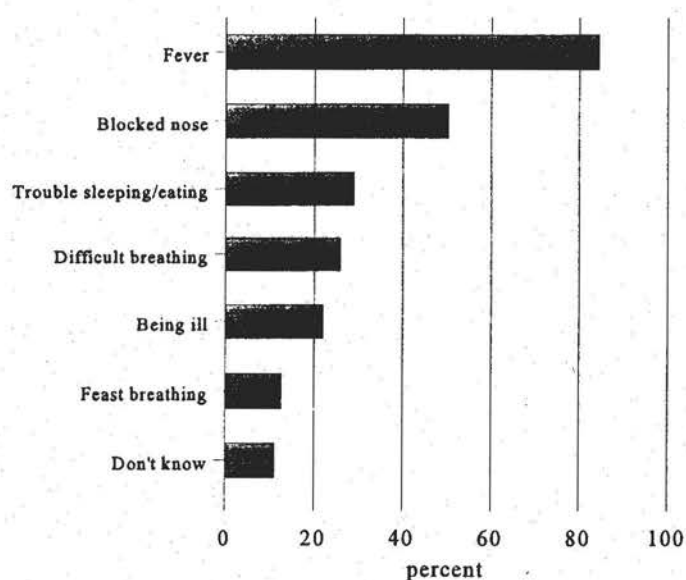


Figure 3. Signs and symptoms mentioned by mothers for ARI, National percentage, Turkmenistan

The major indicator for pneumonia (fast breathing) was known by only 12.6 percent of mothers nationally. The lowest percentage was observed in Dashowuz (4.0 percent) while the highest was in Ashgabat (26.3 percent).

2.5. Diarrhoea

Diarrhoea module was directed to mothers of all children under five years of age in the household. The questions focused on three major points:

- * Whether the child had diarrhoea during the last 2 weeks
- * Food and fluids children received during the last episode
- * Changes in the amount of fluids and food given to children

Due to the season of the data collection, fewer diarrhoeal cases were found than estimated. The incidence rate for diarrhoea in the two weeks prior to the survey was the highest in Mary (10.9 percent) and Balkan (9.9 percent) and the lowest in Dashowuz (3.1 percent).

Table 11. *Diarrhoea incidence rates in children under 5 years of age in the two weeks prior to the survey, MICS 1995 Turkmenistan*

Definition	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Number of cases	53	58	96	37	50	131	425
Incidence rate (percent)	6.4	5.7	9.9	3.1	4.1	10.9	6.7

The indicator of use of ORT (old and new definition) is shown in Table 12. When the old definition is used Turkmenistan has very high percentage of use of ORT (percentage of diarrhoea cases among children under five in the two weeks prior to the survey who received ORT and/or recommended home fluid). However, when the new definition is used--it covers continued eating--all figures dramatically decrease. The lowest figure is found in Ahal (14 percent) while the highest is in Dashowuz (41 percent).

Table 12. *Proportion of diarrhoea cases that are given ORT, MICS 1995 Turkmenistan*

Definition	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
OLD	91	97	97	95	100	100	98
NEW	32	14	27	41	32	36	31

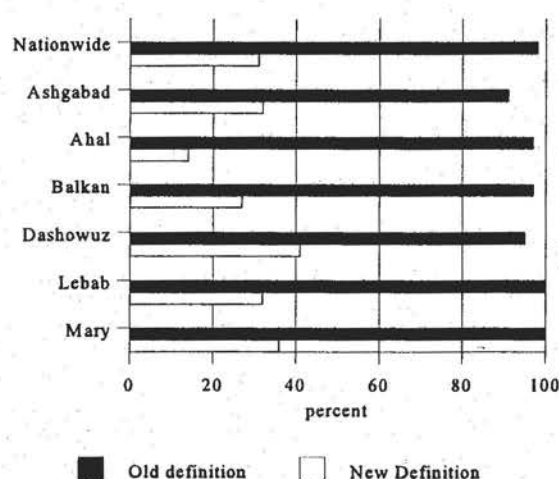


Figure 4. Indicator status, ORT use (old and new definition) by velayat, Turkmenistan

Table 13. *Type of fluids and food the children received during the last episode of diarrhoea (in percent), MICS 1995 Turkmenistan*

Description	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Breast-milk	32.1	39.2	46.5	44.4	58.0	34.4	41.0
Gruels	62.3	64.0	51.2	41.7	64.0	42.0	52.0
Local home fluids	40.4	56.3	33.3	63.9	48.0	29.2	40.1
ORS	36.5	77.4	44.8	47.2	52.0	71.8	57.7
Milk/infant formula	46.2	34.5	42.0	47.2	52.0	16.9	35.3
Water w/feeding	44.2	37.3	48.8	66.7	54.0	33.8	44.2
Water alone	-	1.7	-	-	-	-	0.2
Unacceptable fluids	28.8	26.0	28.7	30.6	14.0	37.7	29.6

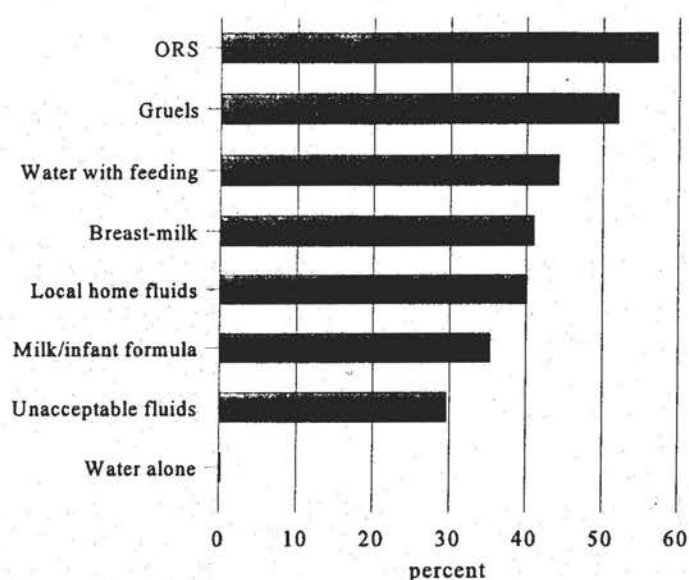


Figure 5. *Type of fluid and food the children received during the last episode of diarrhoea (in percent), Turkmenistan*

Kefir, ayran and yandak (boiled) were the most mentioned local home fluids. Coke-type of soft drinks and sweetened juices were considered as unacceptable fluids. ORS was given to 57.7 percent of children with diarrhoea. The highest rates were observed in Ahal (77.4 percent) and in Mary (71.8 percent). Ashgabat had the lowest figure (36.5 percent). Breast-feeding was continued for more than 40 percent of the children with diarrhoea nationally. However, unacceptable fluids were given to children with diarrhoea in about 30 percent of the cases.

Table 14. Changes in the amount of fluids given to children with diarrhoea (percent responding), MICS 1995 Turkmenistan

Drinking status	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Much less or none	11.3	8.6	11.5	13.5	18.0	10.7	11.8
About the same	50.9	58.6	49.0	35.1	34.0	25.2	40.2
More	35.8	29.3	35.4	51.4	48.0	60.3	45.2
Don't know	1.9	3.4	4.2	-	-	3.8	2.8

Table 15. Changes in the amount of foods given to children with diarrhoea (percent responding), MICS 1995 Turkmenistan

Eating status	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
None	-	1.7	2.1	10.8	-	3.8	2.8
Much less	17.0	27.6	18.8	18.9	26.0	26.0	22.8
Somewhat less	24.5	19.0	21.9	24.3	36.0	31.3	26.6
About the same	41.5	29.3	35.4	45.9	32.0	29.8	34.1
More	3.8	-	7.3	-	2.0	0.8	2.6
Don't know	13.2	22.4	14.6	-	4.0	8.4	11.1

In terms of changes in the amount of fluids given to the children with diarrhoea, most of the children received about the same or more amounts of fluids (85 percent together). However, only about 35 percent of the children were given about the same or more foods during the last diarrhoea episode.

2.6. Breast-feeding

Breast-feeding module was directed to the mothers of all children under 11 months of age. The questions focused mainly on two points:

- * Ever and still breast-feeding rates
- * 24-hour recall on what babies received

93.6 percent of all children under one year of age was breast-fed at one time or another, and 93.5 percent of them were still on breast-feeding.

Table 16. Percentage of ever and still breast-fed children under 11 months of age, MICS 1991 Turkmenistan

Status	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Ever breast-fed	88.6	94.2	92.3	96.2	94.2	94.7	93.6
Currently on breast-feeding	87.5	94.7	87.7	95.3	95.9	97.0	93.5

Although the breast-feeding rates were high, exclusive breast-feeding rates for children under 4 months of age were relatively low. Dashowuz had the lowest exclusive breast-feeding rate at 28 percent, while the rate was the highest in Ahal (81 percent).

Table 17. Exclusive breast-feeding for children under 4 months of age, MICS 1995 Turkmenistan

Ashgabat (63)	Ahal (74)	Balkan (59)	Dashowuz (78)	Lebab (86)	Mary (90)	Nationwide (450)
51	81	68	28	40	67	54

Table 18. Type of fluid and food given to children under 11 months of age during the previous 24 hours (Percent responding), MICS 1995 Turkmenistan

Received	Ashgabat	Ahal	Balkan	Dashowuz	Lebab	Mary	Nationwide
Vitamin, mineral supplements or medicine	10.1	3.2	8.7	10.3	3.7	8.6	7.4
Plain water	58.4	35.9	44.1	78.5	57.4	49.5	54.5
Sweetened, flavored water or fruit juice or tea or infusion	51.1	36.2	34.8	58.3	52.5	47.9	47.6
ORS	11.8	2.2	9.0	7.4	5.1	4.3	6.4
Tinned, powdered or fresh milk or infant formula	34.8	38.2	36.7	26.4	24.5	28.5	30.7
Other liquids	10.7	5.4	12.3	11.6	9.1	10.8	10.1
Solid, semi-solid food	26.4	26.9	29.0	34.7	39.6	34.4	32.7
Only breast-milk	28.7	56.6	46.9	14.5	23.5	41.6	34.1

Plain water and sweetened/flavored water/fruit juice and tea were given to about 50 percent of the children under one year of age. Only 34.1 percent of the children under one year of age received only breast-milk during the previous 24 hours.

2.7. Immunization

Immunization module was used for children aged 12-23 months. There were mainly three focuses in the questionnaire:

- * Immunization coverage
- * Intervals between doses
- * BCG scar.

BCG scar was checked by interviewers at home, and all other information was collected at the polyclinic level where the children received their vaccination.

At the polyclinic level, there was no missing immunization cards. However, in some velayats (Ashgabat, Lebab and Mary) the percentage of positive BCG scar (controlled at home) was higher than the BCG coverage rates, and this may be due to the fact that some children who received BCG vaccine had no records at the polyclinic level. For example, in Ashgabat, positive BCG scar was found in 96.1 percent of the children aged 12-23 months while the immunization coverage at the time of the survey for BCG was 93. Similar discrepancies were observed in Lebab and Mary.

Table 19. Immunization coverage for children aged 12-23 months receiving vaccination before the first birthday (valid immunization coverage) $n=1339$, MICS 1995 Turkmenistan

Antigen	Ashgabat (179)	Ahal (194)	Balkan (234)	Dashowuz (217)	Lebap (265)	Mary (250)	Nationwide (1,339)
BCG	82	80	84	95	91	90	88
DPT3	71	82	63	86	84	81	80
OPV3	75	83	59	85	93	86	83
Measles	59	58	36	65	81	72	66
Overall	53	51	24	58	69	69	59

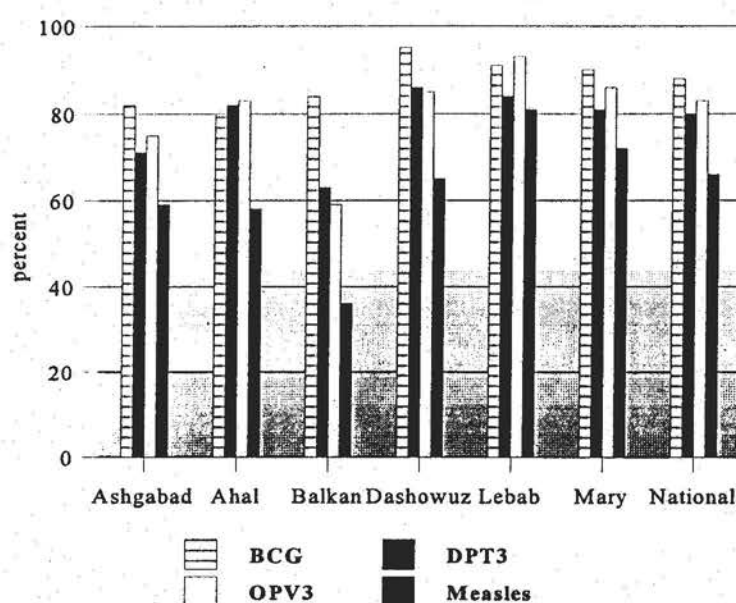


Figure 6. Immunization coverage for children aged 12-23 months receiving vaccination before their first birthday, MICS 1995 Turkmenistan

When the coverage rates were analyzed for the same children, higher rates were found. This coverage over a period of two years can be used to interpret the extension of backlog coverage. For example, valid BCG coverage rate was 88% nationally, with the remaining 12 percent backlog, and the coverage at the time of the survey was 92%, with the remaining 8 percent backlog for the third year cycle. This means only one third of the backlog was cleared in the second 12-month cycle. Similarly, backlog clearance was 10 percent in DPT3, 18 percent in OPV3 and 30 percent in measles.

Table 20. Immunization coverage for children aged 12-23 months receiving vaccination at the time of the survey $n=1,339$, MICS 1995 Turkmenistan

Antigen	Ashgabat (179)	Ahal (194)	Balkan (234)	Dashowuz (217)	Lebap (265)	Mary (250)	Nationwide (1,339)
BCG	93	90	89	96	92	90	92
DPT3	71	82	65	92	87	83	82
OPV3	75	88	74	88	94	86	86
Measles	66	72	52	82	87	78	76
Overall	61	68	39	76	79	75	70

The analysis of intervals between doses showed that about 40 percent of children received their 2nd and 3rd dose of DPT with an interval of over 40 days. This was over 50 percent in Ashgabat and Balkan velayat.

Table 21. The interval in days between DPT2-DPT1 ($n=1226$) and DPT3-DPT2 doses ($n=1124$), MICS 1995 Turkmenistan

Interval	DPT2-DPT1		DPT3-DPT2	
	Frequency	Percentage	Frequency	Percentage
Under 30 days	96	7.8	104	9.3
30-39	621	50.7	550	48.9
40-49	184	15.0	178	15.8
50-59	112	9.1	113	10.1
60 days and over	213	17.4	179	15.9
Total	1,226	100.0	1,124	100.0

Longer intervals between doses indicate false contra-indications and missed opportunities. Although the Ministry of Health revised the immunization schedule and contra-indications in 1994, old practices still exist at the field level.

BCG scar

Table 22. BCG scar by velayats (checked at home by interviewers), MICS 1995 Turkmenistan

Scar	Ashgabat	Ahal	Balkan	Dashowuz	Lebap	Mary	Nationwide
Positive	96.1	90.1	87.3	85.6	95.5	96.7	91.9
Negative	1.7	7.8	10.6	8.8	3.8	2.9	6.0
Not examined	2.2	2.1	2.0	5.6	0.8	0.4	2.1

3. CONCLUSIONS

1. This was the first nationwide survey conducted with the MICS methodology in Turkmenistan. The survey design was new to the epidemiologists, and international expertise was needed at all stages of the survey. The survey methodology was introduced in an eight-day training which included two days of field work and introduction of EPI INFO computer software for data entry and analysis. The participants of this workshop took the role of supervision during the survey and were trained for four additional days on how to use and control the questionnaires. Students and teachers from vocational schools and medical faculties were trained as interviewers. Workers from the State Statistics Committee were trained and utilized for data entry. Data clearance and analysis were carried out by the UNICEF consultant.
2. A total of 102 interviewers and 18 supervisors actively participated in data collection. Data collection lasted one full week. Serious logistic planning had to be carried out, due to the large number of interviewers, in order to complete the field work in a relatively short period of time. All participants of the survey were enthusiastic about the work and were very cooperative. However, in terms of capacity of organizing and conducting such surveys, more technical support is needed in the country.

3. Mid-Decade Goals:

3.1. Immunization

National immunization coverage rate was over 80 percent, except for measles (66 percent). Lebap and Mary had the highest coverage rates among velayats while Balkan had the lowest. Backlog clearance which was interpreted from the immunization coverage rates in the survey was designated as an area of attention. After 23 months, measles still lags behind all other antigens, at 76 percent. The interval between DPT2-DPT1 and DPT3-DPT2 showed that around 40 percent of children were vaccinated with a 40-day or longer interval. Balkan had the highest intervals between doses. BCG scar examination had a higher positive percentage compared to the records at health facilities. Positive scar was found in 92 percent of the children nationwide while only 88 percent coverage was recorded at health facilities.

The MOH reported 96% coverage for BCG, 94% coverage for DPT3, 94% coverage for OPV3, and 90 percent coverage for Measles in 1994. Although the coverage rates from the MICS survey does not cover the full calendar year of 1994, the discrepancy was found too great, especially for measles (66% in MICS and 90% in routine reporting). It was also reported that no vaccine shortages were observed during 1994 and 1995 in Turkmenistan. Therefore, in terms of vaccination coverages for BCG, DPT and OPV, Mid-Decade Goal status can be concluded as achieved.

3.2. Use of ORT

ORS was widely used. Around half of the mothers continued to give about the same or more amounts of fluid to their children during diarrhoea. However, the use of the new definition of ORT was very low in all the velayats. This is mainly due to continued feeding. Unacceptable home fluids were also found to be highly in use (30%).

In Turkmenistan, there is no study that shows the use of ORT and continued feeding as part of the programme to control diarrhoeal diseases in the country. However, the CDD programme evaluation which was conducted only in Dashowuz velayat in September 1995 showed that ORS was widely used, and this finding also matches with MICS results. In practice, ORS is available in all health centres, and mothers with children under 5 years of age receive several packages of ORS in the beginning of diarrhoeal season (100 percent accessibility). On the other hand, continued feeding seems to be the problem and needs more attention.

3.3. Education

The rate of children who have attended school at one time or another in their life time was 80.8% nationally. However, the majority of children not attending school was 6-year-olds. Proportion of children of primary school age enrolled in school was 17.4% due to the same reason. It was found that most children do not enter school until they reach 7 years of age. No difference was observed between boys and girls in terms of enrollment and retention rates.

Official data indicates that more than 95 percent of all primary school age population are enrolled in primary school, and 95 percent of all school children entering first grade of primary school reach grade 5. Lower figures were found in MICS for primary school enrollment (which means the cut-off point for school entry age is taken differently by the government), but higher figures were found (99 percent) in all primary school children entering first grade who eventually reach grade 5.

3.4. Water and Sanitation

In general, access to safe water sources and safe sanitary facilities was high. However, considerably low figures were observed in Mary for safe water sources and in Dáshowuz for safe sanitary facilities. Soap was found available in an average of 89 percent of households nationally. However, based on this figure, no further interpretation can be done in terms of use of the soap.

Access to safe water sources and safe sanitation facilities were reported officially at 63% and 21%, respectively, in Turkmenistan (1993). The figures found in MICS were higher than official reports (74% for safe water sources and 91% for safe sanitation facilities). Safe sanitation facilities include flush-to-sewage or to-septic latrines, pour flush latrines and dry pit latrines. MICS results showed that except in Ashgabat, most people in other areas mainly used covered dry pit latrines (60 percent nationally). However, field visits since 1994 in different regions in Turkmenistan showed that most of these dry pit latrines are not kept clean and cannot be considered as "safe". In that case, such high figure is not surprising since the water and sanitation module is only focused on the availability of sanitation facilities by types and not the "quality".

3.5. Breast-feeding

Very high breast-feeding rates were observed among velayats (Ashgabat had the lowest current breast-feeding rate with 87.5% for children 0-11 months of age). However, exclusive breast-feeding rates in children under 4 months of age were found relatively low. National average was 54 percent while Ahal had the highest (81 percent) and Dashowuz the lowest rate (28 percent). More than half of the children under 11 months of age received plain/sweetened water and juices during the previous 24 hours. 34.1 percent of children under 11 months of age received only breast-milk.

The only data available on breast-feeding practices was provided by the UNICEF/WHO Report Collaborative Mission in February 1992 stated that periods of exclusive breast-feeding have declined considerably and quoted figures of 44 percent at six months in rural areas and 14 percent in urban areas.

3.6. Acute Respiratory Infections

The indicator showed the proportion of mothers of children under 5 years of age who recognized the signs of ARI was very low (27%). Among all ARI signs and symptoms, fever and blocked nose were the most mentioned signs. Very low percentage of responded mothers mentioned "fast breathing" as a sign.

There is no other study on the knowledge of mothers about the danger signs of ARI in Turkmenistan. However, analysis of routine reporting on ARI shows that most children receive care from health workers and institutions relatively late, and this can be due to the lack of knowledge at the family level about the danger signs of ARI.

4. RECOMMENDATIONS

A meeting was held in Ashgabat on 18 March 1996 with the supervisors and leaders of the MICS to review the results, draw recommendations and to finalize communication plan of the survey. In the meeting, the following communication plan which was developed in the initial stages of the survey was presented and discussed:

MICS Communication Planning, Turkmenistan

Table 23. Segmenting audiences and planning for communication of MICS methodology and results

Audiences (Users of data) Not listed by priority	MICS communication goals	Planned mode for effective communication	Planned supporting techniques and materials	Planned equipment and materials needed for communication	Additional budget for communication	Timing of activities
LEADERS and SUPERVISORS OF THE SURVEY	Feed-back, planning for effective communication	presentation of report and communication plan and brainstorming	Written presentation, transparencies, blank chart for discussion	Report copies, flip chart, blank transparencies, overhead projector, permanent and non-permanent pens, board- markers	Translation of report (US\$500) Materials production (US\$100) Support for travel (US\$100)	National gathering 19 March 1996
COMMUNITY FAMILIES INDIVIDUALS	Individual, group behavior change, project participation	community level visits, group discussions of findings and implications	Printed hand- outs with results, blank chart for discussion	Printed hand- outs copies, blank flip charts	Translation of hand-outs (US\$100) Materials production (US\$100)	Communit y level visits Health programme evaluation
PERIPHERAL LEVEL HEALTH WORKERS (FAP)	Improved service delivery, effective communication with families in immunization, breast-feeding, diarrhoeal diseases and ARI	presentation of report, discussion of implications and action	Summary report blank chart for discussion	Summary report copies, blank flip charts	Translation of report (US\$250) Materials production (US\$100)	Regional meetings at velayat/etr ap level
MID-LEVEL EPI MANAGERS	Improved service delivery	Group discussions of findings and implications, information circular from the MOH	Summary report blank chart for discussion	Summary report copies, blank flip charts	Materials production (see above)	Mid-level EPI managers meeting
COMMUNITY TEACHERS	Better support to preventive health education on immunization, diarrhoeal diseases and ARI	Group discussions of findings and implications for schools	Printed hand- outs showing results, blank chart for discussion	Printed hand- out copies, blank flip chart	Materials production (see above)	Primary school teachers meetings as part of CDD/ARI training at regional level

Audiences (Users of data) Not listed by priority	MICS communication goals	Planned mode for effective communication	Planned supporting techniques and materials	Planned equipment and materials needed for communication	Additional budget for communication	Timing of activities
VELAYAT KHOKIMS, HEALTH and EDUCATION OFFICIALS	Better planning and monitoring	Formal presentation of report followed by discussion	Written presentation, transparencies, blank charts for discussion	Report copies, flip chart, blank transparencies, overhead projector, permanent and non-permanent pens, board- markers	Materials production (see above) Support for travel (US\$300)	National gathering with MOH and MOE (one day meeting)
LOCAL RESEARCH COMMUNITY and UNIVERSITIES	Greater participation, better research agenda	Presentation of methodology and summary results	Written presentation, MICS presentation, transparencies	Report copies, Copies of MICS methodology, EPI.INFO handbooks and diskettes	Materials production (see above)	One day meeting (following national gathering for MOH and MOE)
PEDIATRICIAN S OTHER CARK COUNTRIES	Better research agenda	Oral presentation	Summary article, Original article, Transparencies	Will be available at conference facilities	Participation in Conference (one) US\$1,000	Presentatio n at III. Pediatric Conferenc e in Almaty, September 1996
INTERNATION AL AGENCIES	Increased resources, help with advocacy	Presentation of report at meetings	Written report Transparencies	Copies of report	Personnel cost (US\$?)	Presentatio n matched to policy/deci sion cycle
OTHER UNICEF OFFICES	Better communication planning, effective use of survey results	e-mail, fax	discussions	computer, e- mail	Minimal	As long as it is needed

In the meeting "audience prioritization" was done as follows:

1. Velayat khokims, health and education officials
2. Mid-level EPI managers and Peripheral Health Level Workers (FAP)
3. Community teachers
4. Community, families and individuals
5. Local research community and universities
6. International agencies
7. Pediatricians from other CARK countries

The following recommendations were drawn during the meeting:

Immunization

Three major areas of intervention were defined by the participants:

1. To increase coverage rates of all antigens and especially of measles
2. To supervise field staff in order to prevent false contra-indications
3. To improve reporting system.

The low coverage of measles was the major concern. It is recommended that the MOH prepare a special plan of action to increase measles coverage to the level of 80 percent by the end of 1996. It is also recommended that MOH use the opportunity of all training activities related to EPI to present the EPI results of MICS and stress the importance of increasing the coverage rates and reduce false contraindications. As for the reporting system, it is recommended that the MOH introduce the "immunization monitor follow-up" charts into the system for monthly monitoring. EPI mid-level training workshops could be used for this opportunity.

Use of ORT and the knowledge of mothers on danger signs of ARI

ORS was found to be widely known and used. However, the use of the new definition of ORT which includes continued feeding was found to be very low. As for ARI, danger signs of ARI were not known by most of the mothers. The group also referred to the CDD evaluation in Dashowuz, and recommended that a communication plan for diarrhoeal diseases/acute respiratory infections be prepared by the MOH and Turkmen National TV with technical assistance from UNICEF. It is also recommended that the communication skills of health personnel be improved through workshops (special workshops should be designed to improve communication and managerial skills of health personnel). It is recommended that the MOH conducts a qualitative evaluation on ARI and defines areas for intervention.

Basic Education

The proportion of children over seven years of age and not attending school was found to be very low. However, it is strongly recommended that the Ministry of Education focus on the issue as a potential problem and identifies the reasons of non-attendance.

Water and Sanitation

Mary and Ahal velayats were defined as priority areas for intervention. It is recommended that international support be focused on these two velayats, especially in upgrading the water sources (in both velayats a very high proportion of population is using trucked water as a source).

Survey results showed a very high coverage of safe sanitation facilities. However, these figures included "covered dry pit latrines". From the field observations, it is well known that almost all of the pit latrines is not kept in hygienic way and cannot be considered as "safe". A special programme is recommended to improve sanitation situation throughout the whole country, focusing on sub-national level (starting with Dashowuz which has the lowest figures). The "School Hygiene and Sanitation Package" which was developed by UNICEF CARK can serve as an entry point to address the problem.

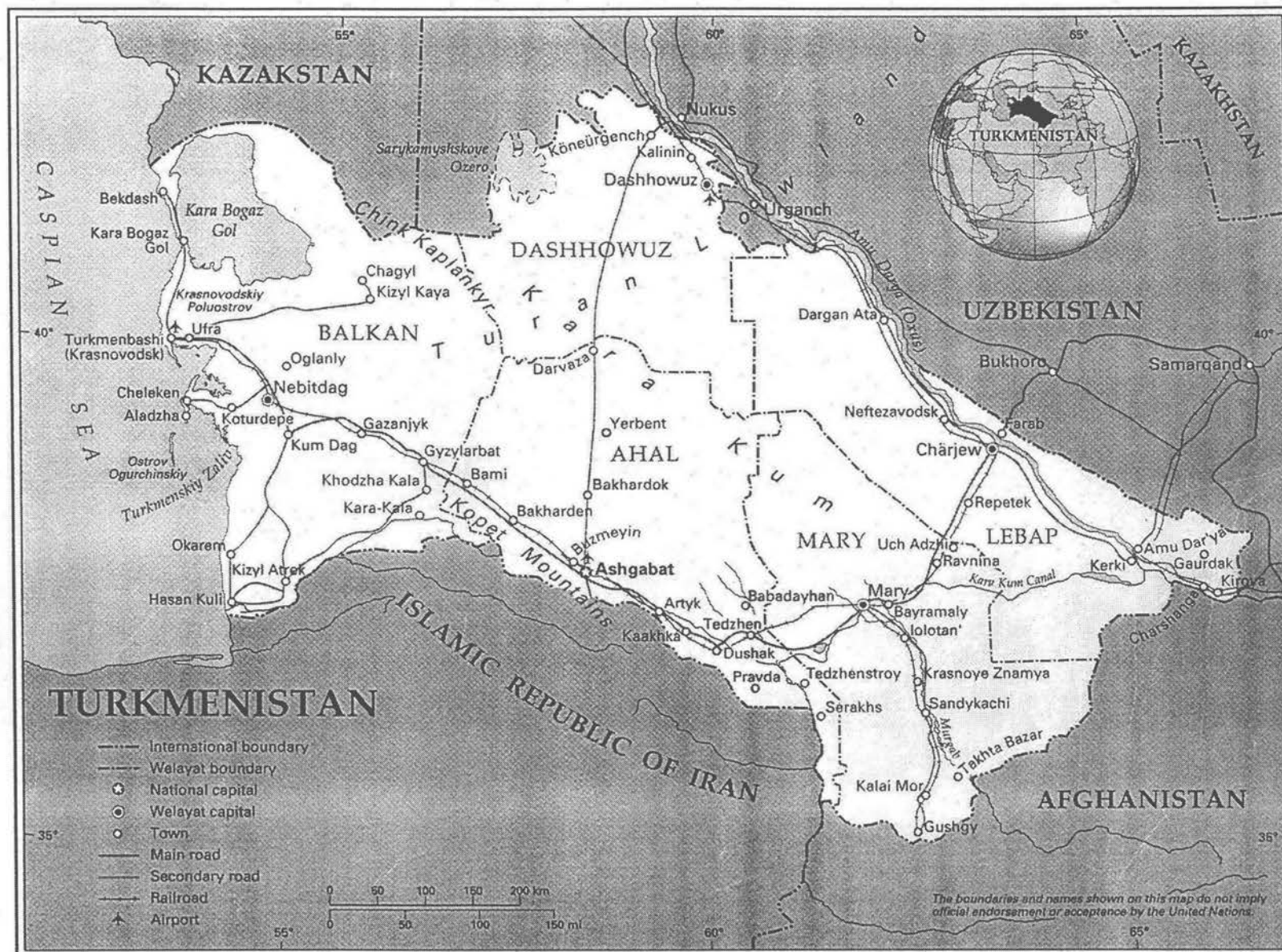
Breast-feeding

Breast-feeding is a common tradition in Turkmenistan. Exclusive breast-feeding for infants under 4 months of age was found to be 54 percent. MOH officials report no written official programme for breast-feeding (the old decree on breast-feeding is still on power). It is recommended that the MOH review new decrees developed by other CARK countries (i.e. Kyrgyz Republic) and define ways to improve policy on breast-feeding.

Acute Respiratory Infections

Mothers' knowledge on the danger signs of ARI was very little. The findings of MICS should be combined with the qualitative evaluation of ARI programme which is planned to be carried out in May 1996 in Dashowuz. Specific recommendations will be drawn based on ARI evaluation.

- Annex I. Map of Turkmenistan*
- Annex II. Location of clusters by velayat*
- Annex III. List of interviewers and supervisors*
- Annex IV. List of participants (MICS evaluation meeting, 18 March 1996)*
- Annex V. Questionnaires*



Map No. 3772 Rev.2 UNITED NATIONS
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Department of Public Information
Cartographic Section

ANNEX II. Location of clusters by velayat

Velayat	Cluster number	Place (or sector code)	Population
Dashowuz	1, 2, 3, 33, 34	Dashowuz city	141,100
	4	Aktepe city, Aktepe etrap	20,176
	5	Kizil Yap, Aktepe etrap	1,372
	6	Shorumsa, Aktepe etrap	2,080
	7	Boldumsaz city, Boldumsaz etrap	28,787
	8	Yaldiray, Boldumsaz etrap	423
	9	Gubadag city, Gubadag etrap	13,718
	10	Merin-Oba, Gubadag etrap	1,403
	11	Gekchage, Gubadag etrap	957
	12	Gek Yap, Gubadag etrap	970
	13	Yangiyal, Dashowuz etrap	1,960
	14	Panahan, Dashowuz etrap	2,371
	15	Bayashmereen, Dashwoz etrap	801
	16	Rozmetov, Novbahar, Dashowuz etrap	244
	17	Yilanly centre, Yilanly etrap	22,234
	18	Dormen, Yilanly etrap	1,561
	19	Kizil Takir, Yilanly etrap	1,075
	20	Magarif, Yilanly etrap	2,858
	21	Koneurgench city, Koneurgench etrap	31,217
	22	Tamdirlivoz, Koneurgench etrap	736
	23	Galkinish, Koneurgench etrap	1,657
	24	Kundjulio, Koneurgench etrap	497
	25	Turkmenbashi city, Turkmenbashi etrap	10,809
	26	Ayrich Agal, Turkmenbashi etrap	663
	27	Nazarbaidegshi, Turkmenbashi etrap	1,844
	28	Uchtam, Turkmenbashi etrap	2,136
	29	Tagta city, Tagta etrap	14,507
	30	Agoi, Tagta etrap	1,858
	31	Yani Yap, Tagta etrap	2,505
	32	Akgui, Tagta etrap	653

Velayat	Cluster number	Place (or sector code)	Population
Balkan	34	Akdash, Turkmenbashi etrap	2,071
	1	Kizil-Sub, Turkmenbashi etrap	660
	2	Chagil, Turkmenbashi etrap	1,046
	3, 4, 5, 6, 7, 8, 9	Nebitdag, Turkmenbashi etrap	86,079
	10	Dzebel, Turkmenbashi etrap	7,752
	11, 12, 13, 14, 15, 16	Turkmenbasi, Turkmenbashi etrap	60,790
	17, 18	Gumdag, Turkmenbashi etrap	21,304
	19	Chemken, Turkmenbashi etrap	12,491
	20	Kiziletrek city, Kiziletrek etrap	7,129
	21	Madav, Kiziletrek etrap	4,584
	22, 23, 24, 25	Kizilarbat city, Kizilarbat etrap	44,392
	26	J/D Raz. Zavoda	355
	27	Garragali city, Garragali etrap	9,052
	28	Kurujdei, Garragali etrap	856
	29	Gazandchik, Gazandchik etrap	15,537
	30	Gulmach, Gazandchik etrap	1,779
	31	Oboy, Gazandchik etrap	1,565
	32	Garadepe, Esengul etrap	4,191
	33	Gogerendag, Esengul etrap	1,117

Velayat	Cluster number	Place (or sector code)	Population
Lebab	34	Odey, Boyniuzin etrap	2,801
	1	Islam, Garabekovul etrap	3,305
	2	Gurultay, Garabekovul etrap	675
	3	Hodjalik, Darganatin etrap	1,967
	4	Kerku city, Kerku etrap	19,153
	5	Gabshal, Kerku etrap	4,874
	6	Ussalar, Kerku etrap	2,737
	7	Pushkin, Kerku etrap	765
	8	Mukriova, Kerku etrap	1,361
	9	Opamsurhi, Niyazova etrap	2,805
	10	Chapmum, Sakar etrap	5,856
	11	Tejribechiler, Sakar etrap	1,096
	12	Garkin, Sayat etrap	1,123
	13	Satyatli, Sayat etrap	1,356
	14	Tayzeel, Farap etrap	1,054
	15	Gulegendje, Halach etrap	1,941
	16	Mashnaya, Halach etrap	2,573
	17	Halach, Halach etrap	6,009
	18	Sabinli, Hodjambas etrap	2,304
	19	Gulshak, Hodjambas etrap	1,511
	20	Gokler, Chardjev etrap	1,342
	21	Iskra, Chardjev etrap	2,091
	22	Jodjariik, Chardjew etrap	1,105
	23	Charshangin city, Charshangin etrap	10,795
	24	Akgumolam, Charshangin city	3,157
	25, 26, 27, 28, 29, 30, 31	Chardjew city, Chardjew etrap	184,675
	32	Govurdak	26,801
	33	Seyidi	18,090

Velayat	Cluster number	Place (or sector code)	Population
Mary	33	Arik, Bayramal etrap	3,350
	34	Turkmenistan, Bayramal etrap	5,832
	1	Sherekem, Bayramal etrap	1,042
	2	Halil, Vekilbaz etrap	4,315
	3	Egriguzer, Vekilbaz etrap	5,957
	4	Hashirdik, Vekilbaz etrap	4,476
	5	Charlakyap, Vekilbaz etrap	2,566
	6	Gizilmes, Eloten etrap	1,511
	7	Gadir, Eloten etrap	1,556
	8	Gizil Hodjanazar, Eloten etrap	1,836
	9	Shatlik oba, Garagum etrap	4,380
	10	Galaymor, Garakum etrap	3,476
	11	Govki Zeren, Mary etrap	3,269
	12	Arikkorhashirdik, Mary etrap	5,307
	13	Yabigaragonur, Mary etrap	4,568
	14	Godjuklar, Mary etrap	2,072
	15	Alashayap, Murgal etrap	2,797
	16	Im. H. Djumaeva, Murgal etrap	5,501
	17	Arigoba, Murgal etrap	2,713
	18	Shatlik, Niyazov etrap	10,949
	19	Agzibir, Niyazov etrap	2,982
	20	Garayap, Niyazov etrap	5,228
	21	Guroma, Niyazov etrap	2,869
	22	Yalkym, Sakarchaga etrap	1,835
	23	Niyazov, Tagtabazar etrap	5,726
	24	Marchak, Tagtabazar etrap	5,342
	25	Kemine, Turkmengala etrap	2,062
	26	Kirkkishik, Turkmengala etrap	3,309
	27, 28, 29, 30	Mary city	104,336
	31, 32	Bayramal city	51,437

Velayat	Cluster number	Place (or sector code)	Population
Ashgabat city	34	P01S05	258
	1	P01S14	317
	2	P02S02	470
	3	P02S07	433
	4	P02S13	350
	5	P03S01	437
	6	P03S07	243
	7	P05S06	155
	8	P05S15	162
	9	P06S07	749
	10	P06S11	564
	11	P06S14	1,516
	12	P07S11	185
	13	P07S25	180
	14	P07S40	310
	15	P08S02	288
	16	P08S12	174
	17	P08S21	368
	18	P08S28	188
	19	P09S08	224
	20	P09S19	250
	21	P09S29	257
	22	P09S40	256
	23	P09S50	257
	24	P10S07	230
	25	P11S05	139
	26	P11S22	158
	27	P11S40	143
	28	P11S57	167
	29	P12S04	125
	30	P12S24	150
	131	P13S05	189
	32	P14S04	162
	33	P14S18	205

Population figures correspond to number of households in each cluster

Velayat	Cluster number	Place (or sector code)	Population
Ahal	34	O. Kulieva, Ashgabat etrap	4,815
	1	Bagir, Ashgabat etrap	12,345
	2	Buzmeyn, Ashgabat etrap	17,490
	3	Gekdje, Ashgabat etrap	9,433
	4	Keshi, Ashgabat etrap	9,284
	5	Herrikkala, Ashgabat etrap	7,707
	6	Gektepe city, Gektepe etrap	18,309
	7	Ahal, Gektepe etrap	8,116
	8	Bovcha, Gektepe etrap	2,028
	9	Gektepe/Bayratburieva, Gektepe etrap	5,458
	10	Ribnoe Hoz-Vo, Gektepe etrap	789
	11	Uch. Tayzeova, Gektepe etrap	409
	12	Yashildepe, Gektepe etrap	3,226
	13	Etev, Gektepe etrap	11,914
	14	Kaahkin city, Kaahkin etrap	16,510
	15	Govshut, Kaahkin etrap	5,704
	16	Onbegu, Kaahkin etrap	3,689
	17	Uzbati, Kaahkin etrap	4,585
	18, 19	Tedjen city, Tedjen etrap	46,488
	20	Babadayhan, Tedjen etrap	5,535
	21	Vatan, Tedjen etrap	1,239
	22	Komsosol, Tedjen etrap	5,528
	23	Niyazova, Tedjen etrap	783
	24	Akaltin, Babadayhan etrap	4,984
	25	Garavekil, Babadayhan etrap	8,736
	26	Yarigekdje, Babadayhan etrap	5,157
	27	Ata, Seran etrap	2,705
	28	Kichiaga, Seran etrap	4,607
	29	Bahardel, Bahardel etrap	25,289
	30	Bati, Bahardel etrap	5,544
	31	Durun, Bahardel etrap	5,403
	32	Yaradji, Bahardel etrap	4,577
	33	Bejtey	32,943

ANNEX III. List of interviewers and supervisors

LIST of INTERVIEWERS and SUPERVISORS

Velayat	Task	Name
Dashowuz	Supervisor	Galandarov Sh. Orazov D. Toraeva O.
	Interviewer	Mametdzumaeva M. Khasanova G. Guseva E. Ashirova A. Meredov B. Klichmamedova M. Tilleva D. Altibaeva N. Khanova U. Gorelovskaya V. Annaev M. Jumатов N. Churguliev G. Akinijazov V. Kurnasokhotov K. Sapargeldiev K.
Lebab	Supervisor	Khajatmuradov B. Permanov Kh. Bekmuradov S.
	Interviewer	Kochieva Z. Barazova G. Kalieva Sh. Tasirova A. Kurbangeldieva Kakadzanova A. Mamedov B. Forsova N. Dzoraeva M. Berdieva G. Annamuradov M. Bekiev A. Akiev Sh. Allaguliev D. Allaberenov B. Gapbarov S. Guseinov A.

Velayat	Task	Name
Balkan	Supervisor	Shirditova A. Arzumanova V. Velmyradov I.
	Interviewer	Nuriev O. Babaliev D. Khashimov R. Amanmamedov O. Jumaev S. Kuliev O. Khuseinov A. Garadzakulov G. Tashliev K. Ashirova A. Kerimov M. Agishev B. Saparov S. Emekov G. Annasakhatov M. Seidov M. Makhaev D.
Mary	Supervisor	Medzinov A. Dzumaev A. Kurrikov O.
	Interviewer	Kakadzanova O. Babadzanova S. Charikulieva Perniyazov B. Annaev G. Mashrikova D. Ataeva G. Usenova T. Goshamuradova O. Purlieva T. Garliev G. Ovezmuradov A. Sojunov J. Khodzamiradov M. Amangiliov M. Rakhmankulov A. Nazarov G.

Velayat	Task	Name
Ahal	Supervisor	Ivantsova L. Golovanova O. Bedareva G.
	Interviewer	Dzumaev A. Nurgeldiev B. Amandurdiev M. Begenchev G. Annamukhammedov R. Bashimova O. Getmanskaya K. Aralbaeva N. Ataguliev M. Serdarov K. Amanova M. Saparov T. Bekiev T. Choliev P. Gulzarov D. Gokiev M. Tadzibaev G.
Ashgabat city	Supervisor	Orazov S. Annamamedova N. Bairamov N.
	Interviewer	Shakulov M. Chegodaeva Karadzaeva G. Orazmamedova M. Kazakova G. Nurmamedova A. Durdieva B. Burasova N. Dolgova I. Djachuk N. Khudainazarov P. Sariev S. Dadaev A. Sariev M. Mammedov M. Meredov S. Tekebaev M.

ANNEX IV. List of Participants, MICS Review Meeting

LIST OF PARTICIPANTS, MICS RESULTS REVIEW MEETING, 18 March 1996, ASHGABAT, Turkmenistan

Name	Position
MINISTRY OF HEALTH	
Iliev Sapar	Deputy Minister of Health
Akmamedov Jumaguly	Head, SANEPID Department, MOH
Badereva Greta	Head, epidemiological Department, Central SES
Ivantsova Lidia	Head, Epidemiological Department, Ahal Velayat SES
Golovanova Olga	Head, Statistical Department, Ahal Velayat Health Department
Shirdatova Mengli	Head, Statistical Department, Balkan Velayat Health Department
Arzymanova Victor	Head, Methodological Department, Balkan Velayat Health Department
Orazov Dayanch	Head, Epidemiological Department, Dashowuz Velayat Health Department
Permanov Chaidar	Head, Epidemiological Department, Lebap Velayat SES
Bekmuradov Sapargeldy	Head, Epidemiological Department, Mary Velayat SES
Kurrikov Orazkylch	Head, Epidemiological Department, Mary Velayat Health Department
Djumaev Aman	Head, Statistical Department, Mary Velayat Health Department
MINISTRY OF EDUCATION	
Bairamov Nyrshat	Chief Officer, Department of High Education and International Relations
Velmuradov Italmaz	Head, Balkan Velayat Education Department
Garaev Tirkesh	Deputy head, Dashowuz Velayat Education Department
Khaitmuradov Balta	Deputy Head, Lebap Velayat Education Department
Mejidov Allanazar	Deputy Head, Mary Velayat Education Department
Ataev Jumamuchmed	Chief Officer, Ahal Velayat Education Department
GOSKOMSTAT	
Annamamedova Nurtach	Head, Department of Social Statistics and Levels of Life, Goskomstat
MINISTRY OF WATER MANAGEMENT	
Khanmamedov Mamed	Head, Scientific and Technical Department, Ministry of Water Management
Saparov Usman	Head, Water Monitoring Expedition, Ministry of Water Management
UNICEF	
Maktav Serap	Resident Project Officer, Turkmenistan
Kartoglu Umit	Health Officer, CARK ACO
Guichard Stephane	EPI Officer, CARK ACO
Abramov Anatoly	National Officer, Turkmenistan
Goldstein Mirra	National Officer, Turkmenistan

Q1
For all households

QUESTIONNAIRE 1. HOUSEHOLD MODULE

Interviewer no:

INTERVIEWER: Begin by introducing yourself, explain to the interviewee that you would like some information that will help government improve the health and well-being of children. Tell that the questions will take only a few minutes.

Household Information Panel

Cluster number:	Household number:	Date of interview (date/month):
Name of head of household:	Number of persons in the household:	Number of rooms in dwelling:

INTERVIEWER: I WOULD LIKE TO ASK ALL MOTHERS OR OTHERS WHO CARE FOR CHILDREN SOME QUESTIONS ABOUT THE HEALTH AND WELL-BEING OF THE CHILDREN IN THIS HOUSEHOLD. If there are more than one mother/caretaker living in this household, ask to speak to each mother/caretaker, listing the mother's name in the line 0-1. Ask mother to list the names and birth dates of the children for whom she is responsible who live in the household, starting with the youngest child, who is listed on the line number 1-1. Stop listing when you reach a child over age 11. If there is another mother living in the same household, go on to the next woman, listing her name first on the line 0-2, and the children for whom she is responsible who are living in the same household, starting with the youngest child with line number 2-1.

Mother and Child Listing Form

Line no	1. Name	2. Sex 1 = male 2 = female	3. Date of Birth			4. Respondent 1 = mother 2 = caretaker
			day	month	year	
0-1(mother)						
1-1						
1-2						
1-3						

Q2
For all households

QUESTIONNAIRE 2. WATER AND SANITATION MODULE

Cluster no: Household no:

Ask the questions in this module once for each house visited. Circle the number for only one answer in the space at right. If a respondent gives more than one answer, enter the most usual source/facility.

1. What is the main source of drinking water for members of your household?

Piped-in dwelling	1	Unprotected dug well or spring	5
Public tap	2	Pond, river or stream	6
Tube well or borehole	3	Tanker-truck, vendor	7
Protected dug well or protected spring	4	Other	9

2. How far is the source from your dwelling?

On premises	1	500 m - 1 km	4
Less than 100 meters	2	More than 1 km	5
100 m - less than 500 meters	3	Don't know	9

3. How long does it take to get there, get water and come back?

No. of minutes	
Water on premises	888
Don't know	999

4. Do you have soap to wash hands? (Ask to see the soap and circle appropriate number)

YES 1
NO 2

5. What kind of toilet facility does your household use?

Flush to sewage system	1	Covered by dry latrine	4
Flush to septic tank	2	Uncovered latrine	5
Pour flush latrine	3	No facilities → GO TO NEXT MODULE	9

6. How far is the facility from your dwelling?

In dwelling	1	50m or more away	4
Less than 50 m away	2	Don't know	5

GO TO NEXT MODULE →

For all children between 6-11 years of age

QUESTIONNAIRE 3: EDUCATION MODULE

Cluster no: Household no:

The questions in this module should be asked for all children in the household between 6-11 years of age.

Questions	Line no:..... Name:.....	Line no:..... Name:.....	Line no:..... Name:.....	Line no:..... Name:.....
1. Has [NAME] ever attended school? Yes 1 No 0 → GO ON TO NEXT CHILD Don't know 9 → GO ON TO NEXT CHILD	1 0 9	1 0 9	1 0 9	1 0 9
IF THERE ARE NO OTHER CHILDREN BETWEEN 6-11 YEARS GO TO NEXT MODULE →				
2. Is he/she currently at school this year? Yes 1 No 0 → GO TO QUESTION 4 Don't know 9 → GO TO QUESTION 4	1 0 9	1 0 9	1 0 9	1 0 9
3. Which grade is he/she currently attending?				
4. Was he/she attending school last year? Yes 1 No 0 → GO ON TO NEXT CHILD Don't know 9 → GO ON TO NEXT CHILD	1 0 9	1 0 9	1 0 9	1 0 9
IF NO OTHER CHILD IS BETWEEN 6-11 YEARS OF AGE GO TO NEXT MODULE →				
5. Which grade did [NAME] attend last year?				

GO TO NEXT MODULE →

Q4

For all mothers/caretakers who has children under 5 years of age

QUESTIONNAIRE 4. CARE OF ACUTE RESPIRATORY ILLNESS

This module is directed to the mothers or caretakers of all children under 5 years of age in the household.

Fill in the cluster and household numbers first and then the name and the line number of the mother. If there are more than one mother in the household, go on to the second column and start with copying her line number and the name from the Household Questionnaire (Q1). Circle the number corresponding to the mother's response where indicated.

Cluster no: Household no:

Questions	Line no:..... Name:.....	Line no:..... Name:.....	Line no:..... Name:.....	Line no:..... Name:.....
1. COUGH AND COLD ARE COMMON ILLNESSES. WHEN YOUR CHILD IS ILL WITH A COUGH AND/OR COLD, WHAT SIGNS OR SYMPTOMS WOULD YOU LEAD TO TAKE HIM/HER TO A HEALTH PROVIDER? Do not prompt! Circle the number for each answer mentioned. More than one answer can be circled. When he/she: 1A. has a blocked nose 1 1A 1 1B. has trouble sleeping/eating 2 1B 2 1C. has a fever 3 1C 3 1D. is breathing fast 4 1D 4 1E. has difficulty breathing 5 1E 5 1F. is ill for a long time 6 1F 6 1G. other:..... 7 1G 7 1H. don't know 9 1H 9				

For all children under 5 years of age

QUESTIONNAIRE 5. DIARRHOEA

This module is directed to the mothers or caretakers of all children under 5 years of age in the household.

A spare form should be filled in for each child under 5 years listed in the HOUSEHOLD MODULE (Q1). Fill in the name and line number of each child along with the cluster and household numbers in the space at the top of each questionnaire. Circle the number corresponding to the mother's response where indicated. Make sure all identifying information is filled in correctly, until all children under age 5 have been covered.

DIARRHOEA MODULE

Cluster no: Household no: Child no:

QUESTIONS	Response
1. Has [NAME] had diarrhoea in the last 2 weeks? (Diarrhoea is determined as perceived by the mother, or as three or more loose or watery stools/day or blood in stool) Yes 1 No 0 → GO TO NEXT MODULE Don't know 9 → GO TO NEXT MODULE	
2. During this last episode of diarrhoea, did [NAME] drink any of the following? (Prompt and circle code for all items mentioned) 1=Yes 2=No 9=Don't know(DK)	Y N DK 2A. breast milk?..... 2A 1 0 9 2B. cereal-based gruel or gruel made from roots or soup?..... 2B 1 0 9 2C. other locally-defined acceptable home fluids (e.g. yogurt drink)?..... 2C 1 0 9 2D. ORS/regidron package solution?..... 2D 1 0 9 2E. other milk or infant formula?..... 2E 1 0 9 2F. water with feeding during some part of the day?..... 2F 1 0 9 2G. water alone?..... 2G 1 0 9 2H. defined unacceptable fluids (specify:.....) 2H 1 0 9
3. During [NAME]'s diarrhoea, did he/she drink much less, about the same, or more than usual? Much less or none 1 About the same 2 More 3 Don't know 4	
4. During [NAME]'s diarrhoea, did he/she eat less, about the same, or more food than usual? (If less, probe: MUCH LESS OR A LITTLE LESS THAN USUAL?) None 1 Much less 2 Somewhat less 3 About the same 4 More 5 Don't know 9	

QUESTIONNAIRE 6. BREASTFEEDING MODULE

This module is directed to the mothers or caretakers of all children under 1 year of age in the household.

A spare form should be filled in for each child under 1 year listed in the HOUSEHOLD MODULE (Q1). Fill in the name and line number of each child along with the cluster and household numbers in the space at the top of each questionnaire. Circle the number corresponding to the mother's response where indicated. Make sure all identifying information is filled in correctly, until all children under age 1 have been covered.

BREASTFEEDING MODULE

Cluster no: Household no: Child no:

QUESTIONS	Response																																				
1. Has [NAME] ever been breastfed? Yes 1 No 0 → GO TO QUESTION 4 Don't know 9 → GO TO QUESTION 4																																					
2. Is he/she still being breastfed? Yes 1 No 0 → GO TO QUESTION 5 Don't know 9 → GO TO QUESTION 5																																					
2. Since this time yesterday, did he/she received any of the following? <i>Prompt and circle code for all items mentioned. 1=Yes 2=No 9=Don't know (DK)</i> 2A. vitamin, mineral supplements or medicine? 2B. plain water..... 2C. sweetened, flavoured water or fruit juice or tea or infusion..... 2D. ORS/regidron..... 2E. tinned, powdered or fresh milk or infant formula..... 2F. any other liquids (specify: 2G. solid or semi-solid (mushy) food..... 2H. received ONLY breastmilk.....	<table> <thead> <tr> <th></th> <th>Y</th> <th>N</th> <th>DK</th> </tr> </thead> <tbody> <tr> <td>2A</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2B</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2C</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2D</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2E</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2F</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2G</td> <td>1</td> <td>0</td> <td>9</td> </tr> <tr> <td>2H</td> <td>1</td> <td>0</td> <td>9</td> </tr> </tbody> </table>		Y	N	DK	2A	1	0	9	2B	1	0	9	2C	1	0	9	2D	1	0	9	2E	1	0	9	2F	1	0	9	2G	1	0	9	2H	1	0	9
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For all children between 1-2 years of age

QUESTIONNAIRE 7. IMMUNIZATION MODULE

A spare form should be filled in for each child between 1-2 years of age listed in the HOUSEHOLD MODULE (Q1). This module (except question number 1) should be filled at the polyclinic from the vaccination records.

Cluster no: Household no: Child no:

Before you leave the house:

Fill in the name and line number of each child along with the cluster and household numbers in the space at the top of each questionnaire. Before you leave the house check the BCG scar for each child between 1-2 years of age and circle appropriate number.

1. BCG scar (Check for scar)

Yes	1
No	2
Not examined	9

Thank the mother/caretaker for her cooperation.

When you go to the polyclinic:

Find the child's vaccination records. Make sure all identifying information is filled in correctly, until all children between age 1-2 have been covered.

Make sure that you do not count OPV0 (OPV0 is given at birth) as OPV1. OPV0 should not be recorded in the table below.

Question	Record exists 1 = Yes 2 = No	Date of Immunization					
		DAY	MONTH	YEAR			
2. BCG							
3A. DPT1							
3B. DPT2							
3C. DPT3							
4A. OPV1							
4B. OPV2							
4C. OPV3							
5. MEASLES							

Thank the health workers who helped you for the polyclinic based records.