

Great Socialist People's Libyan Arab Jamahiriya
People's Committee
Public Commission for Health Care Planning
Multi Indicator Cluster Survey (MICS)

Preliminary Report

MICS Results

2003

Contents

Introduction

Sample and Research Methodology

Research population

Household Characteristics

1. Type of household
2. Material of dwelling floors
3. Rooms in dwelling
4. Bedrooms in dwelling
5. Source of drinking water
6. Type of Toilet facility
7. Salt Iodization

Characteristics of Sample members

1. Gender and age Structure
2. Marital status
3. Orphaned children
4. Educational Status

Characteristics of Female Sample Members

1. Marital Status
2. Educational Status
3. Health Care
4. Immunization against neonatal tetanus
5. Fertility
6. Family planning
7. AIDS
8. Maternal Mortality

Characteristics of Children in the Sample

1. Birth registration and childhood education
2. Breastfeeding

3. Childhood Illnesses
 - a. Diarrhoea
 - b. Other illnesses
4. Immunizations
5. Anthropometry
6. Child Labour
7. Child Mortality

Table summarizing the most significant indicators in Yemen

Introduction

In an effort to reinforce the national efforts to improve living conditions of the Libyan family, and based on our belief in the importance of developing the economic, social and health sectors, and complement the achievements realized since the Revolution of September; it was necessary to administer this survey known as Libyan Multi indicator Cluster Survey (MICS). This survey is the first national survey that targets health national indicators in both urban and rural areas.

Work on this survey was commenced after an order was issued by the Deputy Secretary General for Service Affairs in the People's Committee, order No. 255/ 2003. The order stipulated that a committee of 13 national experts will be formed, and they will be assisted with experts from UN agencies working in Libya.

The study sample included 11900 Libyan households distributed on 700 regions. The sample also consisted of several clusters, with 17 households in each. Statistical means were used to identify the sample, and ensure the development of actual indicators and estimations.

The efforts of the Libyan people made the rapid completion of field work possible, 300 researcher, coordinator and administrators, who underwent intensive training to ensure accuracy, cooperated to come up with the findings presented in this report.

Since there is no clear definition for populations in urban and rural areas, we used numerical standard to distinguish between urban and rural areas, which is a common standard used in social sciences and researches. The numbers were taken from 1995 census, and any region that had more than 5000 people was considered an urban area.

We would like to thank the members of the people's committee for their interest and follow up. We would also like to thank the international and regional organizations that helped in the implementation of the survey. Our appreciation also extends to the staff members of the national centre for preventing contagious diseases, the Higher Committee for Children and the National Commission for information and documentation.

Last but not least, I present to you the result of 6 months of hard work ...

And we are proud to address this work to the engineer of our welfare in Libya, President Qathafi, Libyan executive authorities in the country to help in the decision making process in addition to the Libyan people.

May God Bless your efforts, and may his peace be upon you ...

Dr. Ikhrais Balqasem Ahmad

Head of the Survey Team

February 2004

Sample and Research Methodology

The MICS in Libya was designed to assess health indicators on the national level in various regions, in addition to rural and urban areas. The country is divided to 12 regions as follows:

No.	Region	Area	No.	Region	Area
1	Al Batnan	Al Batnan	9	Tripoli	Tajoraa & Nawahi
		Darana			Tripoli
		Al Qoba			Al Jafara
2	Al Jabal Al Akhdar	Al Jabal Al Akhdar	10	Al Zawya	Al Zawya
		Al Marj			Sarman & Sbarta
3	Banighazi	Al Hizam Al Akhdar	11	Al Jabal Al Gharbi	Al Niqat Al Khams
		Banighazi			Ghrayan
4	Ajdabya	Ajdabya	11	Al Jabal Al Gharbi	Yfrin & Jado
		Al Wahat			Naloot
		Al KAfra			Mazda
5	Sartt	Sartt	12	Farran	Ghadames
		Al Jafra			Sabha
6	Mosrata	Mosrata	12	Farran	Al Shate'
7	Al Marqab	Al Marqab			Wadi il Haya
8	Tarhoona	Bani Waleed	12	Farran	Ghat
		Tarhoona & Mislata			Marzouq

The sample includes three levels, and 700 areas chosen from 7106 selected randomly and proportionately with the size of the region. The sample included 11900 families.

The administered questionnaire included a section on the population's characteristics and another focusing on the characteristics of female members (15 – 49), while the third part focused on under – five children. This questionnaire was based on the original cluster questionnaire developed by UNICEF, and which was translated into Arabic and adapted to fit the Libyan culture. A training course was developed for all field supervisors, it was held in the city of Zelteen between 21 – 24 June, 2003. Two other training programs on gathering data were organized between 30 June, 2009 and 9 July 2003 in Tripoli and Banighazi, and the questionnaire was tested at the end of the

training. 90 teams worked on gathering data, each team consisted of two researchers in addition to a driver and field supervisor.

Study Population

The Libyan MICS, which was conducted between 7/7/2008 and 31/8/2008, covered 11900 households distributed on 700 areas, 101 of which were in the rural side of the country. The response rate was high; the number of households that were successfully interviewed was almost 11142 (93.6%). 1633 households were interviewed in rural areas (96.1%) in comparison to 9509 in urban areas (93.2%). The number of households included in the sample was 84451, 71114 of which were in urban areas (84.2%).

The sample included 232582 females, whose ages ranged between (15 – 49), and the percentage of successful interviews was (92%) in urban areas and (94.3%) in rural ones. The number of children (under 15 years) and who completed the interview successfully was 7232 children (%97.8) in both urban and rural areas.

Table (1) Distribution of households according to the interview's results and place of residence

Details	Urban		Rural		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Interview completed	9509	93.2	1633	96.1	11142	93.6
Interview rejected	150	1.5	17	1.0	167	1.4
Family not at home	377	3.7	33	1.9	410	3.5
Family was not found	98	1.0	5	0.3	103	0.8
Other	66	0.6	12	0.7	78	0.7
Total	10200	100	1700	100	11900	100

Characteristics of Dwellings

1. Type of Dwelling

The MICS revealed that 17% of Libyan households live in independent houses (Villa), this percentage is higher in urban areas (18.4%), while it is only (11.3%) in rural areas. The survey also revealed that 65.4% of Libyan households live in a regular house. This kind of dwelling is common in urban areas (83%); while in rural areas the percentage is only 62.4%. 14.3% of households live in apartment buildings; this percentage in urban areas reach 16.5%, while in rural areas it is 1.3% only. Table (2) shows the distribution and type of dwelling in urban and rural areas.

Table (2): Distribution of the sample household according to the type of dwelling and place of residence

Type of dwelling	Urban%	Rural%	Total%
Villa or modern house	18.4	11.3	17.3
Regular house	62.4	83.0	65.4
Apartment	16.5	1.3	14.3
Other	2.7	4.5	3.0
Total	100	100	100

2. Material of Dwelling floors

Table (3) shows that almost 87% of Libyan households live in houses with tiled floors. This type of floor is common in urban areas (90%), and in rural areas the percentage is (71%). The percentage of dwellings with cement floors is 12.6%.

Table (3) Distribution of households according to type of floor material and place of residence

Type of floor	Urban%	Rural%	total%
Tiles or wood	89.5	70.9	86.7
Cement	9.9	28.2	12.6
Earth/ Sand	0.6	1.0	0.6
Other	0.1	0.0	0.0
Total	100	100	100

3. Rooms in the Dwelling

The survey showed that 40% of Libyan households live in dwellings that consist of 4 rooms, while 25% of households live in 3 – room houses, and they are existent in both rural and urban areas in the same percentage almost. 25% of households live in dwellings that consist of five rooms or more as shown in table (4).

Table (4): Distribution according to number of rooms in the dwelling

Number of rooms	Urban%	Rural%	Total%
One room	0.8	0.9	0.8
Two rooms	5.6	5.3	5.6
Three rooms	24.2	24.6	24.3
Four rooms	39.5	41.7	39.8
Five rooms	18.9	20.3	19.1
Six rooms	6.3	4.5	6.1
Seven rooms or more	4.5	2.6	4.2
Total	100	100	100

4. Number of Bedrooms

Two bedroom houses are common in Libya in both rural and urban areas 40%, followed by three bedroom houses and four-bedroom houses (10%), and they are more common in urban areas.

Number of bedrooms	Urban%	Rural%	Total%
One Bedroom	7.8	7.5	7.8
Two bedrooms	39.5	39.4	39.5
Three bedrooms	40.6	38.4	40.3
Four bedrooms	9.4	11.8	9.8
Five bedrooms	1.9	2.1	1.9
Six bedrooms or more	0.8	0.8	0.8
Total	100	100	100

5. Source of Drinking Water

Given the importance of water and its significance for general health, the survey gathered specific information on the major source of drinking water. The results show that the national water pipelines and water wells are the main two sources of water in both urban and rural areas. The percentage of households depending on the national water pipelines is 79%, 81% in urban areas and 72% in rural areas.

Table (6): Distribution of households according to the source of drinking water and place of residence

Source of drinking water	Urban%	Rural%	Total%
House connected to water pipes	50.6	43.5	49.5
Public water tap	9.3	1.2	8.1
Water pump	10.9	20.0	12.2
Protected water well	10.0	7.5	9.6
Rain water collection	9.4	13.3	10.0
Tanker (truck)	5.3	12.1	6.3
Bottled water	2.8	1.0	
Other	1.7	1.4	1.6
Total	100	100	100

The results also showed that 75.8% of the households get their drinking water from inside the house and 78.6% from inside the building.

The average time needed to bring water to the house was 45 minutes; 44.4 minutes in urban areas and 53.0 minutes in rural areas.

6. Type of Toilet Facility:

The survey covered aspects relating to the sustainment of clean environment and disposing of human waste, and consequently the availability of toilet facilities. Results revealed that 94.8% of households have a toilet that flushes into a sewer system. In urban areas this percentage was 95.6%, while in rural areas it was 90.8%, Figure (1).

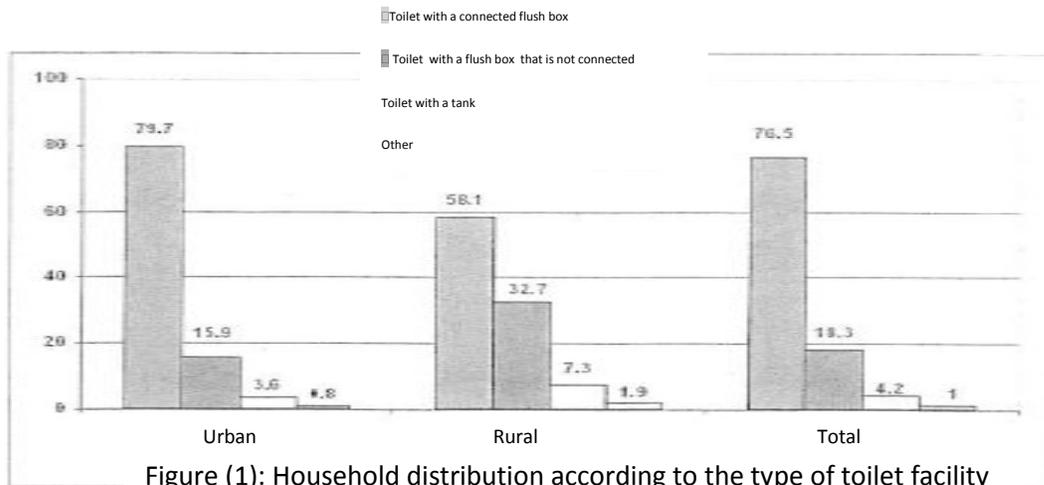


Figure (1): Household distribution according to the type of toilet facility and Place of residence

The percentage of households that have a toilet facility inside the house was 95.7%, while the percentage of households that has a toilet outside their house was 4.3%, and this percentage does not differ between urban and rural areas.

As for the feces of children below three years of age, results show that 73.2% of children use the toilet or their feces is thrown in it, while the feces of 12.4% of children is thrown outside the house yard.

Figure (2)

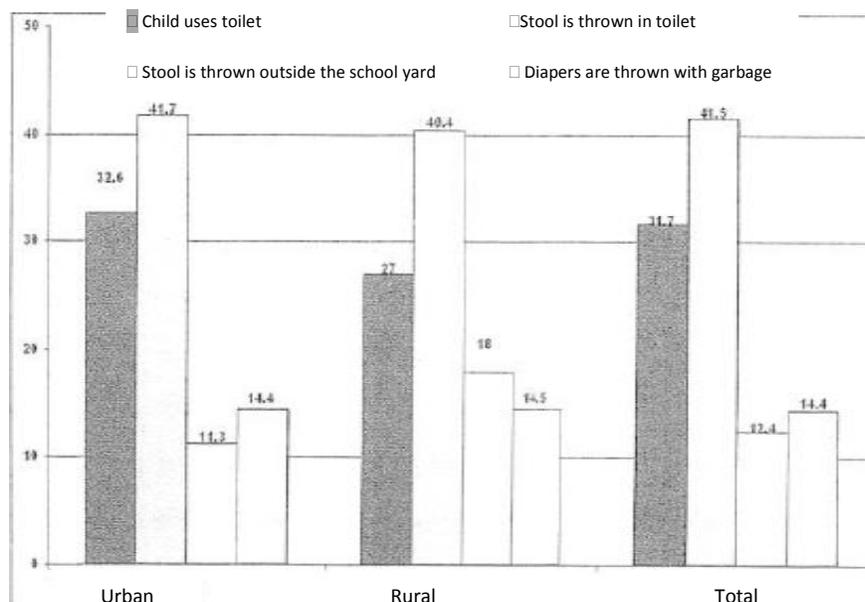


Figure (2): Disposal of Child Stool (0-3 years)

7. Salt Iodization:

The survey's results showed the 59% of households in Libya use iodized salt (54.2% use salt with (PPM<15). This percentage was higher in urban areas (60.7%), while in rural areas it was only 48.4%. The percentage of households that use salt without iodine (PPM – 0) is 37.6%, it was only noticed that this percentage was less in urban areas compared to rural ones, the percentages were 35.6% and 49.6% consecutively.

Table (7): Distribution of households according to the usage of iodized salt and place of residence

Details	Urban%	Rural%	Total%
Uniodized salt PPM – 0	35.6	49.6	37.6
Iodized salt PPM<15	4.4	6.3	4.7
Iodized salt PPM > 15	56.3	42.1	54.2
Salt is not available at home	0.6	0.3	0.5
Salt was not examined	3.2	1.7	3.0
Total	100	100	100

Characteristics of Sample Members

1. Gender and age Structure

The MICS results showed that fertility in the country is dropping, as the percentage of people whose age is less than 5 years is 8.8% in comparison to 12.5% in the census conducted in 1995. The percentage of individuals whose age is less than 15 years old is 32.3% in comparison to 39% in 1995 census. Figure (3) illustrates the qualitative and age structure of the research sample.

Table (8) illustrates the Gender and age structure of the sample members according to the place of residence, and it shows that the percentage of population in the working age group (15 – 64) is 64.2%, while the percentage of population whose age does not fall within the working age (less than 15 or more than 64) is 35.5% in comparison to 43% in 1995 census.

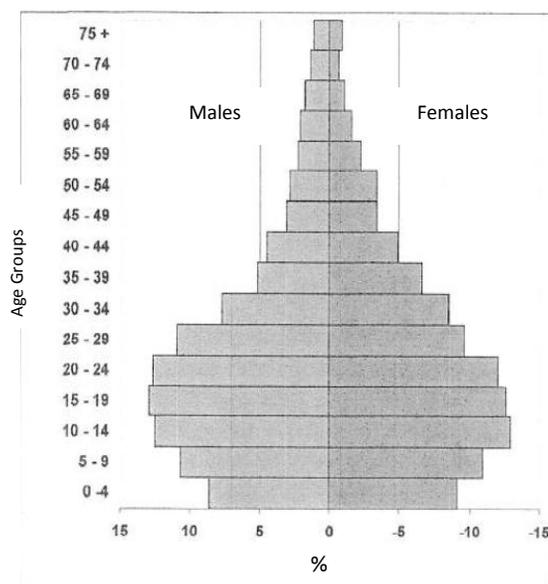


Figure (3): Gender and age structure

Table (8): Distribution of age categories in the sample according to place of residence

Age category	Urban%	Rural%	Total%
0 – 4	8.7	9.1	8.8
5 – 14	23.2	25.0	23.5
15 – 64	64.6	62.2	64.2
+65	3.3	3.2	3.3
Unknown	0.2	0.5	0.3
Total	100	100	100

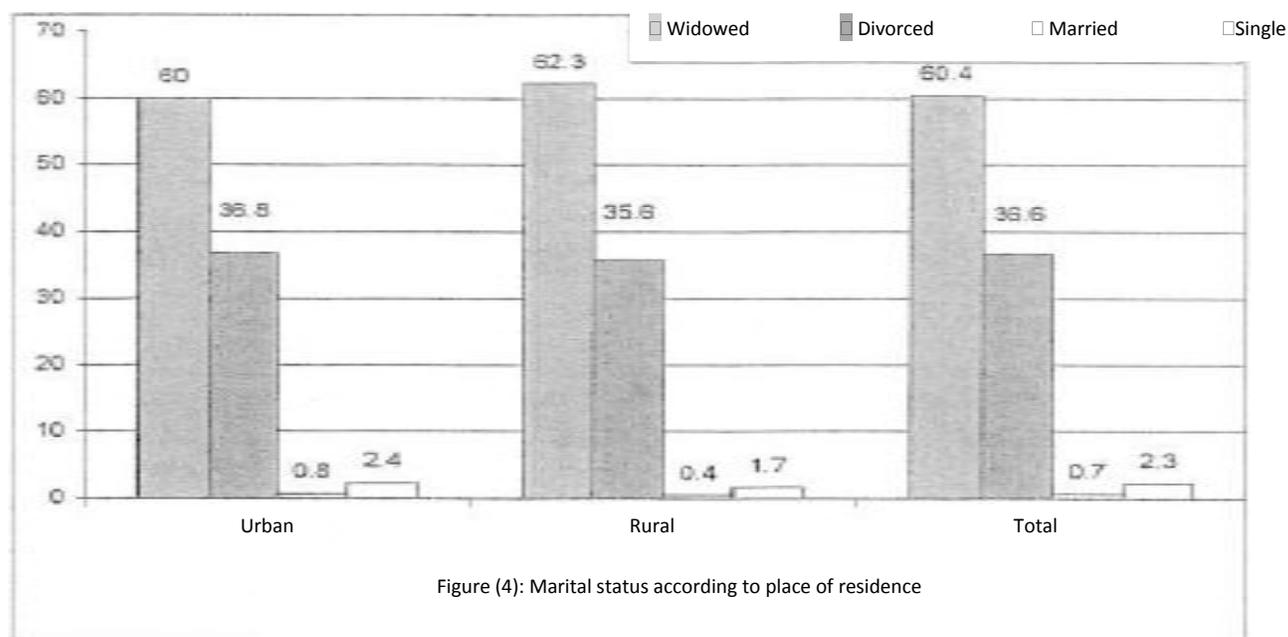
2. Marital Status

Results shown in table (9) depicts that the percentage of unmarried people is 64% among males, and 56% among females, while the percentage of married people is 37%. The survey also revealed that the percentage of divorced and widowed people is higher among females than males.

Table (9): Distribution of sample members (15 years or older) according to the marital status and gender

Marital Status	Males%	Females%	Total%
Single	64.2	56.2	60.4
Married	35.1	38.3	36.6
Divorced	0.2	1.2	0.7
Widowed	0.5	4.3	2.3
Total	100	100	100

Figure (4) shows that the percentage of divorce and widowhood is higher in urban areas than rural areas



3. Orphaned Children

Survey results for children below 15 years old show that there are 8 children who lost their mothers in every 1000 children, while there are 25 children who lost their father in every 1000 child. Table (10) shows that in every 1000 child, 5 don't live with their biological mothers, and nine don't live with their biological fathers.

Table (10) Distribution of children according to the status of their biological parents, alive, diseased, lives with the family or does not live with the family

Parents' Status	Biological mother		Biological Father	
	Number	%	Number	%
Alive	26992	99.1	26526	97.4
diseased	228	0.8	686	2.5
N. A	10	0.0	18	0.1
Lives with the family	26854	98.6	26285	96.5
Does not live with the family	138	0.5	241	0.9
Diseased/ not diseased	238	0.9	704	2.6

Number of children below 15 years of age – 27230

4. Educational Status

The survey gathered data on the educational status of household members whose ages are above 5 years. Results showed that 86.2% of sample members whose ages are 5 years or more (76412) were enrolled in school at one point, 35662 (90.6%) males and (30206 (81.5%) females. The percentage of people who did not attend school was 10544 (13.8%). Table (11) shows the highest education level reached by individuals included in the survey.

Table (11): Distribution according to gender and highest educational level

Highest Educational Level		Males%	Females%	Total%
Elementary		26.9	30.1	28.4
Secondary		25.1	22.3	23.8
High school or its equivalent		31.2	31.1	31.1
University or its equivalent		16.1	16.1	16.1
Irregular Curricula		0.6	0.4	0.5
Not identified		0.2	0.1	0.1
Total	Percentage	100	100	100
	Number	35603	30166	65769

Table (12) shows the highest educational level

Table (12): Distribution of sample's household members (15 and older) according to the educational level, gender and place of residence

Educational Level	Male	Female	Urban	Rural	Total
Illiterate	7.3	19.3	12.5	16.3	13.1
Literate	5.5	7.1	6.1	7.1	6.3
Elementary	16.7	12.7	14.8	14.7	14.7
Secondary	24.0	19.8	21.9	22.4	22.0
High School	34.2	30.7	32.8	31.3	32.5
University or higher	11.2	9.4	10.8	7.5	10.3
Irregular Curricula	0.6	0.4	0.6	0.2	0.5
N.A/ N.C	0.6	0.6	0.6	0.4	0.6
Total	Percentage	100	100	100	100
	Number	29623	27598	48426	8795

Figure (5) shows the literacy percentage among surveyed household members whose ages are higher than 15

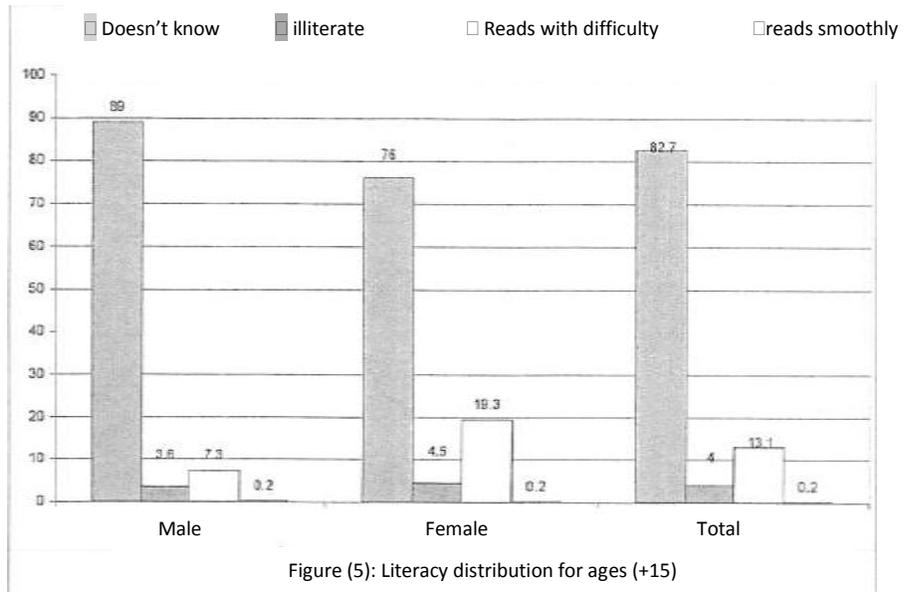


Figure (5): Literacy distribution for ages (+15)

Table (13) shows that school attendance percentage between the ages (5 – 17) in 2002 was 94.2% and 98.4% in 2003. The attendance percentages were the same between males and females, and it was 94.2% in urban and rural areas in 2002 and 98.4% in 2003.

Table (13): Distribution of sample member according to their enrollment in school in 2002 – 2003, gender and place of residence

Details	Academic Year (2001/2002)		Academic Year (2002/2003)	
	Attending school	Not attending school	Attending school	Not attending school
Urban	94.1	5.9	98.4	1.6
Rural	94.4	5.6	98.2	1.8
Total	94.2	5.8	98.4	1.6
Male	94.2	5.8	98.3	1.7
Female	94.2	5.8	98.5	1.5
Total	Percentage	94.2	98.4	1.6
	Number	21703	1338	22744

The educational for this age group during the past two years is clarified in the following table.

Table (14): Distribution of sample members (5-17) according to the educational level during 2001 – 2002, 2002/ 2003.

Details		2001/2002%	2002/2003%
Preschool		3.5	0.1
Elementary		59.4	55.6
Secondary		27.8	29.7
High School		9.1	14.4
Irregular Curricula		0.2	0.2
N.A.		0.0	0.0
Total	Percentage	100	100
	Number	21690	22729

Characteristics of Females in the Sample

This section illustrates the characteristics of females (married and unmarried) in the sample, their ages range between the ages of (15 – 49), and their total number is 23552 distributed between urban and rural areas, 84.6% and 15.4 consecutively:

1. Marital status

The MICS revealed that 65.4% of females (15 – 49) were not married, this percentage is higher in rural areas (67.5%) in comparison to urban areas (65.1%). The percentage of married women was 32.3%; 32.5% in urban areas and 30.7% in rural areas. Percentages of divorced and widowed women are higher in urban areas, and they are detailed in the table below:

Table (15): Distribution of femal members (15 – 49) according to marital status and place of residence

Marital Status		Urban%	Rural%	Total%
Married		32.5	30.7	32.3
Divorced		1.2	0.9	1.2
Widowed		1.2	0.9	1.2
Bachelor		65.1	67.5	65.4
Total	Percentage	100	100	100
	Number	19926	3626	23552

Table (16) shows the age distribution for females according to age groups and marital status

Table (16): Distribution of female members according to marital status and age groups

Age groups	Married	Widowed	Divorced	Seperated	Bachelor	Total
15 – 19	0.2	0.4	0.4	6.3	33.4	21.9
20 – 24	3.2	0.7	4.3	0.0	30.2	20.8
25 – 29	11.8	4.1	15.6	12.5	19.3	16.6
30 – 34	21.6	8.1	25.8	31.3	11.3	14.8
35 – 39	25.1	8.1	25.8	31.3	11.3	14.8
40 – 44	22.5	27.3	16.4	12.5	4.4	11.5
45 – 49	15.7	44.3	10.2	25.0	0.2	5.8
Total	100	100	100	100	100	100
	7596	271	256	16	15413	23552

The table shows that marriage percentage increases with age, and it is highest in the age group (35 – 39). This phenomena applies to the categories of divorced and widowed women. The table also shows that the percentage of married women is 93.3%, while the percentage of widowed and divorced women is 3.3%.

2. The Academic Status of females (15 – 49)

The research showed that out of 23552 females 86.7% can read easily, while 4.3% can read with difficulty. The percentage of illiteracy is 8.7%; 12.5% in rural areas and 8.1% in urban areas.

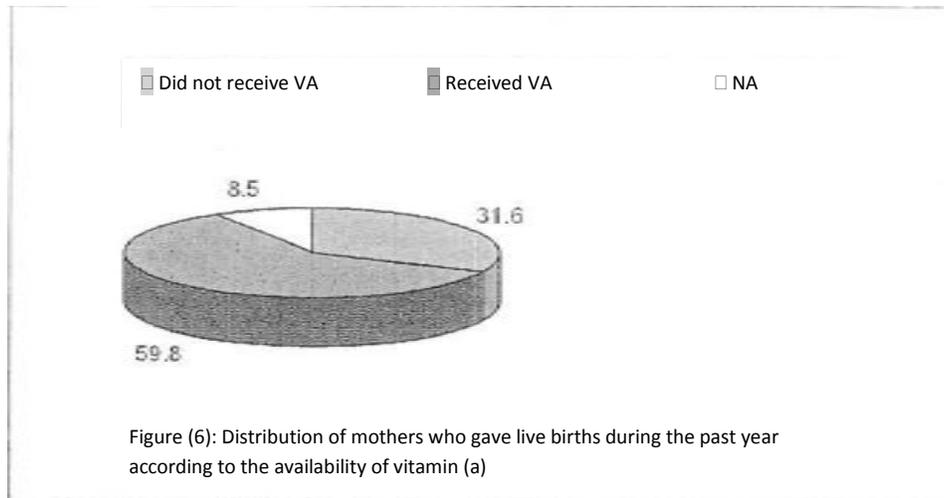
Table (17) shows the ability of married women (8107) to read was (71.7%); (73.7%) in urban areas and (60%) in rural areas. Illiteracy percentages are higher in rural areas (28%), and in urban areas it is (19%).

Table (17): Distribution of married women according to their ability to read and place of residence

Ability to read		Urban%	Rurual%	Total%
Can easily read		73.7	59.8	71.7
Can read with difficulty		7.3	11.8	8.0
Illiterate		18.8	28.1	20.2
N. A		0.1	0.3	0.1
Total	Percentage	100	100	100
	Number	6934	1173	8107

3. Health care during pregnancy and labour:

The number of pregnant women who gave birth to live babies in the year preceding the one in which the MICS was conducted was 1489 women in urban and rural areas 83.8% and 16.7% consecutively.



The percentage of women who gave live births within the previous year and received a dosage of vitamin (a) during the first two months after the last delivery was 32%, while 60% of them did not receive this dosage.

Table (18) details the medical follow up during pregnancy in urban and rural areas, and it shows that the percentage of women who have received medical attention during the period of their pregnancy from a doctor is 87.0% in urban areas, and 80.6% in rural areas, and this is the largest percentage of pregnant women. The percentage of women who have not received medical attention is 7.1%; 10.1% in rural areas and 6.5% in urban areas.

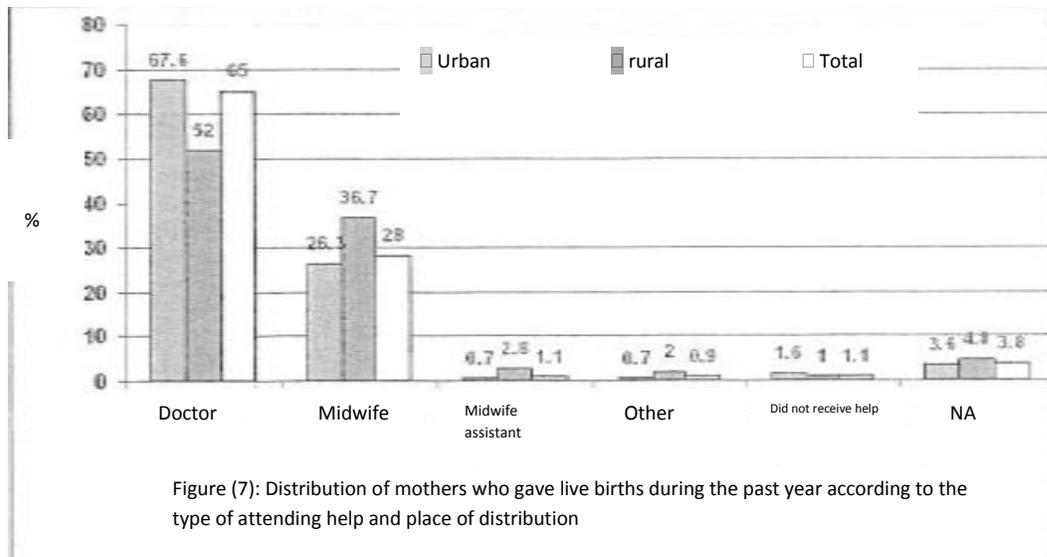
Table (18): Percentage of women who gave birth to live children during the previous year according to the provision of medical care during pregnancy

Provider of medical care	Urban%	Rural%	Total%
Doctor	87.0	80.6	86.0
Nurse/ Midwife	3.4	2.8	3.3
Midwife assistant	0	1.6	0.3
Traditional midwife (not qualified)	0.4	1.2	0.3
Relative/ friend	0.2	1.2	0.3
Others	0.1	0	0.1
Did not receive medical care	6.5	10.1	7.1
Number of mothers	1241	248	1489

Results have shown that pregnant women who have given birth under medical supervision was 1432 (96.5%), in 6.5% of the cases a doctor attended the delivery; (67.6%) in urban areas and (52%) in rural areas. 28.0% of the deliveries were attended by a nurse/ midwife, this percentage is higher in rural areas as shown in table (19) and figure (7).

Table (19): Distribution of women who have given live births during the previous year according to delivery attendant and place of residence.

Attendant	Urban%	Rural%	Total%
Doctor	67.6	52.0	65.0
Nurse/ Midwife	26.3	36.7	28.0
Midwife assistant	0.7	2.8	1.1
Traditional midwife (not qualified)	0.4	0.2	0.3
Relative/ friend	0.3	1.6	0.5
Others	0.2	0	0.1
Did not receive medical care	1.6	1.0	1.1
N. A.	3.6	4.8	3.8
Number of mothers	1241	248	1489



Among the problems that faced women during pregnancy were sight problems during the day. 155 woman suffered from that problem (10.4%), while 90 others (6%) suffered from sight problems during the night.

The survey also revealed that 85.6% of born children (1489 birth) were weighed immediatley after birth, this percentage was higher in urban areas than in rural ones; 87% and 77.8% consecutively. The percentage of infants who were weighed at birth was 4.2%, and there was no significant difference between urban and rural areas. The survey also showed that the weight of 355 children was registered In a card (27.9%), while 799 others did not have a card, and their mothers gave the required information (62.7%). The average weight for new borns was 3.26 kg, 50% of live births weighed 3.2 kg or less, while 75% weighed 3.6.

Table (20): Distribution of women who gave live births during the previous year according to the characteristics of the new born and place of residence

Details	Urban%	Rural%	Total%
Infant was weighed at birth	87.1	77.8	85.6
Infant not weighed at birth	4.1	4.4	4.2
N.A./ Does not know	8.8	17.7	10.5
Total	100	100	100
Weight taken from card	26.8	33.7	27.9
Weight given from mother's memory	64.7	51.8	62.7
Not available	8.5	14.5	9.4
Total	100	100	100

4. Immunization against Tetanus:

The MICS gathered data on the immunizations received by mothers (who gave live births), the number of mothers who completed the interview was 1489, the Immunization cards of 123 women were presented (8.3%), while the numbers of women who had cards but did not show them was 16.7%. The percentage of women who did not have an immunization card was 68.9%.

Results showed that 20.1% of the mothers received the tetanus vaccination during the last pregnancy; 19.7% in urban areas and 22.2% in rural areas. The next table shows the number of vaccinations the mothers received.

Table (21): Distribution of mothers according to the number of Tetanus vaccination shots they received during the last pregnancy, between pregnancies or during their lifetime.

Number of shots	During the last pregnancy		Before the last pregnancy and between pregnancies		Total (During their lifetime)	
	Number	%	Number	%	Number	%
Did not receive any (Zero)	1030	69.2	900	67.9	1016	68.2
One shot (1)	111	7.5	47	3.5	86	5.8
Two shots (2)	146	9.8	67	5.1	200	13.4
Three shots (3)	37	2.5	43	3.2	85	5.7
Four Shots (4)	5	0.3	37	2.8	45	3.0
Five shots (5) or more	-	-	45	3.4	57	3.8
N.A./ does not know	160	10.8	187	14.1	0	-
Total	1489	100.0	1326	100	1489	100.0

The table shows that 69.2% of mothers did not receive tetanus vaccinations during the last pregnancy, while 68% did not receive tetanus shots before the last pregnancy or between pregnancies. The table also shows that 5.8% of mothers who had the shot received one dosage only.

Table (22): Distribution of women who received Tetanus shots during their lifetime according to the place of residence

Details	Urban		Rural		Total	
	Number	%	Number	%	Number	%
Did not receive the shot	856	69	160	64.5	10106	68.2
One shot at least	385	31.0	88	35.5	473	31.8
Two shots at least	299	24.1	71	28.6	370	24.8
Three shots at least	152	12.2	34	13.7	186	12.5
Four shots at least	85	6.8	17	6.9	102	6.9
Five Shots at least	47	3.8	10	4.0	57	3.8
Total	1241		248		1489	

Table (22) shows that 31.8% of mothers receive at least one shot against tetanus during their lifetime, while 25% receive two shots and the percentages do not differ significantly between urban and rural areas.

5. Fertility

The MICS results showed that the average number of live births born to women in the age category (15 – 49) was 5.2; 5.1 in urban areas and 5.8 in rural ones.

On the other hand, results show that the infant mortality rate was 5%, and it is higher among males 5.3% than among females (4.7%).

Table (23): Relationship between the mother's education and fertility level expressed through the average live births for women whose ages range between (15 – 49)

Educational Level	Average births		
	Urban%	Rural%	Total%
Illiterate	7.6	7.9	7.7
Can read	5.7	6.2	5.8
Elementary	5.7	6.0	5.8
Secondary	4.8	5.2	4.8
High School	3.9	4.1	4.0
University & above	3.1	2.6	3.1
Irregular curricula	3.8	6.0	4.1
N.A./ Does not know	6.2	-	6.2
Total	5.1	5.8	5.2

The table shows that the average number of births is inversely proportionate with the mother's educational level. The percentage among illiterate women is %7.7, while it is 3.1% among women who completed their higher education. In urban areas the percentage is 5.1% and in rural ones it 5.8%.

6. Family Planning

The MICS showed that the number of married women in the sample was 7596, and the number of women still living with their husbands during the survey was 7433. The number of women who were not pregnant was 6367. As for family planning, the number of women who used some kind of contraceptive was 3381 (53.7%), this percentage was higher in urban areas (54.3%) in comparison to rural areas (46.0%).

Table (24) shows the distribution of married women (ages 15 – 49) who use contraceptives and that depending on the safe period is the most popular form of contraception (%31.4), followed by contraceptive pill (25.7%), and then the loop (23%).

Table (24): Percentage of married women (15 – 49) who use contraceptives and place of residency

Contraception	Urban%	Rural%	Total%
Safe period	31.9	29.1	31.6
Contraception pills	25.8	24.8	25.7
Loop	23.2	20.6	22.9
Prolonged breastfeeding	8.7	16.5	9.7
Withdrawal	3.9	2.3	3.7
Male condom	3.4	1.6	3.2
Female condom	1.5	1.4	1.5
Other	4.6	4.0	4.6
Number of women	2954	427	3381



7. AIDS

The data gathered during the survey on women whose ages range between 15 – 49 (21685) show that 96.1% heard of HIV/ AIDS. Table (25) displays that distribution of respondents opinions on a number of indicators that show the level of their knowledge about this disease and how to avoid it.

Table (25): Distribution of females' opinion (15 – 49) on AIDS

Respondent's opinion in	Yes%	No%	Don't Know	Total%
1. Can a person avoid infection with AIDS	87.7	6.9	5.4	100
2. Can people protect themselves from AIDS through limiting sexual activity with one partner, who is not infected and who does not practice sexual activities with any other partners	73.7	16.6	9.7	100
3. Can a person become infected with AIDS through unnatural means	29.7	38.0	32.3	100
4. Can people protect themselves from AIDs by using male condoms	29.7	38.0	32.3	100
5. Is AIDS transferred through mosquito bites	43.1	41.8	14.9	100
6. Can people protect themselves from AIDS through abstinence	27.4	59.6	12.9	100
7. Can people who are infected with AIDS look healthy	45.7	43.1	11.3	100
8. Can HIV be transferred from moth to child	77.2	15.1	7.7	100
9. Can AIDs be transferred from mother to fetus	93.7	2.2	4.1	100
10. Can Aids be transferred from mother to child during labor	85.1	6.6	8.3	100
11. Can AIDS be transferred from mother to child through breastfeeding	77.4	15.2	7.5	100
12. Can a teacher infected with AIDS and does not show any symptoms continue teaching	21.1	75.9	3.0	100
13. Will you buy food from a person if you know he/ she has AIDS	9.8	89.0	1.2	100
14. Did you test yourself to check if you were HIV positive	20.1	79.9	-	100
15. Were you informed of the test results	97.1	2.9	-	100
16. Do you know where you can get tested	62.6	37.4	-	100

Table (26) displays the distrubtion of respondents who answered yes according to their place of residence (rural/ urban).

Table (26) Distribution of respondents who answered yes in the table above according to their place of residence (yes/ no)

Respondent's opinion in	Urban	Rural	Total
1. Can a person avoid infection with AIDS	88.8	81.3	87.7
2. Can people protect themselves from AIDS through limiting sexual activity with one partner, who is not infected and who does not practice sexual activities with any other partners	74.0	71.5	73.7
3. Can a person become infected with AIDS through unnatural means	66.4	68.2	66.6
4. Can people protect themselves from AIDs by using male condoms	29.6	30.5	29.7
5. Is AIDS transferred through mosquito bites	43.5	41.8	43.2
6. Can people protect themselves from AIDS through abstinence	27.4	27.9	27.4
7. Can people who are infected with AIDS look healthy	46.6	40.1	45.7
8. Can HIV be transferred from moth to child	77.1	77.9	77.2
9. Can AIDs be transferred from mother to fetus	93.8	92.7	93.7
10. Can Aids be transferred from mother to child during labor	85.9	80.5	85.1
11. Can AIDS be transferred from mother to child through breastfeeding	77.6	76.0	77.4
12. Can a teacher infected with AIDS and does not show any symptoms continue teaching	22.0	16.1	21.1
13. Will you buy food from a person if you know he/ she has AIDS	10.2	7.9	9.8
14. Did you test yourself to check if you were HIV positive	21.6	11.6	20.1
15. Were you informed of the test results	97.1	97.7	97.1
16. Do you know where you can get tested	63.0	60.0	62.6

The table shows that 97.1% of respondents who were tested to find out if they were HIV positive were informed of the result, 93.7% know that Aids can be transferred from mother to fetus, 87.7% believe that they can avoid infection, while 77.2% know that AIDS can be transferred from mother to child. Also only 9.8% of respondents were willing to buy food from someone who has AIDS and 21% are willing to allow an infected teacher to continue teaching.

8. Maternal mortality

Maternal mortality is identified as the number of deaths among women that results from pregnancy, labor or postpartum causes during a year compared to the number of live births during the same year. To find out this percentage it is necessary to identify the number of all deceased women according to their age and cause of death. Since it was not possible to obtain this type of information the MICS gathered information on maternal mortality indirectly through questions addressed to females between 15 – 49 years of age. The respondents included married and unmarried women and they were asked about their sisters who are married or who were married, and the ones who died during pregnancy, labor or post partum.

The number of respondents was 23552 (all females and their ages ranged between 15 – 49), and the number of their married and unmarried sisters was 31921, while the number of deceased women among these (for maternal reasons) was 36.

Results revealed that the rate of maternal mortality was 51 deaths for every 100,000 live birth during the past 12 years that preceded the survey. 60 cases in rural areas and 17 in urban areas for every 100,000 live birth.

Children's Characteristics

1. Birth Registration and Early Education

The survey focused on birth registration and childhood education for children who are less than 5 years old (7232 children in the sample). Table (28) displays the age distribution for this category.

Table (28): Distribution of under five children according to age and gender

Age		Males%	Females%	Total%
Less than one year (0)		18.3	17.5	17.9
One year (1)		20.3	18.9	19.6
Two years (2)		19.5	21.1	20.3
Three years (3)		23.1	22.8	23.0
Four years (4)		18.8	19.6	19.2
Total	Percentage	100	100	100
	Number	3608	3624	7232

The survey also revealed that the percentage of under five children who have birth certificates is 98.4%; 98.5% in urban areas and 97.8% in rural areas. The percentage of children registered at birth in civil authorities was 99.5%.

As for childhood education, the survey revealed that the percentage of children whose ages range between 3 and 5 and who are enrolled in various educational programs (in mosques and kindergartens) is 5.6%, while the average time a child spends in an educational institution was 9.4 hours during the week that preceded the survey.

2. Breastfeeding

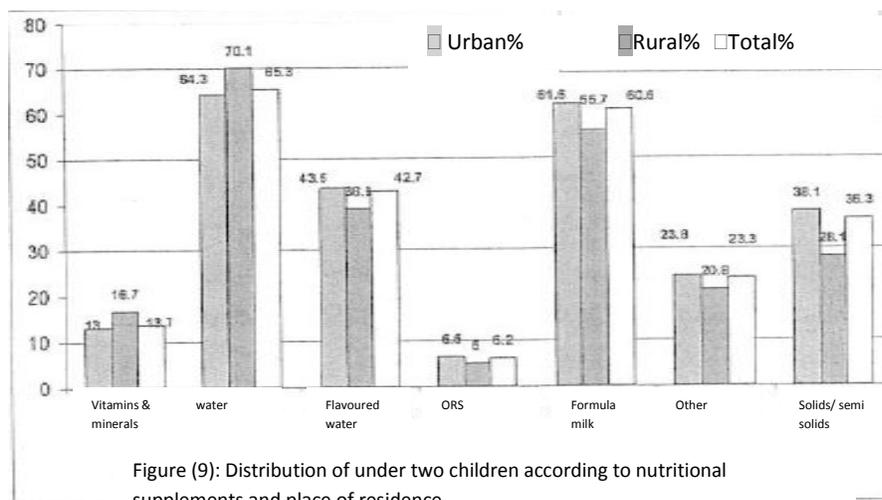
The first right a child enjoys at birth is the right to receive good nutrition , the survey showed that breastfeeding is widely practiced in Libya (92.4%), and that there is no substantial difference between urban and rural areas; 92.6% in urban areas and 91.2% in rural areas.

The percentage of under- two children who are still breastfeeding was 53.5%; 56.4% in rural areas and 53% in urban areas.

Table (29) shows the type of liquids and soft solids children under two have in addition to mother's milk.

Table (29): Distribution of under – two children according to the type of liquids, supplementary foods and place of residence

Type of Supplementary food	Urban%	Rural%	Total%
Supplementary vitamins and minerals or medicine	13.0	16.7	13.7
Regular water	64.3	70.1	65.3
Sweetened or flavored water, fruit juice	43.5	38.9	42.7
Oral rehydration solution	6.5	5.0	6.2
Formula	61.6	55.7	60.6
Other liquids	23.8	20.8	23.3
Solids or semi solids	38.1	28.1	36.3



3. Childhood Illnesses

The MISC surveyed the most common illnesses that affect children, data on illnesses during the two weeks that preceded the survey were gathered.

a. Diarrhoea

Diarrhoea is one of the most dangerous illnesses children can suffer from at an early age, especially that it causes dehydration and other complications that threatens a child's life. For mothers and caretakers diarrhoea is identified as passing stool three times or more daily, and when the stool is runny or blood appears in it.

The survey revealed that the percentage of children who suffered from diarrhoea in the two weeks that preceded the survey was 14.3%, and there is no substantial

difference between rural and urban areas; 13.9% and 14.4% consecutively. Note that the survey was conducted during summer.

The percentage of other illnesses such as cough and fever during the two weeks that preceded the survey was 12.4%, and there is no substantial difference between rural and urban areas.

Table (30) shows the distribution of liquids given to children during their last infection with Diarrhoea.

Table (30): Distribution of liquids given to children suffering from Diarrhoea and place of residence

Type of fluid	Urban%	Rural%	Total%
1. Mother's milk	27.4	34.4	28.6
2. Soup	28.3	29.2	28.5
3. Other homemade fluids	54.9	53.2	54.6
4. Rehydration solution	35.4	33.8	35.1
5. Formula milk	49.5	53.9	50.2
6. Water with salt	54.4	63.6	55.9
7. Water	66.0	69.5	66.5
8. Fizzy drinks	25.1	16.9	23.7
9. Child given no liquids	2.0	0.0	1.7

As a result of contacting a disease, a child's appetite may be affected, the table below shows how this appetite changed:

Table (31): Changes in eating habits among children who contacted diarrhoea during the two weeks that preceded the MICS and according to place of residence

Details	Urban%	Rural%	Total%
Drank much less than he/ she usually does	18.4	13.3	17.6
Drank almost the same amount	41.9	37.6	41.2
Drank more than the usual amount	38.4	48.0	40.0
Did not eat anything	9.9	15.4	10.8
Ate much less than usual	22.3	18.2	21.6
Ate the same amount	29.1	32.3	29.6
Ate more than the usual amount	1.5	0.0	1.2

b. Other Illnesses

The survey revealed that the percentage of under five children who contacted illnesses accompanied with a cough during the two weeks that preceded the survey was 30.6%, and there is no substantial difference between urban and rural areas. Also the percentage of children who suffered from rapid breathing or difficulty in breathing was 50%; 55.6% in rural areas and 48.7% in urban areas. The table below illustrates the reasons:

Table (32): Distribution of under-five children who suffered from coughing and difficulty breathing

Symptoms	Urban%	Rural%	Total%
Blocked nose	52.1	72.0	55.9
Problems in the chest	32.9	18.0	30.0
Both reasons above	4.7	2.0	4.2
Other	5.6	4.0	5.3
Don't know	4.7	4.0	4.6
Total	100	100	100

The survey showed that 83.8% of children who suffered from symptoms resulting from problems in the chest solicited medical help or treatment; 91% in rural areas and 83% in urban areas. The next table shows the entities in which children received help.

Table (33): Distribution of children suffering from symptoms resulting from chest problems according to place of residence

Entity	Urban%	Rural%	Total%
Hospital	65.7	60.0	65.1
Medical center	8.2	0.0	7.2
Clinic	11.0	20.0	12.1
Health worker in the local community	1.4	0.0	1.2
Maternal and childhood clinic	7.0	0.0	6.2
Private clinic	16.4	20.0	16.9
Traditional medicine	1.4	0.0	1.2
Pharmacy	1.4	0.0	1.2
Relative or friend	4.1	0,0	3.6

The survey also revealed that the percentage of children who suffered from sever conditions, and who had to be taken to the medical center varied according to their status and it reached 89.3% in cases of fever.

Table (34): Distribution of mothers and caretakers opinions on symptoms that require taking the child to the medical center immidiatley.

Symptoms	Urban%	Rural%	Total%
1. The child can not drink or breastfeed	27.9	27.5	27.9
2. The child's health is detriorating	48.1	42.8	47.3
3. The child has a fever	89.5	88.2	89.3
4. Child is breathing rapidly	47.9	49.6	48.1
5. Child has difficulty breathing	47.9	49.6	48.1
6. There is blood in the child's stool	41.0	38.7	40.6
7. The child is drinking very little liquids	19.2	20.1	19.4

4. Immunizations

The survey showed that 79.7% of surveyed children (12 – 23 months old) had Immunization cards that were shown to the interviewer, while 20.3% children had Immunization cards but did not show them. The percentage was the same in both rural and urban areas.

Table (35): Percentage of Immunization covering for children (12 – 23 months) according to gender and place of residence

Details	T.B	Polio	DTP	Measles	Hepatitis
Males	90.6	85.0	80.9	84.8	73.5
Females	91.5	85.0	80.6	85.1	72.0
Urban	91.4	85.4	81.1	85.9	73.3
Rural	89.2	82.8	77.6	88.8	85.0
Total	91.0	85.0	80.7	85.0	72.8

Figure (10) shows the percentage of coverage among children (12 – 23) months in urban and rural areas

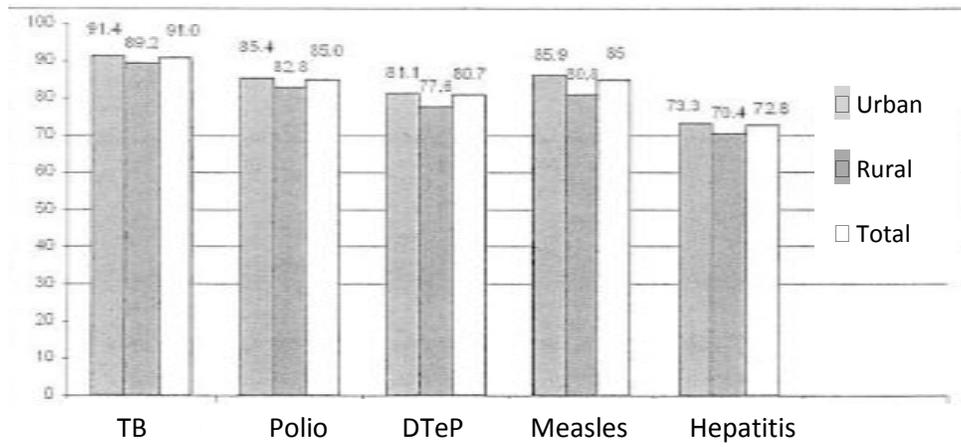


Figure (10): Distribution of vaccination coverage (12 – 13) month in urban & rural areas

5. Anthropometry

The MICS aims to identify the nutritional status of under – five Libyan children through taking physical measures. The weight and height of children in the sample were taken, and they were compared to the measures in the reference population identified by WHO. Listed below are the most important indicators for the nutritional status of under – five children in Libya.

1. Stunting

The survey showed that the percentage of under – five children who were stunt (their height is less than the average for their age) was 12.1%; 16.9% in rural areas and 11.2% in urban areas. The percentage of this condition was 13.0% among males and 11.2% among females, figure (11).

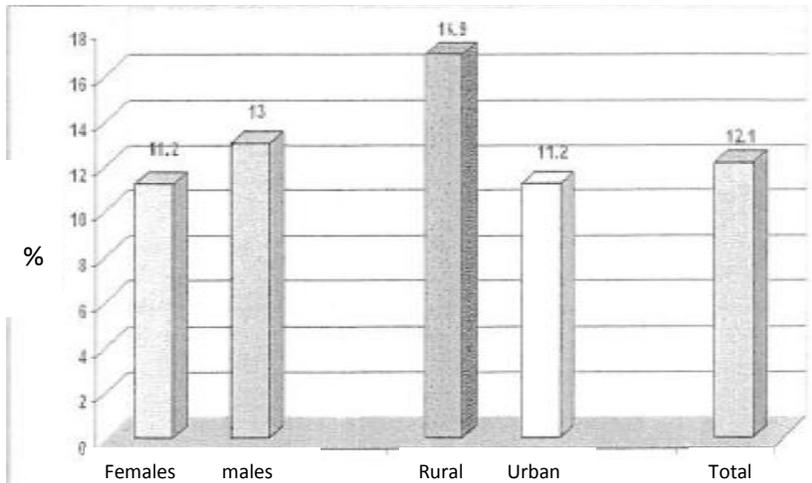


Figure (11): Percentage of under five children who suffer from stunting and place of residence

2. Underweight (Weight average in proportion with age)

The survey showed that the percentage of under – five children suffering from underweight in Libya was 5.3%, and that this condition is more common among children in rural areas 8.0%, in comparison to 4.8% in urban areas, and that there is no significant difference between males and females, figure (12).

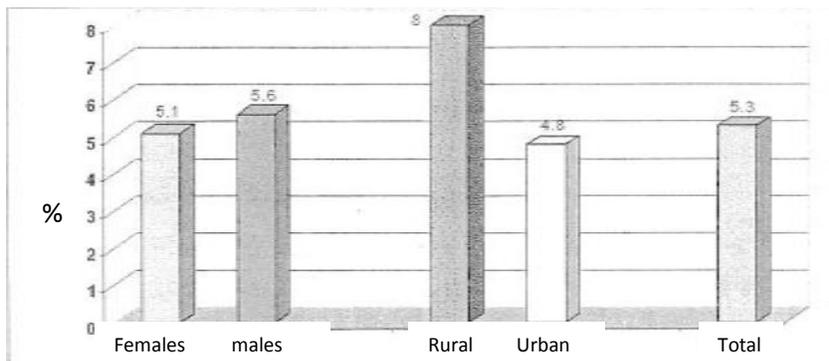


Figure (12): Percentage of underweight children (under five) according to age, gender and place of residence

3. Underweight (Weight average in proportion with age)

Figure (13) shows that children suffering from underweight according to height was 3.6% and that there is no significant difference between males and females. The percentage was 3.6% in urban areas and 4.1% in rural areas.

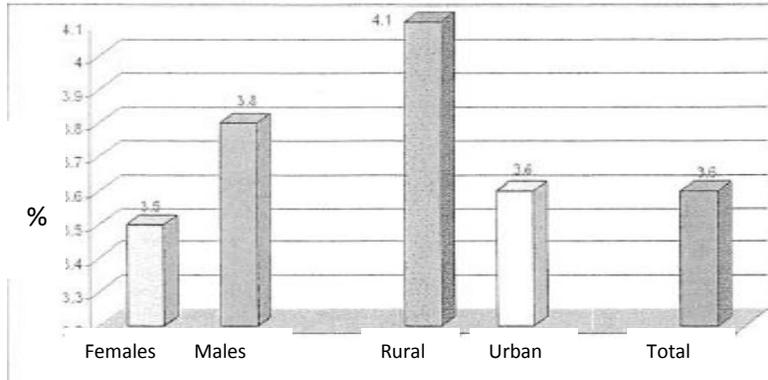


Figure (13): Percentage of underweight (thin) children (under five) according to age, gender and place of residence

Table (36) shows the percentage of under – five children who suffer from sever under growth.

Table (36): Percentage of children who suffer from severe malnutrition according to gender and place of residence

Details	Place of residence		Gender		Total
	Urban	Rural	Male	Female	
Stunting	3.7	6.2	4.6	3.6	4.1
Underweight according to age	0.8	0.9	0.7	0.9	0.8
Underweight according to height	0.8	1.0	0.9	0.7	0.8

6. Child Labor

Recruiting children between (5 – 14) contradicts with children’s rights and international conventions and legislations. Child labor in Libya is almost non – existent, the thing which was confirmed by the survey. During the two weeks that preceded the survey it was found that out of 19347 children (5 – 14) only 13 were working in return for a wage (outside the family). The survey also revealed that 9 children out of 19263 worked for a wage during the last year.

7. Handicapped children

The survey gathered data on handicapped children (2 – 9 years old), and it included a number of variables. Table (37) shows the percentage of handicapped children (2 - 9) in urban and rural areas.

Table (37): Distribution of indicators for handicapped children (2 – 9) according to place of residence

Type of handicap	Urban%	Rural%	Total%
Delay in sitting, standing or walking	2.9	2.8	2.9
Difficulty seeing during day or night	2.0	1.5	1.9
Difficulty in hearing	1.3	1.0	1.2
Difficulty in understanding	4.8	3.8	4.7
Difficulty in walking	2.2	1.9	2.2
Suffers from seizures and loses consciousness	1.7	1.2	1.6
Learning difficulties	2.7	2.4	2.7
Difficulty in expressing themselves	4.4	3.7	4.3
Difficulty in naming things (2 years)	19.0	17.7	18.8
Mental retardation	2.5	2.8	2.6

8. Infant and under – five Mortality Rates

The survey used an indirect way to assess infant mortality rates among under – five children, since the questionnaire did not include questions on the date of death. It is worth noting that indirect estimations are usually higher than direct ones. A general form from the UN demographic forms was used for this purpose. Table (38) shows infant mortality rates and under – five mortality rates.

Table (38): Infant and under – five mortality rates according to gender and place of residence

Rates (thousands)	Gender		Place of residence		Total
	Male	Female	Urban	Rural	
Infant mortality rates	24	24	25	28	25
Children mortality rates (1- 4) years	5	5	5	7	6
Under – five mortality rates	29	29	30	35	31

The table above shows that there are no significant differences between the two sexes, and that the rates are higher in rural areas especially among children between 1-4 although the difference is not substantial. Estimations suggest that mortality rates are dropping, although this drop is slowing down with time.

MICS Summary, the survey was conducted between 7 July and 31 August 2003

Details	Urban	Rural	Total
1. Some basic numbers: number of households included in the sample	10200	1700	11900
Number of households interviewed	9509	1633	11142
Number of interviewed household members	71114	13337	84451
Number of interviewed females (15 – 49)	18265	3420	21685
Number of interviewed married women or who have been married	6962	1177	8139
Number of women who gave birth to a live child in the previous year	1241	248	1489
Interviewed under – five children	6056	1176	7232
2. Percentage of coverage:	%	%	%
Percentage of interviewed households	93.3	96.1	93.6
Percentage of interviewed women (15 – 49)	91.7	94.3	92.0
Percentage of Interviewed under – five children	97.8	97.7	97.8
3. Dwelling conditions:			
Percentage of households that use the water network	50.6	43.5	49.5
Percentage of households that use toilets connected to a sewage network	79.7	58.1	76.5
4. Characteristics of eligible women			
Percentage of married women	34.9	32.5	34.6
Percentage of illiteracy between married women	18.8	28.1	20.2
5. Maternal Health			
Percentage of pregnant women at the time of the survey	12.7	13.6	12.8
Percentage of pregnant women who completed their term	93.5	89.9	92.9
6. Fertility			
Average fertility	5.1	5.8	5.2
7. Use of contraceptives			
Safe period	31.9	29.1	31.6
Contraceptive pills	25.8	24.8	25.7
Loop	23.2	20.6	22.9
8. Children diseases (2 weeks preceding the survey):			
Diarrhoea	14.4	13.9	14.3
Cough	30.4	31.7	30.6
Cough with difficulty breathing	48.8	55.6	50.0
9. Immunizations (12 – 23 months)			
TB	91.4	89.2	91.0
Polio	85.4	82.8	85.0
DTP	81.4	77.6	80.7
Measles	82.9	88.8	85.0

Hepatitis	73.3	70.4	72.8
10. Percentage of stunt children	11.2	16.9	12.1
11. Percentage of underweight children (according to age)	4.8	8.0	5.3
12. Underweight children	3.6	4.1	3.6
13. Infant mortality rates	25	28	25