FR Yugoslavia 1996

MULTIPLE INDICATOR CLUSTER SURVEY

Institute of Public Health of Serbia

Institute of Public Health of Montenegro

UNICEF

Belgrade 1997

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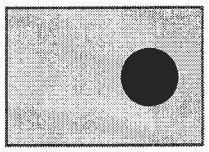
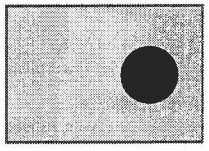
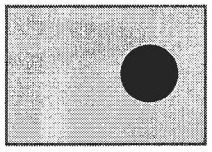


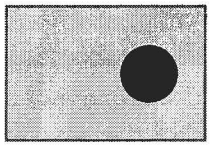
SUMMARY



INTRODUCTION



RESULTS OF THE SURVEY



APPENDIX

A Declaration and A Plan of Action for Children Until the Year 2000 were adopted at the World Summit for Children held in 1990. The governments signatories pledged to monitor progress towards achieving the goals set at the Summit. The Plan of Action requires that each country establish mechanisms for regular and timely collection, analysis and publication of data necessary for monitoring social indicators related to the welfare of children. Measuring these indicators is the main part of this process, both in terms of providing information for action and in recognizing improvements.

The mid-decade goals focused the need for providing data on certain areas important for the survival and development of every child: the right to protection against vaccine-preventable diseases, the right to treatment for diarrhea and acute respiratory infections, the right to breastfeeding, proper nutrition, safe drinking water and sanitation, etc. Together with the World Health Organization (WHO) and UNESCO, UNICEF has defined indicators for measuring progress in achieving these goals by the mid-1990s.

Determining the values of these indicators in the territory of the FR Yugoslavia was the main reason for conducting this comprehensive survey. The results obtained make it possible to:

- monitor progress towards achieving the goals of the World Summit for Children at national level;
- evaluate and monitor the implementation of the Plan of Action;
- strengthen the existing national capability;
- compare indicators with those from other countries.

We hope that this survey will help to better assess the situation as it really is and mobilize the entire society, and the health care system in particular, for achieving the goals of the World Summit for Children in the FR Yugoslavia.

Summary

Goals aimed at preserving and promoting the health of this extremely vulnerable population subgroup were formulated at the World Summit for Children in 1990. This survey was conducted in order to determine the progress achieved toward these goals in the FR Yugoslavia, and it was limited to children under five years of age, their mothers (carers) and the households in which they live. Specific goals of the survey included determining:

⇒ the water and sanitation situation;
⇒ what mothers' (carers) know and do about the most common diseases in children - acute respiratory infections and diarrhoea;
⇒ the existing breastfeeding practices;
⇒ the coverage of children by BCG, DTP, polio and measles vaccinations;
⇒ the nutritional status of the children in this age group.

The methodological basis of the survey was established in accordance with recommendations from UNICEF's practical manual for multiple-indicator surveys, although certain modifications in this methodology were made because of the specific nature of the situation in the FRY.

The survey was conducted between October 15 and 31, 1996. It covered a total of 10,604 households, 2,437 mothers (carers) and 3,226 children under five years of age.

A two-stage stratified cluster sample was used in the survey. The first-stage units were local communities in urban settlements, and settlements themselves in rural areas. Within these, household clusters were selected for interviewing. This produced accurate assessments of the indicators observed for the FR Yugoslavia as a whole, the republics of Montenegro and Serbia, the provinces of Vojvodina and Kosovo-Metohija, central Serbia and the Belgrade area. Differences between urban and rural settlements were also obtained for each of these levels of evaluation.

The Preparation and supervision of the survey was done by: UNICEF Belgrade co-ordinating team, the Institute for Public Health of Serbia, the Institute for Public Health of Montenegro, regional institutes for public health and hygiene-and-epidemiology services (HE) at community health centres. A total of 250 co-ordinators, supervisors and interviewers conducted the survey.

The survey produced indicators values for assessing the progress towards the World Summit Goals for Children. A comparation with the mid-decade values of these indicators will enable us to make a realistic assessment of the situation in the FR Yugoslavia and to formulate an appropriate strategy within the Programme of Measures and Activities for achieving the WSFC goals by the year 2000.

The survey's most important results, with an evaluation of progress in achieving mid-term goals in the FR Yugoslavia, are presented in the following table:

Mid-decade goal	Indicator	Results for the FRY	Progress in achieving mid-decade goals
• Increase water supply and sanitation so as to narrow the gap between the 1990 levels and universal access by the year 2000 of water supply by one-fourth and of sanitation by one-tenth.	• Proportion (and number) of population with access to an adequate amount of safe drinking water and proportion (and number) of population with access to a sanitary facility for human excreta within a convenient distance from the user's dwelling.	• 76.4 percent of the population gets drinking water from supply systems installed in the dwelling or yard. • 69.3 percent of the population disposes of liquid waste by means of toilet facilities located in the dwelling and linked to sewage systems or septic tanks.	• There are no data from previous years to make comparisons.
• *For countries that are implementing Programme for Control of Acute Respiratory Infections (ARI):* Strengthening health facilities capability for case management of pneumonia.	• Proportion of children under five years of age, with an acute respiratory infection needing assessment, who are taken to an appropriate health provider. • Proportion of all health facilities that have a regular supply of free or affordable antibiotics and a trained worker and are thus able to give correct pneumonia case management.	• 43.1 percent of mothers (carers) with children under five years of age are led by major ARI symptoms - difficult and fast breathing - to take their child immediately to a doctor.	• The results suggest that mothers are not familiar enough with the standard management of ARI in children.
• Achievement of 80 percent usage of Oral Rehydration Therapy (ORT) - increased fluid intake and continued feeding - as part of the Programme to Control Diarrhoeal Diseases.	• Proportion of diarhhoea episodes in under-fives treated with oral rehydration salts (ORS) and/or recommended home fluids (pre-1993 ORT definition). • Proportion of diarhhoea episodes in under-fives treated with ORT (increased fluids) and continued feeding. • Proportion of the population that has a regular supply of ORS available in their community.	• 98.5 percent of children under five years of age received ORS and/or other recommended home fluids during episodes of diarrhoea (pre-1993 definition of ORT). • ORT (taking increased quantities of fluid and continued feeding) was given to 41.3 percent of children under five years of age who had had diarrhoea in the previous two weeks.	• The mid-decade goal of treating 80 percent of diarrhoea cases with ORT was not achieved.
• Ending and preventing free and low-cost supplies of breastmilk substitutes in all hospitals and maternity facilities. • Having target hospitals and maternity facilities achieve "baby-friendly" (BF) status in accordance with BFHI global criteria.	• Proportion of hospitals and maternity facilities targeted for BFHI by end of 1995. • Proportion of hospitals and maternity facilities that have been officially designated as BF in accordance with global criteria.	• 6.2 percent of infants under 4 months of age are exclusively breastfed, 70 percent are predominantly breastfed, 35.2 percent are covered by timely complementary feeding (at the age of 6-9 months), 27.6 percent of children aged 12-15 months and 13.4 percent of children aged 20-23 months continue to breastfeed. • 8.5 percent of hospitals were declared baby-friendly, and 31.7 were proposed for BF status.	• A law on preventing free supplies of breastmilk in all hospitals and maternities is in the procedure. • Transformation of maternities and hospitals into BF facilities, as a goal for the year 2000, has begun. • Low indicators values correspond to the number of BF hospitals in the FRY.

Mid-decade goal	Indicator	Results for the FRY	Progress in achieving mid-decade goals
• Elevation of immunisation coverage of six antigens of the Expanded Programme on Immunisation (EPI) to 80 percent or more in all countries. • Elimination of neonatal tetanus by 1995. • Reduction by 95% in measles deaths and reduction by 90% of measles cases compared with pre-immunisation levels by 1995, as a major step to the global eradication of measles in the longer run. • Elimination of polio in selected countries and regions.	• Proportion of children immunised against tuberculosis before first birthday. • Proportion of children immunised against diphtheria, pertussis and tetanus (DPT3), before first birthday. • Proportion of children immunised against measles before first birthday. • Proportion of children immunised against poliomyelitis (OPV3) before first birthday. • Proportion of pregnant women immunised against tetanus. • Proportion of children protected against neonatal tetanus through mother's immunisation. • Annual number of cases of neonatal tetanus. Proportion of districts reporting neonatal tetanus cases. • Annual number of under-fives deaths due to measles. • Annual number of cases of polio. Proportion of districts reporting polio cases.	• 97.1 percent of children were immunised against TB, 88 percent against diphtheria, tetanus and pertussis, 86.6 percent against polio by the age of 12 months and 90.8 percent against measles by the age of 12-23 months. • Six cases of neonatal tetanus were reported in 1995. • 108 children under five years of age had measles in 1995; no deaths were reported. • 24 cases of polio (in five out of 210 municipalities) were reported in 1996.	• The goal of covering 80 percent of children by EPI vaccinations was achieved. • The goal of eliminating neonatal tetanus was not achieved, which calls for drawing up a programme to vaccinate pregnant women against tetanus in high-risk areas • Elimination of polio, which still persists in some municipalities in Kosovo-Metohija, remains one of EPI priorities. • As there is still a large number of measles cases, despite high coverage by measles vaccination, strategies must be developed to prevent and reduce the number of measles cases.
• Reduction of 1990 levels of severe and moderate malnutrition among under-five children by one-fifth or more.	• Proportion of children under five years of age who fall below minus 2 (3) standard deviations from median weight for age of the NCHS/WHO reference population. • Proportion of children under five years of age who fall below minus 2 (3) standard deviations from median height for age of the NCHS/WHO reference population. • Proportion of children under five years of age who fall below minus 2 (3) standard deviations from median weight for height for age of the NCHS/WHO reference population.	• 1.6 percent of under-fives fall below -2 SD and 0.4 percent fall below -3 SD from the median weight for the reference age group. • 6.8 percent of under-fives fall below -2 SD and 2.4 percent fall below -3 SD from the median height for the reference age group. • 2.1 percent of under-fives fall below -2 SD and 0.5 percent fall below -3 SD from the median weight for height for the reference age group.	• Obesity is generally more prevalent than malnutrition. The height for age indicator suggests that the rate of stunting is significant. • Comparisons are not possible for lack of similar studies in the past.

Prospects for achieving the Year 2000 Goals in the FR Yugoslavia

Year 2000 Goal	Prospects for achieving the goal
Universal access to safe drinking water and sanitary means of excreta disposal.	It is difficult to provide safe drinking water and sanitation for all due to the economic crisis and reduced investments in the construction of water-supply and sewage systems. In order to achieve these goals it is necessary to mobilise local communities, the international community, donors, Government agencies and NGOs and to introduce new, cheaper technologies for constructing water-supply and sewage systems.
Reduction by one-third in the deaths due to acute respiratory infections in children under-fives years.	Given the high child mortality rates for ARI in the FRY, extra efforts will be needed if this goal is to be achieved in terms of training health workers in treating ARI, providing information for mothers on the proper management of ARI, changing the essential drugs policy and promoting cost-effective use of antibiotics in health care.
Reduction by 50 percent in the deaths due to diarrhoea in children under five years of age and 25 percent reduction in the diarhhoea incidence rate	In view of the high incidence of diarrhoeal diseases in the FRY, reducing morbidity and mortality due to these diseases in children under five years of age is possible by mobilising the community for improving hygienic and epidemiological conditions, continuously training health workers, providing information to mothers (carers) about the care of children with diarrhoeal diseases and increasing the availability of ORS to the population.
Empowerment of all women to breastfeed their children exclusively for four to six months and to continue breastfeeding, with supplementary food, well into the second year of life.	Priority should be given to the Breastfeeding Support Programme and to BFHI. Breastfeeding promotion in the media must be increased, and the UNICEF-WHO breastfeeding policy promoted among medical professionals. In particular, it is necessary to inform pregnant women and mothers about the benefits of breastfeeding for the health of their children.
Maintenance of a high level of immunisation coverage (at least 90 percent of children under one year of age) against tuberculosis, diphtheria, tetanus, pertussis, measles, polio and against tetanus for women of child-bearing age.	Even though the desired coverage by vaccinations against most EPI antigens has been achieved, morbidity rates for some vaccine-preventable diseases are still high. That is why it is necessary to further strengthen immunisation services (by developing an information system to register and monitor children) and establish a cold chain throughout the FRY. The high level of mobilisation for the programme to eradicate polio should be used to expand activities to other EPI antigens. In particular, efforts should be made to promote a programme to immunise pregnant women against tetanus.
Reduction of severe and moderate malnutrition in children under five years of age by half in the 1990-2000 period.	The existing problems and bad nutrition-related practices in children necessitate long-term nutrition programmes. Health-education at community level and training of health workers may help improve nutrition. Priority should be given to designing growth monitoring charts and introducing child growth monitoring.

THE FEDERAL REPUBLIC OF YUGOSLAVIA (1995)

The Federal Republic of Yugoslavia (FRY) is a federal state made up of the Republic of Serbia and the Republic of Montenegro. The Republic of Serbia incorporates two provinces: Kosovo-Metohija in the south and Vojvodina in the north.

Area: ***102,173 sq. km***

Largest cities: ***Belgrade (capital), Podgorica, Novi Sad, Prishtina, Nis***

No. of inhabitants: ***10.6 mil***

No. of births annually: ***136,757***

No. of under-5 deaths annually: ***2,722***

Infant mortality rate: ***16.8***

Under-5 mortality rate: ***19.4***

Life expectancy: ***72.2***

Literacy: (male/female): ***97.2%/88.9%***

Primary school attendance rate: (without Kosovo-Metohija): **73.3**

GDP p.c.: ***USD 1,510***

The Social Situation

Close to 3 million people (28.9 percent of the population) were poor in the FR Yugoslavia in 1995, i.e. they were unable to meet their minimum food needs. While in 1990 the rural population was relatively poorer than the urban population, in 1995 the situation was the other way round - the poverty index in the urban population rose from 13.2 percent to 32.1 percent in the observed period. Households' real income per capita in 1995 was 31.4 percent down from 1990.

The economic situation has improved since the time of the collapse of the fiscal and monetary system caused by the longest and highest hyperinflation in history. Real GDP is still almost 50 percent lower than in 1989, and the registered unemployment rate has reached 25.8 percent. Most unemployed persons are young people, and 75 percent of all the unemployed have been unemployed for more than a year.

The economic crisis is particularly severe in the health and education sectors. Due to significant cuts in public expenditures for health care, which fell from USD216 per capita in 1990 to USD85.5 in 1995, health care services have deteriorated in terms of both quality and quantity.

There are an estimated 646,000 refugees in the FRY. Of these, 171,000 are children under 18 years of age. Most refugees live with their relatives and host families, while about 100,000 live in collective centres.

THE ORGANISATION AND PREPARATION OF THE SURVEY

The following institutions took part in preparing and conducting the survey: the co-ordinating team of the UNICEF Belgrade Office, the Institute for Public Health of Serbia, the Institute for Public Health of Montenegro, regional public health institutes and hygiene and epidemiology services in community health centres.

The organisational preparations of the survey

As part of the organisational preparations of the survey, each of the participants was assigned specific tasks and obligations.

The co-ordinating team:

⇒ designs the survey;
⇒ selects the sample;
⇒ prepares main instruments of the survey (questionnaires, checklists) and prepares instructions for conducting the survey, as well as instructions for filling in the questionnaire;
⇒ draws up the data processing project;
⇒ encodes, enters and controls data;
⇒ arranges data in tables and graphs;
⇒ draws up the final report with the results of the survey;
⇒ carries out promotional activities.

The republican institutes for public health:

⇒ participate in designing the methodological basis for the survey;
⇒ select instructors and, in co-operation with the regional institutes, supervisors and interviewers;
⇒ organise and conduct the training of supervisors and interviewers;
⇒ supervise the survey in their respective areas and collect survey materials;
⇒ control the survey coverage and the materials received and, if necessary, send back incomplete and incorrect materials;
⇒ distribute funds to the participants in the survey;
⇒ participate in drawing up the final report on the survey.

The regional institutes for public health and hygiene-epidemiology services:

⇒ propose candidates for supervisors and interviewers;
⇒ provide rooms for training and the collection of survey materials;
⇒ provide vehicles for the work of interviewers and supervisors;
⇒ submit in due course complete survey materials to the republican institutes for public health;
⇒ participate in other activities related to the organisation and conduction of the survey in their respective areas.

THE CONTENT, METHODOLOGY AND SAMPLE

The Content of the Survey

The survey covers households, mothers (carers) of children under five years of age and children under five years of age. The survey itself consists of seven parts - modules - (the Questionnaire is in the Appendix):

1. ***The Household Module***. In this module, the interviewers collected basic data on households (the number of members, type of flooring, number of rooms and lists of mothers (child carers) and children under five years of age living in the household and their main characteristics - sex and age.

2. ***Module 1: Water and sanitation.*** Methods for providing population with drinking water and disposing of waste matter (liquid and solid) were surveyed.

3. ***Module 2: Care of children with acute respiratory infections.*** The care of children with acute respiratory infections was surveyed, as well as mothers' practices with regard to ARI.

4. ***Module 3: Diarrhoea.*** The extent to which oral rehydration salts (ORT) are used was surveyed, as well as the incidence of diarrhoea and mothers' knowledge about diarrhoea.

5. ***Module 4: Breastfeeding.*** The existing patterns of breastfeeding were surveyed.

6. ***Module 5: Immunisation.*** The coverage of children by BCG, DTP, polio and measles vaccinations was surveyed.

7. ***Module 6: Anthropometry***. Weight and height/length in children under five years of age was measured; children were also examined for the presence of a BCG scar.

The methodological basis

The methodological basis of the survey was determined in accordance with the recommendations made in *A Practical Handbook for Multiple-Indicator Surveys*, United Nations Children's Fund, New York, January 1995.

In accordance with the features specific of the situation in the FR Yugoslavia, certain changes were made in the existing methodology.

Some of the original modules (salt iodination, the Vitamin A module) are not covered by this survey because they do not represent large-scale health problems in the FR Yugoslavia. Given our chief goal - to focus on children under five years of age - and the fact that no such survey had been conducted before, the education module was left out because it would have entailed the expansion of the survey to older children and school-age children. The tetanus module was left out because a specific immunisation programme against tetanus for pregnant women does not exist in FRY.

On the other hand, the content of some of the existing modules was expanded with regard to the recommendations made for the purpose of obtaining data which are missing in routine statistics but are important for finding out more about the existing practices and for planning future activities. E.g., Module 1, Water and Sanitation, was expanded by including methods used by households for disposing of solid waste (garbage) because there is little information on that yet such information is important because of the effects of low levels of hygiene on infectious disease morbidity. Module 2, Care of Children with Acute Respiratory Infection, was expanded by including a survey of methods used by mothers (child carers) when the child has an acute respiratory infection (the use of medicines, nutrition, home care). Module 3, Diarrhoea, was expanded by including a survey of the methods applied by

mothers when the child had or has diarrhoea. Also, the contingent also included earlier cases of diarrhoea in children under five years of age. The main reason for changing the time component was the expected low incidence of diarrhoea at the time when the survey was conducted.

In determining the content which should provide us with relevant indicators of the immunisation of children against infectious diseases, we decided that it was more appropriate in our conditions to apply the proposed alternative module. We opted for the alternative module mainly because of the absence of proper medical documentation on the basis of which it would be possible to accurately monitor children's immunisation terms, so that emphasis was placed on other sources of information - more specifically, on statements by mothers (carers).

The main set

The survey covered all households in the FR Yugoslavia for the purpose of collecting information on the use of drinking water and waste matter disposal. For other parts of the survey, the target population consisted of children under five years of age, while for some parts of the questionnaire the main set was also reduced to children under two years of age. The most sensitive part of the survey was the collection of data on diarrhoea. In one part of the diarrhoea survey, questions were posed to children who had had diarrhoea in the previous two weeks. This last condition was crucial for determining the size of the sample.

The levels of evaluation

The goal was to get accurate evaluations for: FR Yugoslavia as a whole, Vojvodina, central Serbia, Kosovo-Metohija and Montenegro, as well as reliable assessments for the urban and rural parts of each level of evaluation. An accuracy of 10 percent was required for the lowest levels of evaluation, while an accuracy of 5 percent was required for FR Yugoslavia as a whole. In evaluating the indicators which referred to children by months, reliable assessments were expected only at the level of FR Yugoslavia as a whole, with the accuracy level of 10 percent.

The type and size of the sample

A two-stage stratified sample of clusters was used. The units of the first stage were local communities in urban settlements, and settlements themselves in the rural segment. Within the selected primary units, household clusters to be interviewed were selected. The size of the clusters varied from stratum to stratum depending on the proportion of children in the total number of inhabitants. This size was determined so that each cluster should include 5-6 children under five years of age. We expected the number to be higher in Kosovo-Metohija.

Number of clusters and households per cluster in territorial strata

Stratum	No. of clusters	No. of households per cluster	No. of households per sample
FR Yugoslavia	364		10,920
Vojvodina	67	35	2,345
Belgrade area	33	35	1,155
Central Serbia	116	35	4,060
Kosovo-Metohija	68	20	1,020
Montenegro	80	25	2,000

The plan was to interview 10,920 households with about 3,200 children under five years of age.

Stratification

Multiple stratification was used in this survey. The first-level stratification was stratification into the territorial levels for which accurate assessments were to be obtained. After that, the territory of Vojvodina, central Serbia and Kosovo-Metohija were further stratified into districts, and each district into its urban and rural parts. The allocation of primary units by individual strata was carried out proportionally to the number of live-born children between 1990 and 1994 and to the share of the urban population in the total number of inhabitants. An exception was made only for the territories of Montenegro and Kosovo-Metohija. In these regions, more households were selected than a proportional allocation would have produced so that reliable assessments for these regions could be obtained.

Local communities and settlements were selected with probabilities proportional to the number of children under five in the 1991 Census, except for Kosovo-Metohija, where the probability of selection was proportional to the estimated number of inhabitants based on official estimates made by the Federal Bureau of Statistics in co-operation with the Institute for Demography at the level of settlements. This exception was made because there are no reliable data at the level of settlements, i.e. local communities, for Kosovo-Metohija due to the boycott of the last census by the ethnic Albanian population.

Main statistical data

Before designing the sample, especially at the stage of stratifying and selecting primary units, huge statistical materials were used in settlements and local communities. The main data on the population at district level are presented here for the purpose of better understanding and analysing the results of the survey.

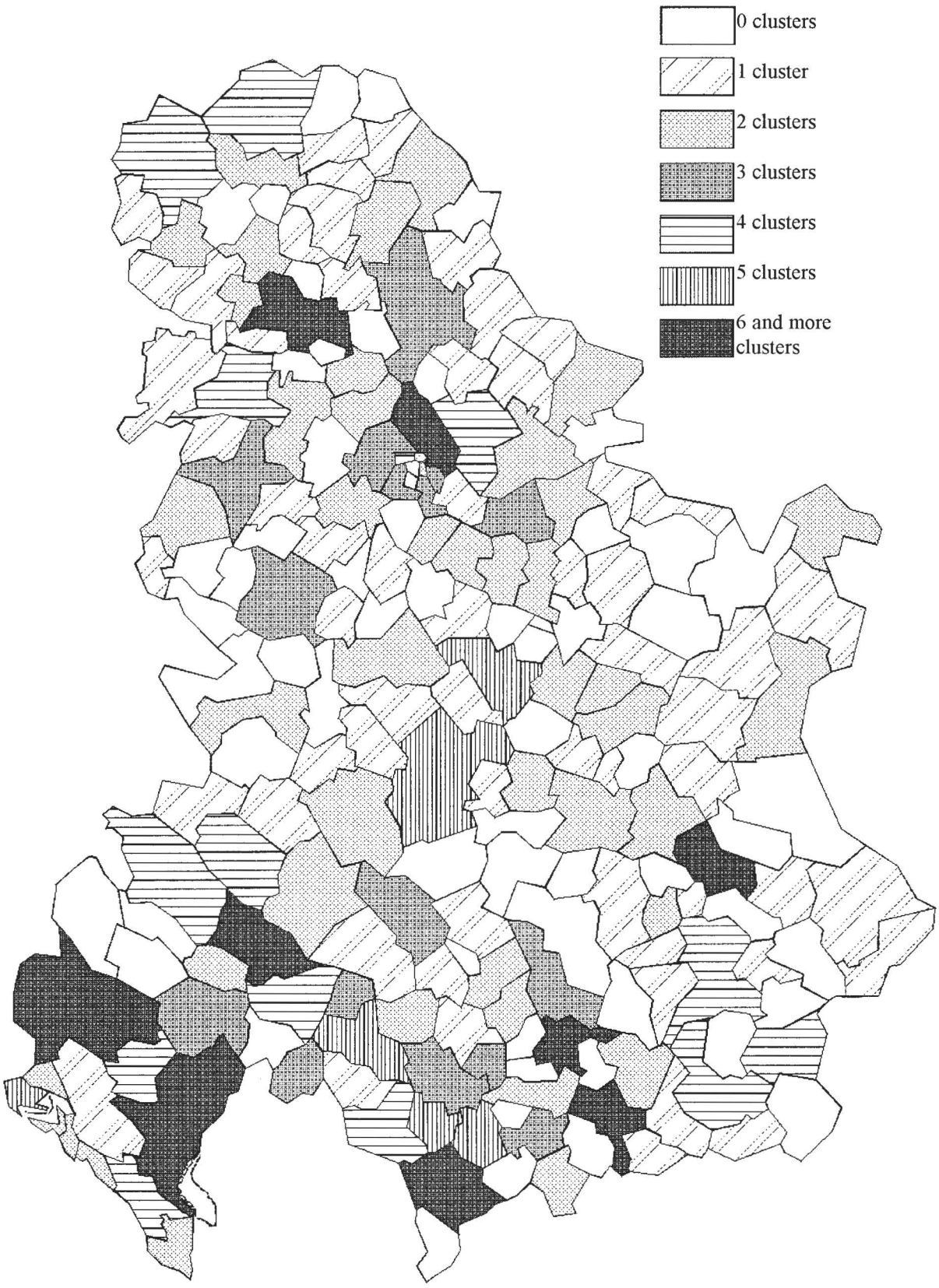
Main indicators by districts

Territory	No. of inhabitants	Share	Urban population	Share in rep./prov.	Total no. of clusters	Urban part
FR Yugoslavia	10,394,026	100.0	5,321,364		364	180
Serbia	9,778,991	94.1	4,963,189		268	132
Belgrade district	1,602,226	5.4	1,317,648	100.0	33	27
Vojvodina	2,013,889	19.4	1,121,594	100.0	67	37
Northern Bačka	205,401	2.0	124,465	10.2	6	4
Central Banat	221,353	2.1	103,338	11.0	7	3
Northern Banat	179,783	1.7	110,325	8.9	6	4
South Banat	328,428	3.2	172,890	16.3	11	6
Western Bačka	215,916	2.1	107,669	10.7	7	3
Southern Bačka	553,027	5.3	372,843	27.5	19	13
Srem	309,981	3.0	130,064	15.4	11	5
Central Serbia	4,206,680	40.5	1,794,047	100.0	116	51
Mačva	339,644	3.3	88,114	8.1	8	2
Kolubara district	200,560	1.9	73,064	4.8	4	1
Podunavski district	226,589	2.2	106,227	5.4	6	3
Braničevo	253,492	2.4	72,797	6.0	6	2
Šumadija	312,160	3.0	187,031	7.4	7	4
Pomoravlje	264,108	2.5	100,979	6.3	6	2
Bor	178,718	1.7	84,304	4.2	4	2
Zaječar	158,131	1.5	73,306	3.8	3	1
Zlatibor	335,826	3.2	155,407	8.0	8	4
Morava district	230,748	2.2	112,054	5.5	5	2
Raška district	300,274	2.9	142,648	7.1	9	4
Rasina district	296,690	2.9	93,559	7.1	6	2
Nišava district	382,461	3.7	205,666	9.1	9	5
Toplica district	111,813	1.1	46,241	2.7	3	1
Pirot district	116,926	1.1	60,160	2.8	2	1
Jablanica district	255,011	2.5	95,643	6.1	6	2
Pčinj district	243,529	2.3	96,847	5.8	9	4
Kosovo-Metohija	1,956,196	18.8	729,900	100.0	68	26
Kosovo district	672,578	6.5	290 376	34.4	21	9
Peć district	416,927	4.0	148,171	21.3	16	6
Prizren district	373,059	3.6	122,628	19.1	15	5
Kosovska Mitrovica district	275,904	2.7	103,192	14.1	7	3
Kosovsko-moravski d.	217,728	2.1	65,533	11.1	9	3
Montenegro	615,035	5.9	358,175	100.0	80	52

Live births in the last five years

Live births 1990-1994	Number	Share	In rep./prov.
FR Yugoslavia	726,705	**100.0**	
Serbia	680,383	93.6	
Belgrade area	83,101	11.4	
Vojvodina	111,497	15.3	100.0
Northern Bačka	10,698	1.5	9.6
Central Banat	11,973	1.6	10.7
Northern Banat	9,651	1.3	8.7
South Banat	18,004	2.5	16.1
Western Bačka	11,276	1.6	10.1
Southern Bačka	32,207	4.4	28.9
Srem	17,688	2.4	15.9
Central Serbia	246,347	33.9	100.0
Mačva	19,231	2.6	7.8
Kolubara district	10,521	1.4	4.3
Podunavski district	13,669	1.9	5.5
Braničevo	13,526	1.9	5.5
Šumadija	17,389	2.4	7.1
Pomoravlje	14,656	2.0	5.9
Bor	9,669	1.3	3.9
Zaječar	6,872	0.9	2.8
Zlatibor	20,440	2.8	8.3
Morava district	12,214	1.7	5.0
Raška district	21,944	3.0	8.9
Rasina district	15,150	2.1	6.1
Nišava district	20,923	2.9	8.5
Toplica district	6,597	0.9	2.7
Pirot district	5,370	0.7	2.2
Jablanica district	15,589	2.1	6.3
Pčinj district	22,587	3.1	9.2
Kosovo-Metohija	239,438	32.9	100.0
Kosovo district	73,544	10.1	30.7
Peć district	56,261	7.7	23.5
Prizren district	54,555	7.5	22.8
Kosovska Mitrovica district	24,467	3.4	10.2
Kosovsko-moravski district	30,611	4.2	12.8
Montenegro	46,322	6.4	100.0

Cluster distribution by municpalities



The evaluation system

In order to make reliable estimates at the republican and provincial levels, the samples were not allocated proportionally to the number of households in certain strata. Particularly significant are the deviations for Montenegro and Kosovo-Metohija, where more households, i.e. children, were selected than a proportional allocation of samples would have produced. Hence the sampling plan was not self-weighting, so that in data processing a system of evaluation was used that was completely suitable to the sampling plan. For each stratum a special weight was defined by which data were multiplied at the stratum level before they were aggregated to higher levels. The weighting system made it possible to evaluate totals and the variances of the evaluated totals. The structures were counted as the quotients of the evaluated totals.

The selection of households for clusters

In each local community or settlement, exactly one cluster with the prescribed number of households (a table in the Appendix) was selected. Detailed instructions for the selection of households are presented in the Appendix. The interviewers had to keep record of all the households encountered whether or not they were at home or agreed to take part in the survey, and to enter the data obtained in the checklist. In this way, it was possible to control the work of the interviewers and to evaluate non-replies according to reasons.

THE TRAINING OF INTERVIEWERS AND SUPERVISORS

The interviewers and supervisors were selected from among health workers in institutes for public health. The criteria for selecting the interviewers and supervisors were qualifications, communicativeness, perseverance, experience in field work and knowledge of the area in which the survey was conducted.

The interviewers/supervisors were trained shortly before the beginning of the survey, from October 1 to 12, 1996, in several centres in the FR Yugoslavia (Belgrade, Zrenjanin, Novi Sad, Nis, Kragujevac, Kraljevo, Podgorica, Prishtina) by four instructors.

The training programme included the following:

- **Introduction:** the goals and significance of the survey; the role of the interviewers/supervisors; the method and time of the survey; presentation of the materials for conducting the survey; defining the units to be observed (households, mothers and under-five children); methods for selecting the households.

- **Instructions for filling in the questionnaire:** presentation and detailed instructions for filling in the questionnaire; discussion; field work; control system.

- **Demonstration of the survey.**

- **Simulation of the survey:** simulation of the roles of interviewers and supervisors; filling in the questionnaires; checking filled-in questionnaires and discussion.

- **Distribution of materials** (instruction materials and materials for conducting the survey); exchanging contact addresses.

A DESCRIPTION OF FIELD WORK

A month before the survey began, 200 households were pre-tested in the Belgrade area in order to pinpoint the errors and test the survey materials. The pre-test was done without any major difficulties.

The survey was conducted on the territory of the entire FR Yugoslavia from October 15 to 31, 1996.

The survey was directly conducted by interviewers, supervisors and instructors. Data were collected by 148 interviewers and 54 supervisors. In some parts of the country (Montenegro and Kosovo-Metohija), supervisors also acted as interviewers, while they, in turn were supervised by instructors.

The duties of the instructors were to:

- control the work of the supervisors and interviewers in the field during the survey;
- provide additional explanations for the supervisors and interviewers regarding problems arising during the survey;
- control the survey materials.

The main duties of the supervisors were to:

- prepare a strategy for conducting the survey, especially taking into account the specific characteristics of their areas;
- select the households to be surveyed (by following the instructions) together with the interviewers;
- to visit a number of households together with the interviewer at the beginning of the survey;
- provide additional instructions for the interviewers during the survey;
- to contact the instructors should any problems arise;
- to check if the questionnaires and checklists were correctly filled in;
- to submit the survey materials to the republican institutes in time;
- to control the work in the selected clusters.

The main duties of the interviewers were to:

- interview households at specified times;
- to contact their supervisor (or instructor) and act according to their instructions if they cannot solve problems on their own during the survey;
- to submit correctly filled-in questionnaires to the supervisor or an authorised person in the regional institute;
- to keep secret all the information they learned during the survey of the households.

The households were interviewed according to a precise schedule, set out in the survey instructions. In the event of there being no one at home who could answer the questions, the household was notified when the interviewer would visit again. It was agreed that a visit should be attempted twice, and if that failed, the interviewer should try to interview the next household not interviewed. Each household was given a letter and presented with the interviewer's authorisation. When a household refused to co-operate with the interviewer, the supervisor was informed about that. The role of the supervisor was to try to persuade the household to co-operate with the interviewer, and if that produced no results, the supervisor would replace that household. The criterion for replacing a household was the coverage of children under five years of age in that cluster. If five children were already covered, no replacement was made.

After the survey, or successively after the survey of individual clusters, the interviewers submitted filled-in survey materials to the supervisors and checked the materials together. After they established that the questionnaires had been complete and accurate, the supervisors sent the survey materials to the Institute for Public Health of Serbia. The Institute had formed a team which received and controlled

these materials, at the presence of instructors.

After the survey materials were collected, they were handed over to the team engaged in entering, checking and processing the data.

The sample realisation

The biggest problems in conducting the survey were encountered in Belgrade. Namely, due to the economic crisis and war in neighbouring countries, crime in Belgrade has been on the rise, and citizens' safety has dropped, which has made many of them mistrustful of people they do not know. The media campaign and the fact that the interviewers were selected from among health workers experienced in field work helped overcome these problems. The following table shows the sample realisation by strata.

Sample realisation by strata

Strata	Type of settlement	Households	Mothers	Children	Households per one child
FR Yugoslavia	**Total**	**10,604**	**2,437**	**3,226**	**3.3**
	Urban	5718	1,065	1,353	4.2
	Other	4,886	1,372	1,873	2.6
Montenegro	**Total**	**2,006**	**508**	**676**	**3.0**
	Urban	1,300	275	355	3.7
	Other	706	233	321	2.2
Serbia total	**Total**	**8,598**	**1,929**	**2,550**	**3.4**
	Urban	4,418	790	998	4.4
	Other	4,180	1,139	1,552	2.7
Central Serbia	**Total**	**4,071**	**654**	**818**	**5.0**
	Urban	1,789	263	318	5.6
	Other	2,282	391	500	4.6
Vojvodina	**Total**	**2,365**	**289**	**349**	**6.8**
	Urban	1,338	161	198	6.8
	Other	1,027	128	151	6.8
Kosovo-Metohija	**Total**	**1,015**	**834**	**1,200**	**0.8**
	Urban	387	251	341	1.1
	Other	628	583	859	0.7
Belgrade	**Total**	**1,147**	**152**	**183**	**6.3**
	Urban	904	115	141	6.4
	Other	243	37	42	5.8

Due to the well-known demographic stratification of the Yugoslav population, it was most difficult to find households with children in Vojvodina and Belgrade. In Vojvodina, one child under five years of age was found only in every seventh household, an in slightly over six households in Belgrade. On the other hand, in Kosovo-Metohija there was at least one children in every household. This was particularly characteristic of the rural parts of Kosovo.

The proportion of those who refused to co-operate was usually less than 7 percent. It was highest in

Belgrade - 10.3 percent. The participation of the humanitarian organisation "Mother Theresa" was particularly important for the success of the survey in Kosovo-Metohija.

The survey was conducted within the scheduled time frame.

DATA ENTERING AND PROCESSING

A special program was designed for entering the data with the necessary checks for each question, answer-question links and the coverage of particular clusters. In particular, the hierarchical links between the household-mother-child entities were controlled. The program involved auto-coding for the characteristics that had to be coded. Ten well-trained operators were entering the data. They were first trained and made familiar with the goal and content of the survey, the structure of the questionnaires, the links between certain entities and the logic control rules.

After the data were entered, several control tables were made according to entities to spot regularly occurring errors at the aggregate level that might have occurred either while the questionnaires were being filled in or during data entering. Special attention was paid to measuring weight and height relative to the age of the children. After all the errors were corrected, the data were arranged in tables.

The SPSS-PC statistical package, being very suitable for this kind of analysis, was used for data tabulation and analysis. Primary distributions were first made according to specific characteristics, after which more complex tables were made by combining several characteristics. Different entities (households, mothers and children) were linked in order to arrive at more complex tables. The complex indicators were arrived at in the final stage of this process.

During the tabulation process, all the characteristics were described in detail both at their own level and at the level of individual codes by accurately defining the tables. After all the tables were made, a complete data base was submitted to UNICEF for further use. There are plans to train analysts in working with this data base for the purpose of doing additional analyses. The data themselves incorporate a weighting system, which analysts need not take notice of.

The data were graphically presented by means of various programmes, but most graphs were made in HARVARD GRAPHICS. The digitalised maps were made by the Federal Bureau of Statistics.

The accuracy of the results obtained

As there were no major deviations from the planned number of households, mothers and children, the results obtained matched the projected accuracy. The effect of the sample design for all the characteristics was less than 2 except for the characteristics related to water and sanitation. It turned out justifiable to cover all the households with these questions. The design effect on these questions ranged from 3 to 6 depending on the stratum. It was especially high in urban strata.

The results achieved for Belgrade's rural stratum were mostly inaccurate and should not be used separately. Namely, the coverage of Belgrade's rural population is relatively small and inadequate for a separate evaluation of that stratum.

Some indicators related to certain characteristics of children of specific age in months were required later. Provided these characteristics have a frequency above 10 percent, the indicators can be used only at the level of the FR Yugoslavia. Evaluations for lower territorial levels are not accurate and should not be used. In differentiating children by age, the age interval of at least six months should be taken if valid conclusions are to be drawn at regional level.

MULTIPLE INDICATOR CLUSTER SURVEY

THE RESULTS OF THE SURVEY

The Characteristics of Households in the FR Yugoslavia

The number and average size of households

On the basis of the results of the survey, we estimate that there are 2,915,973 households in the FR Yugoslavia, 54.1 percent in urban and 45.9 percent in other settlements (Table A-1.)..

The urban/rural distribution of households largely reflects their general living conditions, living standards, habits and behaviour in all spheres of life. Given the high level of regional differences in the FRY, the analysed geographical and demographic entities suggest significant differences relative to the characteristics observed.

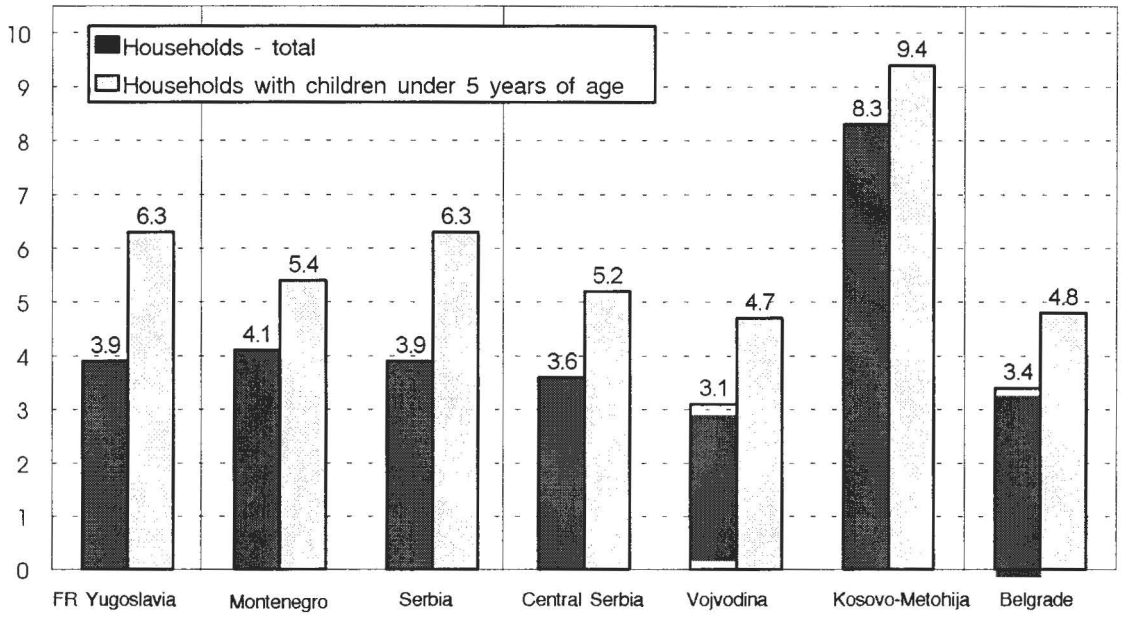
Table A-1 Households by number and type of settlement

Territory	Households				
	Total	In urban settlements	%	In other settlements	%
FR Yugoslavia	**2,915,973**	**1,576,323**	**54.1**	**1,339,650**	**45,9**
Montenegro	**160 480**	**104 000**	**64.8**	**56 480**	**35.2**
Serbia	**2,755,493**	**1,472,323**	**53.4**	**1,283,170**	**46.6**
Central Serbia	1,803,103	973,951	54.0	829,152	46.0
Vojvodina	733,150	414,780	56.6	318,370	43.4
Kosovo-Metohija	219,240	83,592	38.1	135,648	61.9
Belgrade area	520,738	410,416	78.8	110,322	21.2

The distribution of households by regions suggests that Vojvodina and central Serbia are at the average Yugoslav level. The urban population is predominant in Montenegro, and the rural population in Kosovo-Metohija. The large proportion of households located in urban settlements in the Belgrade area is due to the fact that Belgrade is the capital of the FRY, while its wider area is mainly urban in nature and has a high population concentration.

The average size of households in the FRY is 4 members, and it ranges from 3.1 to 8.3 members (Graph A-1.).

Graph A-1 Average number of household members



These figures confirm the well-known rule that the number of household members in less-developed areas is higher and that it drops with overall development. In the most developed parts of the FRY, Vojvodina and the Belgrade area, the average number of household members is 3.1 and 3.4 respectively. Central Serbia (3.6 members) and Montenegro (4.1 members) are closer to the Yugoslav average. In Kosovo-Metohija, the average household size is slightly more than twice that for the whole country. The surprisingly large size of households in Kosovo-Metohija is due to the fact that family co-operatives with fifteen or even more members still exist in this region. For example, over one-third of all households in Kosovo-Metohija have more than nine members (Table A-2.1 in the Appendix).

An essentially different picture in comparison with households in general is presented by households with children under five years of age.

The number of households in the FRY with children under five is estimated at 547,000, or 18.8 percent of the total number of households (Tables A-3. and A-3.1 in the Appendix). Over half (53.3 percent) are in rural settlements (Table A-5.).

Only every sixth (18.8 percent) household in the FR Yugoslavia has children under five years of age - every seventh household (16.2 percent) in urban settlements and every fifth (21.8 percent) in other settlements (Table A-4.)

Table A-4 Share of households with children under 5 years of age in the total number of households, by type of settlement (in %)

Territory	Households		
	Total	In urban settlements	In other settlements
FR Yugoslavia	**18.8**	**16.2**	**21.8**
Montenegro	**24.9**	**21.0**	**32.2**
Serbia	**18.4**	**15.9**	**21.3**
Central Serbia	15.0	13.8	16.5
Vojvodina	12.0	11.9	12.2
Kosovo-Metohija	67.6	59.9	72.3
Belgrade area	13.2	12.6	15.2

Vojvodina has the lowest share of households with children under five years of age - only 12.0 percent. It is followed by the Belgrade area, 13.2 percent, and central Serbia, 15.0 percent. Montenegro, with 24.9 percent is in a somewhat better position, while Kosovo-Metohija is far ahead with 67.6 percent.

The Belgrade area has a similar distribution of households with children under five years of age as of households in general (urban settlements dominate with a share of 75.5 percent). The situation is similar in Vojvodina (in both cases, the urban share is about 56 percent). In central Serbia there are almost as many (49.5 percent) households in urban settlements as in rural ones. In Montenegro the share of households with children under five years of age in towns is 54.6 percent, so that in Montenegro this type of settlement is not predominant as in households in general. The predominance of rural settlements in Kosovo-Metohija is even more pronounced in households with children under five years of age - two-thirds (66.2 percent) of these households are located in rural settlements.

Table A-5 Households with children under five years of age by number and type of settlement

Territory	Households				
	Total	In urban settlements	%	In other settlements	%
FR Yugoslavia	**547,000**	**255,213**	**46.6**	**291,787**	**53.3**
Montenegro	**40,000**	**21,840**	**54.6**	**18,160**	**45.4**
Serbia	**507,000**	**233,373**	**46.0**	**273,627**	**54.0**
Central Serbia	270,784	133,971	49.5	136,813	50.5
Vojvodina	88,040	49,290	56.0	38,750	44.0
Kosovo-Metohija	148,176	50,112	33.8	98,064	66.2
Belgrade area	68,554	51,756	75.5	16,798	24.5

The size of households with children under five years of age is significantly larger compared with households in general.

The average number of members in households with children under 5 in the FRY is 6.3.

That is 2.4 members more compared with households in general. This difference is 1.6 members in central Serbia and Vojvodina, 1.3 in Montenegro, 1.4 in Belgrade, and 1.1 in Kosovo-Metohija.

Housing conditions

The general living conditions of the average Yugoslav household mean using in effect 2 or 3 rooms (36.3 percent and 28.4 percent respectively), with flooring (54.4 percent) made of planks or concrete. (Table A-2.1 in the Appendix)).

If we agree that higher standards mean using three or four rooms in a household, and highest standards five or more rooms, it is clear that households in rural settlements have better housing conditions, as in rural settlements the share of households with three or four rooms is 46.4 percent and with five or more rooms 13.4 percent, against 38.4 percent and 6.1 percent respectively in urban settlements. However, it is important to note that in rural settlements these rooms are most often not used at all but serve to demonstrate the well-being of the family and are known as "standing" rooms.

From a regional perspective, there are no significant deviations from the average, except in Kosovo-Metohija, where in urban settlements the share of households using three or four rooms is 46.5 percent and the share of those using five or more rooms 14.3 percent, while these shares in rural settlements in this region are 57.3 percent and 27.9 percent respectively. This, however, does not mean better living standards because households in Kosovo have more members.

The quality of flooring depends directly on the type of settlement. The best-quality flooring (parquet/tiles) predominates in almost all urban settlements, its share ranging from 52.5 percent in Montenegro to 84.5 percent in the Belgrade area. The exceptions are Kosovo-Metohija (25.8 percent) and Vojvodina, where the inferior type of flooring (planks/concrete) predominates. In rural settlements only every fourth household has flooring made of parquet/tiles. Households in the Belgrade area have somewhat better standards, with these two types of floorings being almost equally distributed, while Kosovo-Metohija again has the lowest standards, with the share of planks/concrete being 80 percent.

Most Yugoslav households with children under five years of age use 2 rooms (29.4 percent) or 3 rooms (26.2 percent), with flooring (59.1 percent) made of planks or concrete (Table A-3.1 in the Appendix).

In terms of urban/rural distribution, conditions are again worse in urban settlements, as most households with children under 5 years of age use one or two rooms. The only exception is Kosovo-Metohija, where 60.7 percent of households use 3 or more rooms. Space-related housing conditions are again much better in rural settlements, where the share of households using three or more rooms ranges from 59.0 percent in Montenegro to 86.6 percent in Kosovo-Metohija. The number of households using 5 or more rooms ranges from 8.1 percent in the Belgrade area to 31.5 percent (nearly every third household) in Kosovo-Metohija. These figures place Kosovo-Metohija at the leading position in terms of housing standards, but this should be taken with reservations given the large size of households in that province.

Starting from the existing standards in terms of housing space, housing conditions for households with children under five years of age are better compared to those for households in general (60.8 percent of these households use three or more rooms, against 51.5 percents of households in general), chiefly because of the better conditions prevailing in households in central Serbia and Vojvodina. In Montenegro, Kosovo-Metohija and the Belgrade area, the situation is roughly the same as in households in general.

The established relation between a higher quality of flooring and urban households also holds for households with children under five years of age, where the first category of flooring predominates, with the exception of Kosovo-Metohija and Vojvodina. In rural settlements, the inferior type of flooring predominates without exception. Overall, households with children under five years of age in rural settlements are slightly worse off in terms of flooring than households in general, while there are no significant differences in rural settlements.

Water supply

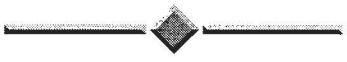
82.1 percent of households in FR Yugoslavia get drinking water in their dwellings or yards from urban and rural water supply systems (Table A-7 and Tables A-6 and A-6.1 in the Appendix).

In terms of drinking water supply, hygienic conditions are much better in urban settlements, where 98.1 percent of households provide drinking water from public water supply systems, with minimum regional differences. Favourable hygienic conditions mean getting drinking water in the dwelling or in the yard from an urban/rural water supply system.

Table A-7 Safe drinking water supply for households by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**82.1**	**98.1**	**63.3**
Montenegro	**86.4**	**98.8**	**63.7**
Serbia	**81.8**	**98.0**	**63.3**
Central Serbia	80.7	99.0	59.2
Vojvodina	92.1	96.1	86.8
Kosovo-Metohija	57.0	96.4	32.0
Belgrade area	95.9	99.5	82.7

The situation is quite different in rural settlements, where only 63.3 percent of households get their drinking water from a public water supply system, which is certainly below the acceptable hygienic standards. There are extreme regional differences, and the situation is particularly difficult in Kosovo-Metohija, where only 32.0 percent of households get drinking water in the dwelling or in the yard from a water supply system. Vojvodina and the Belgrade area, with their respective values of this indicator of 86.8 percent and 82.7 percent, have somewhat better hygienic conditions in terms of water supply but have not yet reached levels prevailing in urban settlements.



Fewer households with children under five years of age (75 percent in the FRY) are linked to urban/rural water supply systems compared with households in general (82.2 percent). This is particularly pronounced in central Serbia (78.7 percent against 82.2 percent among households in general). The availability of drinking water is smaller - 79.1 percent of these households get their drinking water in the dwelling compared with 94.1 percent for households in general (Table A-9.1).

As for the type of settlement, hygienic conditions regarding drinking water supply in households with children under five years of age are not much different from these conditions for households in general, except in rural settlements, where 54.6 percent of these households are linked to urban/rural water supply systems - compared with 63.5 percent for households in general.

Disposal of liquid waste

73.3 percent of all households in the FRY use a toilet facility linked to a sewage system or a septic tank in the dwelling.

In terms of the type of dwelling, *(Table A-8)*, the differences are significant; while in urban settlements most (91.1 percent) households have favourable hygienic conditions for disposing of liquid waste matter, in other (rural) households, only every second household (52.3 percent) is linked to a sewage system or septic tank.

Table A-8 Favourable sanitary conditions in households, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**73.3**	**91.1**	**52.3**
Montenegro	**81.9**	**92.4**	**62.6**
Serbia	**72.8**	**91.1**	**51.8**
Central Serbia	73.5	94.3	49.0
Vojvodina	78.7	85.1	70.4
Kosovo-Metohija	47.5	83.0	25.6
Belgrade area	92.6	97.0	76.1

From a regional perspective, the worst conditions for disposing of liquid waste matter in urban settlements prevail in Vojvodina, which comes as a surprise, and in Kosovo-Metohija. The high regional variations of this indicator are characteristic of rural settlements, ranging from 25.6 percent in Kosovo-Metohija to 76.1 percent in the Belgrade area.

A more complete picture of methods for disposing of liquid waste matter can be arrived at if the observed indicator is broken down into households using a toilet facility linked to a sewage system and those using toilet facilities linked to septic tanks. This division is necessary because there is no control of the condition of septic tanks and the regularity of waste disposal from septic tanks. The analysis shows that in urban settlements 47.1 percent of households in Vojvodina and 43.7 percent in Montenegro are linked to septic tanks. Sewage systems predominate in the towns in Kosovo-Metohija (87.3 percent of households) and central Serbia (86 percent), while sewage systems are almost non-existent in rural settlements - a mere 2.2 percent of households in Vojvodina are linked to sewage systems, 9.4 percent in central Serbia, 11.6 percent in Montenegro, 13.2 percent in the Belgrade area and 16.1 percent in Kosovo-Metohija.

Sanitary conditions in households with children under five years of age in the FR Yugoslavia are within the standards prevailing in households in general.

Garbage disposal

Garbage disposal in the FR Yugoslavia is done for most households (56.0 percent) by public utilities.(Table A-10 in the Appendix).

11.3 percent of households dispose of their garbage at official public dumps, 10.8 percent do so at illegal dumps, 8.8 percent collect their garbage near their dwellings and 8.3 percent burn it.

While garbage disposal in urban communities meets the desired standards because 94.0 percent of households have their garbage taken away in an organised manner, the figure for rural communities is only 11.4 percent. Particularly alarming is the situation in rural settlements, where 22.6 percent of households dispose of their garbage at illegal dumps.

The situation is most difficult in Montenegro, where only 76.4 percent of urban households have their garbage disposed of in an organised way, while as many as 45.3 percent of rural households leave their garbage at illegal dumps.

The garbage disposal methods applied by households with children under age of five years are almost the same as in households in general, both by type of settlement and by region (Table A-11 in the Appendix).

Characteristics of Yugoslav households

An average Yugoslav household has four members. It is slightly more likely to be located in a town than in a village, it mostly uses 2 rooms with planks/concrete. 82.2 percent of households are supplied with water by urban or rural water supply systems. 84.1 percent of households have drinking water in the dwelling, 73.3 percent have an in-dwelling toiled facility linked to a sewage system (42.6 percent) or a septic tank (32.9 percent). About half the households have their garbage taken away by a public utility. There are high regional differences between these households.

Only every fifth household in the FRY has children under five years of age. The uneven shares of these households in the total number of households in the observed areas suggest that there are two extreme demographic trends in the FRY. While a demographic reduction and negative population growth are characteristic of Vojvodina and Central Serbia, there is a demographic explosion in Kosovo-Metohija, whose population has the highest birth rate in Europe.

Households with children under five years of age have worse living conditions compared to households in general in terms of sanitation and housing (given the average number of household members), as well as poorer water supply.

The Characteristics of the Population Surveyed

The number and age patterns of mothers (carers)

There are 585,392 mothers (carers) with children under five years of age, mainly located in rural areas (55.4 percent) - Table B-1 in the Appendix.

There is a high expected conformity (global and regional) between the distribution of mothers (carers) with children under five years of age by type of settlement and the distribution of households with children under five years of age.

Mothers (carers) with children under five years of age at the level of the FR Yugoslavia are mostly aged 25-29 years (38.5 percent), with almost the same distribution in urban and rural settlements. The shares of younger mothers (carers) with children under five years of age (20-24 years) and older ones (30-34 years) are roughly the same - about one-fifth. Mothers (carers) over 35 with children under five years of age make up 14.8 percent of all these mothers, while the figure for very young mothers (16-19 years) is only 2 percent.

The age patterns of mothers (carers) with children under five years of age do not show significant regional variations, except in Belgrade, where the share of mothers aged 25-29 years is much above the standard level - 66.5 percent.

Given these age patterns of the interviewed mothers (carers) with children under five years of age, we can say that in most cases older mothers (four-fifths of mothers over 25 years old) were able to communicate their knowledge and experience in recognising the symptoms of and treating acute respiratory infections (ARI).

The number and distribution of children under five years of age by years of life and gender

According to the results of the survey, it is estimated that there are 762,222 children under five years of age in the FR Yugoslavia (Table B-2). The majority of these children (57 percent) live in rural settlements.

Table B-2 Children under five years of age by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**762,222**	**327, 620**	**434, 602**
Montenegro	**54,080**	**28,400**	**25,680**
Serbia	**708,142**	**299,220**	**408,922**
Central Serbia	340,752	164,184	176,568
Vojvodina	108,190	61,380	46,810
Kosovo-Metohija	259,200	73,656	185,544
Belgrade area	83,082	64,014	19,068

In terms of age, each year-group seems to have an almost equal share in the total number of children. This share ranges from 18.5 percent (age 2-3 years) to 20.9 percent (age 3-4 years) for male children and from 18.7 percent (age 2-3 years) to 21.4 percent (age 4-5 years) for female children. These proportions are somewhat different in Vojvodina, where the share of female children aged 2-3 years is 29 percent, while the number of children aged 1-2 years is only 8.7 percent.

The somewhat larger proportion of male children (53 percent) in the total number of children reflects the gender patterns of this age group within the gender patterns characteristic of the FR Yugoslavia (Table B-3 in the Appendix).

MODULE 1 - WATER AND SANITATION

Poor hygienic conditions, primarily the use of unsafe drinking water and poor waste disposal, are largely responsible for children's high morbidity and mortality due to infectious diseases, especially diarrhoea. According to 1994 figures, about 1.1 billion people world-wide still have no access to safe drinking water, while about 2.9 billion people still lack proper sanitation.

Year 2000 Goal.	⇒	*Universal access to safe drinking water.*
1995 Mid-Decade Goal (MDG)	⇒	*Increasing water supply and sanitation so as to narrow the gap between the 1990 levels and universal access by the year 2000 of water supply by one-fourth and of sanitation by one-tenth*
Indicator	⇒	*Proportion of population with access to a sanitary facility for human excreta disposal in the dwelling or located within a convenient distance from the user's dwelling*

A total of 829 million cubic metres of water is provided for settlements by urban water-supply systems each year, with households spending about half of that quantity. Water is supplied mostly by using underground and surface sources and, less often, springs. Most water-supply systems are over ten years old. The length of piping in a water supply system in FRY is 27,514 km. The safety of drinking water from these water-supply systems is monitored by water-supply companies themselves (internal control) and by the Institute for Public Health (external control). The safety of drinking water varies from area to area, Vojvodina being the most vulnerable area in this respect. The water-supply problems include inadequate quantities, old piping, malfunctioning equipment and the lack of funds.

Most sewage systems are located in urban settlements. The length of their piping in FRY is 8,739 km. It is estimated that 294 cubic metres of waste water is released by households each year.

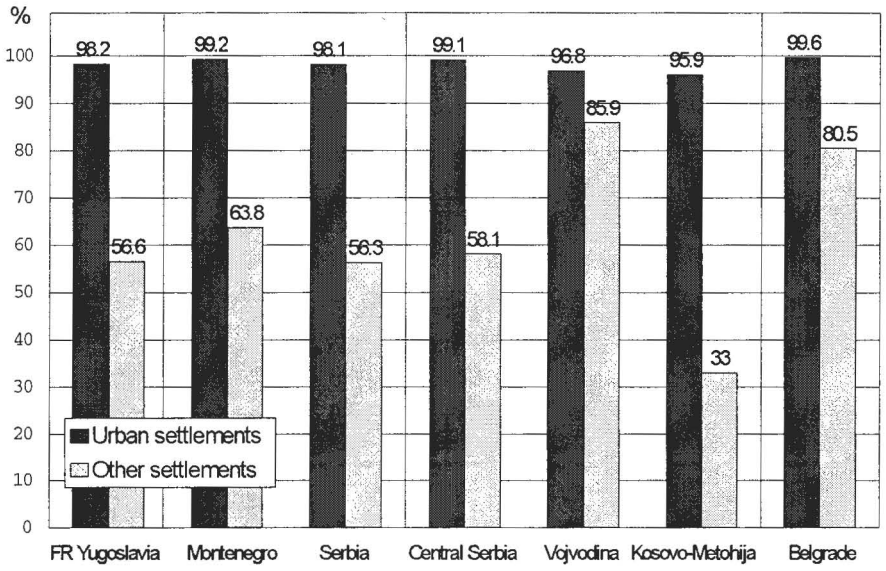
The goals of this module are to determine methods for providing drinking water and ensuring its availability and methods for disposing of waste water.

Water supply

Hygienic water-supply conditions mean access to drinking water in the dwelling from an urban or rural water-supply system.

About 8,127,000 people in the FR Yugoslavia (76.4 percent of the population) get their drinking water in their dwelling or yard from an urban or rural water-supply system (Table 1.1. and 1.1a in the Appendix and Table 1.2).

Graph 1.1. Population using drinking water in the dwelling from a public water-supply system



There is a huge difference in terms of water supply between urban and rural settlements. 98.2 percent of people in towns in the FRY use drinking water from public water-supply installations in their dwellings or yards. The regional differences are minimum. In rural settlements only 56.6 percent of people get their drinking water in the dwelling/yard from a public water-supply system. While the situation is relatively favourable in Vojvodina and Belgrade, with 85.9 percent and 80.5 percent of people respectively providing drinking water in this way, only a third (33 percent) of people in rural areas of Kosovo-Metohija have such access to drinking water.

Table 1.2. Drinking water supply by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**76.4**	**98.2**	**56.6**
Montenegro	**85.6**	**99.2**	**63.8**
Serbia	**75.8**	**98.1**	**56.3**
Central Serbia	78.5	99.1	58.1
Vojvodina	91.9	96.8	85.9
Kosovo-Metohija	50.7	95.9	33.0
Belgrade area	95.2	99.6	80.5

A more detailed analysis shows that 76.6 percent of the FR Yugoslavia's population gets drinking water from urban or rural water-supply system, 10.5 percent from wells and 12.9 percent from other sources (cisterns, springs, rivers, ponds). Wells are especially widespread in the rural parts of Kosovo-Metohija (41.7 percent of the population). These are mostly shallow wells whose water is microbiologically unsafe in 95 percent of the cases (a report by the Institute for Public Health of Prishtina). A quarter of the population in rural areas uses water from cisterns, springs, rivers, ponds or public taps. 80 percent of the population has drinking water in the dwelling, 16.6 percent in the yard and 3.2 percent outside the yard. Nearly all people (98.3 percent) in urban settlements and two-thirds in rural settlements have drinking water in the dwelling.

Liquid waste disposal

Good sanitary conditions mean using a toilet facility which is in the dwelling and linked to a sewage system or septic tank.

About 7.372,000 people in the FR Yugoslavia (69.3 percent of the population) use a toilet facility linked to a sewage system or septic tank in the dwelling (Table 1.3.).

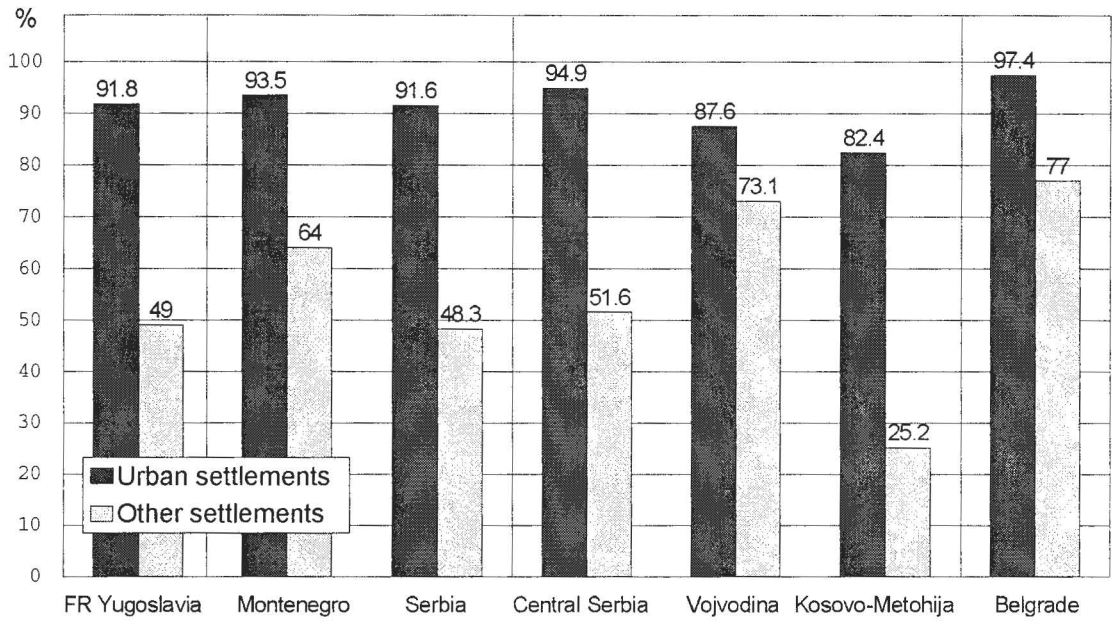
Table 1.3. Proportion of people using a toilet facility linked to a sewage system or septic tank in the dwelling, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**69.3**	**91.8**	**49.0**
Montenegro	**82.2**	**93.5**	**64.0**
Serbia	**68.5**	**91.6**	**48.3**
Central Serbia	73.2	94.9	51.6
Vojvodina	81.1	87.6	73.1
Kosovo-Metohija	41.3	82.4	25.2
Belgrade area	92.7	97.4	77.0

Differences are significant between urban and rural settlements. In urban settlements 91.8 percent of people have good sanitary conditions. The towns in Kosovo-Metohija and Vojvodina have the worst sanitary conditions. In rural settlements only 49 percent of the population has good sanitation. There are huge regional variations of this indicator, ranging from 25.2 percent in Kosovo-Metohija to 77.0 percent in the Belgrade area.

A more complete picture of the sanitation situation is arrived at by analysing different types of toilet facilities: toilets linked to sewage systems, toilets linked to septic tanks and latrines. The safest way of disposing of liquid waste is by means of a sewage system. Septic tanks are often built so as to release waste matter into the environment, which poses a danger to the safety of the local population. The most unsafe method is the use of a latrine. This analysis shows that 39.4 percent of people in the FR Yugoslavia have toilet facilities linked to sewage systems. Kosovo-Metohija has the largest number (87.7 percent) and Vojvodina the smallest (38.8 percent) of links to sewage systems in urban settlements. In rural settlements, few people have toilet facilities linked to sewage systems. This figure ranges from 14.6 percent in Kosovo-Metohija to a mere 2.0 percent in Vojvodina. In rural settlements, people dispose of waste matter mostly into septic tanks and latrines - 46.0 percent and 38.5 percent respectively at the level of the FR Yugoslavia. Septic tanks are most widespread in the villages of Vojvodina (72.5 percent of the population), and latrines in the villages of Kosovo-Metohija (47.8 percent).

Graph 1.2. Population with access to adequate sanitation facilities



Conclusion

- 76.4 percent of the FR Yugoslavia's population gets drinking water in the dwelling or in the yard from a public water-supply system. In urban areas, 98.2 percent of people get drinking water in this way, against 56.6 percent in rural areas.
- 69.3 percent of people in the FR Yugoslavia dispose of liquid waste by means of toilet facilities linked to sewage systems or septic tanks in the dwelling.

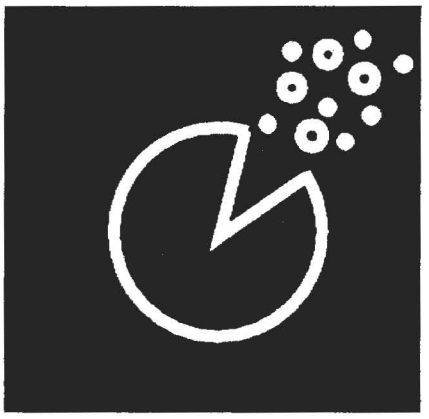
Differences between towns and villages are significant in terms of water and sanitation. While the results are relatively good in urban settlements, these indicators are very low in rural settlements. Regional differences are very pronounced. Kosovo-Metohija is the most vulnerable area in terms of both water supply and sanitation, and Vojvodina in terms of waste disposal. There is also the unresolved problem of waste matter purification.

The FR Yugoslavia is still far from the universal goal of providing access to safe water and sanitation for all by the year 2000, especially as investments in this vital infrastructure are declining. That is why it is necessary to urgently mobilise first local communities (that will be a difficult task because of the widespread poverty) and then the international community. It is necessary that an agreement be reached as soon as possible by the Government of the FR Yugoslavia, donors, Government agencies, UNICEF and WHO, NGOs and other parties concerned.

Investments in the development of water-supply and sewage systems must first be made in rural areas and in the poorer urban settlements, as well as in the fastest-growing urban settlements. As no significant progress towards achieving the Year 2000 Goals can be made without allocating much more resources for these purposes than before, it is necessary to design and implement new, cheaper technologies. It is necessary to educate the population, primarily in the vulnerable rural areas, about hygiene and the importance of safe water. This will certainly reduce morbidity and mortality due to infectious diseases, while increasing the awareness of the need for having safe drinking water. Relevant data are definitely needed for developing a rational plan of action, so that the national system for monitoring these indicators must be further strengthened. Priority in activities should be given to Kosovo-Metohija because of its dismal water and sanitation situation and because that area is a hotbed of infectious diseases, some of which have long been forgotten in other parts of the world.

MODULE 2 -

CARE OF CHILDREN WITH ACUTE RESPIRATORY INFECTIONS



Acute respiratory infections (ARI) are a leading cause of death and morbidity in children in developing countries. Every year over 4 million children under five years of age die of ARI worldwide. Most of these deaths are caused by pneumonia, mostly in infants and children under two years of age.

Year 2000 Goal	⇒	*Reduction by one-third in the deaths due to acute respiratory infections in children under five years of age*
Indicator	⇒	*Annual number of under-five deaths due to acute respiratory infections*
	⇒	*Proportion of pneumonia cases seen at health facilities which receive standard case management*
Mid-decade goal (through 1995.)	⇒	*For countries that are implementing ARI control programme: strengthening health facilities' capability for case management of ARI:*
Indicator	⇒	*Proportion of children under five years of age with an acute respiratory infection needing assessment, who are taken to an appropriate health provider*
	⇒	*Proportion of all health facilities that have a regular supply of free or affordable antibiotics and a trained health worker and are thus able to give correct pneumonia case management*

Programme to control ARI in the FR Yugoslavia

Diseases of the respiratory system (460-519 according to the 9th international classification) account for 77.2 percent of all morbidity among pre-school children in the FR Yugoslavia.

The specific mortality rate (per 100,000 under-5 children) among under-fives for diseases of the respiratory system (460-519) in the 1990-1995 period is shown in the following table:

Territory	1990	1991	1992	1993	1994	1995
FR Yugoslavia	67.07	54.67	53.81	49.93	38.60	35.87
Montenegro	18.04	5.62	10.23	12.57	8.63	4.38
Serbia	70.40	58.10	56.82	52.53	40.67	38.06
Central Serbia	21.87	19.60	23.06	21.99	23.85	12.41
Vojvodina	22.31	8.10	16.92	17.20	17.39	18.38
Kosovo-Metohija	158.07	130.82	119.13	109.85	74.88	84.14

Even though all children of pre-school and school age in the FR Yugoslavia have the right to health care, the economic crisis, which has become even more difficult in recent years, has reduced their access to medicines. It is very difficult to put the socialised approach to health care into practice - the drugs required can only be obtained in private pharmacies, often at prohibitive prices.

The correct ARI case management, recommended by the World Health Organisation (WHO), is still not being applied in the FR Yugoslavia. Institute for Mother and Child Health Care of Serbia (the major institution for maternal and child care in our country) has, together with UNICEF, developed and adjusted to our conditions correct case management for children with ARI. A strategy has been adopted and training materials prepared, including a manual, films, brochures and posters. We plan to start training health workers by mid-1997, primarily in the most vulnerable areas (Kosovo-Metohija). The national policy of essential drugs, as one of the preconditions for the success of the ARI Control Programme, is being developed in co-operation with the FRY's Ministry of Health.

The goals of the module

We wanted to find out how much mothers (carers) know about ARI. In particular, we wanted to know if the mother (carer):

- can recognise symptoms (difficult and fast breathing) when it is necessary to take the child urgently to a doctor - ARI control indicator;
- uses medicines (and which) before taking the child to a doctor;
- feeds the sick child correctly;
- applies some of the basic principles of home care.

As the ARI control programme is in its infancy in our country, the data obtained will be important for evaluating and monitoring the success of this Programme.

ARI control indicator

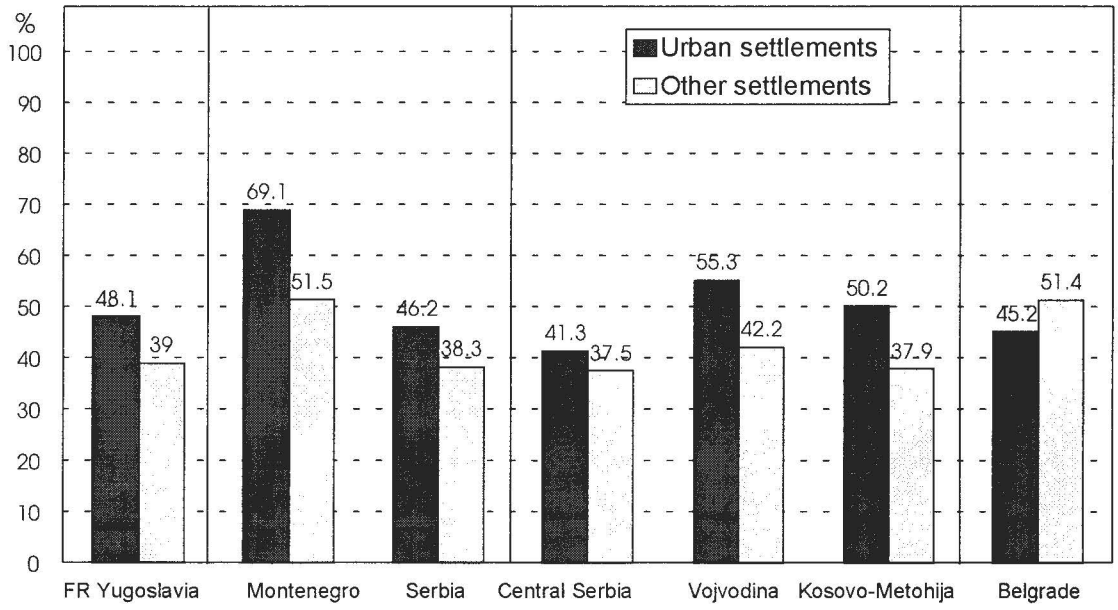
The proportion of mothers (carers) with children under five years of age in the FR Yugoslavia who see major ARI symptoms - difficult and fast breathing - as reasons for taking the child to a doctor without delay is 43.1 percent (Table 2.1.).

Table 2.1. Proportion of mothers (carers) with children under five years of age who recognise ARI symptoms (in %) - by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**43.1**	**48.1**	**39.0**
Montenegro	**61.0**	**69.1**	**51.5**
Serbia	**41.8**	**46.2**	**38.3**
Central Serbia	39.3	41.3	37.5
Vojvodina	49.5	55.3	42.2
Kosovo-Metohija	41.6	50.2	37.9
Belgrade area	46.7	45.2	51.4

Women know a little more about ARI in urban settlements, where 48.1 percent of mothers can recognise symptoms of respiratory infections, against 39.0 percent in rural settlements.

Graph 2.1. Proportion of mothers (carers) with children under five years of age familiar with ARI symptoms (in %) - by areas



Best informed about ARI control are mothers in Montenegro, where 69.1 percent of mothers in urban settlements and 51.5 percent in rural settlements can recognise primary symptoms of ARI, and least informed are mothers in central Serbia, their respective shares being 41.3 percent and 37.5 percent. It should be noted that Montenegro has the lowest under-five mortality rate for respiratory infections in the FR Yugoslavia.

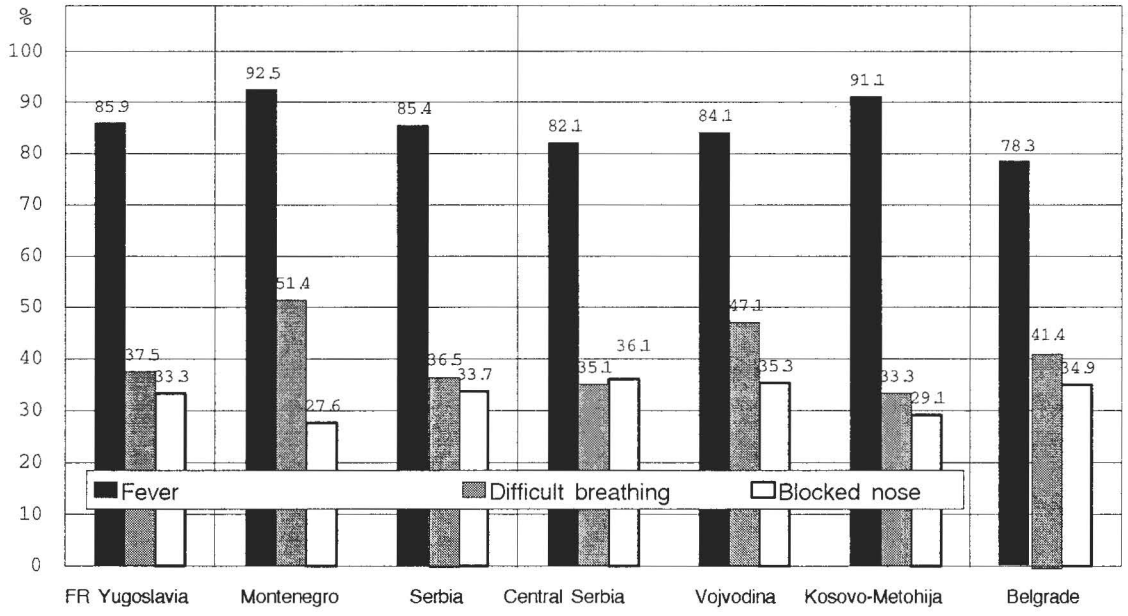
If we observe the two primary symptoms of respiratory infection separately, we can notice that more mothers are familiar with the symptom of difficult breathing (37.5 percent) than with fast breathing (16.2 percent) - Table 2.2 in the Appendix.

Fever is the first of the three most common symptoms (Table 2.3) that lead mothers to take their children to a doctor in case of a respiratory infection - 85.9 percent of mothers in the FRY, with similar shares in urban and rural communities, 83.7 percent and 87.6 percent respectively.

Table 2.3 Most common symptoms of ARI that lead mothers (carers) to take their children to a doctor (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total							
Fever	85.9	92.5	85.4	82.1	84.1	91.1	78.3
Difficult breathing	37.5	51.4	36.5	35.1	47.1	33.3	41.4
Blocked nose	33.3	27.6	33.7	36.1	35.3	29.1	34.9
In urban settlements							
Fever	83.7	88.7	83.3	81.2	82..0	89.6	80.9
Difficult breathing	43.8	62.5	42.0	38.3	52.8	41.4	41.7
Blocked nose	32.9	23.3	33.7	34.0	34.2	32.7	31.7
In other settlements							
Fever	87.6	97.0	87.1	82.9	86.7	91.8	70.3
Difficult breathing	32.5	38.2	32.2	32.1	39.8	29.8	40.5
Blocked nose	33.6	32.6	33.6	38.1	36.7	27.6	45.9

Graph 2.2 Most common symptoms



The fact that fever, though a non-specific symptom, was mentioned as the primary symptom of ARI, may be explained by the lack of knowledge of the true symptoms of respiratory infection. The second most frequently mentioned symptom is difficult breathing, more recognised by mothers in urban settlements (43.8 percent) than in rural ones (32.5 percent). The third most frequently mentioned symptom, "blocked nose", was mentioned by 33.3 percent of mothers.

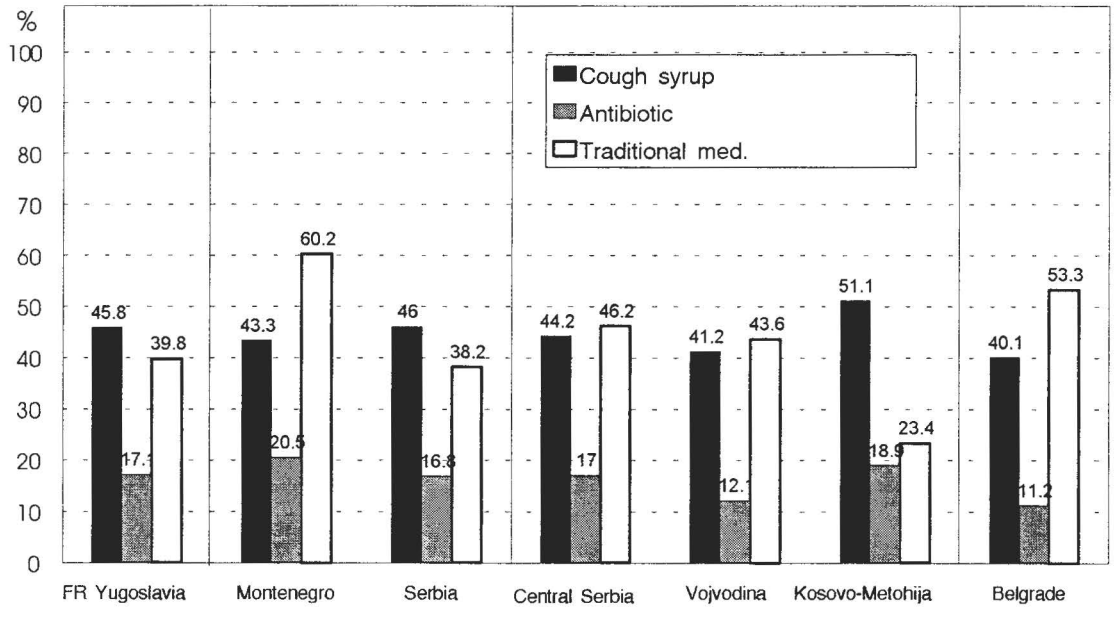
Use of medicines in ARI management

Figures on medicines administered by mothers (carers) to the children before taking them to a doctor are presented in Table 2.4

Table 2.4 Use of medicines in treating colds, bronchitis or milder forms of pneumonia before taking a child to a doctor (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total							
Cough syrup	45.8	43.3	46.0	44.2	41.2	51.1	40.1
Antibiotics	17.1	20.5	16.8	17.0	12.1	18.9	11.2
Traditional medicines	39.8	60.2	38.2	46.2	43.6	23.4	53.3
None	17.6	8.5	18.3	14.0	23.9	22.2	10.5
In urban settlements							
Cough syrup	40.4	45.1	40.0	37.2	34.2	52.2	42.6
Antibiotics	15.7	17.1	15.5	12.8	9.9	27.5	7.8
Traditional medicines	45.0	59.3	43.7	53.8	47.8	14.7	56.5
None	18.3	10.5	19.0	14.2	26.7	23.9	11.3
In other settlements							
Cough syrup	50.1	41.2	50.7	50.9	50.0	50.6	32.4
Antibiotics	18.2	24.5	19.9	21.0	14.8	15.3	21.6
Traditional medicines	35.6	61.4	34.0	38.9	38.3	27.1	43.2
None	17.1	6.0	17.8	13.8	20.3	21.4	8.1

Graph 2.3 Use of medicines



Slightly less than half of all mothers (45.8 percent) in the FR Yugoslavia would give their child cough syrup, without much variation with regard to type of settlement. 39.8 percent of mothers (carers) with children under five years of age would give their child some folk remedy. What is surprising is that more mothers in urban communities (45.0 percent) than in rural communities (35.6 percent) would administer a traditional medicines. 17.1 percent of mothers would use antibiotics, which is close to the share of

mothers (17.6 percent) who said they did not know what to give their child, which was treated as if they would not give the child any remedy.

From a regional perspective, folk remedies are used most in Montenegro, where 59.3 percent of mothers in urban communities and 61.4 percent in rural communities would give them to their children. This is explained by tradition and customs prevailing in this region. In Kosovo-Metohija, antibiotics are "misused" in urban communities, where over one-quarter (27.5 percent) of all mothers would give them to their children without consulting a doctor.

Nutrition and ARI

Proper nutrition of children with ARI means giving the same or extra quantities of food, the same or increased breastfeeding (for breastfed children) and the same or extra quantities of fluid.

How do mothers feed their children when they have ARI?

Table 2.5 Diet in cases of colds, bronchitis or milder cases of pneumonia before the child is taken to a doctor (in %)

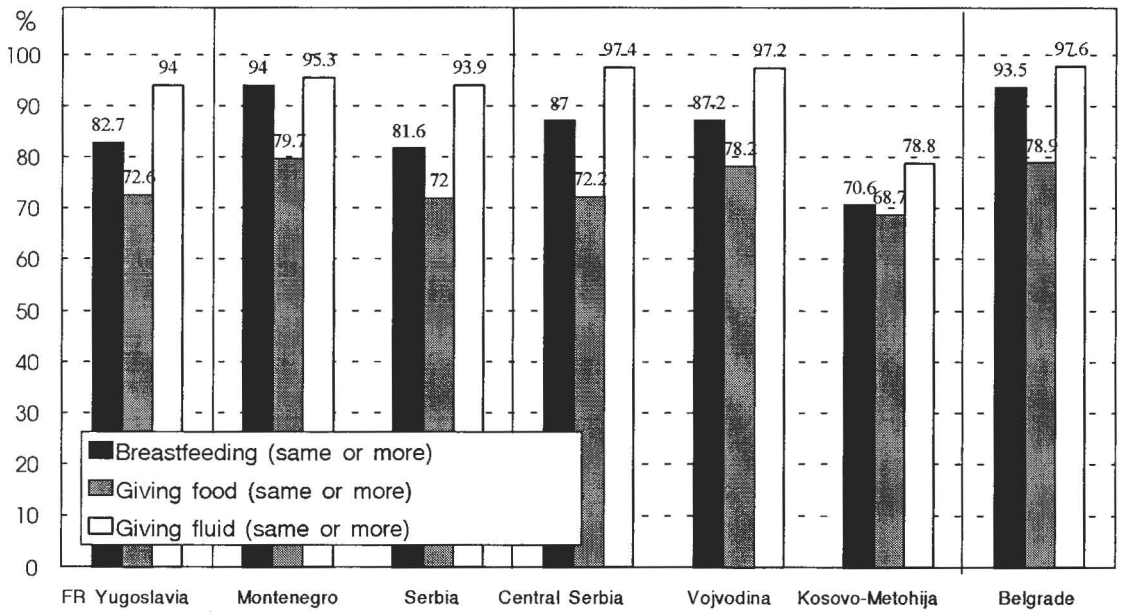
	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
				Total			
Breastfeeding							
same or more freq.	82.7	94.0	81.6	87.0	87.2	70.6	93.5
fewer feeds	17.3	6.0	18.4	13.0	12.8	29.4	6.5
Giving food							
same or more	72.6	79.7	72.0	72.2	78.2	68.7	78.9
less	27.4	20.3	28.0	27.8	21.8	31.3	21.1
Giving fluid							
same or more	94.0	95.3	93.9	97.4	97.2	78.8	97.6
less	6.0	4.7	6.1	2.6	2.8	21.2	2.4
				In urban settlements			
Breastfeeding							
same or more freq.	88.5	95.2	87.6	91.7	90.2	75.0	96.0
fewer feeds	11.5	4.8	12.4	8.3	9.8	25.0	4.0
Giving food							
same or more	75.9	80.2	72.0	73.8	81.3	73.8	77.2
less	24.1	19.8	28.0	26.2	18.7	26.2	22.8
Giving fluid							
same or more	96.1	93.6	93.9	97.7	98.6	86.1	98.0
less	3.9	6.4	6.1	2.3	1.4	13.9	2.0
				In other settlements			
Breastfeeding							
same or more freq.	76.8	92.0	81.6	80.8	82.9	68.5	83.3
fewer feeds	23.2	8.0	18.4	19.2	17.1	31.5	16.7
Giving food							
same or more	69.9	79.1	69.4	70.8	74.2	66.4	85.7
less	30.1	20.9	30.6	29.2	25.8	33.6	14.3
Giving fluid							
same or more	92.0	97.4	91.5	97.2	95.3	75.0	96.0
less	8.0	2.6	8.5	2.8	4.7	25.0	4.0

As for breastfeeding in relation to child illness, 82.7 percent of mothers in the FR Yugoslavia (Table 2.5) breastfeed their sick children as they did before the illness or more frequently. 17.3 percent of mothers

breastfeed their children less frequently when the child is ill. These figures pertain to mothers who answered the question about breastfeeding and whose number conforms with the assumed number of mothers who at the time of interviewing breastfed their children (reduced by 7 percent, as 7 percent of mothers did not give any answer). Accordingly, the breastfeeding memory factor is not taken into account here as mothers who did not breastfeed at the time of the survey did not say anything on this point, although the question was not designed to target only breastfeeding mothers. 88.5 percent of breastfeeding mothers in urban settlements continue to give the child the same number of or more feeds when the child is ill, compared with 76.8 percent of mothers in rural settlements. At regional level, Montenegro boasts the highest number of breastfeeding mothers who continue to give the child the same number of or more feeds when the child is ill - 95.2 percent in urban settlements and 92.0 percent in rural settlements, while the number of such mothers is the smallest in Kosovo-Metohija (75.0 percent and 68.5 percent respectively).

Views on giving food in general and on giving fluid were expressed by mothers with nonbreastfed children. 72.6 percent of these mothers give their sick child the same amount of or more food, while as many as 94.0 percent of these mothers will not reduce the child's fluid intake, without much variation by type of settlement and region excluding Kosovo-Metohija, where 25.0 percent of mothers in rural settlements reduce the amount of fluid given to the child.

Graph 2.4 Correct nutrition



Principles of home care of children with ARI

If we assume that the correct practices in treating a sick child include heating and frequently ventilating the room in which the child is staying and dressing the child in light clothes, we will notice (Table 2.6) that most mothers in the FR Yugoslavia (66.1 percent) ventilate the room more frequently and 56.4 percent dress the child in light clothes, but only 15.7 percent of mothers heat the room adequately. 17.5 percent of mothers (carers) dress the child in too much clothing at the risk of making the child too warm.

Table 2.6 Home care of children with ARI (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total							
Ventilating the room more frequently	66.1	82.9	64.9	78.3	79.6	37.1	85.5
Heating the room	15.7	11.0	16.1	11.5	14.9	23.6	9.2
Dressing the child in lighter clothes	56.4	62.6	56.0	62.0	52.9	48.2	36.8
Dressing the child warmly	17.5	22.8	17.1	12.6	15.6	24.7	14.5
In urban settlements							
Ventilating the room more frequently	76.5	90.5	75.2	82.7	85.7	46.6	86.1
Heating the room	13.4	10.2	13.7	11.5	16.8	16.3	10.4
Dressing the child in lighter clothes	57.7	62.2	57.3	59.1	52.2	57.8	33.9
Dressing the child warmly	13.7	22.9	12.9	12.2	14.3	13.1	16.5
In other settlements							
Ventilating the room more frequently	57.8	73.8	56.8	74.0	71.9	32.9	83.8
Heating the room	17.6	12.0	17.9	11.5	12.5	26.8	5.4
Dressing the child in lighter clothes	55.4	63.1	54.9	64.9	53.9	44.1	45.9
Dressing the child warmly	20.5	22.7	20.4	12.9	17.2	29.7	8.1

Conclusion

- Only 43.1 percent of mothers can recognise the symptoms of ARI which mean that the child must be taken to a doctor without delay.
- A large proportion (82.4 percent) of mothers (carers) give therapy to the child before consulting a doctor.
- Cough syrups are amply used, even though they are not of much help to under-five children and may even harm some of them. Particularly dangerous is self-medication with antibiotics. The wasteful use of drugs in ARI largely hinders ARI control, leading to rising resistance to antibiotics and further impoverishing the health care system (antibiotics account for 90 percent of the funds allocated for drugs in the primary health care system), thus creating a vicious circle. In light of the fact that health care for this population group is free, we must draw the conclusion that reasons for self-medication lie in the organisation of the health care service (low availability, long lines, doctors' attitudes, poor health education).
- Knowing that extra calorie and fluid intake helps speed recovery and reduces or prevents malnutrition, it is alarming that every fourth mother (27.4 percent) in the FRY gives less food to its sick child. This is especially important because children on average have ARI 5-6 times a year. In particular, bad habits are deeply rooted in the region of Kosovo-Metohija, where the practice of not giving a sick child food and fluid greatly increases ARI-related morbidity and mortality and malnutrition.

On the basis of the results obtained, we can say that mothers (carers) do not know enough about the treatment of children with ARI. It is necessary, while training health workers and implementing other strategies (essential drugs policy, cost-effective use of antibiotics, etc.), to focus action on training parents as they are crucial for the success of this Programme..

MODULE 3 - DIARRHOEA

Acute diarrhoea is one of the most common causes of death in infants and young children all over the world. Every year over 3 million children under five years of age die of diarrhoea world-wide. Most of these deaths are caused by dehydration. They can be prevented by oral rehydration therapy - ORT (increased intake of fluid) and continued feeding.

Year 2000 Goal	⇒	*Reduction by 50 percent in the deaths due to diarrhoea in children under the age of five years and 25 percent reduction in the diarrhoea incidence rate*
Indicator	⇒	*Proportion of diarrhoea episodes in under-fives treated with ORT (increased fluids) and continued feeding*
	⇒	*Annual number of under-five deaths due to diarrhoea*
	⇒	*Average annual number of episodes of diarrhoea per child under five years of age*
1995 Mid-Decade Goal (MDG)	⇒	*Achievement of 80 percent usage of ORT (increased fluids) and continued feeding as part of the programme to control diarrhoeal diseases*
Indicator	⇒	*Proportion of diarrhoea episodes in under-fives treated with oral rehydration salts (ORS) and/or recommended home fluids (pre-1993 ORT definition)*
	⇒	*Proportion of diarrhoea episodes in under-fives treated with ORT (increased fluids) and continued feeding*
	⇒	*Proportion of the population that has a regular supply of ORS available in their community*

The Programme for Controlling Diarrhoeal Diseases in the FR Yugoslavia

The following table shows the specific rates (per 100,000 children under five years of age) of morbidity[1] and mortality[2] in children under five years of age for infectious intestinal diseases:

Territory	1990	1991	1992	1993	1994	1995
FR Yugoslavia*	**1,328.58**	**891.36**	**1,258.65**	**952.51**	**1,526.88**	**1,463.58**
	32.90	**48.78**	**49.43**	**43.54**	**31.91**	**31.46**
Montenegro	617.27	299.60	3,612.44	1,229.86	2,786.65	1,949.23
	12.02	5.62	6.14	-	2.16	4.38
Serbia	1,376.91	932.81	1,095.68	933.25	1,439.87	1,429.82
	34.32	51.81	52.43	46.56	34.00	33.34
Central Serbia	1,632.01	1,025.64	1,165.88	612.17	1,340.22	1,269.27
	15.34	7.18	5.62	9.94	11.01	10.55
Vojvodina	437.10	405.17	1,024.15	350.38	924.54	827.11
	1.65	0.81	1.78	6.34	-	1.84
Kosovo-Metohija	1,468.92	1,046.56	1,034.12	1,631.36	1,818.07	1,949.32
	75.02	132.99	136.76	114.34	81.69	81.04

* The number above represents the morbidity rate and the number below the mortality rate.

UNICEF began implementing the Programme to Control Diarrhoeal Diseases in the FR Yugoslavia in 1992. Oral rehydration salts (ORS) were distributed, along with educational materials (brochures, posters and wall charts) in the first few years of the implementation of UNICEF's emergency programme in the FRY. The paediatric ward of the Prishtina Health Centre set up a centre for oral rehydration. The true importance of the Programme to Control Diarrhoeal Diseases became evident after UNICEF changed its strategy in the FRY and focused on its programme activities. A national policy was developed, as defined by the Decree on the Health Care of Women, Children and Students adopted by the FRY Government. The Institute for Mother and Child Health Care of Serbia, the Institute for Public Health of Serbia, the Institute for Public Health of Prishtina and UNICEF have prepared a manual and educational materials (a video, posters, wall charts and brochures) for diarrhoeal disease control. About 200 doctors working in Kosovo-Metohija's child health care services were trained at seminars held in 1996. An agreement was reached with the largest pharmaceutical company in the FRY on manufacturing ORS bags according to UNICEF and WHO standards.

The goals of the module

The Programme to Control Diarrhoeal Diseases still being in its infancy, this survey was necessary in order to determine some basic indicators that will make it possible to plan further activities. With this module we primarily wanted to find out how much mothers (child carers) know about diarrhoeal diseases. In particular, we wanted to determine whether the mother (carer):

- knows what an ORS solution is;
- can recognise symptoms of dehydration;
- applies ORT;
- uses drugs (and which) before taking the child to a doctor if the child has diarrhoea.

[1] For the following infectious intestinal diseases: 002, 004, 008 and 009 according to the 9th international classification of diseases

[2] For infectious intestinal diseases 001-009

Indicators of diarrhoeal disease control

It is estimated that 6.7 percent of children under five years of age in the FRY have had diarrhoea in the last two weeks (Table 3.1. in the Appendix).

The incidence of diarrhoea is somewhat higher in rural settlements (Table 3.2.), where the share of children with diarrhoea is 7.6 percent, against 5.6 percent in urban settlements.

Table 3.2. Children under five years of age who have had diarrhoea in the past two weeks, by type of settlement (in %)

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**6.7**	**5.6**	**7.6**
Montenegro	**4.6**	**3.4**	**5.9**
Serbia	**6.9**	**5.8**	**7.7**
Central Serbia	4.7	5.1	4.4
Vojvodina	5.4	6.1	4.6
Kosovo-Metohija	10.3	7.3	11.5
Belgrade area	2.7	2.1	4.8

The regional differences are not significant, except for the extreme values characteristic of Kosovo-Metohija, which has the largest share of children with diarrhoea in the total number of children (10.3 percent) and Belgrade, where this share is smallest (2.7 percent).

The results of the survey indicate that many cases of diarrhoea are not registered, compared with routine statistics.

The incidence of diarrhoea, due to the relatively low value (if observed as a number, it is at the very border allowed by the level of data evaluation), does not allow for in-depth analysis or crossing these data with other indicators.

Use of ORT

98.5 percent of children under five years of age in the FR Yugoslavia have received ORS and/or other recommended fluids (pre-1993 ORT definition) during an episode of diarrhoea.

The figures on the use of ORT (pre-1993 ORT definition) are shown in Table 3.3.

Table 3.3. Indicators of ORT use (pre-1993 definition), by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**98.5**	**100.0**	**97.7**
Montenegro	**100.0**	**100.0**	**100.0**
Serbia	**98.4**	**100.0**	**97.6**
Central Serbia	95.2	100.0	90.2
Vojvodina	100.0	100.0	100.0
Kosovo-Metohija	100.0	100.0	100.0
Belgrade area	80.0	100.0	50.0

The application of the broad pre-1993 definition of ORT, which meant the use of any "acceptable fluid or food for children with diarrhoea,.resulted in a high level of ORT use (pre-1993 definition) in the FR Yugoslavia.

The situation is completely different if one analyses figures on the use of ORT according to the post-1993 definition.

ORT (taking increased quantities of fluid and continued feeding) in the FRY is applied to 41.3 percent of children under five years of age who have had diarrhoea in the last two weeks (Table 3.4.).

Table 3.4. The use of ORT (taking increased quantities of fluid and continued feeding) - by type of settlement -

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**41.3**	**49.4**	**36.7**
Montenegro	**54.8**	**33.3**	**68.4**
Serbia	**40.6**	**50.3**	**35.2**
Central Serbia	52.3	58.2	46.0
Vojvodina	31.6	41.7	14.3
Kosovo-Metohija	35.5	44.0	33.3
Belgrade area	80.0	100.0	50.0

The use of ORT is at a satisfactory level only in the Belgrade area, while in other areas that indicator is far below the desired level. Only every seventh child receives ORT in the rural parts of Vojvodina, and only every third child in the villages of Kosovo-Metohija.

In further activities emphasis will be placed on informing mothers (carers) and on their practices in treating children with diarrhoea at home. As at the time of the survey (late October) the incidence of diarrhoea in the FRY was low, the questions referring to mothers' knowledge and views and the analysis itself were expanded by including all mothers (carers) whose children had had diarrhoea earlier.

Practices employed by mothers (carers) in treating children under five years of age

Almost all children (99.2 percent) at the level of the FRY as a whole received one of the following fluids (Table 3.5. in the Appendix) at home during an episode of diarrhoea.

In terms of fluid types, we may notice that during episodes of diarrhoea most children were given "other fluids" (yoghurt, buttermilk, tea, a solution of sugar and salt and unsweetened fruit juice) and gruel (made from cereals, leguminous and root vegetables) and soups - 72.9 percent, i.e. 70.7 percent at the FRY level, with roughly the same shares in urban and rural areas. The most frequently given fluids were water with food (66.1 percent), glucose water, tea or sweetened fruit juice (56.9 percent), water (52.1 percent), milk of animal origin or infant formula (38.0 percent), ORS (30.8 percent) and breastmilk (21.0 percent). Particularly important are the figures on the high percentage of children receiving sweetened water, tea or sweetened fruit juice in light of the harmfulness of this practice (worsening of diarrhoea due to the high glucose content) and the small share of children receiving ORS.

At regional level, ORS is used much more in Kosovo-Metohija (43.4 percent) than in other areas.

Children's daily diet (giving food and fluid) during an episode of diarrhoea is shown in Tables 3.6. and 3.7.

Table 3.6. Children under five years of age who had diarrhoea by quantity of fluid taken during the episode of diarrhoea, by type of settlement (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
considerably less or none	7.3	6.1	7.4	4.8	4.4	12.8	4.8
as usual	35.5	27.6	36.1	30.7	45.9	39.4	22.1
more than usual	54.0	66.0	53.1	62.2	47.0	42.6	73.1
unknown	3.2	0.3	3.4	2.3	2.7	5.3	-
In urban settlements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
considerably less or none	5.3	6.2	5.2	5.9	3.0	5.6	6.1
as usual	29.0	26.7	29.2	25.3	40.6	28.5	22.0
more than usual	62.6	66.4	62.3	66.6	53.5	59.0	72.0
unknown	3.1	0.7	3.3	2.2	3.0	6.9	-
In other settlements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
considerably less or none	8.8	6.0	9.0	3.7	6.1	15.2	-
as usual	40.2	28.3	41.0	35.8	52.4	43.1	22.7
more than usual	47.7	65.7	46.5	58.1	39.0	36.9	77.3
unknown	3.2	-	3.4	2.4	2.4	4.8	-

The fact that only 7.3 percent of children were not given fluids during an episode of diarrhoea suggests that the practice of giving fluids is at a relatively satisfactory level. At regional level, the practice of not giving fluid to children is most widespread in the rural parts of Kosovo-Metohija - 15.2 percent.

The optimum quantity of food, i.e. continued breastfeeding (little less than usual, as well as usual and more than usual), was given to 81.6 percent of children in the FR Yugoslavia (Table 3.7.) during an episode of diarrhoea, while 15.5 percent of children were given considerably less food or were not fed at all.

Table 3.7. Children under 5 years of age who had diarrhoea, by quantity of food taken during the episode of diarrhoea, by type of settlement (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
none	1.9	2.2	1.9	1.7	0.5	2.8	1.9
considerably less	13.6	11.2	13.8	14.1	10.4	14.9	14.4
little less, same or more	81.6	85.9	81.3	83.2	88.5	75.2	83.7
unknown	2.8	0.6	2.9	0.9	0.5	7.1	-
In urban settlements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
none	1.8	4.1	1.6	2.0	-	2.1	1.2
considerably less	13.6	14.4	13.5	15.6	12.9	8.3	17.1
little less, same or more	81.4	80.1	81.5	80.9	86.1	78.5	81.7
unknown	3.2	1.4	3.4	1.4	1.0	11.1	-
In other settlements	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
none	2.1	0.6	2.2	1.5	1.2	3.1	4.5
considerably less	13.7	8.4	14.0	12.7	7.3	17.1	4.5
little less, same or more	81.8	91.0	81.2	85.4	91.5	74.0	90.9
unknown	2.5	-	2.6	0.3	-	5.7	-

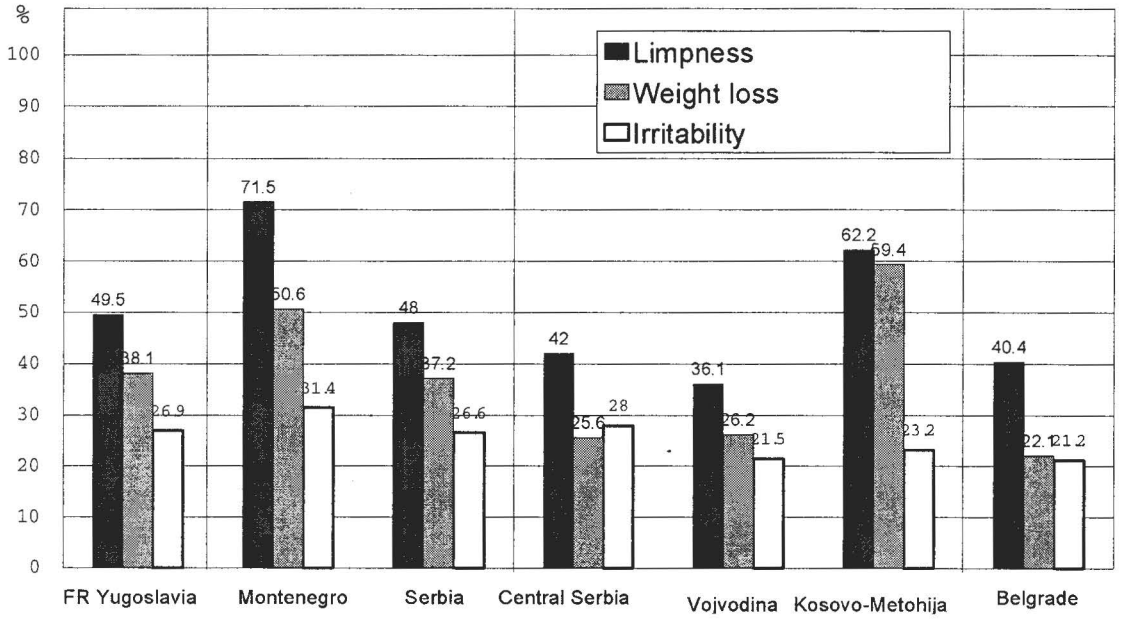
At regional level, the Belgrade area stands out for its optimum feeding practices, with almost all children being correctly fed during an episode of diarrhoea - in rural settlements 100 percent of children received increased quantities of fluid, while 95.4 percent were continuously fed.

Recognising symptoms and clinical signs of dehydration in children with diarrhoea

The symptoms and clinical signs of dehydration that will lead mothers (carers) to take their children with diarrhoea to a doctor are shown in Table 3.8 (in the Appendix) and in Graph 3.1.

At the level of the FRY, limpness was cited as a sign that would lead the mother to take her sick child to a doctor for almost every second child with diarrhoea. As this symptom is characteristic of severe dehydration requiring hospitalisation, it may be inferred that all children with this symptom were taken to a health care provider with some delay. The next most frequently cited symptom was weight loss (38.1 percent of children), while the figures for other symptoms are much the same - 26.9 percent for irritability, 21.2 percent for increased thirst and 20.1 percent for dry lips and tongue. The absence of tears in crying children was cited for 4.5 percent of children. 28.8. percent of mothers said that some other sign or symptom would lead them to take their child to a doctor.

Graph 3.1. Most common symptoms leading mothers to take their children to a doctor



The signs and symptoms suggesting dehydration in children with diarrhoea differ significantly both between different types of settlements and between regions. The overall conclusion would be that mothers (carers) have more information about this problem in urban settlements and that the recognition of these symptoms and signs is at a higher level there.

Administration of medicines to children with diarrhoea

Administration of medicines to children with diarrhoea before they are taken to a doctor was monitored only in the most general way.

About one-fifth of children (22 percent) at the level of the FRY received some kind of "antidiarrhoeal drug" before going to a doctor. The use of drugs is highest in Montenegro (37.2 percent of children took some kind of medicine), and lowest in Vojvodina (15.8 percent).

Oral rehydration solution

In about 42.9 percent of children with diarrhoea, their mother (carer) said she knew what an oral rehydration agent is. This percentage was lowest in Vojvodina (29.5 percent) and highest in Kosovo-Metohija (50.2 percent), which may be one of the first results of the implementation of the Programme to Control Diarrhoeal Diseases in this area.

Conclusion

- Every child in the FR Yugoslavia has almost two (1.75) episodes of diarrhoea annually. The incidence of diarrhoea is higher in rural settlements.
- Oral rehydration therapy (giving increased quantities of fluid and continued feeding) was applied to 41.3 percent of children under five years of age during an episode of diarrhoea;
- In 7.3 percent of the cases, mothers (carers) did not give fluid to the child with diarrhoea, and in 15.5 percent of cases they did not give food;
- The most common symptoms leading the mother to take the child immediately to a doctor are limpness (49.5 percent), weight loss (38.1 percent) and irritability (26.9 percent);.
- A fifth of all children in the FR Yugoslavia received some "antidiarrhoeal" medicine before going to a doctor;
- 42.9 percent of mothers know what an oral rehydration solution is.

The results of the survey suggest that not all cases of diarrhoeal diseases are registered in the FR Yugoslavia (under-registration). The public's knowledge about diarrhoea is far below the desired level. The practice of not giving food and fluid to a child during an episode of diarrhoea still persists. Administration of "antidiarrhoeal" drugs before consulting a doctor is widespread. Mothers (carers) are not familiar with the symptoms of dehydration and often take the child to a doctor later than they should. Mothers (carers) know little about ORS. Hence the limited use of ORS in the home treatment of children with diarrhoea.

One of the mid-decade goals, that children with diarrhoea should receive ORS or some of the recommended fluids, has been achieved. However, the use of ORT - giving extra quantities of fluid and continued feeding, as the optimum case management of children with diarrhoea, is far below the desired level. The main reasons for this are inadequate social mobilisation, the lack of information in the general public and in the medical community and the inadequate health education of the public. The 1995 goal in the prevention of diarrhoeal diseases (80 percent use of safe drinking water, 80 percent coverage by immunisation against measles and 80 percent of children breastfed during an episode of diarrhoea and later) has not yet been achieved in the FR Yugoslavia.

It is necessary to continue to mobilise the community to deal with this problem and to mobilise and train health workers. Information about diarrhoeal diseases, the prevention of diarrhoea, the importance and use of ORT, the recognition of dehydration symptoms and the use of ORS should be disseminated to the public through seminars, films and by distributing educational materials.

It is necessary to increase the availability of ORS to the population.

It is necessary to launch a large-scale campaign to improve the prevention of diarrhoeal diseases by providing safe drinking water, ensuring hygienic waste disposal, increasing immunisation coverage and promoting breastfeeding.

The high mortality due to diarrhoeal diseases (according to routine statistics), poor hygienic and epidemiological conditions, bad habits and lack of information in Kosovo-Metohija, suggest that future activities should focus on this region. Of course this campaign should also be conducted in other parts of the FRY according to priorities determined by child morbidity and mortality, the level of health education in the general public and households' hygiene conditions. At the same time, the monitoring of indicators should continue and new indicators should be developed for monitoring the Programme to Control Diarrhoeal Diseases.

MODULE 4 - BREASTFEEDING

The beneficial effects of breastfeeding help the normal growth and development of about 140 million babies born the world over every year. Breastfeeding also helps the child's emotional stability and greatly reduces diarrhoea, acute respiratory and urinary infections, parasitoses, malnutrition, anaemia and many other diseases. According to the available data, about 43 percent of babies are exclusively breastfed in the first four months of life, about 45 percent of infants begin to receive complementary food at the age of 6-9 months, and about half of all babies are breastfed at the age of 20-23 months.

Year 2000 Goal	⇒	*Empowerment of all women to breastfeed their children exclusively for four to six months and to continue breastfeeding, with complementary food, well into the second year.*
Indicator	⇒	*Proportion of infants less than four months of age who are exclusively breastfed*
	⇒	*Proportion of children 20-23 months of age who are breastfeeding*
	⇒	*Proportion of infants 6-9 months of age (180-299 days) who are receiving breastmilk and complementary food*
	⇒	*Proportion of all hospitals and maternity facilities which are "baby-friendly" according to global BFHI criteria.*
1995 Mid-Decade Goal (MDG)	⇒	*Ending and preventing free and low-cost supplies of breastmilk substitutes in all hospitals and maternity facilities. Having target hospitals and maternity facilities achieve "baby-friendly" status in accordance with BFHI global criteria*
Indicator	⇒	*Proportion of hospitals and maternity facilities targeted for BFHI by end of 1995*
	⇒	*Proportion of hospitals and maternity facilities that have been officially designated as "baby-friendly" in accordance with global criteria*

Breastfeeding programme in the FR Yugoslavia

The FR Yugoslavia ratified the Innocenti Declaration in 1994, thus confirming its willingness to work towards achieving the goals of the World Summit for Children. The FRY Government has not yet endorsed the International Code on Breastmilk Substitutes. In 1995, under an agreement reached with the FRY Government, UNICEF launched a breastfeeding support programme and an initiative for transforming maternity facilities into baby friendly hospitals (BFHI). In the 1995-1996 period, over 1,500 doctors, nurses, delivery nurses and teachers were trained in promoting breastfeeding and BFHI at seminars held throughout the country by UNICEF and the Federal Institute for Public Health. A third of all maternity hospitals and wards (26 out of a total of 82), adapted their facilities for rooming-in. Seven maternities were declared "baby-friendly".

Health statistics in our country do not include data on breastfeeding. The data which medical professionals have relied upon in their analyses to date are based on individual studies conducted in several hospitals and community health centres, which do not present the true breastfeeding situation in the whole of the FRY. The last such study was conducted in four community health centres in the Republic of Serbia in 1994. The study showed that about 80 percent of mothers are discharged from maternities with established lactation; the breastfeeding rate is 77 percent in the first month, 46 percent in the third month, 30 percent in the fourth month and a mere 20 percent in the six month. Exclusive breastfeeding was not covered by the survey.

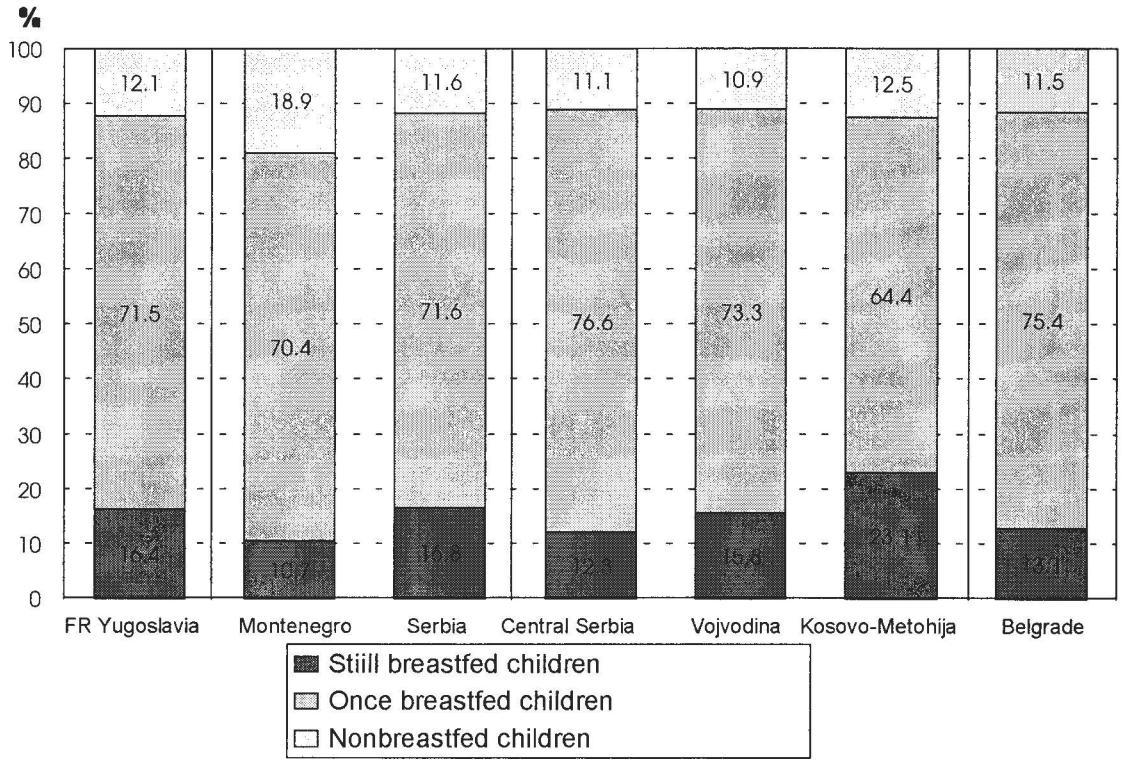
The module goals

The absence of similar studies in the past and of breastfeeding data in routine statistics make this module extremely important. For the first time we will have information on breastfeeding in the FR Yugoslavia. This information will enable us to better plan our activities and will serve as a basis for evaluating and monitoring the success of the implementation of the Breastfeeding Programme in the FR Yugoslavia. The goal of this module was to determine the following:

- the proportion of children (at a given age) who are exclusively breastfed;
- the proportion of children who are predominantly breastfed;
- the proportion of children who continue to breastfeed in the first or second year of life;
- if complementary food is given at the appropriate age;
- to what extent feeding bottles are used to feed infants;
- the average duration of breastfeeding;
- the proportions of children who have ever been breastfed;
- the time of the first breastfeed and the frequency of breastfeeds.

On the basis of the results of this survey, we estimate (Graph 4.1 and Table 4.1 in the Appendix) that of all the children under five years of age in the FR Yugoslavia 669,918 children were breastfed, while 92,304 were not breastfed at all (87.9 percent and 12.1 percent respectively) at the end of 1996.

Graph 4.1. Breastfeeding in children under five years of age



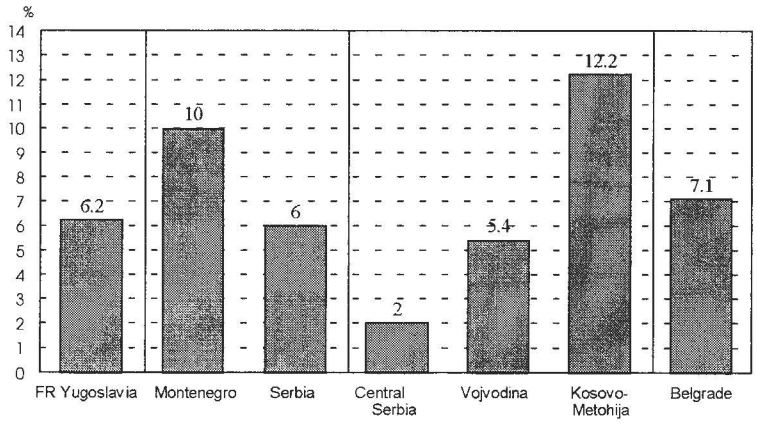
Regional and urban-rural differences are not significant. The only exception is Montenegro, which has the largest proportion of children (18.9 percent) who have never been breastfed.

Indicators for evaluating breastfeeding

Exclusive breastfeeding rate

6.2 percent of children under the age of 4 months in the FRY (< 120 days) are exclusively breastfed (Graph 4.2.).

Graph 4.2. Children under the age of four months who are exclusively breastfed



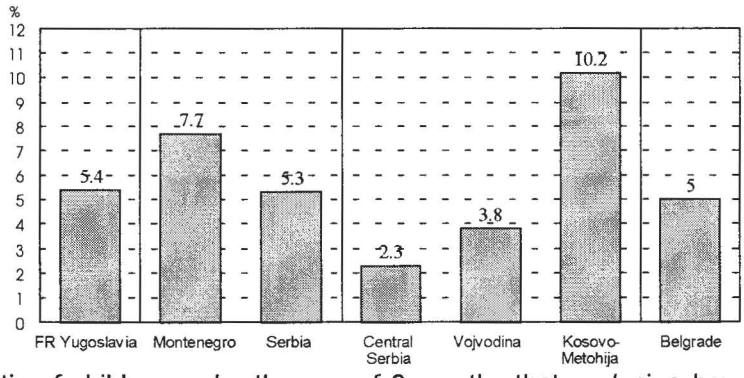
Exclusive breastfeeding is three times as frequent in rural settlements (9 percent) as in towns and cities (3.2 percent) - Table 4.2. At the regional level, Kosovo-Metohija has the highest proportion (12.2 percent and as high as 15.4 percent in rural settlements) of breastfed children, and central Serbia the lowest.

Table 4.2. Exclusive breastfeeding rate for children under the age of 4 months, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**6.2**	**3.2**	**9.0**
Montenegro	**10.0**	**12.5**	**7.1**
Serbia	**6.0**	**2.8**	**9.1**
Central Serbia	2.0	3.8	-
Vojvodina	5.4	-	15.4
Kosovo-Metohija	12.2	4.5	15.4
Belgrade area	7.1	10.0	-

An analysis of this indicator in children under the age of 6 months reveals a drop in exclusive breastfeeding to 5.4 percent for the territory of the FR Yugoslavia (Graph 4.3). This percentage is still highest in Kosovo-Metohija (10.2 percent) and lowest in central Serbia (2.3 percent). The lower percentage of children under the age of six months who are exclusively breastfed compared with the above rate for children under the age of four months is due to the fact that most children in the FRY are weaned at the age of about 6 months.

Graph 4.3. Children under the age of 6 months who are exclusively breastfed



It is also characteristic of children under the age of 6 months that exclusive breastfeeding is twice as common in rural settlements as in urban settlements: the largest proportion of exclusively breastfed children of this age is in Kosovo-Metohija (12.5 percent), while in urban settlements the share is highest in Montenegro (10.0 percent) - Table 4.3.

Table 4.3. Exclusive breastfeeding rate for children under the age of 6 months, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**5.4**	**3.3**	**7.4**
Montenegro	**7.7**	**10.0**	**4.5**
Serbia	**5.3**	**2.8**	**7.5**
Central Serbia	2.3	4.3	-
Vojvodina	3.8	-	10.5
Kosovo-Metohija	10.2	3.2	12.6
Belgrade area	5.0	7.1	-

Table 4.4. shows relative distributions of exclusive breastfeeding by months at the time of the survey. Given the delicacy of the observed contingents (in terms of coverage), the distribution by regions is shown only by way of illustration.

Table 4.4. Exclusively breastfed children (in %)

Age of child	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
1 month	20.8	-	21.2	12.1	20.0	36.4	50.0
2 months	7.1	37.5	5.6	-	16.7	8.7	-
3 months	2.8	-	3.0	-	-	9.1	-
4 months	1.4	-	1.5	-	-	5.6	-
5 months	4.4	11.1	3.9	-	-	9.1	-
6 months	3.5	-	3.8	4.6	-	4.5	-

Predominant breastfeeding rate

The rate of predominant breastfeeding for children under four months of age (<120 days) at the level of the FRY is 70 percent (Table 4.5.).

Table 4.5. Predominant breastfeeding rate for children under 4 months of age, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**70.0**	**72.6**	**67.6**
Montenegro	**60.0**	**56.3**	**64.3**
Serbia	**70.5**	**73.4**	**67.7**
Central Serbia	72.6	72.0	73.3
Vojvodina	70.3	79.2	53.8
Kosovo-Metohija	67.6	68.2	67.3
Belgrade area	71.4	60.0	100.0

This indicator, according to which over two-thirds of children under the age of four months are predominantly breastfed (breastfeeding combined with giving other liquids - vitamin supplements, plain or sweetened water, tea, fruit juice, ORS, etc.) - suggests that this type of breastfeeding may be regarded as characteristic of the FR Yugoslavia without exception. It is interesting to note that the rate of predominant breastfeeding is high in urban settlements. The fact that all children in the rural parts of the Belgrade area are predominantly breastfed should be taken with reservation because of the inadequate sample of breastfed children in this area.

Timely complementary feeding rate

Timely complementary feeding rate for children aged 6-9 months ((180-299 days) is 35.2 percent at the level of the FRY (Table 4.6.)

Table 4.6. Timely complementary feeding rate in children aged 6-9 months, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**35.2**	**39.2**	**31.6**
Montenegro	**23.3**	**21.7**	**25.0**
Serbia	**36.2**	**40.8**	**32.1**
Central Serbia	30.8	29.5	32.0
Vojvodina	52.2	60.0	37.5
Kosovo-Metohija	37.0	50.0	30.6
Belgrade area	36.4	33.3	50.0

The proportion of children aged 6-9 months receiving complementary food is somewhat higher in urban than in rural settlements, but it is very low in either case. Most children receive timely complementary feeding in Vojvodina (52.2 percent), while the number of such children is smallest in Montenegro (23.3 percent).

Continued breastfeeding rate (in the first year)

In the FRY, breastfeeding continues in 27.6 percent of children aged 12-15 months (Table 4.7.).

Table 4.7. Continued breastfeeding rate in children aged 12-15 months, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**27.6**	**21.0**	**32.9**
Montenegro	**8.9**	**4.0**	**15.0**
Serbia	**28.9**	**22.4**	**33.8**
Central Serbia	18.1	13.1	22.3
Vojvodina	11.1	17.6	-
Kosovo-Metohija	50.0	43.3	53.1
Belgrade area	16.7	20.0	-

More children continue to breastfeed in the first year of life in rural areas. The breastfeeding rate is significant only in Kosovo-Metohija.

Continued breastfeeding rate (in the second year)

In the FRY, breastfeeding continues in 13.4 percent of children aged 20-23 months (Table 4.8.).

Table 4.8. Continued breastfeeding rate in children aged 20-23 months, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**13.4**	**12.6**	**13.8**
Montenegro	**4.7**	**5.3**	**4.2**
Serbia	**14.2**	**13.5**	**14.6**
Central Serbia	6.9	9.6	5.1
Vojvodina	9.1	20.0	-
Kosovo-Metohija	26.2	20.0	28.0
Belgrade area	7.7	10.0	-

Again, only Kosovo-Metohija stands out, with slightly over a quarter of children who are breastfed in the second year of life, through the 23rd month.

Bottle feeding rate

The bottle feeding rate of children under one year of age in the FRY is 69.7 percent (Table 4.9.)

Table 4.9. Proportion of bottle-fed children under one year of age, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**69.7**	**78.2**	**62.5**
Montenegro	**65.5**	**78.7**	**57.7**
Serbia	**70.0**	**86.9**	**62.8**
Central Serbia	83.5	71.6	80.1
Vojvodina	87.1	89.7	82.9
Kosovo-Metohija	38.9	41.4	38.0
Belgrade area	87.2	92.6	75.0

The prevalence of bottle-feeding in urban settlements (78.2 percent of children) compared with rural settlements (57.7 percent), and the lowest share of bottle-fed infants in Kosovo-Metohija (38.9 percent) and the highest share in Vojvodina (87.1 percent) are inversely proportional to the rates of exclusively breastfed children and the average duration of breastfeeding in general. These figures are indicative of the harmful effects of bottle-feeding on breastfeeding.

Additional indicators

Ever breastfed rate

The rate of children under one year of age who have ever been breastfed indicates that 90.8 percent of infants at the level of the FRY are breastfed (Table 4.10.).

Table 4.10. Children under one year of age who have ever been breastfed, by type of settlement (%)

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**90.8**	**90.4**	**91.1**
Montenegro	**84.0**	**77.6**	**92.3**
Serbia	**92.2**	**91.5**	**91.0**
Central Serbia	93.1	89.8	96.3
Vojvodina	93.5	98.3	85.7
Kosovo-Metohija	87.0	86.2	87.3
Belgrade area	89.7	85.2	100.0

There are no significant regional or urban-rural differences between the rates for children who have ever been breastfed in the FR Yugoslavia.

Timely first suckling rate

The time when the mother begins to breastfeed is one of the indicators of the implementation of BFHI in maternity facilities.

The proportion of children under five years of age in the FR Yugoslavia who were first breastfed within two hours of birth is 12.5 percent (Table 4.11. in the Appendix).

The proportion of children who were first breastfed within two hours of birth corresponds to the proportion of maternities transformed into baby-friendly hospitals. Over half of all children received their first breastfeed within 24 hours of birth, and close to a third after 24 hours.

These figures suggest that still relatively few babies are breastfed for the first time immediately after birth.

The average duration of breastfeeding

The median (the age in months when 50 percent of children stopped breastfeeding) is 6 months at the level of the FRY (Graph 4.4. and Table 4.12.).

Graph 4.4. The average and median duration of breastfeeding in months

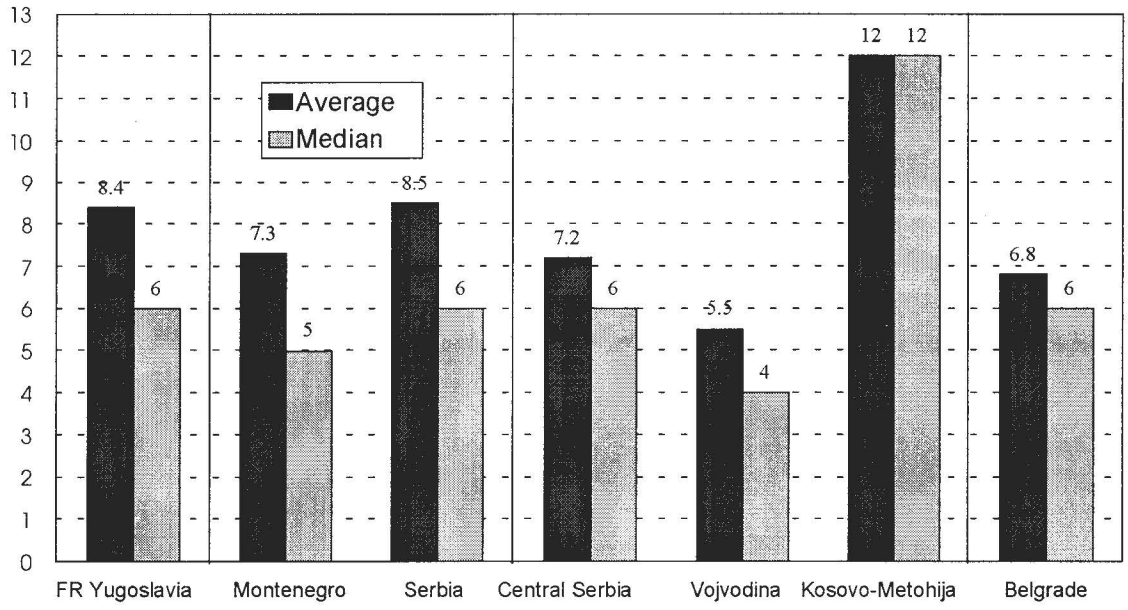


Table 4.12. The duration of breastfeeding in months (average and median), by type of settlement

Territory	Total		In urban settlements		In other settlements	
	average	median	average	median	average	median
FR Yugoslavia	**8.4**	**6**	**7.3**	**5**	**9.3**	**7**
Montenegro	**7.3**	**5**	**6.2**	**4**	**8.4**	**6**
Serbia	**8.5**	**6**	**7.3**	**5**	**9.4**	**7**
Central Serbia	7.2	6	6.8	5	7.6	6
Vojvodina	5.5	4	5.2	4	5.8	4
Kosovo-Metohija	12.0	12	10.8	9	12.4	12
Belgrade area	6.8	6	6.8	6	7.0	4

The graph and the table also show the average duration of breastfeeding in months in the total sample of children.

The average duration of breastfeeding ranges from 5.5 months in Vojvodina to 12 months in Kosovo-Metohija, while the median (the age in months when 50 percent of children stopped breastfeeding) ranges from 4 to 12 months and refers to the same areas. The fact that the average is higher than the median suggests that the distribution of children by months is asymmetric, leaning leftwards, which means that these distributions by size of frequency are concentrated below the average size (8.4 months at the level of the FRY) for 2.4 months, because 50 percent of children stopped breastfeeding at the age of 6 months (median). Only in Kosovo-Metohija is there a symmetric distribution of breastfed children by months, with the average corresponding to the median - 12 months in both cases. Also, there is not a single area with asymmetric rightward distribution where the median is higher than the average.

Regardless of the area, children are, on the average, breastfed longer in rural areas.

If we look at the duration of breastfeeding in months in children under five years of age over the period when they were breastfed, we will notice that nearly half of all children at the level of the FRY (Table 4.13) were breastfed through the sixth month of life (with approximately equal shares of children breastfed until the third month, i.e. three to five months). The shares of children breastfed after the sixth month, up to the age of eight months, and after the 12th and up to the 17th month, are almost the same (14.6 percent and 14.1 percent respectively). The share of children breastfed after the ninth month and up to the 11th month is the smallest. The share of children who continued to breastfeed after the age of 18 months (17.0 percent) is the largest after that of children breastfed up to the third or sixth month of life. This uneven distribution of children by duration of breastfeeding in months has already been illustrated by the average duration of breastfeeding in months and the median.

Table 4.13. Children under five years of age who are no longer breastfed, by duration of breastfeeding in months (%)

Duration of breastfeeding	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
less than 3 months	22.0	25.8	21.7	24.4	37.1	10.2	21.7
3 - 5	23.8	26.3	23.6	25.4	26.6	19.4	26.8
6 - 8	14.6	17.0	14.4	16.4	15.6	10.9	18.8
9 - 11	8.4	6.1	8.6	10.5	8.6	5.7	14.5
12 - 17	14.1	12.0	14.3	12.6	7.4	20.2	10.9
18 and more	17.0	12.8	17.3	10.7	4.7	33.5	7.2

It is interesting to note that only a third of all children in Vojvodina are breastfed past the age of six months, while over half the children in Kosovo-Metohija are breastfed well into the second year of life.

Other indicators

Frequency of breastfeeding

Breastfeeding on demand is more prevalent (59.6 percent of children) than the scheduled breastfeeding (38.4 percent of children) - Table 4.11 in the Appendix. The high percentage of children breastfed according to a daily schedule (at home) is the result of an outdated policy that is still being recommended to mothers in some health care centres.

Conclusion

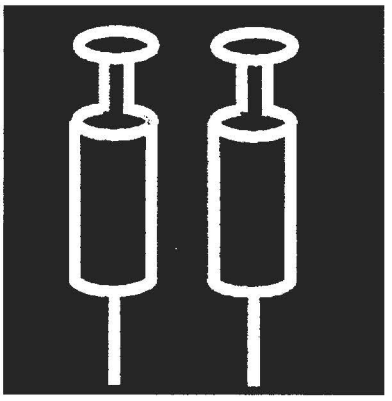
The breastfeeding situation in the FR Yugoslavia is as follows:

- the exclusively breastfed rate of children under four months of age is 6.2 percent;
- 70 percent of children under four months of age are predominantly breastfed;
- the timely complementary feeding rate (at the age of 6-9 months) is 35.2 percent;
- the continued breastfeeding rate in the first year of life is 27.6 percent;
- the continued breastfeeding rate in the second year of life is 13.4 percent;
- the bottle feeding rate is 69.7 percent;
- the median duration of breastfeeding (the age in months when 50 percent of children stopped breastfeeding) is six months;
- the ever breastfed rate is 90.8 percent;
- 12.5 percent of children are given their first breastfeed within two hours of birth;
- 59.6 percent of mothers breastfeed their children on demand.

The survey suggests that the conventional view that all mothers breastfeed their children is not correct. The values of the breastfeeding indicators obtained in the FR Yugoslavia are several times lower than those in the developed world. Exclusive breastfeeding and breastfeeding in the second year of life, as the main elements of the Breastfeeding Support Programme, are at low levels, and their rates almost coincide with the proportion of baby-friendly hospitals in the FR Yugoslavia - 31.7 percent of all maternity facilities were nominated for baby-friendly status; of that number, 8.5 percent of hospitals were declared "baby-friendly" according to the global criteria.

The results of the survey indicate that the Breastfeeding Support Programme must be one of the priorities in UNICEF's future activities in the FR Yugoslavia. The strategy for implementing this Programme ought to be based on a further transformation of hospitals and maternity facilities into baby-friendly hospitals. One of the key reasons for the unsatisfactory breastfeeding situation is the failure of medical professionals to adopt the policy recommended by UNICEF and WHO. That is why it is necessary to continue to train doctors, gynaecologists, paediatricians, nurses and midwives. At the same time, the training of mothers should begin, while the promotion of breastfeeding in the media should intensify. It is extremely important to stress the advantages of exclusive breastfeeding, the optimum duration of breastfeeding, the timely introduction of supplementary feeds and the harmfulness of bottle-feeding. It is also necessary to insist that the first breastfeed be given within two hours of birth and that the child is breastfed on demand. It is necessary to implement the Breastfeeding Support Programme in the whole of the FRY, according to the priorities indicated by the results of this survey.

MODULE 5 - IMMUNISATION



Immunisation is the fastest, most efficient and most cost-effective way of preventing disease and death due to severe infectious diseases. About five million children die world-wide every year as a result of the absence of appropriate immunisation programmes: 2.7 million die of measles, 1.2 million of neonatal tetanus, one million of pertussis and 0.1 million of diphtheria. Also, about 0.8 million children become crippled for life by polio every year.

Year 2000 Goal	⇒ *Maintenance of a high level of immunisation coverage (at least 90 percent of children under one year of age by the year 2000) against diphtheria, pertussis, tetanus, measles, polio, TB, and against tetanus for women of child-bearing age*
	⇒ *Elimination of neonatal tetanus by 1995*
	⇒ *Reduction by 95 percent in measles deaths and reduction by 90 percent of measles cases compared with pre-immunisation levels by 1995, as a major step to the global eradication of measles in the longer run*
	⇒ *Global eradication of polio by the year 2000*
Indicator	⇒ *Proportion of children immunised against diphtheria, pertussis and tetanus (DPT3) before their first birthday*
	⇒ *Proportion of children immunised against measles before their first birthday*
	⇒ *Proportion of children immunised against polio (OPV3) before their first birthday*
	⇒ *Proportion of children immunised against TB before their first birthday*
	⇒ *Proportion of pregnant women immunised against tetanus*
	⇒ *Proportion of children protected against neonatal tetanus through immunisation of their mother*
	⇒ *Annual number of cases of neonatal tetanus*
	⇒ *Annual number of under-five deaths due to measles*
	⇒ *Annual number of cases of measles*
	⇒ *Annual number of cases of polio*

1995 Mid-Decade Goal	⇒ *Elevation of immunisation coverage of six antigens from the Expanded Programme on Immunisation to 80 percent or more in all countries*
	⇒ *Elimination of neonatal tetanus by 1995.*
	⇒ *Reduction by 95 percent in measles deaths and reduction by 90 percent of measles cases compared with pre-immunisation levels by 1995, as a major step to the global eradication of measles in the longer run*
	⇒ *Elimination of polio in selected countries and regions*
Indicator	⇒ *All indicators are the same as for the year 2000*
	⇒ *Annual number of cases of neonatal tetanus*
	⇒ *Proportion of districts reporting cases of neonatal tetanus*
	⇒ *Annual number of under-five deaths due to measles*
	⇒ *Annual number of cases of measles*
	⇒ *Annual number of cases of polio*
	⇒ *Proportion of districts reporting polio cases*

The Expanded Programme on Immunisation in the FR Yugoslavia

The Immunisation Programme in the FR Yugoslavia includes:

- compulsory immunisation of the population against *TB, polio, diphtheria, tetanus, pertussis, measles and rubella;*
- compulsory immunisation of selected persons by epidemiological indications *against Hepatitis B, typhoid and rabies, tetanus and other infectious diseases;*
- compulsory immunisation of passengers in international traffic against *yellow fever, cholera, diphtheria and other infectious diseases*

UNICEF started the Expanded Programme on Immunisation (EPI) in the FR Yugoslavia in 1992. At the time of UNICEF's emergency programmes in the FRY, the Programme consisted of providing and distributing vaccines, vaccination supplies and cold-chain equipment. In 1994, under an agreement with the FRY Government, UNICEF changed its strategy and gave priority to rationalising the immunisation calendar, introducing personal vaccination cards and strengthening vaccination services (provision of computers, vehicles and vaccination supplies, maintenance of the cold chain throughout the country). In April 1996, the Government of the FR Yugoslavia decided that the FRY should join the Programme for the Global Eradication of Polio by the Year 2000. As part of that programme, subnational immunisation days against polio were held in high-risk zones (the region of Kosovo-Metohija and 14 municipalities in central Serbia) in September and October 1996. During this campaign, 90 percent of children under five years of age were vaccinated against polio. The campaign now continues in Kosovo-Metohija and in five municipalities in Montenegro.

- According to routine statistics, the vaccination coverage in 1996 was 96.61 percent for BCG, 91.19 percent for DTP3, 93.74 percent for OPV3 and 91.75 percent for measles.

The following cases were reported:

- In 1996: 24 patients with polio (all from five municipalities in Kosovo-Metohija);
- In 1995: 108 children under five years of age with measles; no deaths;
- In 1995: 6 cases of neonatal tetanus were registered (3 in central Serbia and 3 in Kosovo-Metohija). The death rate was 100.

The goals of the module

The main goal of the module was to determine the coverage of children by BCG, DTP3, OPV3 and measles vaccinations.

Of the estimated number of children under five years of age in the FR Yugoslavia (Tables 5.1.,5.1a and 5.1b in the Appendix), 732,328 (96.1 percent) had received the BCG vaccine at the time of the survey; 591,000 (77.6 percent) had received the DTP vaccine; 589,467 (77.4 percent) had received the OPV vaccine; and 521,498 (68.4 percent) had received the measles vaccine.

The sources of information were medical records (personal vaccination cards certified by the community health centre, vaccination certificates, etc.) and statements by mothers (carers). The availability of medical records, as the more reliable source of information, varied, depending on the type of vaccine and the area in which the survey was conducted. It was least available for BCG vaccinations (30.5 percent). The figure for measles vaccinations was 43 percent, and for DTP and polio 46 percent. This situation was due to the registration system in health care, in which health workers are not obliged to issue a individual card for each child with vaccination data. This information is kept in different places (community health centres, maternity facilities, etc.), depending on where the child was immunised. For instance, the lack of medical records on BCG vaccinations is the result of the practice to record information about a BCG vaccination in the hospital in which the child was born (when he/she is given this vaccine), which is why this vaccination is not recorded in the child's medical card. Individual cards for each child with immunisation information are made only in some areas - most in Montenegro and least in Kosovo-Metohija.

Immunisation against tuberculosis

Immunisation against tuberculosis is carried out by means of a BCG vaccine on the child's discharge from the maternity facility , i.e. as soon as possible after birth and by the first birthday at the latest.

97.1 percent of children aged 1-2 years in the FRY were given the BCG vaccine in the first year of life (Table 5.2.)

Table 5.2. BCG vaccination coverage of children aged 1-2 years, by type of settlement (%)

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**97.1**	**99.7**	**95.3**
Montenegro	**100.0**	**100.0**	**100.0**
Serbia	**96.9**	**99.6**	**95.0**
Central Serbia	99.1	100.0	98.3
Vojvodina	100.0	100.0	100.0
Kosovo-Metohija	92.6	98.2	90.9
Belgrade area	100.0	100.0	100.0

The BCG vaccination coverage is greater in urban (99.7 percent) than in rural areas (95.3 percent). In Montenegro, Vojvodina and the Belgrade area, all children in this age group are immunised against tuberculosis. Kosovo-Metohija is an exception, especially in rural settlements, where about one-tenth of all children have not received a BCG vaccine.

When the children were measured (as part of the module "Anthropometry"), the presence of a BCG scar was examined in all children under five years of age. A BCG scar was found in 77.2 percent of children in the FRY (Table 5.3.), while 19.7 percent did not have a scar. The imbalance between the number of vaccinated children in this age group and the BCG scar findings may be explained by the fact that the presence of a scar depends on a number of factors (the vaccine-giving technique, the characteristics of the person being vaccinated), so that it is a poor indicator of BCG vaccination in early childhood.

Table 5.3. Children under five years of age by presence of a BCG scar (in %)

	FR Yugoslavia	Montenegro	Serbia				
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	Belgrade area
Has a BCG scar	77.2	65.7	78.1	84.9	77.1	69.7	91.8
No scar	19.7	31.8	18.8	11.9	18.3	27.9	6.0
Not examined	3.1	2.5	3.1	3.2	4.6	2.4	2.2

Immunisation against diphtheria, tetanus and pertussis

Children are immunised against diphtheria, tetanus and pertussis at the age of two months, by the end of the first year of life, with three doses of the DTP vaccine.

88.0 percent of children aged 1-2 years in the FRY were vaccinated with three doses of the DTP vaccine in the first year of life (Table 5.4.)

Table 5.4. Coverage of children aged 1-2 years by DTP vaccination, by type of settlement (%)

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**88.0**	**91.1**	**85.8**
Montenegro	**90.1**	**87.7**	**92.8**
Serbia	**87.8**	**91.4**	**85.3**
Central Serbia	94.6	92.8	96.2
Vojvodina	94.6	94.3	95.2
Kosovo-Metohija	75.8	84.9	73.0
Belgrade area	88.2	89.7	80.0

The highest coverage of children in the first year of life by DTP vaccination was achieved in central Serbia and Vojvodina (94.6 percent), and the lowest in Kosovo-Metohija (75.8 percent). In Kosovo-Metohija the coverage was significantly higher in urban areas than in rural areas, while in other areas the coverage was somewhat higher in rural settlements.

Immunisation against polio

Immunisation against polio is carried out per os with a live three-type vaccine (OPV) at the age of two months by the end of the first year of life, in three doses.

86.6 percent of children in the FR Yugoslavia aged 1-2 years were vaccinated with three doses of the OPV vaccine in the first year of life (Table 5.5.)

Table 5.5. Coverage of children aged 1-2 years by OPV vaccination, by type of settlement

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**86.6**	**89.6**	**84.5**
Montenegro	**89.4**	**86.3**	**92.8**
Serbia	**86.3**	**89.9**	**83.9**
Central Serbia	92.8	91.8	93.7
Vojvodina	92.9	91.4	95.2
Kosovo-Metohija	75.0	83.3	72.4
Belgrade area	82.4	89.7	40.0

As the oral polio vaccine is given simultaneously with the DTP vaccine, what has been said for the DTP vaccination also goes for the polio vaccination. The only important difference is in the rural part of the Belgrade area. However, this should be taken with a grain of salt due to the delicacy of the child contingent in the region in terms of coverage. It is interesting to note that, although these two vaccines are give at the same time, the coverage of children by OPV vaccination is universally lower (from 0.7 percent to 5.8 percent) than the DTP vaccination coverage. The most likely reason for this lies in unjustifiable contraindications for OPV vaccination.

Immunisation against measles

Immunisation against measles is carried out by vaccinating children from the age of 12 months to the age of 18 months with a live combined attenuated vaccine against measles, mumps and rubella (MMR vaccine). This is the only vaccine not manufactured in the FR Yugoslavia, and because of the problems encountered in previous years, children were also vaccinated with a measles vaccine and a measles-mumps vaccine. It was the measles component of any of these vaccines that was interesting for this survey.

90.8 percent of children in the FRY aged 2-3 years were vaccinated with the measles vaccine in the second year of life (Table 5.6.)

Table 5.6. Coverage of children aged 2-3 years with a vaccine against measles, by type of settlement (%)

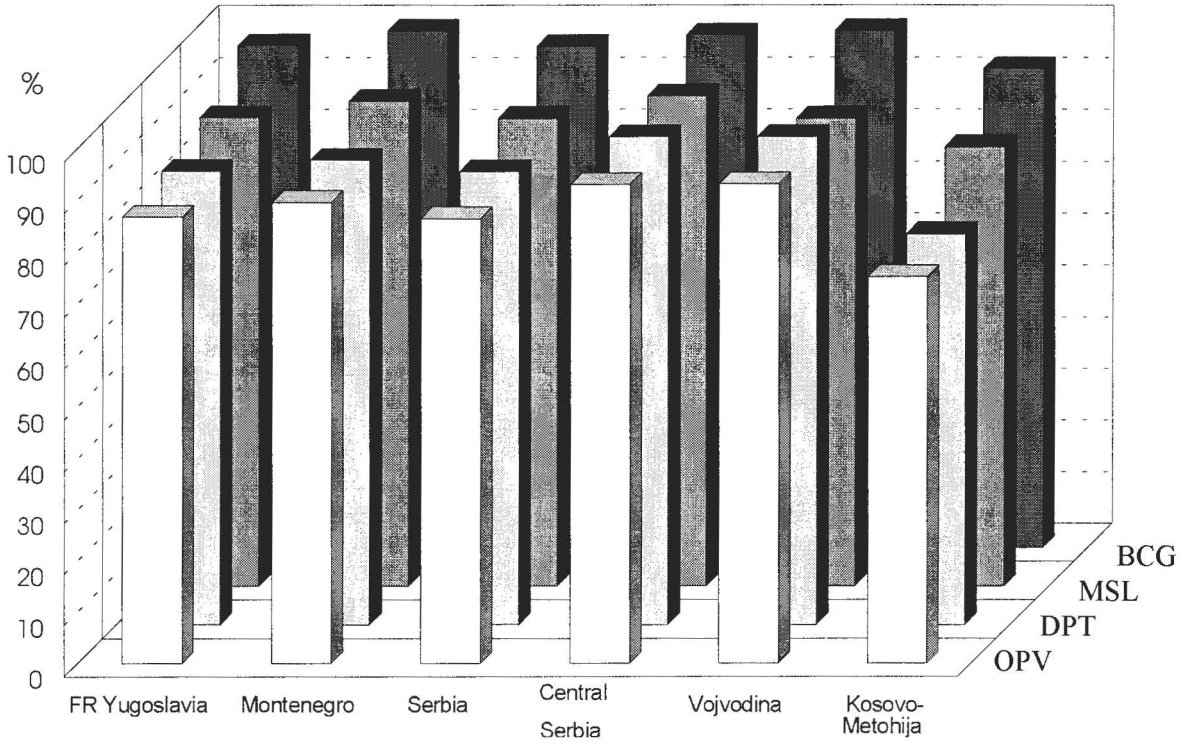
Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**90.8**	**91.2**	**90.5**
Montenegro	**93.9**	**93.9**	**93.9**
Serbia	**90.6**	**91.0**	**90.2**
Central Serbia	94.9	93.6	94.6
Vojvodina	90.6	91.4	89.7
Kosovo-Metohija	85.1	85.3	85.0
Belgrade area	85.3	84.0	88.9

The largest proportions of children immunised against measles are in central Serbia and Montenegro (94.6 percent and 93.9 percent respectively), and the smallest in Kosovo-Metohija (85.1 percent). Unlike the previous indicators, the differences between the two types of settlements are less pronounced.

The data obtained from the survey mostly correspond to routine statistical data.

The coverage by vaccination against six antigens from EPI on the basis of the results of the survey is shown in Graph 5.1

Graph 5.1 Compulsory immunisation

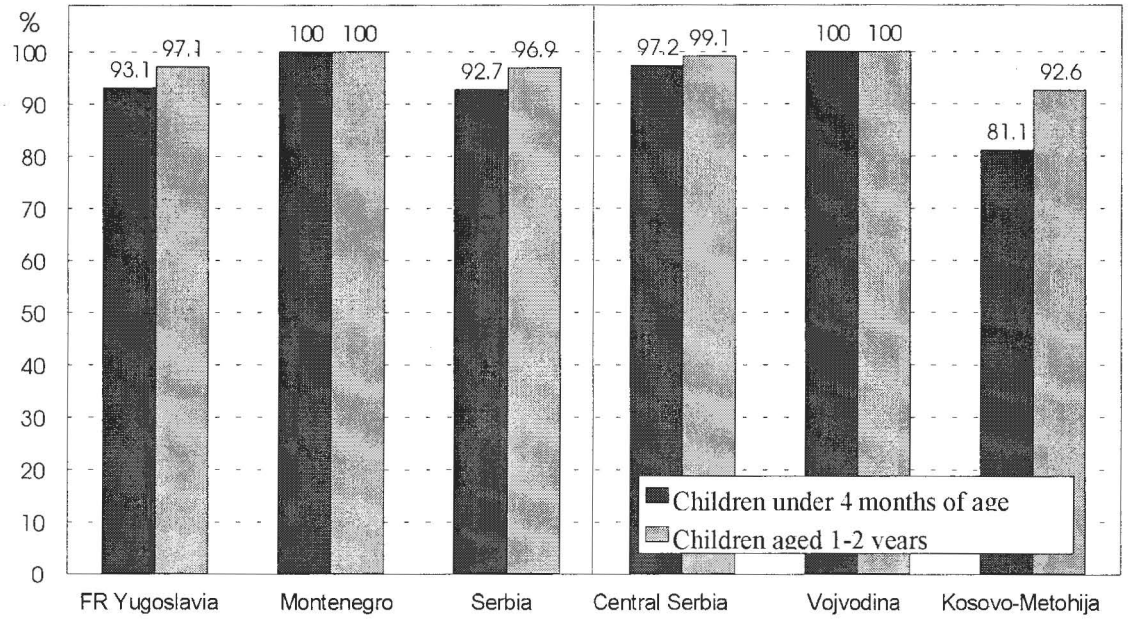


Vaccination dynamics - the implementation of the immunisation calendar

Interesting information was arrived at by analysing the ages at which children are given certain vaccines.

The analysis of the proportion of children immunised against TB in the period from birth to the age of three months (this period is defined by law), indicates (Graph 5.2.) that four percent of children in the FR Yugoslavia are not vaccinated in time. Delays in BCG vaccination are most frequent in Kosovo-Metohija, where 11.5 percent of children are vaccinated after the period determined by law.

Graph 5.2. Children who were given BCG vaccine

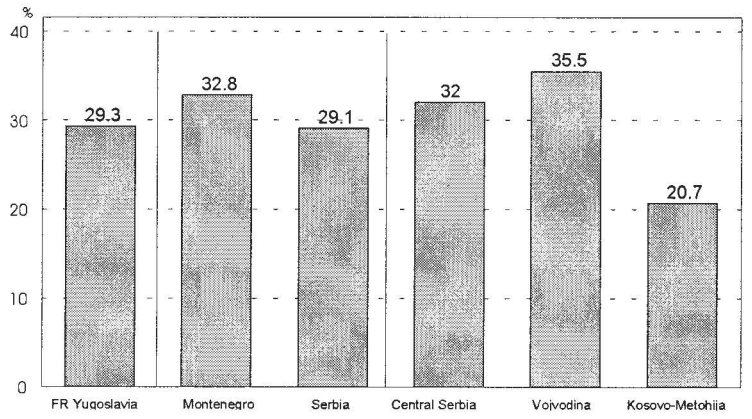


Only 29.3 percent of all children in the FRY are fully vaccinated (BCG, DTP3 and OPV3) by their first birthday.

Table 5.7. Proportion of children fully vaccinated (with BCG, DTP3 and OPV3) by their first birthday, by type of settlement (%)

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**29.3**	**30.6**	**28.3**
Montenegro	**32.8**	**29.9**	**36.5**
Serbia	**29.1**	**30.7**	**27.8**
Central Serbia	32.0	30.7	33.3
Vojvodina	35.5	32.8	40.0
Kosovo-Metohija	20.7	27.6	18.0
Belgrade area	30.8	29.6	33.3

Graph 5.3. Children fully immunised by their first birthday



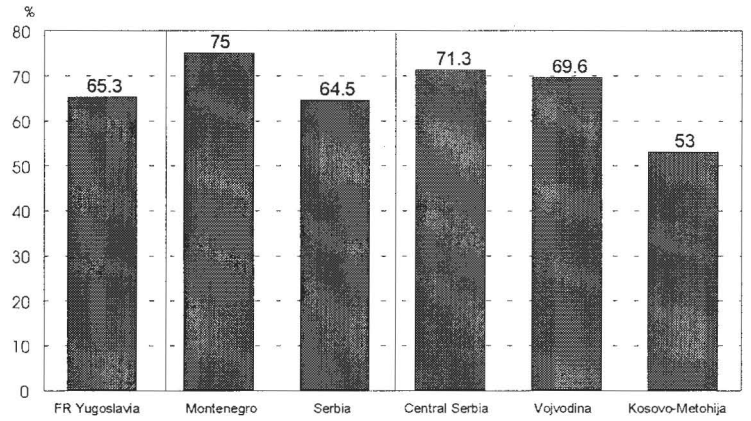
The proportion of fully vaccinated children in the first year of life is greatest in Vojvodina (35.5 percent) and smallest in Kosovo-Metohija, where only every fifth child has received all the vaccines required for this age.

The proportions of children fully vaccinated (with BCG, DTP, OPV and measles vaccines) in the second year of life are shown in Table 5.8.

Table 5.8. Proportion of children fully vaccinated (with BCG, DTP, OPV and measles vaccines) in the second year of life, by type of settlement (%)

Territory	Total	In urban settlements	In other settlements
FR Yugoslavia	**65.3**	**65.8**	**64.9**
Montenegro	**75.0**	**67.6**	**82.9**
Serbia	**64.5**	**65.6**	**63.7**
Central Serbia	71.3	71.4	71.2
Vojvodina	69.6	62.9	81.0
Kosovo-Metohija	53.0	51.8	53.4
Belgrade area	48.6	54.8	16.7

Graph 5.4 Children fully immunised by their second birthday



The proportion of children fully immunised in the second year of life is increasing, and it is 65.3 percent in the FR Yugoslavia. It is greatest in Montenegro (75 percent) and smallest in the Belgrade area (48.6 percent) and Kosovo-Metohija (53 percent).

Conclusion

⇒ Vaccinations in the FR Yugoslavia cover: 97.1 percent of children in the first year of life against TB; 88.0 percent of children in the first year of life against diphtheria, tetanus and pertussis; 86.6 percent of children in the first year of life against polio; 90.8 percent of children in the second year of life against measles..

⇒ The vaccination dynamics is such that 29.3 percent of children are fully vaccinated (with five antigens) in the first year of life, and 65.3 percent (with six antigens) in the second year of life.

On the basis of the results of the survey and routine statistical data, we may conclude that the FRY has achieved one of the mid-decade goals (80 percent coverage by vaccination against six antigens from EPI). The goal set for the year 2000 concerning the coverage of children by BCG and measles vaccination has also been achieved. The only exception is Kosovo-Metohija, where immunisation has not yet reached the desired level (75.8 percent of children immunised with DTP3 and 75 percent with OPV3).
The goal of eliminating neonatal tetanus has not been achieved, because six cases of neonatal tetanus were reported in Serbia in 1995. Designing a strategy for vaccinating pregnant women against tetanus in high-risk areas is one of priorities. Polio is still a health problem given the number of polio cases last year and the migration of people from Albania, where a major polio epidemic was reported in 1996.

The problems in vaccination services which need to be addressed in the period ahead include inappropriate planning (a large number of children are not vaccinated in time), the unevenness of vaccination coverage in the whole of the FR Yugoslavia, polio in Kosovo-Metohija and high measles morbidity.

The key activities recommended for achieving the year 2000 goals are:

- *Further strengthening of the immunisation service (creating a better immunisation records, providing computers, programmes for keeping records and monitoring immunisation coverage, staff training),*
- *Establishing a cold chain on the whole territory of the FRY;*
- *Continuing SNID and establishing active monitoring of acute flaccid paralysis until polio is eradicated. Using the success of the first round of SNID and the high level achieved in mobilising the community for expanding activities to other EPI antigens;*
- *As high coverage by vaccination against measles has been achieved, the strategy should now be expanded by vaccinating populations in the most vulnerable areas;*
- *Special emphasis in the Programme should be placed on Kosovo-Metohija, where it is also necessary to train health workers and educate the public.*

MODULE 6 - ANTHROPOMETRY

"Whoever may be the father of an illness, bad nutrition is its mother."
George Herbert, 16th century

Nutrition affects growth, development and health. Long-lasting hypoalimentation results in malnutrition, disorders of growth and development, anaemia, hypovitaminosis and avitaminosis, and infectious diseases. It is believed that about 56 percent of all deaths in children under five years of age in the developing world are related to malnutrition. On the other hand, hyperalimentation results in obesity and disorders such as diabetes, hypertension and deformities of the bones and joints.

Year 2000 Goal	⇒	*Reducing severe and moderate malnutrition among under-five children by half between 1990 and the year 2000*
Indicator	⇒	*Proportion of under-fives who fall below minus 2 standard deviations from median weight for the age of the NCHS/WHO reference population*
	⇒	*Proportion of under-fives who fall below minus 3 standard deviations from median weight for the age of the NCHS/WHO reference population*
	⇒	*Proportion of under-fives who fall below minus 2 standard deviations from median height for the age of the NCHS/WHO reference population*
	⇒	*Proportion of under-fives who fall below minus 3 standard deviations from median height for the age of the NCHS/WHO reference population*
	⇒	*Proportion of under-fives who fall below minus 2 standard deviations from median weight for height of the NCHS/WHO reference population*
	⇒	*Proportion of under-fives who fall below minus 3 standard deviations from median weight for height of the NCHS/WHO reference population*
1995 Mid-Decade Goal (MDG)	⇒	*Reducing 1990 levels of server and moderate malnutrition by one-fifth or more*
Indicator	⇒	*All indicators are the same as for the year 2000*

Nutrition programme in the FR Yugoslavia

The economic crisis in the FRY in recent years is reflected in, more than anything else, the deterioration of the quality of nutrition. Studies conducted in the past few years have shown that people meet their energy requirements mostly by increasing the intake of carbohydrates and saturated fats (bread, pasta, lard), while the intake of high-quality animal protein, vitamins and minerals is decreasing. This deterioration has hit especially hard the most vulnerable population groups (infants, pre-school children and pregnant and lactating women). In addition, the quality of the food has deteriorated - nearly every second food sample tested does not meet minimum microbiological and/or physico-chemical standards.

As part of its Nutrition Programme, UNICEF has launched a project entitled "Child Growth Monitoring". The basis of this project is defined in the Professional-Methodological Instructions for the Implementation of the Decree on the Health Care of Women, Pre-school and School Children and Students, which was prepared by the Institute for Maternal and Child Health Care of Serbia in co-operation with UNICEF. Essential equipment for the implementation of this project has been provided and distributed to 170 community health centres, development clinics and 80 maternity facilities and paediatric hospitals throughout the FR Yugoslavia. The evaluation of the nutritional status of children obtained as the result of this survey constitutes the first step in the implementation of that project.

The goals of the module

The basic goal of this module is to determine the nutritional status of children in the FR Yugoslavia. As no such surveys were conducted before, the results obtained will certainly make for the better planning of future activities. This survey is expected to encourage other surveys to serve as the basis for designing the child growth monitoring chart.

Of the estimated number of children under five years of age in the FR Yugoslavia, 95.7 percent were covered by this part of the survey. Children's weight and height were measured. The nutritional status of children under five years of age was analysed by means of three basic anthropometric indicators: weight for age, height for age and weight for height. The results were expressed as the number of standard deviations (SD) from the reference values for the given age represented as the Z-score and recommended by WHO (National Centre for Health Statistics, NCHS/CDC, Growth Reference). According to the recommendations, the extreme variations of the Z-score are limited to the range of -2 SD to -3 SD and below -3 SD; and +2SD to +3SD; and over +3 SD.

As this is the first survey of this kind in the FR Yugoslavia, we will present the indicators as well as explain their significance in greater detail.

Weight for age

This indicator shows deviations of children's weight (W) from the reference weight for the given age and sex. The indicator does not make it possible to differentiate two children of the same age and weight one of whom is tall and thin and the other shorter and has normal nutritional status. It is mostly used in clinical practice to monitor a child's nutritional status for a period of time. The following table shows the border values and appropriate terminology.

-1 to +1 SD = weight proportional to age			
-1 to -2	⇒ mildly underweight for age	+1 to +2	⇒ mildly overweight for age
-2 to -3	⇒ moderately underweight for age	+2 to +3	⇒ moderately overweight for age
-3 and over	⇒ **severely underweight for age**	**+3 and over**	⇒ **severely overweight for age**
⇒ underweight for age		⇒ overweight for age	

1.6 percent of all children in the FR Yugoslavia fall below -2 standard deviations, and 0.4 percent fall below -3 SD from the reference weight value for the given age recommended by NCHS/WHO.

9.9 percent of all children in the FR Yugoslavia are above +2 standard deviations, and 3.2 percent are above +3 SD from the reference weight value for the given age recommended by NCHS/WHO.

In accordance with the defined border values of the indicator observed, nearly two-thirds of all children

(61.6 percent) have good weight for their age (Z-score from -1 to +1 SD). The number of girls whose weight is within the standard values is somewhat higher, 63.7 percent, against 59.8 percent for boys. The largest number of children whose weight is proportional to their height has been registered in children aged 4-5 years (71.1 percent), and the smallest number in children under one year old (54.4 percent) - Table 6.2.

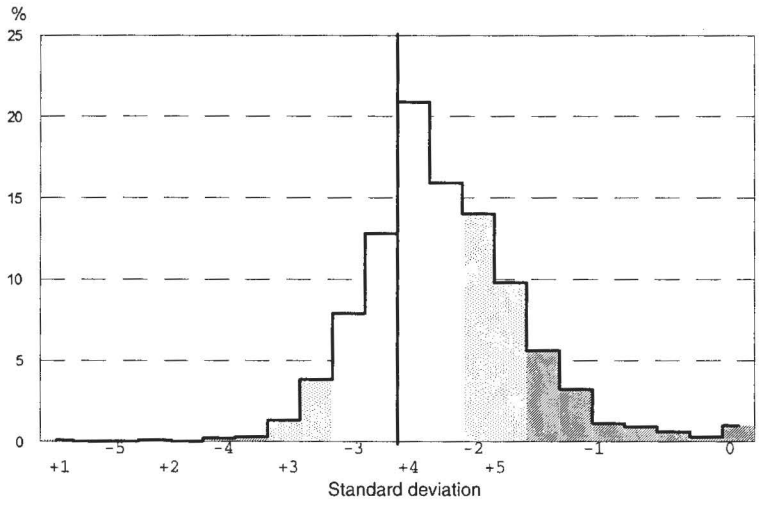
Table 6.2. Weight relative to age in the FR Yugoslavia by gender

Weight/age	Total	Sex		Age in years				
(Z-score)		male	female	under 1	1 to 2	2 to 3	3 to 4	4 to 5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
below -3 SD	0.4	0.5	0.3	0.7	0.2	1.1	-	0,1
-3 to -2 SD	1.2	1.3	1.1	0.9	2.6	1.1	1.3	-
2 to -1 SD	7.5	8.5	6.2	6.4	7.8	8.4	7.6	7.3
-1 to 0 SD	25.4	24.7	26.2	19.3	26.7	22.7	25.8	32.1
0 to +1 SD	36.2	35.1	37.5	35.1	29.3	33.6	43.1	39.0
+1 to +2 SD	19.4	20.2	18.5	24.1	18.9	20.1	18.1	16.1
+2 to +3 SD	6.7	6.7	6.8	9.3	10.2	8.5	1.9	4.1
above +3 SD	3.2	3.0	3.4	4.1	4.5	4.3	2.2	1.3

Half of all children (19.4 percent) are mildly overweight for their age (+1 to +2 SD), and one-tenth (9.9 percent) are moderately or extremely overweight (+2 to +3 and above +3 SD). On the other hand, only 7.5 percent of all children are underweight for their age (-1 to -2 SD), and 1.6 percent are underweight (-2 to -3 SD and below - 3 SD). The values obtained clearly show that there are many more children who are overweight for their age than those who are underweight. Graph 6.1. shows this best, with the curve shifting to the right (towards higher W value for age).

Increased weight for age is most pronounced in children aged 1-2 years. It is more common among girls (10.2 percent against 9.7 percent for boys). Lower weight for age is also somewhat more common in girls and is most pronounced in children aged 2-3 years.

Graph 6.1. Weight for age - Z- score



An analysis of the regional distribution of this indicator (Table 6.3) shows that the only exception from this situation is Kosovo-Metohija, where 2.5 percent of children are moderately underweight for their age (-2 to -3 SD) and 0.8 percent are extremely underweight (-3 SD and below -3 SD). These values are several times higher than those for other areas in the FRY.

Table 6.3. Weight for age, by regions

Weight/age (Z-score)	FR Yugoslavia	Montenegro	Serbia				
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	Belgrade area
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
below -3 SD	**0.4**	**0.2**	**0.4**	**0. 2**	**-**	**0.8**	**0.6**
-3 to -2 SD	1.2	0.5	0.2	0.5	0.3	2.5	0.6
-2 to -1 SD	7.5	4.1	7.7	5.2	3.7	12.6	4.0
-1 to 0 SD	25.4	19.3	25.9	20.8	20.5	34.4	19.5
0 to +1 SD	36.2	37.8	36.1	36.9	43.4	32.1	35.1
+1 to +2 SD	19.4	24.8	19.0	23.8	22.0	11.7	29.3
+2 to +3 SD	6.7	8.3	6.6	8.9	6.7	3.7	6.9
above +3 SD	**3.2**	**5.1**	**3.1**	**3.8**	**3.4**	**2.1**	**4.0**

Height for age

This indicator shows deviations in children' height from the reference height for the given age and sex. This indicator reveals stunting but does not make it possible to differentiate between two children who are of the same age and height but one of whom is thin and the other normally nourished. It indicates nutritional status over a longer period of time rather than the child's present nutritional status. It is important in that it indicates possible chronic malnutrition. The following table shows the border values and the appropriate terminology.

-1 to +1 SD = height proportional to age			
-1 to -2	⇒ mild stunting	+1 to +2	⇒ slightly taller for age
-2 to -3	⇒ moderate stunting	+2 to +3	⇒ moderately taller for age
-3 and over	**⇒ severe stunting**	**+3 and over**	**⇒ extremely tall for age**
⇒ stunting		⇒ greater height for age	

6.8 percent of children in the FR Yugoslavia fall below -2 standard deviations, and 2.4 percent below -3 SD from the reference height value for the given age recommended by NCHS/WHO.

8.0 percent of children in the FR Yugoslavia are above +2 standard deviations, a 2.4 percent of children are above +3 SD relative to the reference weight value for the given age recommended by NCHS/WHO.

Over half of all children in the FR Yugoslavia (58.1 percent of boys and 55.7 percent of girls) have height proportional to their age. Similarly to the previous indicator, the largest proportion of children (61.1 percent) who are within the standards are aged 4-5 years - Table 6.4.

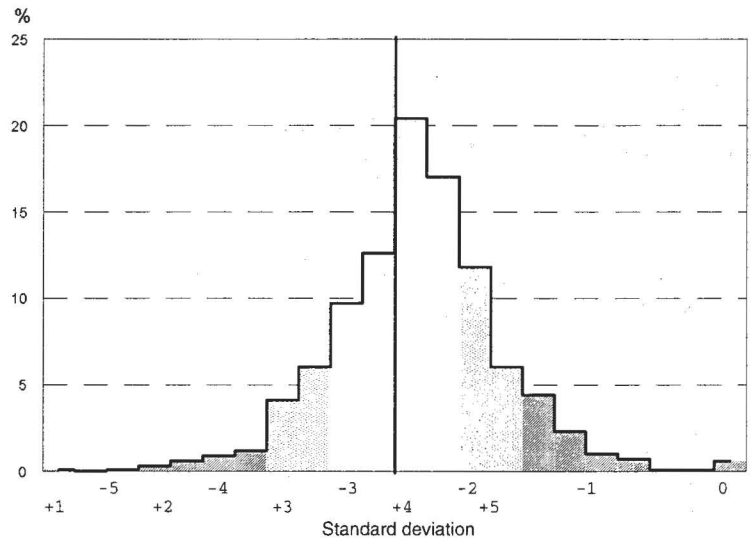
Table 6.4. Height for age in the FR Yugoslavia by gender

Height/age	Total	Sex		Age in years				
(Z-score)		male	female	under 1	1 to 2	2 to 3	3 to 4	4 to 5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
below -3 SD	**2.4**	**2.4**	**2.4**	**1.1**	**1.9**	**4.5**	**2.9**	**1.7**
-3 to -2 SD	4.4	4.4	4.4	1.6	5.0	6.6	4.2	4.7
-2 to -1 SD	13.5	13.3	13.7	7.8	15.2	19.6	11.4	13.7
-1 to 0 SD	24.8	24.8	24.9	20.4	23.6	25.7	25.3	29.0
0 to +1 SD	32.2	33.8	30.8	35.5	32.8	25.6	34.6	32.1
+1 to +2 SD	14.8	14.5	15.0	20.6	13.2	11.8	15.6	12.6
+2 to +3 SD	5.6	4.5	6.8	8.8	4.9	4.3	4.5	5.4
above +3 SD	**2.4**	**2.7**	**1.9**	**4.2**	**3.4**	**2.0**	**1.5**	**0.9**

In contrast to the previous indicator, negative standard deviations are more pronounced here. Moderate and severe stunting is present in 6.8 percent of children (without variations between girls and boys), with 13.5 percent of children being mildly stunted for their age. Stunting is most pronounced in children aged 2-3 years.

14.8 percent of children are slightly taller for their age (+1 to +2 SD), and 8.0 percent of all children are moderately or extremely taller (+2 to +3 SD and +3 SD and over). Above-average height is mostly found in children in the first year of life (13.2 percent).

Graph 6.2. Height for age (Z-score)



The regional distribution (Table 6.5.) again suggests significant differences between Kosovo-Metohija and other parts of the FRY. Stunting is found in 13.1 percent of children in Kosovo-Metohija. Most of the children who are very tall for their age are in the Belgrade area (14.4 percent) and in Montenegro (14.2 percent).

Table 6.5. Height for age, by regions

Height/age (Z-score)	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
below -3 SD	2.4	2.5	2.4	1.1	1.2	4.5	1.1
-3 to -2 SD	4.4	4.1	4.4	2.1	1.2	8.6	0.6
-2 to -1 SD	13.5	7.8	13.9	10.1	6.4	21.6	10.9
-1 to 0 SD	24.8	19.3	25.3	22.3	25.7	28.9	13.8
0 to +1 SD	32.2	29.3	32.4	37.4	38.8	23.5	39.1
+1 to +2 SD	14.8	22.8	14.2	17.8	17.4	8.3	20.1
+2 to +3 SD	5.6	8.3	5.4	6.7	6.7	3.1	9.8
above +3 SD	2.4	5.9	2.1	2.5	2.4	1.5	4.6

Weight for height

This indicator shows the relation between the child's weight and height compared with the reference values recommended by NCHS/WHO. It shows the child's current nutritional status but does not make it possible to differentiate between two children of the same weight and height one of them being older and probably stunted. This indicator is important in that it reveals severe wasting. The following table shows the border values and the appropriate terminology.

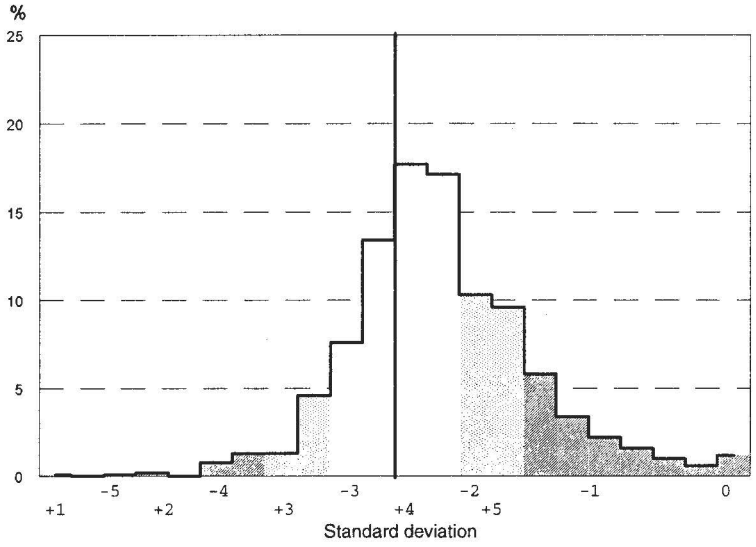
-1 to +1 SD = weight proportional to height			
-1 to -2	⇒ mild wasting	+1 to +2	⇒ mild obesity
-2 to -3	⇒ moderate wasting	+2 to +3	⇒ moderate
to -3 and over	⇒ severe wasting	+3 and over	⇒ severe obesity
	⇒ stunting		⇒ obesity

2.1 percent of children in the FR Yugoslavia falls below -2 standard variations, and 0.5 percent of children below -3 SD from the reference weight for height value for the given age recommended by NCHS/WHO.

12.9 percent of children in the FR Yugoslavia are above +2 standard deviations, and 5.0 percent of children are above +3 SD relative to the reference weight for height value for the given age recommended by NCHS/WHO.

Graph 6.3 shows the weight for height indicator in children under five years of age in the FR Yugoslavia.

Graph 6.3. Weight for height - Z-score



This graph clearly shows a shift of the W-H ratio to the right, i.e. more children are obese than undernourished.

Weight is proportional to height in 59.9 percent of children (in 60.7 percent of boys and 58.7 percent of girls). Most of the children within the standard reference values are aged 4-5 years (Table 6.6.).

Table 6.6. Weight for height in children in the FR Yugoslavia, by gender and age

Weight/height (Z-score)	Total	Sex		Age in years				
		male	female	under 1	1 to 2	2 to 3	3 to 4	4 to 5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
below -3 SD	**0.5**	**0.8**	**0.3**	**1.3**	**0.6**	**0.7**	**0.1**	**-**
-3 to -2 SD	1.6	1.5	1.7	2.6	2.1	1.9	1.0	0.6
-2 to -1 SD	5.8	5.6	5.9	9.3	6.5	3.8	5.0	4.2
-1 to 0 SD	22.4	24.1	20.3	27.2	22.9	16.6	19.3	25.6
0 to +1 SD	37.5	36.6	38.4	34.9	34.0	37.6	38.0	42.6
+1 to +2 SD	19.4	18.3	20.7	14.7	18.5	21.7	22.9	19.1
+2 to +3 SD	7.9	8.5	7.1	6.8	8.9	9.6	8.9	5.3
above +3 SD	**5.0**	**4.5**	**5.6**	**3.3**	**6.5**	**8.2**	**4.9**	**2.6**

Obesity (+2 to +3 SD, and +3 SD and over) is present in 12.9 percent of children. It is most common in children aged 2-3 years.

Wasting is present in only 2.1 percent of children (-2 to -3 SD and -3 SD and below). It is most common in the first year of life (3.9 percent).

Variations by gender are not significant.

While there are no significant regional differences with respect to wasting, obesity is most common in the Belgrade area (17.2 percent) and central Serbia (15.7 percent) - Table 6.8.

Table 6.8. Weight for height, by regions

Weight/height (Z-score)	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
below -3 SD	**0.5**	**0.9**	**0.5**	**0.4**	**0.3**	**0.7**	**0.6**
-3 to -2 SD	1.6	1.2	1.7	2.2	0.6	1.4	2.9
-2 to -1 SD	5.8	6.4	5.7	5.9	2.8	6.6	9.2
-1 to 0 SD	22.4	20.0	22.5	21.0	24.2	23.8	20.1
0 to +1 SD	37.5	34.2	37.7	34.8	45.0	38.6	33.3
+1 to +2 SD	19.4	21.1	19.2	20.0	16.8	19.3	16.7
+2 to +3 SD	7.9	8.7	7.8	9.2	6.1	6.6	9.2
above +3 SD	**5.0**	**7.5**	**4.8**	**6.5**	**4.3**	**2.9**	**8.0**

All three anthropometric indicators by regions are presented graphically in the Appendix.

Conclusion

- 1,6 percent of children under five years of age fall below -2 standard deviations from the reference weight for their age;
- 0.4 percent of children under five years of age fall below -3 standard deviations from the reference weight for their age;
- 6.8 percent of children under five years of age fall below -2 standard deviations from the reference height for their age;
- 2.4 percent of children under five years of age fall below -3 standard deviations from the reference height for their age;
- 2.1 percent of children under five years of age fall below -2 standard deviations from the reference height for weight.
- 0.5 percent of children under five years of age fall below -3 standard deviations from the reference height for weight.

A relatively high proportion of children (6.8 percent) are stunted, an indicator of chronic malnutrition. Positive deviations from the reference values are much more pronounced. Every tenth child is overweight for its age, and very eighth child is obese. The only exception is Kosovo-Metohija, where the proportion of low weight, stunting and wasting is higher. Nutrition programmes should also concentrate on childhood obesity.

These problems necessitate the mobilisation of the community and relevant Government agencies and NGOs towards designing long-term nutrition programmes for this population group. The results obtained are indicative of the need for more aggressive training of health workers and families and for stepping up preventive and health-education activities in order to improve child nutrition and nutrition in general.

As there are no reference values in the FR Yugoslavia for monitoring child growth and development, it is necessary to design a growth-monitoring chart.

MULTIPLE INDICATOR CLUSTER SURVEY

THE APPENDIX

THE SELECTED CLUSTER SAMPLE

Belgrade District

Code	Municipality	Settlem. code	Type	Settlement/local community	No. of persons	Cluster
70254	Beograd-Čukarica	706094	U	Mihajlovac	10,206	001
70254	Beograd-Čukarica	705179	O	Rušanj	4,672	002
70254	Beograd-Čukarica	738069	U	Vinogradi	12,642	003
70122	Beograd-Grocka	703796	O	Leštane	7,109	004
70165	Beograd-Lazarevac	704393	U	3. Oktobar	4,668	005
70173	Beograd-Mladenovac	704598	U	Selters	4,468	006
70173	Beograd-Mladenovac	704415	O	Koraćica	1,878	007
70181	Beograd-Novi Beograd	704717	U	Kadinjača	9,002	008
70181	Beograd-Novi Beograd	704741	U	Marko Orešković	5,130	009
70181	Beograd-Novi Beograd	704792	U	Radnih Brigada	4,281	010
70181	Beograd-Novi Beograd	704849	U	Užička Republika	11,062	011
70190	Beograd-Obrenovac	704695	O	Konatice	1,079	012
70190	Beograd-Obrenovac	738085	U	Rvati	6,828	013
70203	Beograd-Palilula	705314	U	Partizanski Put	7,215	014
70203	Beograd-Palilula	705381	U	Tašmajdan	4,716	015
70203	Beograd-Palilula	705209	U	Višnjica	2,457	016
70203	Beograd-Palilula	704911	O	Padinska Skela	10,371	017
70211	Beograd-Rakovica	705489	U	Labudovo Brdo	10,905	018
70211	Beograd-Rakovica	705420	U	Vidikovac	15,269	019
70238	Beograd-Sopot	705055	O	Ralja	2,580	020
70238	Beograd-Sopot	704989	O	Đurinci	1,255	021
70246	Beograd-Stari Grad	705942	U	Pero Popović-Aga	3,731	022
70106	Beograd-Voždovac	703133	U	Braće Jerković	13,225	023
70106	Beograd-Voždovac	703249	U	Kumodraž 1	3,861	024
70106	Beograd-Voždovac	703281	U	Radovan Simić-Ciga	11,082	025
70114	Beograd-Vračar	703443	U	Cvetni Trg	8,664	026
70114	Beograd-Vračar	703354	U	Kalenić	6,815	027
70157	Beograd-Zemun	703923	U	Nova Galenika	10,675	028
70157	Beograd-Zemun	703974	U	Sava Kovačević	13,191	029
70157	Beograd-Zemun	703982	U	Surčin	12,264	030
70149	Beograd-Zvezdara	703621	U	Bulbulder	3,503	031
70149	Beograd-Zvezdara	703630	U	Veliki Mokri Lug	7,284	032
70149	Beograd-Zvezdara	703788	U	16. Oktobar	8,817	033

Vojvodina

Code	Municipality	Settlem. Code	Type	Settlement/local community	No. of persons	Cluster
80071	Bačka Topola	800511	U	Bačka Topola	17,228	501
80071	Bačka Topola	800686	O	Stara Moravica	6,266	502
80438	Subotica	805513	U	Dudova šuma	4,791	503
80438	Subotica	805637	U	Novi Grad	3,011	504
80438	Subotica	805793	U	4. juli	6,165	505
80438	Subotica	804533	O	Đurđin	1,911	506
80144	Žitište	801437	O	Ravni Topolovac	1,445	507
80268	Novi Bečej	802859	U	Vranjevo	6,676	508
80268	Novi Bečej	802603	O	Kumane	4,068	509
80373	Sečanj	803839	O	Sutjeska	1,976	510
80152	Zrenjanin	801704	U	J. Veselinov Žarko	2,582	511
80152	Zrenjanin	801801	U	Nikola Tesla	2,052	512
80152	Zrenjanin	801666	O	Stajićevo	2,058	513
80489	Čoka	804878	O	Padej	3,190	514
80012	Ada	800015	U	Ada I	4,616	515
80209	Kikinda	802352	U	Lidija Aldan	8,296	516
80209	Kikinda	802204	O	Rusko Selo	3,510	517
80365	Senta	804479	U	5 Tisapart	5,185	518
80039	Alibunar	800074	U	Alibunar	3,738	519
80217	Kovačica	802263	O	Padina	6,076	520
80225	Kovin	802565	U	Kovin I	9,087	521
80225	Kovin	802409	O	Skorenovac	3,213	522
80314	Pančevo	803855	U	Centar	5,873	523
80314	Pančevo	803766	U	Nikola tesla	9,768	524
80314	Pančevo	803812	U	Starčevo	7,579	525
80314	Pančevo	803065	O	Banatsko Novo Selo	7,987	526
80349	Plandište	803448	O	Plandište	4,380	527
80128	Vršac	801054	U	Bratstvo jedinstvo	4,789	528
80128	Vršac	801054	O	Vlajkovac	1,328	529
80047	Apatin	800210	O	Svilojevo	1;278	530
80233	Kula	802735	U	Crvenka	10,409	531
80306	Odžaci	803618	U	Odžaci	10,567	532
80306	Odžaci	802972	O	Deronje	2,889	533
80381	Sombor	804738	U	Mlaka	6,729	534
80381	Sombor	804835	U	Stara selenča	5,085	535

80381	Sombor	803901	O	Doroslovo	1,864	536
80381	Sombor	803910	O	Kljajićevo	5,737	537
80136	Žabalj	801402	U	Žabalj	8,766	538
80055	Bač	800252	U	Bač	6,046	539
80063	Bačka Palanka	800449	O	Čelarevo	5,011	540
80080	Bački Petrovac	800678	U	Bački Petrovac	7,236	541
80080	Bački Petrovac	800724	O	Maglić	2,732	542
80101	Beočin	800872	U	Beočin grad	6,530	543
80110	Bečej	800996	O	Bačko Petrovo Selo	7,958	544
80284	Novi Sad	803090	U	Detelinara	6,474	545
80284	Novi Sad	803081	U	Dvadesetpeti maj	11,845	546
80284	Novi Sad	803073	U	Gavrilo Princip	10,133	547
80284	Novi Sad	803189	U	Klisa	4,549	548
80284	Novi Sad	803278	U	Omladinski pokret	9,513	549
80284	Novi Sad	803383	U	Sedmi juli	6,942	550
80284	Novi Sad	803456	U	Tvrđava	1,076	551
80284	Novi Sad	803049	U	Vera Pavlović	6,084	552
80284	Novi Sad	802859	O	Rumenka	4,361	553
80390	Srbobran	804053	O	Turija	2,615	554
80462	Vrbas	805963	U	Ivo Lola Ribar	2,883	555
80462	Vrbas	804797	O	Ravno Selo	3,579	556
80497	Šid	805076	O	Moravoć	2,105	557
80179	Inđija	802077	U	Inđija I	6,548	558
80179	Inđija	801739	O	Beška	6,166	559
80357	Ruma	804185	U	Breg	2,684	560
80357	Ruma	803561	O	Klenak	3,378	561
80403	Sremska Mitrovica	805211	U	22. avgust I	2,893	562
80403	Sremska Mitrovica	805238	U	29. Novembar III	4,024	563
80403	Sremska Mitrovica	804312	O	Šašinci	1,928	564
80403	Sremska Mitrovica	804274	O	Sremska Rača	777	565
80420	Stara Pazova	805408	U	Stara Pazova	17,110	566
80420	Stara Pazova	804371	O	Vojka	4,642	567

Central Serbia

Code	Municipality	Settlem. Code	Type	Settlement/local community	No. of persons	Cluster
71269	Šabac	737038	U	Žika Popović	5,922	101
71269	Šabac	736848	U	Bair	9,135	102
71269	Šabac	746185	O	Dobrić	1,265	103
70734	Loznica	725374	O	Donji Dobrić	1,563	104
70734	Loznica	725269	O	Voćnjak	1,181	105
70793	Mali Zvornik	727016	O	Radalj	2,574	106
70408	Vladimirci	709816	O	Vlasenica	524	107
70289	Bogatić	705691	O	Glišci	2,438	108
70831	Mionica	728128	O	Vrtiglav	455	109
71218	Ub	744751	O	Pambukovica	1,424	110
70360	Valjevo	708445	U	Andra Savčić	4,116	111
70360	Valjevo	708615	U	Dr. Miša Pantić	10,067	112
70360	Valjevo	708593	O	Žabari	487	113
71099	Smederevo	733342	U	Četvrti juli	3,392	114
71099	Smederevo	733067	U	Zlatno brdo	5,307	115
71099	Smederevo	740543	O	Udovice	1,960	116
71102	Smederevska Palanka	740667	O	Kusadak	6,089	117
71102	Smederevska Palanka	740683	O	Mramorac	745	118
70386	Velika Plana	709212	U	Prva	14,045	119
70386	Velika Plana	709379	O	Donja Livadica	2,582	120
70521	Žabari	714925	O	Porodin	3,454	121
70475	Golubac	712922	O	Golubac	1,995	122
70912	Petrovac	731714	O	Busur	1,704	123
70947	Požarevac	728519	U	Čačalica	2,661	124
70947	Požarevac	728438	U	Sopot	3,219	125
70394	Veliko Gradište	709735	O	Topolovnik	1,824	126
70599	Knić	717088	O	Pajsijević	657	127
70645	Kragujevac	716570	U	Aerodrom	9,060	128
70645	Kragujevac	716596	U	Bagremar	4,778	129
70645	Kragujevac	716634	U	Bubanj	7,422	130
70645	Kragujevac	716928	U	Erdeč	3,636	131
70645	Kragujevac	717347	U	Filip Kljajić	8,554	132
71153	Topola	742104	O	Kloka	1,366	133
71200	Ćuprija	735469	U	Ćuprija II	7,526	134
71200	Ćuprija	744433	O	Krušar	1,954	135
70491	Despotovac	712736	U	Resavica	2,895	136
71048	Jagodina	732176	U	Centar	7,786	137

71048	Jagodina	738077	O	Donji Račnik	848	138
70904	Paraćin	731447	O	Izvor	1,131	139
70904	Paraćin	731617	O	Striža	1,979	140
70327	Bor	706507	O	Metovnica	1,569	141
70572	Kladovo	714909	U	Kladovo	9,626	142
70840	Kladovo	716561	O	Grabovica	2,051	143
70840	Negotin	728772	O	Slatina	1,009	144
70319	Boljevac	706329	O	Lukovo	1,386	145
71129	Sokobanja	733849	U	Hristina Markišić	8,439	146
70556	Zaječar	714313	U	Karađorđev Venac	9,117	147
70556	Zaječar	715921	O	Halovo	1,141	148
70041	Arilje	701661	O	Vigošte	970	149
70866	Nova Varoš	725803	U	Nova Varoš	10,867	150
70971	Priboj	729248	U	Novi Priboj	16,808	151
70980	Prijepolje	729469	U	Kolovrat	7,067	152
70980	Prijepolje	729531	U	Prijepolje	13,741	153
70980	Prijepolje	734438	O	Brodarevo	2,182	154
70980	Prijepolje	735019	O	Osoje	630	155
71072	Sjenica	732915	U	Sjenica	14,769	156
71072	Sjenica	739545	O	Duga Poljana	685	157
71145	Užice	734357	U	Trg Partizana	9,468	158
71145	Užice	741744	O	Mokra Gora	816	159
71242	Čačak	736066	U	Alvadžinica	4,463	160
70483	Gornji Milanovac	712116	U	Gornji Milanovac	22,432	161
70483	Gornji Milanovac	713562	O	Majdan	597	162
70564	Ivanjica	715999	O	Brezova	624	163
70564	Ivanjica	716235	O	Koritnik	535	164
70742	Lučani	722219	U	Lučani	4,130	165
70653	Kraljevo	717568	U	Grdica	3,658	166
70653	Kraljevo	717606	U	Zelengora	17,982	167
70653	Kraljevo	717606	U	Zelengora	17,982	168
70653	Kraljevo	720054	O	Ravanica	823	169
70653	Kraljevo	746649	O	Žiča	3,740	170
70874	Novi Pazar	726095	U	Hadžet	14,888	171
70874	Novi Pazar	730777	O	Postenje	2,868	172
70874	Novi Pazar	730882	O	Sebečevo	1,096	173
71188	Tutin	743542	O	Draga	1,357	174
70459	Vrnjačka Banja	711217	U	Vrnjačka Banja	10,766	175
71196	Ćićevac	744298	O	Pojate	1,056	176
71196	Ćićevac	744301	O	Stalać	2,048	177
70670	Kruševac	718513	U	9. Mesna zajednica	4,463	178

70670	Kruševac	721344	O	Pakašnica	1,307	179
71170	Trstenik	734918	U	Trstenik	17,137	180
71170	Trstenik	742821	O	Dublje	539	181
70378	Varvarin	709131	O	Varvarin	2,306	182
70025	Aleksinac	700975	O	Donji Ljubeš	731	183
70025	Aleksinac	701165	O	Mozgovo	1,992	184
70513	Doljevac	714704	O	Malošište	3,025	185
70858	Niš	724742	U	Božidar Adžija	17,629	186
70858	Niš	724793	U	Braća Tasković	3,846	187
70858	Niš	725218	U	Ledena Stena	5,266	188
70858	Niš	725285	U	Mija Stanimirović	7,330	189
70858	Niš	725501	U	Ratko Pavlović	6,972	190
70858	Niš	729094	O	Donja Vrežina	2,696	191
70858	Niš	729582	O	Hum	1,497	192
70548	Žitorađa	715336	O	Žitorađa	3,503	193
70548	Žitorađa	715182	O	Badnjevac	891	194
70998	Prokuplje	730505	U	S. Mladenović-Mika	3,093	195
70084	Bela Palanka	703311	O	Moklište	704	196
70505	Dimitrovgrad	713015	U	Dimitrov-grad	7,276	197
70939	Pirot	727253	U	Berilovska Kapija	2,226	198
70297	Bojnik	705799	O	Bojnik	2,825	199
70718	Lebane	719803	U	Lebane	9,528	200
70726	Leskovac	721107	U	1. J.-moravska Brigada	3,615	201
70726	Leskovac	723746	O	Brza	1,308	202
70726	Leskovac	724254	O	Draškovac	822	203
70726	Leskovac	724661	O	Miroševce	1,126	204
70424	Vlasotince	710474	U	Vlasotince	14,552	205
70351	Bujanovac	708186	U	Bujanovac	9,042	206
70963	Preševo	733911	O	Slavujevac	515	207
71137	Surdulica	734080	U	Surdulica	12,211	208
71137	Surdulica	741086	O	Božica	511	209
71137	Surdulica	741329	O	Masurica	1,267	210
71137	Surdulica	741396	O	Suvojnica	1,004	211
71161	Trgovište	742546	O	Trgovište	1,787	212
70432	Vranje	711039	U	Mesna Zajednica II	6,512	213
70432	Vranje	711063	U	Mesna Zajednica V	7,186	214
70432	Vranje	711250	O	Bujkovac	718	215
70432	Vranje	712213	O	Tibužde	1,291	216

Kosovo-Metohija

Code	Municipality	Settlem. Code	Type	Settlement/local community	No. of persons	Cluster
90034	Glogovac	901147	O	Poluža	1,119	301
90034	Glogovac	901555	O	Stankovce	1,338	302
90034	Glogovac	900354	U	Glogovac I	40,514	303
90115	Kačanik	905259	O	Bičevac	1,505	304
90115	Kačanik	905674	O	Straža	308	305
90166	Lipljan	908088	O	Bandulić	1,625	306
90166	Lipljan	908304	O	Dobrotin	1,111	307
90247	Podujevo	910856	O	Alabak	926	308
90247	Podujevo	910902	O	Batlava	2,245	309
90247	Podujevo	911348	O	Lužane	789	310
90263	Priština	913057	O	Šarban	893	311
90263	Priština	912867	O	Marevce	2,490	312
90263	Priština	903922	U	Priština 11. MZ	7,428	313
90263	Priština	903949	U	Priština 12. MZ	7,173	314
90263	Priština	903981	U	Priština 14. MZ	2,087	315
90263	Priština	904007	U	Priština 2. MZ	4,480	316
90263	Priština	904023	U	Priština 4. MZ	7,273	317
90263	Priština	904031	U	Priština 5. MZ	6,821	318
90301	Uroševac	915157	O	Zlatare	1,290	319
90301	Uroševac	904848	U	Uroševac I	15,441	320
90301	Uroševac	904864	U	Uroševac III	22,218	321
90069	Dečani	902446	O	Istinić	4,203	322
90107	Istok	904791	O	Dubrava	1,427	323
90107	Istok	904724	O	Verić	619	324
90123	Klina	906239	O	Čabić	1,136	325
90123	Klina	906085	O	Mali Đurđevik	635	326
90123	Klina	906174	O	Svrhe	2,512	327
90174	Mališevo	909068	O	Lozica	1,380	328
90239	Peć	910007	O	Barane	1,119	329
90239	Peć	910686	O	Raušlć	2,720	330
90239	Peć	902870	U	Đeneral Janković	4,584	331
90239	Peć	902900	U	Kapeštica	9,873	332
90239	Peć	902926	U	Kristal	7,070	333
90085	Đakovica	903728	O	Ponoševac	764	334
90085	Đakovica	901288	U	Đakovica 2. MZ	6,175	335
90085	Đakovica	901300	U	Đakovica 4. MZ	8,128	336

90085	Đakovica	901318	U	Đakovica 5. MZ	3,277	337
90212	Orahovac	909971	O	Čiflak	1,158	338
90212	Orahovac	909963	O	Celina	2,081	339
90212	Orahovac	909785	O	Kramovik	1,033	340
90212	Orahovac	909858	O	Petković	615	341
90212	Orahovac	902764	U	Orahovac 2. MZ	5,193	342
90255	Prizren	911739	O	Atmađa	1,248	343
90255	Prizren	911968	O	Zjum	2,138	344
90255	Prizren	903302	U	Braća Stavileci	4,867	345
90255	Prizren	903752	U	Xevdet Doda	12,849	346
90255	Prizren	903353	U	Gani Čavdarbaša	10,594	347
90255	Prizren	903515	U	Katarina Patrnogić	9,712	348
90280	Suva Reka	913626	O	Blace	3,270	349
90280	Suva Reka	913871	O	Mušutište	5,016	350
90280	Suva Reka	913782	O	Đinovce	2,086	351
90280	Suva Reka	914045	O	Studenčane	3,474	352
90280	Suva Reka	913669	O	Vranić	2,107	353
90298	Kosovska Mitrovica	904422	U	Bair	27,262	354
90298	Kosovska Mitrovica	904635	U	Sitnica	4,080	355
90158	Leposavić	907979	O	Tvrđan	453	356
90271	Srbica	913529	O	Srbica	4,962	357
90026	Vučitrn	900966	O	Novo Selo-Mađunsko	1,800	358
90026	Vučitrn	900222	U	Kaljaja	20,204	359
90093	Zubin Potok	904295	O	Zubin Potok	2,033	360
90042	Gnjilane	902098	O	Poneš	1,342	361
90042	Gnjilane	902128	O	Slubica	326	362
90042	Gnjilane	901679	O	Vladovo	601	363
90042	Gnjilane	900621	U	Gnjilane 2. MZ	7,395	364
90042	Gnjilane	900656	U	Gnjilane 5. MZ	3,106	365
90042	Gnjilane	900664	U	Gnjilane 6. MZ	6,174	366
90140	Kosovska Kamenica	906760	O	Donje Korminjane	641	367
90140	Kosovska Kamenica	907022	O	Odanovce	2,052	368

Montenegro

Code	Municipality	Settlem. code	Type	Settlement/local community	No. of persons	Cluster
20010	Bar	200131	U	Šušanj	3,206	401
20010	Bar	200018	U	Bar I	8,369	402
20010	Bar	200131	O	Burtaiši	2,835	403
20010	Bar	200735	O	Polje	1,291	404
20079	Berane	200751	U	Beran selo	1,056	405
20079	Berane	204030	O	Kaludra	348	406
20079	Berane	204153	O	Luge Ivangradske	2,012	407
20079	Berane	203645	U	Novo naselje	4,448	408
20028	Bijelo Polje	200140	U	Bijelo Polje	19,131	409
20028	Bijelo Polje	201294	O	Kostići	391	410
20028	Bijelo Polje	201383	O	Lješnica	1,105	411
20028	Bijelo Polje	201367	O	Lozna	514	412
20028	Bijelo Polje	201499	O	Nedakusi	2,409	413
20028	Bijelo Polje	201642	O	Potkrajci	1,854	414
20028	Bijelo Polje	201847	O	Srđevac	418	415
20036	Budva	200344	U	Bečići	1,117	416
20036	Budva	200387	U	Petrovac	1,975	417
20206	Cetinje	203408	U	Nova Varoš-Cetinje	1,815	418
20044	Danilovgrad	203823	U	Danilovgrad III	1,228	419
20044	Danilovgrad	200433	U	Danilovgrad II	1,385	420
20044	Danilovgrad	203068	O	Potkula	284	421
20044	Danilovgrad	200506	U	Spuž	1,978	422
20192	Herceg Novi	203289	U	Herceg-Novi	3,766	423
20192	Herceg Novi	203726	U	Srbina	2,092	424
20192	Herceg Novi	203866	U	Topla	5,571	425
20192	Herceg Novi	203114	U	Zelenika	1,916	426
20192	Herceg Novi	212270	O	Sutorina	489	427
20087	Kolašin	204765	O	Drijenak	444	428
20087	Kolašin	200930	U	Kolašin	3,225	429
20087	Kolašin	205150	O	Selišta	240	430
20095	Kotor	201090	U	Dobrota	6,602	431
20095	Kotor	201227	U	Risan	2,092	432
20109	Mojkovac	205877	O	Lepenac	513	433
20109	Mojkovac	201294	U	Mojkovac	4,040	434
20117	Nikšić	207110	O	Šipačno	321	435
20117	Nikšić	201669	U	Centar I	3,182	436
20117	Nikšić	201448	U	Dragova luka	4,566	437
20117	Nikšić	201430	U	Grudska mahala	5,521	438

20117	Nikšić	201642	U	Humci	6,552	439
20117	Nikšić	201456	U	Kličevo	5,950	440
20117	Nikšić	201553	U	Rastoci	3,732	441
20117	Nikšić	201561	U	Rudo polje	6,672	442
20117	Nikšić	201588	U	Straševina	2,488	443
20117	Nikšić	201600	U	Trebjesa	5,894	444
20125	Plav	207152	O	Brezojevica	943	445
20125	Plav	207195	O	Vojno Selo	1,077	446
20125	Plav	207209	O	Vusanje	1,103	447
20141	Pljevlja	202037	U	Ševari	5,816	448
20141	Pljevlja	202002	U	Centar	4,064	449
20141	Pljevlja	201863	U	Golubinja	5,517	450
20141	Pljevlja	209279	O	Radosavac	702	451
20176	Podgorica	202762	U	Blok V	8,320	452
20176	Podgorica	202975	U	19. MZ	7,002	453
20176	Podgorica	202495	U	Donja gorica	1,911	454
20176	Podgorica	202509	U	Drač	3,618	455
20176	Podgorica	202649	U	Kruševac	5,169	456
20176	Podgorica	202673	U	Ljubović	8,355	457
20176	Podgorica	202681	U	Masline	4,145	458
20176	Podgorica	202746	U	Momišići	4,325	459
20176	Podgorica	202754	U	Nova varoš	5,830	460
20176	Podgorica	202789	U	Novi grad	3,907	461
20176	Podgorica	202576	U	Prvi maj	1,146	462
20176	Podgorica	202843	U	Ribnica	4,983	463
20176	Podgorica	202851	U	Sahat kula	3,251	464
20176	Podgorica	202568	U	Stari aerodrom	5,285	465
20176	Podgorica	202363	U	Vrela ribnička	7,854	466
20176	Podgorica	202517	U	Zabjelo	8,680	467
20176	Podgorica	202525	U	Zagorić	5,841	468
20176	Podgorica	202550	U	Zlatica	2,461	469
20176	Podgorica	210102	O	Beri	419	470
20176	Podgorica	211516	O	Fundina	582	471
20176	Podgorica	210943	O	Matagući	1,014	472
20176	Podgorica	210358	O	Vuksanlekići	570	473
20150	Rožaj	203777	U	Desna obala Ibra	6,037	474
20150	Rožaj	209775	O	Ibarac	2,465	475
20150	Rožaj	209791	O	Kalače	1,002	476
20168	Tivat	202223	U	Tivat	8,230	477
20168	Tivat	210005	O	Radovići	374	478
20184	Ulcinj	203068	U	Ulcinj II	8,306	479
20184	Ulcinj	211672	O	Gornji Štoj	404	480

LIST OF INTERVIEWERS AND SUPERVISORS

No.	Name	Institution	No. of ID card	I/S*
1	Durin Milica	IFPH Kikinda	89 773	I
2	Dr. Branislav Hačko	IFPH Kikinda	116 292	I
3	Dr. Jaroslava Hoban-Somborac	IFPH Kikinda	14 740	I
4	Kovačević Snežana	IFPH Kikinda	75 453	I
5	Dr. Dragica Injac	IFPH Kikinda	124 713	S
6	Bajkin Veselin	IFPH Kikinda	71 344	I
7	Bunjevčević Ljiljana	IFPH Pančevo	106 319	I
8	Stojanov Jovan	IFPH Pančevo	161 064	I
9	Pužić vladimir	IFPH Pančevo	118 877	I
10	Dr. Spomenka Markov	IFPH Pančevo	16 655	S
11	Dr. Ljuljana Lazić	IFPH Pančevo	205 232	S
12	Spaić Predrag	IFPH Zrenjanin	141 707	I
13	Višković Zoran	IFPH Zrenjanin	242 276	I
14	Đukić Smiljka	IFPH Zrenjanin	159 821	I
15	Šišković Borislavka	IFPH Zrenjanin	159 819	I
16	Mićić Radivoje	IFPH Zrenjanin	196 087	I
17	Xeletović Mirjana	IFPH Zrenjanin	154 330	S
18	Ljiljana Popov	IFPH Vršac	76 052	I
19	Dr. Zlata Jovičić	IFPH Vršac	96 523	S
20	Zlatanović Kosana	IFPH Vršac	89 559	I
21	Dr. Lelea Ileana	IFPH Zrenjanin	156 357	S
22	Kaša Katarina	CHC Bač	27 993	I
23	Lebherc Anica	CHC JJ Zmaj Stara pazova	24 996	I
24	Sič Lidija	CHC Inđija - ambulanta Beška	71 946	I
25	Banjac Desa	CHC Bačka Palanka	67 502	I
26	Ilić Gordana	IFPH Novi Sad	111 246	I
27	Milošević Siniša	IFPH Novi Sad		I
28	Erdeljan Aleksandar	IFPH Novi Sad		I
29	Miodrag Arsić	IFPH Novi Sad	232 6909	S
30	Nićiforović-Šurković Olja	IFPH Novi Sad	342 473	I
31	Marija Jevtić Aćimović	IFPH Novi Sad	317 300	I
32	Dragana Balać	IFPH Subotica	70 148	I
33	Sanja Tonković	IFPH Subotica	190 727	I
34	Bogdan Evelina	IFPH Subotica	222 342	I
35	Dr sci. med. Miirjana Pavlović	IFPH Subotica	227 271	S
36	Gaćeša Vinka	IFPH Subotica		I
37	Vojka Perović	IFPH Sombor	122 172	I
38	Marina Redžepovski	IFPH Sombor	33 810	I
39	Ljiljana Sokolova Đokić	IFPH Sombor	154 879	S
40	Dragoslava Čubrilo	IFPH Sombor	144 091	I
41	Ankica Vukas	IFPH Novi Sad	396 489/96	I
42	Mladen Petrović	IFPH Novi Sad	347 471/94	I
43	Eva Čik Nađ	IFPH Novi Sad	383 994/96	I
44	Okanović Siniša	IFPH S. Mitrovica	73 078	I
45	Burlica Milka	IFPH S. Mitrovica	84 731	I
46	Savatić Branislav	IFPH S. Mitrovica	89 112	I
47	Vladimir Samardžić	IFPH S. Mitrovica	84 066	I
48	Papić Lepa	IFPH S. Mitrovica	103 766	I

49	Rosić Zlatomir	IFPH S. Mitrovica	93 641	I
50	Dr. Kalinić Nikola	IFPH S. Mitrovica	131 103	S
51	Dr. Divac Jelena	IFPH S. Mitrovica	94 236	S
52	Dr. Branka Legetić	IFPH Novi Sad	176 352	S
53	Dragan Janković	IFPH Niš	290 669	I
54	Ljiljana Stošić	IFPH Niš	351 595	I
55	Nataša Milošević	IFPH Niš	244 745	I
56	Radomirka Jovanović	IFPH Leskovac	151 331	I
57	Jovan Kankaraš	IFPH Leskovac	174 893	I
58	Stanko Stojanović	IFPH Leskovac	196 209	I
59	Dr. Marijana Stojanović	IFPH Leskovac	43 050	S
60	Dragan Bogdanović	IFPH Vranje	77 675	S
61	Dr. Paraskeva Stojanović	IFPH Vranje	106 046	S
62	Milica Stanković	IFPH Vranje	66 745	I
63	Dr. Goran Ristić	IFPH Vranje	49 667	I
64	Dr. Goran Tasić	IFPH Vranje	115 771	I
65	Mitić Dragan	IFPH Vranje	71 319	I
66	Dragan Dinić	IFPH Niš	263 996	I
67	Bogojević Zoran	IFPH Niš	385 313	I
68	Dr. Ivan Stančev	HES. CHC Dimitrovgrad	16 034	S
69	Maksimov Rosa	HES. CHC Dimitrovgrad	15 994	I
70	Dr. Aleksić Elizabeta	IFPH Pirot	105 454	S
71	Kostić Danijela	IFPH Pirot	103 945	I
72	Dr Zorica Srdić	HES CHC Bela Palanka	292 440	S
73	Miodrag Kostić	IFPH Zaječar	85 321	I
74	Tasić Snežana	IFPH Zaječar	70 016	I
75	Janković Tatjana	IFPH Zaječar	75 399	I
76	Dr. Radosavljević Jasmina	IFPH Zaječar	87 032	I
77	Dačić Jevrem	IFPH Zaječar	96 334	I
78	Mirjačić Branka	IFPH Zaječar	70 235	I
79	Vidanović Radomir	IFPH Zaječar		I
80	Đergović Srđan	IFPH Timok Zaječar	82 653	I
81	Stevanović Olivera	IFPH Zaječar	96 084	I
82	Colić Ljubinka	HES CHC Bela Palanka	69 898	I
83	Slobodanka Bašić	IFPH Niš		S
84	Arsenijević Verica	IFPH Požarevac	83 102	S
85	Mitić Zorica	IFPH Požarevac	25 077	I
86	Rogožarski Zorica	IFPH Požarevac	88 330	I
87	Stević Vojkan	IFPH Požarevac	64 346	I
88	Bujić Milan	IFPH Požarevac	91 453	I
89	Nadica Stanković	IFPH Ćuprija	38 311	S
90	Radmila Jovanović	IFPH Ćuprija	58 237	I
91	Jevremović Dejan	IFPH Ćuprija	48 273	I
92	Ranković Jelka	IFPH Kragujevac	229 865	S
93	Belić Dobrila	IFPH Kragujevac	224 616	I
94	Milosavljević Jasminka	IFPH Kragujevac	241 227	I
95	Branka Komazec	IFPH Užice	8042006327	S
96	Prodana Tošić	IFPH Užice	125 837	I
97	Jovičić Milenija	IFPH Užice	90 345	I
98	Hadžifejzović Nermina	HES Novi Pazar	87 172	I
99	Selimović Feholija	HES Novi Pazar		I
100	Nada Vuković	IFPH Kraljevo	106 251	S
101	Zatrić Fahrija	HES Novi Pazar	89 836	S

102	Nešić Milica	IFPH Kraljevo	176 444	I
103	Miljković Nevenka	IFPH Kraljevo	110 340	I
104	Terzić Biljana	IFPH Kraljevo		I
105	Kurtić Mirjana	IFPH Kraljevo	122 974	I
106	Tarailo Nada	IFPH Čačak	68 472	I
107	Živković Goran	IFPH Čačak	134 806	I
108	Vasiljević Milina	IFPH Čačak	112 640	I
109	Vranić Miodrag	IFPH Čačak	124 294	I
110	Dr. Mihajlo Petković	IFPH Kruševac	213 141	S
111	Dr. Rakonjac-Milunović Vesna	IFPH Kruševac	177 324	S
112	Radmilo Andrić	IFPH Kruševac	204 174	I
113	Marković Slavica	IFPH Kruševac	133 176	I
114	Miodrag Korić	IFPH Kruševac	150 651	I
115	Dujović Marjan	IFPH Kruševac	177 805	I
116	Dr. Jovanović Olivera	IFPH Kruševac	206 595	S
117	Slavko Palibrk	CHC Bar	642	I
118	Rajković Borislav	CHC Berane	832	I
119	Danka Dašić	CHC Pala	7197	I
120	Nurko Čeman	CHC Rožaje	20 921	I
121	Popović Dragiša	CHC Bjelo Polje	3136/II	I
122	Dragan Dulović	CHC Bjelo Polje	1375	I
123	Nada Boroe	CHC Kotor	2764	I
124	Dafina Ivanovska	CHC Herceg Novi	31 094	I
125	Željko Vujović	CHC Nikšić	19 336	I
126	Osmajić Vinka	CHC Nikšić		I
127	Žarko Sekulić	IFPH Podgorica	119 439	I
128	Tomislav Medojević	IFPH Podgorica	9276	I
129	Vladimir Burzanović	IFPH Podgorica	38 025	I
130	*Pejovic Milodarka*	*CHC Podgorica*	*26 473*	*I*
130	*Angelina Lopicic*	*CHC Podgorica*	*63 480*	*I*
131	Nada Kovačević	CHC Pljevlja	09 602	I
132	Filipović Mladen	IFPH Prizren	73 744	I
133	Savić Žarko	IFPH Prizren	112 821	I
134	Butuć Bedika	IFPH Prizren	194 788/95	I
135	Stojanović Dejan	IFPH Prizren	126 000	I
136	Damjanović Emilija	IFPH Prizren	50 453	I
137	Dr. Lipoveci Razija	IFPH Prizren	136 448	S
138	Marković Rade	IFPH Prizren	160 510	I
139	Biljana Bosančić	IFPH Prizren	344 503	I
140	Savić Marina	IFPH Gnjilane	111 918	I
141	Ismail Emini	IFPH	226 503	I
142	Shemsi Bunjaku	IFPH Priština	300 955	I
143	Fehmi Haziri	IFPH Gnjilane	58 204	I
144	Tahire Maloku	IFPH Priština	57 229	S
145	Nalina Beriska	IFPH Đakovica	112 124	S
146	Xhevat Selmanaj	IFPH Peć	161 175	I
147	Myvedete Gjikolli	IFPH Peć	111 212	I
148	Drita Šaćiri	IFPH Gnjilane	2508146107	S
149	Nedžhat Dula	IFPH Đakovica	87 262	I
150	Sabit Bajginovci	IFPH Priština	173 850	S
151	Shyljri Shita	IFPH Prizren	88 687	I
152	Florije Vitija	"Mother Theresa", Priština	159 998	I
153	Kadrije Marevci	"Mother Theresa", Priština	291 974	I

154	Đevdet Rušiti	IFPH K.Mitrovica	11 610	I
155	Baki Zeneli	IFPH Priština	173 850	
156	Xhulije Sherifi	"Mother Theresa", Priština	234 994	I
157	Nexhmije Xhukolli	"Mother Theresa", Priština	139 640	I
158	Xhevahire Kelmendi	"Mother Theresa", Priština	15 239	I
159	Vahide Krasnilji	"Mother Theresa", Priština	258 981	I
160	Ljuljeta Morina	"Mother Theresa", Priština	151 534	S
161	Sadije Llalloshi	"Mother Theresa", Priština	254 167	I
162	Fatime Musliu-Gashi	"Mother Theresa", Priština		I
163	Emine Sherifi	""Mother Theresa", Priština	306 589	I
164	Čvoro-Obradović Mirjana	IFPH Priština	285 261	S
165	Dimitrijević Jelena	IFPH Priština		S
166	Milunka Lončarević	IFPH Peć	162 429	I
167	Mitrović Rade	IFPH Peć	83 467	I
168	Ljiljana Karamarković	IFPH K.Mitrovica	94 857	S
169	Milivojević Vukosava	IFPH K.Mitrovica	1 472	I
170	Vučetić Radomirka	IFPH K.Mitrovica	67 756	I
171	Doroci Murreta	IFPH K.Mitrovica	86 247	I
172	Banković Ljiljana	HC Loznica	123 038	I
173	Tadić Drago	HC Loznica	72 527	I
174	Petrović Petar	HC Loznica	108 007	S
175	Živanović Marija	CHC Valjevo	104 513	S
176	Cvetojević Dragica	CHC Valjevo	151 172	I
177	Jokić Ružica	CHC Valjevo	139 425	I
178	Petrović Zoran	CHC Valjevo	90 877	I
179	Biljić Radoje	CHC Valjevo	100 890	I
180	Pantelić Branko	IFPH Šabac	128 422	I
181	Đukanović Rajko	IFPH Šabac	131 683	I
182	Ruvidić Zoran	IFPH Šabac	178 561	I
183	Živković Marija	IFPH Šabac	136 495	I
184	Prim. dr Antonić Dragoje	IFPH Šabac	130 289	S
185	Marković Momčilo	IFPH Šabac	149 866	S
186	Nikolić Verica	IFPH Šabac	169 842	I
187	Tomović Zorica	IFPH Beograd	c 13 793	I
188	Maksimović Radmila	IFPH Beograd	M 109 871	S
189	Pleskonjić Mladen	IFPH Beograd	F 122 631	I
190	Radukić Dragosav	IFPH Beograd	H 164 587	I
The numbers 191-200 were skipped over in enumerating interviewers and supervisors				
201	Dr. Danilo Kadović	CHC Bar	34 043	S
202	Dr. Dragana Kastratović	CHC Berane	32 558	S
203	Dr. Mehmed Kurpejović	CHC Rožaje	22 863	S
204	Dr. Besim Stanić	CHC Bijelo Polje	14 806	S
205	Dr. Stanka Lučić-Dragomanović			S
206	Dr. Blažo Vujović	CHC Herceg Novi	4 908	S
207	Dr. Mirko Bogdanović	CHC Nikšić	14 428	S
208	Dr. Agima Jusuframić	IFPH Podgorica		S
209	Dr. Duško Popović	IFPH Podgorica		S
210	Nedeljko Kecojević	IFPH Podgorica		S
211	Dr. Zoran Vratnica	IFPH Podgorica		S
212	Dr. Bogdan Laušević	CHC Pljevlja	25 390	S

* I = interviewer; S = supervisor

EXAMPLE OF A QUESTIONNAIRE

HOUSEHOLD QUESTIONNAIRE

The questionnaire is to be filled in for each household permanently residing in the place of interviewing. A household may be a family or another community of persons who live together and spend their income jointly to meet their essential needs (housing, food, etc.)

Cluster No. |__|__|__|

Household No. |__|__|

First and last names of head of household _____

Interviewer code:	Date of interview	If call-back is necessary, when
|__|__|__|	|__|__| |__|__| |__|__| day month year	|__|__| hour
Supervisor code:	**All forms completed**	**If not, why not?**
|__|__|__|	Yes 1 No 2	Refused to respond..... 1 Were not at home ..... 2 Other reasons 3

Material of dwelling floor	Number of rooms in dwelling	Number of members in household
Parquet /tiles 1 Planks/concrete ..... 2 Earth ..... 3 Other 4	|__|__|	|__|__|

LIST OF MOTHERS (OR OTHERS WHO CARE FOR CHILDREN) WITH CHILDREN UNDER FIVE YEARS OF AGE LIVING IN THE HOUSEHOLD

Mother and child[1]	Last name and first name	Sex Male 1 Female 2	Date of birth dd mm yy	Age of child in months
1.0		1 2	|__|__| |__|__| |__|__|	|__|__|
1.1		1 2	|__|__| |__|__| |__|__|	|__|__|
		1 2	|__|__| |__|__| |__|__|	|__|__|
		1 2	|__|__| |__|__| |__|__|	|__|__|
		1 2	|__|__| |__|__| |__|__|	|__|__|

[1] Data for the first mother (child carer) should be entered at 1.0, and those for her children at 1.1, 1.2 etc. The data for the second mother should be entered at 2.0 and those for her children at 2.1, 2.2., etc. Data for all other subsequent mothers (child carers) and their children (if there are more of them in the household) should be entered in the same manner.

- CONTINUATION -

Cluster number |__|__|__|

Household number |__|__|

LIST OF MOTHERS (OR OTHERS WHO CARE FOR CHILDREN)
WITH CHILDREN UNDER FIVE YEARS OF AGE LIVING IN THE HOUSEHOLD

Mother and child	**Last name and name**	**Sex** Male 1 Female 2	**Date of birth** date month year	**Age of child in months**
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|
		1 2	|__|__| |__|__| |__|__| |__|__|

Module 1 WATER AND SANITATION

Cluster No. |__|__|__|

Household No. |__|__|

To be filled in for each household **by circling one of the answers offered.**

1. WHAT IS THE SOURCE OF DRINKING WATER FOR YOUR HOUSEHOLD?

City/town water-supply system	1
Rural (local) water-supply system	2
Public tap	3
Tube well or borehole	4
Protected dug well or protected spring	5
Unprotected dug well or unprotected spring	6
Pond, river or stream	7
Tank	8
Other	9

2. HOW FAR IS THE SOURCE OF DRINKING WATER FROM YOUR DWELLING?

In the dwelling	1
In the yard	2
Less than 100 m	3
100-500 m	4
From 500 m to 1 km	5
More than 1 km	6
Don't know	9

3. HOW LONG DOES IT TAKE YOU TO GET TO THE SOURCE OF DRINKING WATER?

(Only households which circled answers Nos. 3,4, 5 or 6 in the previous question should answer this one)

|__|__|__| minutes

4. WHAT TYPE OF TOILET FACILITY DOES YOUR HOUSEHOLD USE?

Flush to sewage system	1
Flush to septic tank	2
No flush with a water-proof septic tank	3
Latrine	4
No toilet facility	5

5. HOW FAR IS THE FACILITY FROM YOUR DWELLING?

In the dwelling	1
Less than 50 m	2
More than 50 m	3
Don't know	9

6. WHAT IS DONE ABOUT THE GARBAGE FROM YOUR HOUSEHOLD?

It is taken away by a communal utility service	1
You dispose of it at an official dump in the community	2
You dispose of it at an illegal dump	3
You burn it	4
You bury it	5
You collect it near your own dwelling	6
You throw it into a river	7
You just throw it wherever it is most convenient for you	8
Don't know	9

Module 2 ACUTE RESPIRATORY INFECTION

To be filled in for each mother (child carer) with children under 5 years of age living in the household.
Several answers offered may be circled for each question.

Cluster No. |__|__|__|
Household No. |__|__|
Mother's last name and first name _____ Mother No. |__|__|

1. COUGHS AND COLDS ARE COMMON IN CHILDREN UNDER FIVE YEARS OF AGE. WHEN YOUR CHILD HAS A COUGH OR COLD, WHICH OF THE FOLLOWING SYMPTOMS WILL LEAD YOU TO TAKE HIM/HER TO A DOCTOR?

Has a blocked nose	1	
Breastfeeds less or takes less food/fluid (less than half the usual quantity)	2	
Has a fever	3	
Is irritable, excited or has trouble sleeping	4	
Breathes rapidly	5	
Has difficulty breathing	6	
Is ill for a long time	7	
Other	8	
Don't know	9	

2. WHEN YOUR CHILD HAS A COUGH, COLD, BRONCHITIS OR SLIGHT PNEUMONIA, HOW WILL YOU TAKE CARE OF HIM/HER AT HOME?

A. Before taking the child to a doctor, you will give him the following medicine:

Cough syrup, as soon as you notice he/she is coughing	1	
An antibiotic, as soon as you notice that he/she is ill	2	
Another "folk remedy" (specify) _____	3	
Don't know	9	

B. In your daily feeding routine::

You will breastfeed the child as often as before or more often	1	
You will breastfeed the child less often	2	
You will give the child the same amounts of food or more food than usual	3	
You will give the child less food than usual	4	
You will give the child less fluid (any liquids) than usual	5	
You will give the child the same or extra amounts of fluid (any liquids)	6	

C. You will do some of the following:

You will ventilate the room in which the child is staying more often	1	
You will keep the child in a well-heated room	2	
You will put warm clothes on the child	3	
You will put light clothes on the child	4	
Other	5	

Module 3 DIARRHEA

To be filled in for each child under 5 years of age living in the household. **Only one of the answers offered may be circled** for all questions (additional questions) **except for Question 6**

Cluster No. |__|__|__|
Household No. |__|__|
Child's last name and first name _____ Child No. |__|__|

1. HAS YOUR CHILD HAD DIARRHEA?

(Diarrhea is regarded as three or more watery stools per day with or without blood. Gruelly stools in breastfed babies cannot be regarded as diarrhea.)

Yes - in the past two weeks.	1
Yes - earlier	2
No - never	0
Don't know	9

If 0 or 9 is circled for Question 1, no answers should be given to the following questions.

2. DID YOU GIVE THE CHILD ANY OF THE FOLLOWING LIQUIDS DURING THE LAST EPISODE OF DIARRHEA?

	Yes	No	Don't know
A. Breastmilk	1	0	9
B. Gruel based on cereals, leguminous plants or roots or soup	1	0	9
C. Other liquids (yogurt, buttermilk, tea, a solution of sugar and salt, unsweetened fruit juice)	1	0	9
D. Oral rehydration salts(Nelit and Orosal)	1	0	9
E. Animal milk or infant formula	1	0	9
F. Water with food	1	0	9
G. Water alone	1	0	9
H. Sweetened water, sweetened tea or sweetened fruit juice	1	0	9
I. Nothing	1	0	9

3. DID YOU GIVE THE CHILD ANY FLUID WHILE DIARRHEA LASTED?

Considerably less or none	1
As usual(or slightly less	2
More than usual	3
Don't know	9

4. DID YOU FEED/BREASTFEED THE CHILD WHILE DIARRHEA LASTED?

No	1
Considerably less	2
A little less	3
As usual	4
More than usual	5
Don't know	9

⇒ ⇒ ⇒

5. DID YOU GIVE THE CHILD ANY MEDICINE WHILE DIARRHEA LASTED BEFORE TAKING HIM/HER TO A DOCTOR?

Yes (specify) _____	1
No	0
Don't know	9

6. WHEN YOUR CHILD HAS DIARRHEA, WHICH OF THE FOLLOWING SYMPTOMS WILL LEAD YOU TO TAKE HIM/HER TO A DOCTOR IMMEDIATELY?
(Several answers offered may be circled.)

Dry lips and tongue	1	|___|
Increased thirst	2	|___|
Absence of tears when the child cries	3	|___|
Loss of weight	4	|___|
Irritability	5	|___|
Limpness	6	|___|
Other (specify) _____	7	|___|
Don't know	9	|___|

7. DO YOU KNOW WHAT AN ORAL REHYDRATION SOLUTION IS?
(The interviewer should use local brand names such as Nelit or Orosal.)

Yes	1
No	2

Module 4 BREASTFEEDING

To be filled in for each child under 5 years of age living in the household. **Only one of the answers offered may be circled** for each question .

Cluster No. |__|__|__|

Household No. |__|__|

Child's last name and first name _____ Child No. |__|__|

1. HAS THE CHILD EVER BEEN BREASTFED?

Yes	1
No	0
Don't know	9

If 0 or 9 is circled for Question 1, go to Questions 5 and 6.

2. IS THE CHILD STILL BEING BREASTFED?

Yes	1
No	0
Don't know	9

3. WHEN WAS THE CHILD FIRST BREASTFED?

Within 2 hours of birth	1
Within 24 hours of birth	2
After 24 hours	3
Don't know	9

4. HOW OFTEN IS THE CHILD BREASTFED OR HOW OFTEN WAS THE CHILD BREASTFED?

According to a regular daily schedule	1
On demand	2
Don't know	9

5. HAS THE CHILD RECEIVED ANY OF THE FOLLOWING IN THE PAST 24 HOURS?

	Yes	No	Don't know
A. Vitamin supplements, mineral supplements or medicine	1	0	9
B. Plain water	1	0	9
C. Sweetened water, tea or fruit juice	1	0	9
D. Oral rehydration solution (Nelit and Orosal)	1	0	9
E. Infant formula or milk of animal origin (fresh or powdered)	1	0	9
F. Any other liquids (specify) _____	1	0	9
G. Solid or semi-solid (mushy) food	1	0	9
H. Only breastmilk	1	0	9

6. HAS THE CHILD BEEN GIVEN ANYTHING TO DRINK FROM A BOTTLE WITH A NIPPLE IN THE PAST 24 HOURS?

Yes	1
No	0
Don't know	9

7. IF THE CHILD IS NO LONGER BREASTFED, HOW OLD (IN MONTHS) HE/ SHE WAS WHEN BREASTFEEDING STOPPED?

|__|__| months

Module 5 IMMUNIZATION

To be filled in for each child under 5 years of age living in the household.
Only one answer should be given to each question.

Cluster No. |__|__|__|
Household No. |__|__|
Child's last name and first name _____ Child No. |__|__|

1. HAS THE CHILD EVER BEEN GIVEN A BCG VACCINE?
(This is an injection against tuberculosis given immediately after birth in a single dose and creating a scar on the left shoulder.)

Yes 1
No 0
Don't know 9

1A. WHAT WAS THE ANSWER BASED ON:

Medical documentation (medical records, certificates, etc.) 1
A statement by the mother (child carer) 2

2. HAS THE CHILD EVER BEEN GIVEN A DTP VACCINE?
(This is a "vaccinal injection" against tetanus, whooping cough and diphtheria given in the first year of a child's life in the upper arm in three doses.)

Yes ..... Specify the number of doses |__|
No 0
Don't know 9

2A. WHAT WAS THE ANSWER BASED ON:

Medical documentation (medical records, certificates, etc.) 1
A statement by the mother (child carer) 2

3. HAS THE CHILD EVER BEEN GIVEN A POLIO VACCINE?
(These are "vaccinal drops" against polio given in three doses directly into the mouth or with a spoon during the first year of life.)

Yes ..... Specify the number of doses |__|
No 0
Don't know 9

3A. WHAT WAS THE ANSWER BASED ON:

Medical documentation (medical records, certificates, etc.) 1
A statement by the mother (child carer) 2

4. HAS THE CHILD EVER BEEN GIVEN A MORBILLI OR MORUPAR VACCINE?
(These are "vaccinal injections" against measles or against measles, mumps and rubella given in the upper arm in a single dose after the first year of life

Yes 1
No 0
Don't know 9

4A. WHAT WAS THE ANSWER BASED ON:

Medical documentation (medical records, certificates, etc.) 1
A statement by the mother (child carer) 2

Module 6 ANTHROPOMETRY

To be filled in for each child under 5 years of age living in the household. Weight and height (length) of the child should be measured, and the results obtained should be recorded in the questionnaire.

Cluster No. |__|__|__|

Household No. |__|__|

Child's last name and first name _____ Child No. |__|__|

1. DOES THE CHILD HAVE A BCG SCAR?

Yes 1
No 0
Not examined 9

2. WEIGHT (kg, dg)..... |__|__|,|__|

3. HEIGHT / LENGTH (cm, mm)..... |__|__|__|,|__|

3A. MEASUREMENT MADE:

Lying down 1
Standing 2
Not made at all 0

4. MEASURER'S CODE ..... |__|__|__|

5. WAS THE CHILD MEASURED?

Yes 1
No - not present 2
No - refused 3
Other 9

INSTRUCTIONS FOR INTERVIEWERS AND SUPERVISORS

The purpose of the survey

The purpose of this survey is to establish, monitor and evaluate the results achieved in the implementation of the goals set to be attained by the year 2000 at the World Summit for Children on the basis of the indicators proposed and to determine methods for surveying the health of the population which would be applied to a representative sample of households in the FR Yugoslavia.

The units covered by the survey

1. Households;
2. Mothers, i.e. carers of children under five years of age living with them in the household; and
3. Children under five years of age living in the household.

Forms to be filled in

Name of the form:		*Filled in for:*
• Household questionnaire • Module 1 Water and sanitation module	⇒	Household
• Module 2 Acute respiratory infection	⇒	Mother (carer) of under-fives
• Module 3 Diarrhea • Module 4 Breastfeeding • Module 5 Immunization • Module 6 Anthropometry	⇒	Children under 5 years of age

Instructions for selecting households for the sample

In each local community or settlement exactly one cluster with the prescribed number of households should be selected. Households should be selected starting from the first one. The position of the first household is to be determined by arriving in the center of the settlement. In this survey the bus terminus is regarded as the center of the settlement. If there is no bus line going through a settlement, the first house that the interviewer comes upon will be regarded as the starting point. The starting point for a local community is its administrative headquarters. The first household to be interviewed is the one the interviewer comes upon when going from the starting point westwards. The interviewer should move westwards as long as there are houses in that settlement in that direction (i.e. as long as houses are part of the local community). When the interviewer has reached the last house, he/she moves towards the first house to the north, and then returns southwards. It is essential that none of the houses be left out and that even the most far-flung houses be included. If several households reside in a single house, all households should be interviewed. The only exceptions are high-rise apartment buildings in local communities in towns, where only one household should be interviewed - the one on the first floor, on the right side of the entrance to the building.

If there is no one in the house that could answer the questions, the household should be notified when the interviewer will call again. Two attempts should be made at interviewing a household, and if both fail, that household should be replaced with the first next household that was not interviewed. A household must be given a letter and shown a document of authorization for interviewing.

The process of interviewing a household

The interview begins with the first household, and according to the order and methods prescribed by the Instructions for Selecting Households for the Sample.

After introducing himself/herself to the members of the household, the interviewer should explain the purpose of his/her coming and show his/her authorization. Before the respondents fill in the forms, the interviewer should find out by talking to the person providing him/her with data whether one or several households live in the house (apartment), in accordance with the following definition:

A household is taken to be any family or other community of persons whose members live together and spend their income jointly to meet their essential needs (housing, food, etc.), whether or not all the members of the household reside permanently in the community in which the household is located or some of them spend long periods of time in other communities/settlements for reasons of work, school etc.

A household is also taken to be any person living single in a separate or separable apartment or as a tenant in a household but not sharing his/her income with the rest of the household.

Only households ***permanently residing in the community*** (settlement) where the interviews are held are to be interviewed. Households temporarily residing in this community (settlement) but permanently residing in another community (settlement)) should not be interviewed.

Who should provide data:

1. Data on the household (the Household Questionnaire and Module 1) are to be provided by the person who is the legal head of the household or by some other member of the household who is over 18 years of age.

2. Data for Modules 2-5 are to be provided by the mother. If the child has no mother and another person cares for him/her, this carer should provide the data. If the mother does not live in the household, i.e. if somebody else cares for the child, that person should provide the data.

3. Exceptionally, if the interviewer does not meet any of these persons even during his/her second visit to the household, data may be provided by one of the members of the household, provided he/she is familiar with the children's growth and development.

The order of filling in the forms

Once the interviewer has determined the number of households (one or more) in the house (apartment), he/she records their data in the supplementary form - a ***Checklist*** (in which he/she has already entered their cluster numbers in the appropriate boxes) by recording the household's number (starting from 01), address and the name of the person who is the legal head of the household.

The interviewer then begins filling in the forms.

He/she first fills in the ***Household Questionnaire and Module 1*** for each household. If no mother (carer) with children under five years of age lives in the household, the interview is over in that household.

If there are mothers (carers) with children under five years of age in the household, ***Module 2*** is filled in for the mothers (carers) and ***Module 3***, ***Module 4***, ***Module 5***, and ***Module 6*** for each child.

If there are several mothers (carers) with children under five years of age in the household, the interviewer should first fill in all the forms for the first mother and her children and then for the second mother and her children, etc.

Once the interview is over in a household, the interviewer should first make sure if he/she has filled in all the required forms and if he/she has recorded the answers to all of the questions. He/she then should arrange the forms in the following order: he/she should first insert the form for the mother, then the forms for her first child, second child and all her other children into the Household Module; after that, he/she should insert the forms for the second mother and her children, etc., depending on how many mothers with children live in the household.

When the interviewer has completed all the modules for the household, he takes the Checklist again and records the following in the line for that household: was the interview made, the number of mothers (carers) interviewed and the number of children under five years of age.

Instructions for Filling In the Household Questionnaire

The interviewer should enter ***the cluster number*** and ***the household number*** from the Checklist in the appropriate boxes, and write ***the last and first names of the*** legal head of the household on the line. After that, he/she should enter his/her code (***interviewer's number***) and ***the date of interview*** (date, month and the last two digits of the year) in the boxes. If an interview cannot be made during the first visit, the interviewer must make another visit the same day and then he/she will record *the time of the call-back*, specifying the hours (e.g. for 9 am he/she will write "09", and for 4 p.m. "16").

The interviewer should not record the ***Supervisor Code*** and the information on whether all the forms have been filled in and if not why not. These data are to be filed in by the supervisor after interviewing and receiving the interview materials.

When asking the question about ***the material of dwelling floor***, the interviewer should circle only one of the answers offered. If there are several kinds of floors in the dwelling, the interviewer should circle only the predominant one.

The number of rooms in the dwelling used by the household should be entered in the boxes below (e.g. if two rooms are used in the dwelling, the interviewer records "02"). By a "room" is meant a living room (or a drawing room or a parlor) set apart by walls from other such spaces, with direct daylight and covering an area of at least 6 sq. m. Auxiliary rooms (a kitchen, a bathroom, a pantry or a doorway) are not regarded as "rooms" here.

When asking the question about ***the number of household members***, the interviewer should record the total number of household members in the boxes below (e.g. if the household has five members, the interviewer should enter "05" in the boxes).

The list of mothers (carers) of children under five years of age living in the household

Before filling in this list, the interviewer should determine whether there are children under five years of age in the household (children born after September 30, 1991). If there are no such children in the household, the interviewer should begin to fill in Module 1.

If there are children under five years of age, the interviewer should fill in the list. Under 1.0, he/she should record data for the person who provided the data (mother/carer or some other person, entering the last and first names, circling the appropriate sex code, and entering the date, month and year of birth (the date and month and the two last year digits) in the boxes below. Under 1.1 the interviewer should enter data for her child (if the mother has only one child). Under 1.2, 1.3 etc. the interviewer should enter data for her other children, if there are any. For the children the interviewer should also record the age in months. The interviewer should calculate and record how old the child is in months on the date of interviewing on the basis of the child's date of birth.

If there are several mothers with children under five years of age in the household, data for the second mother are to be entered at 2.0, and for her children at 2.1, 2.2 , etc. Data for all other mothers and their children should be entered in the same way.

If the mother does not live in the household, i.e. if someone else cares for the child and he/she is a member of the household in which the child lives, data on the carer instead of the mother should be recorded.

If there is a household for which the list is not long enough to enter all mothers and their children, an extra list should be attached (filling in the cluster and household numbers).

Instructions for Filling In Module 1
Water and Sanitation Module

This should be filled in for each household by circling the number designating only one of the answers offered.

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

If the household uses one method for providing drinking water, the number designating that method should be circled. If the household uses several different methods for providing drinking water, the number designating the predominant method should be circled.

- Number 1 (city/town water-supply system) should be circled if there are installations in the household linked to the public water-supply system in the town/city in question.
- Number 2 (rural/local water-supply system) should be circled if there are installations in the household linked to the local water-supply system in the village in question.
- Number 3 (public tap) should be circled if the household gets its drinking water from a public tap linked to a public or local water-supply system.
- Number 4 (tube well or borehole) should be circled if the household gets its drinking water from a tube well with piping driven into the aquifer.
- Number 5 (protected dug well or protected spring) should be circled if the household gets its drinking water from a protected dug well (made from concrete, stone, bricks or covered with a layer of clay) or from a hygienically closed underwater spring.
- Number 6 (unprotected dug well or unprotected spring) should be circled if the household gets its drinking water from an uncovered dug well or from an open spring.
- Number 7 (pond, river or stream) should be circled if the household gets its drinking water directly from a pond, river or stream.
- Number 8 (tank) should be circled if the household gets its drinking water from a tank used for collecting rainwater.
- Number 9 (other) should be circled if the household provides its drinking water in some other way, not specified here.

2. How far is the source of drinking water from your dwelling?

The interviewer should circle the number designating the distance of the source of drinking water mentioned in the answer to the first question.

3. How long does it take you to get to the source of drinking water?

The households whose source of drinking water are in the dwelling or in the yard should not answer this question.

The interviewer should record the approximate time required to get to the source of drinking water, get water and bring it back home. The answer should be expressed in minutes (e.g. if it takes 45 minutes, the interviewer will enter "045"). If it takes more than an hour, hours should be converted to minutes.

4. What type of toilet facility does your household use?

The interviewer should circle the number that corresponds to the type of toilet facility used by the household. If the household uses several different types of toilets, the interviewer should circle the number designating the predominantly used type of toilet.

5. How far is the toilet facility from your household?

The interviewer should circle the number designating the distance of the toilet facility mentioned in the answer to the fourth question. If the house has no toilet facility at all, it should not answer this question.

6. What is done about the garbage from your household?

If the household uses one method for disposing of garbage, the interviewer should circle the number designating that method. If the household uses several different garbage disposal methods, the interviewer should circle the number designating the predominantly used method.

Instructions for Filling In Module 2
Acute Respiratory Infection

A separate form should be filled in for each mother (carer) with children under five years of age who has been entered in the list (under 1.0, 2.0, etc.) in the Household Questionnaire.

The interviewer copies identifying data: ***the cluster number and the household number*** from the Household Questionnaire and ***the mother's (carer's) number and last and first names*** from the list of mothers (carers).

1. *COUGHS AND COLDS ARE COMMON IN CHILDREN UNDER FIVE YEARS OF AGE. WHEN YOUR CHILD HAS A COUGH OR COLD, WHICH OF THE FOLLOWING SYMPTOMS WILL LEAD YOU TO TAKE HIM/HER TO A DOCTOR?*

Before recording the answer to this question, the interviewer should read and explain to the mother (carer) in detail all the symptoms mentioned accompanying coughs and colds so that she can choose which of these symptoms will lead her to take her child to a doctor immediately. There may be only one or several symptoms. Accordingly, the interviewer may circle one or several of the answers offered.

In explaining the symptoms mentioned, the following should be made clear:

- by fever is meant body temperature above 38°C;
- rapid breathing:
  for infants under 2 months of age - 60 or more inhalations per minute;
  for infants aged 2-12 months - 50 or more inhalations per minute;
  for children aged 1-5 years - 40 or more inhalations per minute;
- by difficult breathing is meant visible and constant pulling in of the lower part of the thorax when inhaling.

2. WHEN YOUR CHILD HAS A COUGH, COLD, BRONCHITIS OR SLIGHT PNEUMONIA, HOW WILL YOU TAKE CARE OF HIM/HER AT HOME?

The answers are divided into three groups: A, B and C. The interviewer should treat each group as a separate answer. Within each group one or several answers offered may be circled.

Instructions for Filling In Module 3

Diarrhea

A separate form should be filled in for each child under five years of age entered in the list in the Household Questionnaire (under 1.1, 1.2, etc. for the first mother, under, 2.1. 2,2 for the second mother, etc.).

The mother or some other child carer living in the household should answer this Module.

The interviewer copies identifying data: ***the cluster number and the household number*** from the Household Questionnaire and ***the child's number and last and first names*** from the list of mothers (carers).

Before filling in this form, the interviewer should explain to the mother (carer) what is meant by diarrhea.

Diarrhea is regarded as three or more watery stools per day with or without blood. Gruelly stools in breastfed babies cannot be regarded as diarrhea.

1. HAS YOUR CHILD HAD DIARRHEA?

The number designating one of the answers offered should be circled.

The interviewer uses the answer to this question to determine whether to continue filling in this Module (answer - "yes", "1" or "2" circled) or to move on to Module 4 (answer - "no" or "don't know", "0" or "9" circled).

2. DID YOU GIVE THE CHILD ANY OF THE FOLLOWING LIQUIDS DURING THE LAST EPISODE OF DIARRHEA?

There are nine possible answers to this question (from A to I) with three options offered ("yes", "no" and "don't know"), and for each the interviewer should circle the appropriate number ("1", "0" or "9").

3. DID YOU GIVE THE CHILD ANY FLUID WHILE DIARRHEA LASTED?

The interviewer should circle the number next to one of the answers offered.

4. DID YOU FEED/BREASTFEED THE CHILD WHILE DIARRHEA LASTED?

The interviewer should circle the number next to one of the answers offered.

5. DID YOU GIVE THE CHILD ANY MEDICINE WHILE DIARRHEA LASTED BEFORE TAKING HIM/HER TO A DOCTOR?

The interviewer should circle the number next to one of the answers offered. If the answer is "yes", the names of the medicines mentioned by the mother (carer) should be written on the line.

6. WHEN YOUR CHILD HAS DIARRHEA, WHICH OF THE FOLLOWING SYMPTOMS WILL LEAD YOU TO TAKE HIM/HER TO A DOCTOR IMMEDIATELY?

The interviewer should circle one or several numbers next to the answers offered. If the answer is "other" ("7" circled), the symptoms mentioned by the mother (carer) should be recorded on the line.

7. DO YOU KNOW WHAT AN ORAL REHYDRATION SOLUTION IS?

When asking this question, the interviewer should mention local brand names of these solutions, e.g. Nelit or Orosal.

The answer should be given by circling either "1" or "2".

Instructions for Filling In Module 4
Breastfeeding

A separate form should be filled in for each child under five years of age entered in the list in the Household Questionnaire (under 1.1, 1.2, etc. for the first mother, under 2.1, 2.2, etc. for the second mother, etc.).

Answers to this Module should be given by the mother or some other persons caring for the child and living in the household.

The interviewer copies identifying data: ***the cluster number and the household number*** from the Household Questionnaire and ***the child's number and last and first names*** from the list of mothers (carers).

1. HAS THE CHILD EVER BEEN BREASTFED?

The number next to one of the answers offered should be circled.

The interviewer uses the answer to this question to determine whether to continue filling in this Module (answer - "yes", "1" circled) or to record answers only to Questions 5 and 6 (answer - "no" or "don't know", "0" or "9" circled).

2. IS THE CHILD STILL BEING BREASTFED?

An answer to this question should be given only for the breastfed children by circling the number next to one of the options offered.

3. WHEN WAS THE CHILD FIRST BREASTFED?

An answer to this question too should be given only for the breastfed children by circling the number next to one of the options offered.

4. HOW OFTEN IS THE CHILD BREASTFED OR HOW OFTEN WAS THE CHILD BREASTFED?

An answer should be given both for the children that are still breastfed and for the children who used to be breastfed by circling one of the options offered.

5. HAS THE CHILD RECEIVED ANY OF THE FOLLOWING IN THE PAST 24 HOURS?

Under this question, there are eight answers (from A to H) and the interviewer needs to get them all ("yes", "no" or "don't know") and circle the appropriate numbers ("1", "0" or "9"). If "1" is circled for "F", the interviewer should record on the line the name of the liquid specified by the mother (carer).

6. HAS THE CHILD BEEN GIVEN ANYTHING TO DRINK FROM A BOTTLE WITH A NIPPLE IN THE PAST 24 HOURS?

The number next to one of the answers offered should be circled.

7. IF THE CHILD IS NO LONGER BREASTFED, HOW OLD (IN MONTHS) HE/ SHE WAS WHEN BREASTFEEDING STOPPED?

An answer to this question should be given only for the children that are no longer breastfed. The interviewer records how old (in months) the child was when breastfeeding stopped. The number of months is to be entered in the appropriate boxes (e.g. if the child was 9 months old, "09" should be entered).

No answer to this question is required if the child is still breastfed or has never been breastfed.

Instructions for Filling In Module 5
Immunization

A separate form should be filled in for each child under five years of age entered in the list in the Household Questionnaire (under 1.1, 1.2, etc. for the first mother, under 2.1, 2.2, etc. for the second mother, etc.).

Answers to this Module should be given by the mother or some other persons caring for the child and living in the household.

The interviewer copies identifying data: ***the cluster number and the household number*** from the Household Questionnaire and ***the child's number and last and first names*** from the list of mothers (carers).

Before filling in this Module, the interviewer should determine if the mother (carer) has any written records of vaccinations (vaccination cards, certificates, etc.), i.e. a document which is filled out by a health worker each time a child is given a vaccine and which contains data about the name of the vaccine and the number of doses.

If the mother (carer) has any vaccination documents, the interviewer should use them to record the answers.

If the mother (carer) has no vaccination documents, the interviewer should record the answers based on her statement ("from memory").

1. HAS THE CHILD EVER BEEN GIVEN A BCG VACCINE?

The interviewer should remind the mother (carer) that the BCG vaccine is an injection against tuberculosis given immediately after birth in a single dose and creating a scar on the left shoulder.

The interviewer should circle the number next to one of the answers offered.

1A. WAS THE ANSWER BASED ON MEDICAL DOCUMENTATION OR A STATEMENT BY THE MOTHER (CARER)?

If the answer to the previous question is based on medical documentation, "1" should be circled, and if it is based on a statement, "2" should be circled.

2. HAS THE CHILD EVER BEEN GIVEN A DTP VACCINE?

The interviewer should explain to the mother that this is a "vaccinal injection" against tetanus, whooping cough and diphtheria given in the upper arm in three doses in the first year of a child's life.

If the answer is "yes", the number of doses given to the child should be recorded in the appropriate box (e.g. the interviewer will enter "1" for one dose, "2" for two doses, and "3" for three doses).

If the child has not received the vaccine, the box is to be left empty and "0" circled (answer - "no").

If the mother cannot remember if the child has received the vaccine, "9" is to be encircled (answer - "don't know").

2A. WAS THE ANSWER BASED ON MEDICAL DOCUMENTATION OR A STATEMENT BY THE MOTHER (CARER)?

If the answer to the previous question is based on medical documentation, "1" should be circled, and if it is based on a statement, "2" should be circled.

3. HAS THE CHILD EVER BEEN GIVEN A POLIO VACCINE?

The interviewer should explain to the mother (carer) that these are "vaccinal drops" against polio given in three doses directly into the mouth or with a spoon during the first year of life.

If the answer is "yes", the number of doses given to the child should be recorded in the appropriate box (e.g. the interviewer will enter "1" for one dose, "2" for two doses, and "3" for three doses).

If the child has not received the vaccine, the box is to be left empty and "0" circled (answer - "no").

If the mother cannot remember if the child has received the vaccine, "9" is to be circled (answer - "don't know").

3A. WAS THE ANSWER BASED ON MEDICAL DOCUMENTATION OR A STATEMENT BY THE MOTHER (CARER)?

If the answer to the previous question is based on medical documentation, "1" should be circled, and if it is based on a statement, "2" should be circled.

4. HAS THE CHILD EVER BEEN GIVEN A MORBILLI OR MORUPAR VACCINE?

The interviewer should explain to the mother (carer) that the morbilli vaccine is a "vaccinal injection" against measles and the morupar vaccine a "vaccinal injection" against measles, mumps and rubella given in the upper arm in a single dose after the first year of life.

The interviewer should circle the number next to one of the answers offered.

4A. WAS THE ANSWER BASED ON MEDICAL DOCUMENTATION OR A STATEMENT BY THE MOTHER (CARER)?

If the answer to the previous question is based on medical documentation, "1" should be circled, and if it is based on a statement, "2" should be circled.

Instructions for Filling In Module 6

Anthropometry

A separate form should be filled in for each child under five years of age entered in the list in the Household Questionnaire (under 1.1, 1.2, etc. for the first mother, under 2.1, 2.2, etc. for the second mother, etc.).

The interviewer copies identifying data: ***the cluster number and the household number*** from the Household Questionnaire and ***the child's number and last and first names*** from the list of mothers (carers).

Before beginning to measure the child, the interviewer should make sure that Modules 3, 4 and 5 have been filled in for that child. Only then should the interviewer take the child's clothes off and measures him/her following the measuring instructions.

If there is one mother (carer) with several children in the household, the interviewer should begin measuring only after all the previous forms have been filled in for all her children.

If there are several mothers (carers) with children in the household, the interviewer should first make sure that all the previous forms for all the children of the first mother have been filled in and should then measure the first mother's children. He/she should then repeat the same procedure for all the other mothers (carers) in the household.

1. DOES THE CHILD HAVE A BCG SCAR?

The interviewer should examine the child's left shoulder to check if there is a BCG scar and to circle the appropriate number next to one of the answers offered.

2. WEIGHT (kg, dg)

The interviewer should record the results of weight measuring in the appropriate boxes. Kilograms are to be entered in the first two boxes and decagrams in the third box. E.g., if the child weighs 9 kg and 300 g, the interviewer should enter "09" in the first two boxes and "3" in the third box; or, if the child weighs 17 kg, the interviewer should enter "17" in the first two boxes and "0" in the third box.

3. HEIGHT / LENGTH (cm, mm)

The interviewer should record height/length in the appropriate boxes. Centimeters are to be entered in the first three boxes, and millimeters in the third box. E.g., if the child's height/length is 96 cm and 6 mm, the interviewer should enter "096" in the first three boxes, and "5" in the third box; or if the child's height/length is 127 cm and 7 mm, the interviewer should enter "127" in the first three boxes and "7" in the third box.

3A. MEASUREMENT MADE

If the height/length of the child has been measured, "1" or "2" should be circled, depending on the position of the child. If the child has not been measured, the interviewer should circle "0".

4. MEASURER'S CODE

The person's code is to be entered in the boxes.

5. WAS THE CHILD MEASURED?

The number next to one of the answers offered should be circled.

CHARACTERISTICS OF THE HOUSEHOLDS

Table A-2 Households by number of members, number of rooms used, type of dwelling floor and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
				Total			
Total	**2,915,973**	**160,480**	**2,755,493**	**1,803,103**	**733 150**	**219,240**	**520,738**
Number of members							
1	308,323	13,840	294,483	182,583	109,740	2,160	53,118
2	592,698	21,920	570,778	365,212	199,950	5,616	101,242
3	490,679	25,680	464,999	323,689	130,510	10,800	123,034
4	659,426	37,440	621,986	431,726	172,980	17,280	142,556
5	347,295	30,000	317,295	218,845	70,370	28,080	52,210
6 - 8	415,302	28,080	387,222	265,094	45,880	76,248	45,854
9 or more	102,250	3,520	98,730	15,954	3,720	79,056	2,724
Number of rooms							
1	355,322	29,280	326,042	225,248	90,210	10,584	69,008
2	1,057,589	59,520	998,069	674,253	281,480	42,336	216,558
3	827,649	45,280	782,369	507,697	217,000	57,672	148,912
4	400,063	16,640	383,423	232,075	92,380	58,968	52,210
5	142,763	4,880	137,883	85,987	32,240	19,656	19,522
6 or more	132,587	4,880	127,707	77,843	19,840	30,024	14,528
Flooring							
parquet/tiles	1,222,629	69,760	1,152,869	858,679	260,710	33,480	402,244
planks/concrete	1,587,895	88,400	1,499,495	897,887	438,960	162,648	112,592
other	105,449	2,320	103,129	46,537	33,480	23,112	5,902
				In urban settlements			
Total	1,576,323	104,000	1,472,323	973,951	414,780	83,592	410,416
Number of members							
1	189,738	9,600	180,138	116,034	63,240	864	43,584
2	321,178	13,840	307,338	189,774	113,460	4,104	77,634
3	317,169	17,920	299,249	212,113	79,360	7,776	105,328
4	408,716	28,000	380,716	270,500	99,200	11,016	118,040
5	179,516	19,040	160,476	106,324	39,680	14,472	34,504
6 - 8	140,657	14,320	126,337	74,379	18,910	33,048	29,964
9 or more	19,349	1,280	18,069	4,827	930	12,312	1,362
Number of rooms							
1	246,103	21,280	224,823	151,111	65,720	7,992	56,296
2	629,887	40,080	589,807	403,147	161,820	24,840	182,962
3	436,074	28,560	407,514	273,854	110,980	22,680	120,764
4	169,086	8,880	160,206	95,336	48,670	16,200	33,596
5	57,866	2,800	55,066	31,686	17,980	5,400	10,896
6 or more	37,307	2,400	34,907	18,817	9,610	6,480	5,902
Flooring							
parquet/tiles	885,851	54,560	831,291	640,121	169,570	21,600	346,856
planks/concrete	664,317	47,360	616,957	325,121	238,700	53,136	60,836
other	26,155	2,080	24,075	8,709	6,510	8,856	2,724
				In other settlements			
Total	1,339,650	56,480	1,283,170	829,152	318,370	135,648	110,322
Number of members							
1	118,585	4,240	114,345	66,549	46,500	1,296	9,534
2	271,520	8,080	263,440	175,438	86,490	1,512	23,608
3	173,510	7,760	165,750	111,576	51,150	3,024	17,706
4	250,710	9,440	241,270	161,226	73,780	6,264	24,516
5	167,779	10,960	156,819	112,521	30,690	13,608	17,706
6 - 8	274,645	13,760	260,885	190,715	26,970	43,200	15,890
9 or more	82,901	2,240	80,661	11,127	2,790	66,744	1,362
Number of rooms							
1	109,219	8,000	101,219	74,137	24,490	2,592	12,712
2	427,702	19,440	408,262	271,106	119,660	17,496	33,596
3	391,575	16,720	374,855	233,843	106,020	34,992	28,148
4	230,977	7,760	223,217	136,739	43,710	42,768	18,614
5	84,897	2,080	82,817	54,301	14,260	14,256	8,626
6 or more	95,280	2,480	92,800	59,026	10,230	23,544	8,626
Flooring							
parquet/tiles	336,778	15,200	321,578	218,558	91,140	11,880	55,388
planks/concrete	923,578	41,040	882,538	572,766	200,260	109,512	51,756
other	79,294	240	69,054	37,828	26,970	14,256	3,178

Table A-2.1 Households by number of members, number of rooms used, type of dwelling floor and type of settlement (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members							
1	10.6	8.6	10.7	10.1	15.0	1.0	10.2
2	20.3	13.7	20.7	20.3	27.3	2.6	19.4
3	16.8	16.0	16.9	18.0	17.8	4.9	23.6
4	22.6	23.3	22.6	23.9	23.6	7.9	27.4
5	11.9	18.7	11.5	12.1	9.6	12.8	10.0
6 - 8	14.2	17.5	14.1	14.7	6.3	34.8	8.8
9 or more	3.5	2.2	3.6	0.9	0.5	36.1	0.5
Number of rooms							
1	12.2	18.2	11.8	12.5	12.3	4.8	13.3
2	36.3	37.1	36.2	37.4	38.4	19.3	41.6
3	28.4	28.2	28.4	28.2	29.6	26.3	28.6
4	13.7	10.4	13.9	12.9	12.6	26.9	10.0
5	4.9	3.0	5.0	4.8	4.4	9.0	3.7
6 or more	4.5	3.0	4.6	4.3	2.7	13.7	2.8
Flooring							
parquet/tiles	41.9	43.5	41.8	47.6	35.6	15.3	77.2
planks/concrete	54.5	55.1	54.4	49.8	59.9	74.2	21.6
other	3.6	1.4	3.7	2.6	4.6	10.5	1.1
	In urban settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members							
1	12.0	9.2	12.2	11.9	15.2	1.0	10.6
2	20.4	13.3	20.9	19.5	27.4	4.9	18.9
3	20.1	17.2	20.3	21.8	19.1	9.3	25.7
4	25.9	26.9	25.9	27.8	23.9	13.2	28.8
5	11.4	18.3	10.9	10.9	9.6	17.3	8.4
6 - 8	8.9	13.8	8.6	7.6	4.6	39.5	7.3
9 or more	1.2	1.2	1.2	0.5	0.2	14.7	0.3
Number of rooms							
1	15.6	20.5	15.3	15.5	15.8	9.6	13.7
2	40.0	38.5	40.1	41.4	39.0	29.7	44.6
3	27.7	27.5	27.7	28.1	26.8	27.1	29.4
4	10.7	8.5	10.9	9.8	11.7	19.4	8.2
5	3.7	2.7	3.7	3.3	4.3	6.5	2.7
6 or more	2.4	2.3	2.4	1.9	2.3	7.8	1.4
Flooring							
parquet/tiles	56.2	52.5	56.5	65.7	40.9	25.8	84.5
planks/concrete	42.1	45.5	41.9	33.4	57.5	63.6	14.8
other	1.7	2.0	1.6	0.9	1.6	10.6	0.7
	In other settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members							
1	8.9	7.5	8.9	8.0	14.6	1.0	8.6
2	20 3	14.3	20.5	21.2	27.2	1.1	21.4
3	13.0	13.7	12.9	13.5	16.1	2.2	16.0
4	18.7	16.7	18.8	19.4	23.2	4.6	22.2
5	12.5	19.4	12.2	13.6	9.6	10.0	16.0
6 - 8	20.5	24.4	20.3	23.0	8.5	31.8	14.4
9 or more	6.2	4.0	6.3	1.3	0.9	49.2	1.2
Number of rooms							
1	8.2	14.2	7.9	8.9	7.7	1.9	11.5
2	31.9	34.4	31.8	32.7	37.6	12.9	30.5
3	29.2	29.6	29.2	28.2	33.3	25.8	25.5
4	17.2	13.7	17.4	16.5	13.7	31.5	16.9
5	6.3	3.7	6.5	6.5	4.5	10.5	7.8
6 or more	7.1	4.4	7.2	7.1	3.2	17.4	7.8
Flooring							
parquet/tiles	25.1	26.9	25.1	26.4	28.6	8.8	50.2
planks/concrete	68.9	72.7	68.8	69.1	62.9	80.7	46.9
other	5.9	0.4	6.2	4.6	8.5	10.5	2.9

Table A-3 Households with children under five years of age by number of members, number of rooms used, type of dwelling floor and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	547,000	40,000	507,000	270,784	88,040	148,176	68,554
Number of members							
2	1,399	-	1,399	1,399	-	-	454
3	66,471	4,480	61,991	36,967	19,840	5,184	12,712
4	113,337	10,080	103,257	64,669	30,380	8,208	20,884
5	97,743	9,200	88,543	55,237	15,810	17,496	12,712
6-8	185,195	13,680	171,515	103,451	18,600	49,464	19,976
9 or more	82,855	2,560	80,295	9,061	3,410	67,824	1,816
Number of rooms							
1	54,039	6,880	47,159	28,749	10,850	7,560	9,534
2	160,939	13,680	147,259	91,917	30,070	25,272	28,602
3	143,094	11,760	131,334	72,238	21,080	38,016	16,798
4	101,600	4,800	96,800	42,016	16,120	38,664	8,626
5	41,956	1,360	40,596	19,558	5,270	15,768	3,178
6 or more	45,372	1,520	43,852	16,306	4,650	22,896	1,816
Flooring							
parquet/tiles	199,521	16,080	183,441	128,727	34,410	20,304	49,032
planks/concrete	323,123	23,520	290,603	138,453	49,910	111,240	19,068
other	24,356	400	23,956	3,604	3,720	16,632	454
	In urban settlements						
Total	255,213	21,840	233,373	133,971	49,290	50,112	51,756
Number of members							
2	769	-	769	769	-	-	454
3	47,759	2,640	45,119	27,591	13,640	3,888	10,896
4	71,353	7,280	64,073	40,599	18,290	5,184	16,344
5	53,030	5,120	47,910	30,778	8,060	9,072	9,988
6-8	68,642	6,080	62,562	32,066	8,680	21,816	13,166
9 or more	13,660	720	12,940	2,168	620	10,152	908
Number of rooms							
1	36,768	4,560	32,208	20,420	6,820	4,968	9,080
2	99,689	8,560	91,129	57,841	18,600	14,688	22,246
3	62,991	6,160	56,831	32,279	11,160	13,392	11,804
4	33,007	1,840	31,167	14,129	7,750	9,288	4,994
5	13,830	400	13,430	6,226	3,100	4,104	1,816
6 or more	8,928	320	8,608	3,076	1,860	3,672	1,816
Flooring							
parquet/tiles	131,195	12,080	119,115	86,183	21,700	11,232	41,768
planks/concrete	116,162	9,440	106,722	46,704	26,970	33,048	9,534
other	7,856	320	7,536	1,084	620	5,832	454
	In other settlements						
Total	291,787	18,160	273,627	136,813	38,750	98,064	16,798
Number of members							
2	630	-	630	630	-	-	-
3	18,712	1,840	16,872	9,376	6,200	1,296	1,816
4	41,984	2,800	39,184	24,070	12,090	3,024	4,540
5	44,713	4,080	40,633	24,459	7,750	8,424	2,724
6-8	116,553	7,600	108,953	71,385	9,920	27,648	6,810
9 or more	69,195	1,840	67,355	6,893	2,790	57,672	908
Number of rooms							
1	17,271	2,320	14,951	8,329	4,030	2,592	454
2	61,250	5,120	56,130	34,076	11470	10,584	6,356
3	80,103	5,600	74,503	39,959	9920	24,624	4,994
4	68,593	2,960	65,633	27,887	8,370	29,376	3,632
5	28,126	960	27,166	13,332	2170	11,664	1,362
6 or more	36,444	1,200	35,244	13,230	2790	19,224	-
Flooring							
parquet/tiles	68,326	4,000	64,326	42,544	12710	9,072	7,264
planks/concrete	206,961	14,080	192,881	91,749	22940	78,192	9,534
other	16,500	80	16,420	2,520	3100	10,800	-

Table A-3.1 Households with children under five years of age by number of members, number of rooms used, type of dwelling floor and type of settlement (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members							
2	0.3	-	0.3	0.5	-	-	0.7
3	12.2	11.2	12.2	13.7	22.5	3.5	18.5
4	20.7	25.2	20.4	23.9	34.5	5.5	30.5
5	17.9	23.0	17.5	20.4	18.0	11.8	18.5
6-8	33.9	34.2	33.8	38.2	21.1	33.4	29.1
9 or more	15.1	6.4	15.8	3.3	3.9	45.8	2.6
Number of rooms							
1	9.9	17.2	9.3	10.6	12.3	5.1	13.9
2	29.4	34.2	29.0	33.9	34.2	17.1	41.7
3	26.2	29.4	25.9	26.7	23.9	25.7	24.5
4	18.6	12.0	19.1	15.5	18.3	26.1	12.6
5	7.7	3.4	8.0	7.2	6.0	10.6	4.6
6 or more	8.3	3.8	8.6	6.0	5.3	15.5	2.6
Flooring							
parquet/tiles	36.5	40.2	36.2	47.5	39.1	13.7	71.5
planks/concrete	59.1	58.8	59.1	51.1	56.7	75.1	27.8
other	4.5	1.0	4.7	1.3	4.2	11.2	0.7
	In urban settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members							
2	0.3	-	0.3	0.6	-	-	0.9
3	18.7	12.1	19.3	20.6	27.7	7.8	21.1
4	28.0	33.3	27.5	30.3	37.1	10.3	31.6
5	20.8	23.4	20.5	23.0	16.4	18.1	19.3
6-8	26.9	27.8	26.8	23.9	17.6	43.5	25.4
9 or more	5.4	3.3	5.5	1.6	1.3	20.3	1.8
Number of rooms							
1	14.4	20.9	13.8	15.2	13.8	9.9	17.5
2	39.1	39.2	39.0	43.2	37.7	29.3	43.0
3	24.7	28.2	24.4	24.1	22.6	26.7	22.8
4	12.9	8.4	13.4	10.5	15.7	18.5	9.6
5	5.4	1.8	5.8	4.6	6.3	8.2	3.5
6 or more	3.5	1.5	3.7	2.3	3.8	7.3	3.5
Flooring							
parquet/tiles	51.4	55.3	51.0	64.3	44.0	22.4	80.7
planks/concrete	45.5	43.2	45.7	34.9	54.7	65.9	18.4
other	3.1	1.5	3.2	0.8	1.3	11.6	0.9
	In other settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members							
2	0.2	-	0.2	0.5	-	-	-
3	6.4	10.1	6.2	6.9	16.0	1.3	10.8
4	14.4	15.4	14.3	17.6	31.2	3.1	27.0
5	15.3	22.5	14.8	17.9	20.0	8.6	16.2
6-8	39.9	41.9	39.8	52.2	25.6	28.2	40.5
9 or more	23.7	10.1	24.6	5.0	7.2	58.8	5.4
Number of rooms							
1	5.9	12.8	5.5	6.1	10.4	2.6	2.7
2	21.0	28.2	20.5	24.9	29.6	10.8	37.8
3	27.5	30.8	27.2	29.2	25.6	25.1	29.7
4	23.5	16.3	24.0	20.4	21.6	30.0	21.6
5	9.6	5.3	9.9	9.7	5.6	11.9	8.1
6 or more	12.5	6.6	12.9	9.7	7.2	19.6	-
Flooring							
parquet/tiles	23.4	22.0	23.5	31.1	32.8	9.3	43.2
planks/concrete	70.9	77.5	70.5	67.1	59.9	79.7	56.8
other	5.7	0.4	6.0	1.8	8.0	11.0	-

Table A-6 Households by type of water supply, sanitation conditions and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	2,915,973	160,480	2,755,493	1,803,103	733,150	219,240	520,738
Water supply							
urban and rural systems	2,398,083	139,040	2,259,043	1,457,315	675,800	125,928	499,400
wells	428,202	15,440	412,762	289,338	45,880	77,544	19,068
other	89,688	6,000	83,688	56,450	11,470	15,768	2,270
Distance from water source							
in the dwelling	2,453,488	141,760	2,311,728	1,505,408	674,560	131,760	498,038
in the yard	375,954	14,320	361,634	242,616	40,610	78,408	17,706
other	86,531	4,400	82,131	55,079	17,980	9,072	4,994
Type of toilet							
flush to sewage system	1,242,368	59,280	1,183,088	915,284	172,980	94,824	365,924
flush to septic tank	959,281	75,520	883,761	428,213	416,020	39,528	116,678
latrine	621,113	24,000	597,113	382,783	139,810	74,520	37,228
other	93,211	1,680	91,531	76,823	4,340	10,368	908
Distance from toilet facility							
in the dwelling	2,144,971	132,480	2,012,491	1,327,571	579,080	105,840	483,056
less than 50 m	711,991	21,120	690,871	436,861	146,010	108,000	35,866
other	59,011	6,880	52,131	38,671	8,060	5,400	1,816
	In urban settlements						
Total	1,576,323	104,000	1,472,323	973,951	414,780	83,592	410,416
Water supply							
urban and rural systems	1,546,774	102,800	1,443,974	964,436	398,970	80,568	408,146
wells	20,249	-	20,249	6,995	10,230	3,024	2,270
other	9,300	1,200	8,100	2,520	5,580	-	-
Distance from water source							
in the dwelling	1,521,591	99,520	1,422,071	948,723	394,940	78,408	407,238
in the yard	45,879	4,320	41,559	22,115	14,260	5,184	2,270
other	8,853	160	8,693	3,113	5,580	-	908
Type of toilet							
flush to sewage system	1,129,019	52,720	1,076,299	837,441	165,850	73,008	351,396
flush to septic tank	333,406	45,440	287,966	89,426	195,300	3,240	47,216
latrine	102,557	5,120	97,437	38,755	51,770	6,912	11,350
other	11,341	720	10,621	8,329	1,860	432	454
Distance from toilet facility							
in the dwelling	1,438,043	96,320	1,341,723	918,677	353,710	69,336	398,612
less than 60 m	131,756	6,960	124,796	52,476	58,280	14,040	10,896
other	6,524	720	5,804	2,798	2,790	216	908
	In other settlements						
Total	1,339,650	56,480	1,283,170	829,152	318,370	135,648	110,322
Water supply							
urban and rural systems	851,309	36,240	815,069	492,879	276,830	45,360	91,254
wells	407,953	15,440	392,513	282,343	35,650	74,520	16,798
other	80,388	4,800	75,588	53,930	5,890	15,768	2,270
Distance from water source							
in the dwelling	931,897	42,240	889,657	556,685	279,620	53,352	90,800
in the yard	330,075	10,000	320,075	220,501	26,350	73,224	15,436
other	77,678	4,240	73,438	51,966	12,400	9,072	4,086
Type of toilet							
flush to sewage system	113,349	6,560	106,789	77,843	7,130	21,816	14,528
flush to septic tank	625,875	30,080	595,795	338,787	220,720	36,288	69,462
latrine	518,556	18,880	499,676	344,028	88,040	67,608	25,878
other	81,870	960	80,910	68,494	2,480	9,936	454
Distance from toilet facility							
in the dwelling	706,928	36,160	670,768	408,894	225,370	36,504	84,444
less than 60 m	580,235	14,160	566,075	384,385	87,730	93,960	24,970
other	52,487	6,160	46,327	35,873	5,270	5,184	908

Table A-6.1 Households by type of water supply, sanitation conditions and type of settlement (%)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	82.2	86.6	82.0	88.8	92.1	57.4	95.9
wells	14.7	9.6	15.0	16.0	6.3	35.4	3.7
other	3.1	3.7	3.0	3.1	1.6	7.2	0.4
Distance from water source							
in the dwelling	84.1	88.3	83.9	83.5	92.0	60.1	95.6
in the yard	12.9	8.9	13.1	13.5	5.5	35.8	3.4
other	3.0	2.7	3.0	3.0	2.5	4.1	1.0
Type of toilet							
flush to sewage system	42.6	36.9	42.9	50.8	23.6	43.3	70.3
flush to septic tank	32.9	47.1	32.1	23.7	56.7	18.0	22.4
latrine	21.3	15.0	21.7	21.2	19.1	34.0	7.1
other	3.2	1.0	3.3	4.3	0.6	4.7	0.2
Distance from toilet facility							
in the dwelling	73.6	82.6	73.0	73.6	79.0	48.3	92. 8
less than 50 m	24.4	13.2	25.1	24.2	19.9	49.3	6. 9
other	2.0	4.3	1.9	2.1	1.1	2.5	0. 3
	In urban settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	98.1	98.8	98.1	99.0	96.2	96.4	99.4
wells	1.3	-	1.4	0.7	2.5	3.6	0.6
other	0.6	1.2	0.6	0.3	1.3	-	-
Distance from water source							
in the dwelling	96.5	95.7	96.6	97.4	95.2	93.8	99.2
in the yard	2.9	4.2	2.8	2.3	3.4	6.2	0.6
other	0.6	0.2	0.6	0.3	1.3	-	0.2
Type of toilet							
flush to sewage system	71.6	50.7	73.1	86.0	40.0	87.3	85.6
flush to septic tank	21.2	43.7	19.6	9.2	47.1	3.9	11.5
latrine	6.5	4.9	6.6	4.0	12.5	8.3	2.8
other	0.7	0.7	0.7	0.9	0.4	0.5	0.1
Distance from toilet facility							
in the dwelling	91.2	92.6	91.1	94.3	85.3	82.9	97.1
less than 60 m	8.4	6.7	8.5	5.4	14.1	16.8	2.7
other	0.4	0.7	0.4	0.3	0.7	0.3	0.2
	In other settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	63.5	64.2	63.5	59.4	86.9	33.4	82.7
wells	30.5	27.3	30.6	34.1	11.2	54.9	15.2
other	6.0	8.5	5.9	6.5	1.9	11.6	2.1
Distance from water source							
in the dwelling	69.6	74.8	69.3	67.1	87.8	39.9	82.3
in the yard	24.6	17.7	24.9	26.6	8.3	54.0	14.0
other	5.8	7.5	5.7	6.3	3.9	6.7	3.7
Type of toilet							
flush to sewage system	8.5	11.6	8.3	9.4	2.2	16.1	13.2
flush to septic tank	46.7	53.3	46.4	49.9	69.3	26.8	63.0
latrine	38.7	33.4	38.9	41.5	27.7	49.8	23.5
other	6.1	1.7	6.3	8.5	0.8	7.3	0.4
Distance from toilet facility							
in the dwelling	52.8	64.0	52.3	49.3	70.8	26.9	76.5
less than 60 m	43.3	25.1	44.1	46.4	27.6	69.3	22.6
other	3.9	10.9	3.6	4.3	1.7	3.8	0.8

Table A-9 Households with children under five years of age by type of water supply, sanitation conditions and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	547,000	40,000	507,000	270,784	88,040	148,176	68,554
Water supply							
urban and rural systems	410,018	34,800	375,218	213,148	82,150	79,920	64,468
wells	116,110	4,400	111,710	50,252	4,650	56,808	3,632
other	20,872	800	20,072	7,384	1,240	11,448	454
Distance from water source							
in the dwelling	432,835	36,000	396,835	228,407	82,460	85,968	64,922
in the yard	98,016	3,200	94,816	35,030	3,410	56,376	2,270
other	16,149	800	15,349	7,347	2,170	5,832	1,362
Type of toilet							
flush to sewage system	217,257	12,400	204,857	126,077	20,460	58,320	44,492
flush to septic tank	186,043	20,880	165,163	81,753	54,250	29,160	19,068
latrine	123,383	6,080	117,303	52,105	12,710	52,488	4,540
other	20,317	640	19,677	10,849	620	8 208	454
Distance from toilet facility							
in the dwelling	380,039	33,120	340,919	205,625	73,470	67,824	63,560
less than 50 m	153,035	4,720	148,315	58,859	13,640	75,816	4,994
other	13,926	2,160	11,766	6,300	930	4,536	-
	In urban settlements						
Total	255,213	21,840	233,373	133,971	49,290	50,112	51,756
Water supply							
urban and rural systems	250,567	21,760	228,807	132,711	48,360	47,736	51,756
wells	3,311	-	3,311	315	620	2,376	-
other	1,335	80	1,255	945	310	-	-
Distance from water source							
in the dwelling	244,674	21,360	223,314	129,876	47,430	46,008	51,756
in the yard	9,834	400	9,434	3,780	1,550	4,104	-
other	705	80	625	315	310	-	-
Type of toilet							
flush to sewage system	187,030	10,480	176,550	114,496	20,150	41,904	42,676
flush to septic tank	50,006	10,320	39,686	11,674	25,420	2,592	7,264
latrine	15,382	800	14,582	5,772	3,410	5,400	1,362
other	2,795	240	2,555	2,029	310	216	454
Distance from toilet facility							
in the dwelling	230,789	20,560	210,229	125,225	45,260	39,744	49,940
less than 60 m	23,653	1,040	22,613	8,431	4,030	10,152	1,816
other	771	240	531	315	-	216	-
	In other settlements						
Total	291,787	18,160	273,627	136,813	38,750	98,064	16,798
Water supply							
urban and rural systems	159,451	13,040	146,411	80,437	33,790	32,184	12,712
wells	112,799	4,400	108,399	49,937	4,030	54,432	3,632
other	19,537	720	18,817	6,439	930	11,448	454
Distance from water source							
in the dwelling	188,161	14,640	173,521	98,531	35,030	39,960	13,166
in the yard	88,182	2,800	85,382	31,250	1,860	52,272	2,270
other	15,444	720	14,724	7,032	1,860	5,832	1,362
Type of toilet							
flush to sewage system	30,227	1,920	28,307	11,581	310	16,416	1,816
flush to septic tank	136,037	10,560	125,477	70,079	28,830	26,568	11,804
latrine	108,001	5,280	102,721	46,333	9,300	47,088	3,178
other	17,522	400	17,122	8,820	310	7,992	-
Distance from toilet facility							
in the dwelling	149,250	12,560	136,690	80,400	28,210	28,080	13,620
less than 60 m	129,382	3,680	125,702	50,428	9,610	65,664	3,178
other	13,155	1,920	11,235	5,985	930	4,320	-

Table A-9.1 Households with children under five years of age by type of water supply, sanitation conditions and type of settlement (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	75.0	87.0	74.0	78.7	93.3	54.0	94.0
wells	21.2	11.0	22.0	18.6	5.3	38.3	5.3
other	3.8	2.0	4.0	2.7	1.4	7.7	0.7
Distance from water source							
in the dwelling	79.1	90.0	78.3	84.4	93.7	58.0	94.7
in the yard	17.9	8.0	18.7	12.9	3.9	38.0	3.3
other	3.0	2.0	3.0	2.7	2.4	3.9	2.0
Type of toilet							
flush to sewage system	39.7	31.0	40.4	46.6	23.2	39.4	64.9
flush to septic tank	34.0	52.2	32.6	30.2	61.6	19.7	27.8
latrine	22.6	15.2	23.1	19.2	14.4	35.4	6.6
other	3.7	1.6	3.9	4.0	0.7	5.5	0.7
Distance from toilet facility							
in the dwelling	69.5	82.8	68.4	75.9	83.5	45.8	92.7
less than 50 m	28.0	11.8	29.3	21.7	15.5	51.2	7.3
other	2.5	5.4	2.3	2.3	1.1	3.1	-
	In urban settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	98.2	99.6	98.1	99.1	98.1	95.3	100.0
wells	1.3	-	1.4	0.2	1.3	4.7	-
other	0.5	0.4	0.5	0.7	0.6	-	-
Distance from water source							
in the dwelling	95.9	97.8	95.7	96.9	96.2	91.8	100.0
in the yard	3.9	1.8	4.0	2.8	3.1	8.2	-
other	0.2	0.4	0.3	0.2	0.6	-	-
Type of toilet							
flush to sewage system	73.3	48.0	75.7	85.5	40.9	83.6	82.5
flush to septic tank	19.6	47.3	17.0	8.7	51.6	5.2	14.0
latrine	6.0	3.7	6.2	4.3	6.9	10.8	2.6
other	1.1	1.1	1.1	1.5	0.6	0.4	0.9
Distance from toilet facility							
in the dwelling	90.4	94.1	90.1	93.5	91.8	79.3	96.5
less than 60 m	9.3	4.8	9.7	6.3	8.2	20.3	3.5
other	0.3	1.1	0.2	0.2	-	0.4	-
	In other settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	54.6	71.8	53.5	58.8	87.2	32.8	75.7
wells	38.7	24.2	39.6	36.5	10.4	55.5	21.6
other	6.7	4.0	6.9	4.7	2.4	11.7	2.7
Distance from water source							
in the dwelling	64.5	80.6	63.4	72.0	90.4	47.7	78.4
in the yard	30.2	15.4	31.2	22.8	4.8	53.3	13.5
other	5.3	4.0	5.4	5.1	4.8	6.0	8.1
Type of toilet							
flush to sewage system	10.4	10.6	10.3	8.5	0.8	16.7	10.8
flush to septic tank	46.6	58. 1	45.9	51.2	74.4	27.1	70.3
latrine	37.0	29.1	37.5	33.9	24.0	48.0	18.9
other	6.0	2.2	6.3	6.4	0.8	8.1	-
Distance from toilet facility							
in the dwelling	51.2	69.2	50.0	58.8	72.8	28.6	81.1
less than 60 m	44.3	20.3	45.9	36.9	24.8	67.0	18.9
other	4.5	10.6	4.1	4.4	2.4	4.4	-

Table A-10 Households by method of garbage disposal and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	2,915,973	160,480	2,755,493	1,803,103	733,150	219,240	520,738
Taken away by public utility	1,633,492	87,200	1 546,292	1,020,256	438,340	87,696	410,416
disposed of at a public dump	330,942	23,840	307,102	93,910	167,400	45,792	45,400
left at an illegal dump	315,367	28,880	286,487	225,337	44,950	16,200	12,712
burned	241,811	9,920	231,891	177,829	53,630	432	34,504
collected near the house	257,065	960	256,105	202,981	24,180	28,944	8,626
other	137,296	9,680	127,616	82,790	4,650	40,176	9,080
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taken away by public utility	56.0	54.3	56.1	56.6	59.8	40.0	78.8
disposed of at a public dump	11.3	14.9	11.1	5.2	22.8	20.9	8.7
left at an illegal dump	10.8	18.0	10.4	12.5	6.1	7.4	2.4
burned	8.3	6.2	8.4	9.9	7.3	0.2	6.6
collected near the house	8.8	0.6	9.3	11.3	3.3	13.2	1.7
other	4.7	6.0	4.6	4.6	0.6	18.3	1.7
	In urban settlements						
Total	1,576,323	104,000	1,472,323	973,951	414,780	83,592	410,416
Taken away by public utility	1,481,010	79,440	1,401,570	936,010	385,640	79,920	370,090
disposed of at a public dump	65,246	17,600	47,646	30,418	15,500	1,728	30,418
left at an illegal dump	12,798	3,280	9,518	2,520	5,270	1,728	-
burned	7,208	2,880	4,328	1,538	2,790	-	908
collected near the house	8,110	320	7,790	2,520	5,270	-	-
other	1,951	480	1,471	945	310	216	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taken away by public utility	94.0	76.4	95.2	96.1	93.0	95.6	92.4
disposed of at a public dump	4.1	16.9	3.2	3.1	3.7	2.1	7.4
left at an illegal dump	0.8	3.2	0.6	0.3	1.3	2.1	-
burned	0.5	2.8	0.3	0.2	0.1	-	0.2
collected near the house	0.5	0.3	0.5	0.3	1.3	-	-
other	0.1	0.5	0.3	0.1	0.1	0.3	-
	In other settlements						
Total	1,339,650	56,480	1,283,170	829,152	318,370	135,648	110,322
Taken away by public utility	152,482	7,760	144,722	84,246	52,700	7,776	31,326
disposed of at a public dump	265,696	6,240	259,456	63,492	151,900	44,064	14,982
left at an illegal dump	302,569	25,600	276,969	222,817	39,680	14,472	12,712
burned	234,603	7,040	227,563	176,291	50,840	432	33,596
collected near the house	248,955	640	248,315	200,461	18,910	28,944	8,626
other	135,345	9,200	126,145	81,845	4,340	39,960	9,080
In %)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taken away by public utility	11.4	13.7	11.3	10.2	16.6	5.7	28.4
disposed of at a public dump	19.8	11.0	20.2	7.7	47.7	32.5	13.6
left at an illegal dump	22.6	45.3	21.6	26.9	12.5	10.7	11.5
burned	17.5	12.5	17.7	21.3	16.0	0.3	30.5
collected near the house	18.6	1.1	19.4	24.2	5.9	21.3	7.8
other	10.1	16.3	9.8	9.9	1.4	29.5	8.2

Table A-11 Households with children under five years of age by method of garbage disposal and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
				Total			
Total	547,000	40,000	507,000	270,784	88,040	148,176	68,554
Taken away by public utility	264,849	20,080	244,769	138,529	53,320	52,920	48,124
disposed of at a public dump	78,372	6,800	71,572	14,194	23,250	34,110	7,264
left at an illegal dump	69,710	7,680	62,030	43,424	6,510	12,096	4,994
burned	36,985	2,800	34,185	30,963	2,790	432	5,448
collected near the house	50,218	160	50,058	27,368	2,170	20,520	908
other	46,866	2,480	44,386	16,306	-	28,080	1,816
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taken away by public utility	48.4	50.2	48.3	51.2	60.6	35.7	70.2
disposed of at a public dump	14.3	17.0	14.1	5.2	26.4	23.0	10.6
left at an illegal dump	12.7	19.2	12.2	16.0	7.4	8.2	7.3
burned	6.8	7.0	6.7	11.4	3.2	0.3	7.9
collected near the house	9.2	0.4	9.9	10.1	2.5	13.8	1.3
other	8.6	6.2	8.8	6.0	-	19.0	2.6
				In urban settlements			
Total	255,213	21,840	233,373	133,971	49,290	50,112	51,756
Taken away by public utility	238,060	17,360	220,700	127,300	45,880	47,520	45,400
disposed of at a public dump	13,014	3,120	9,894	5,902	2,480	1,512	5,902
left at an illegal dump	2,204	720	1,484	-	620	864	-
burned	1,014	560	454	454	-	-	454
collected near the house	625	-	625	315	310	-	-
other	296	80	216	-	-	216	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taken away by public utility	93.3	79.5	94.6	95.0	93.1	94.8	87.7
disposed of at a public dump	5.1	14.3	4.2	4.4	5.0	3.0	11.4
left at an illegal dump	0.9	3.3	0.6	-	1.3	1.7	-
burned	0.4	2.6	0.2	0.3	-	-	0.9
collected near the house	0.2	-	0.3	0.2	0.6	-	-
other	0.1	0.4	0.1	-	-	0.4	-
				In other settlements			
Total	291,787	18,160	273,627	136,813	38,750	98,064	16,798
Taken away by public utility	26,789	2,720	24,069	11,229	7,440	5,400	2,724
disposed of at a public dump	65,358	3,680	61,678	8,292	20,770	32,616	1,362
left at an illegal dump	67,506	6,960	60,546	43,424	5,890	11,232	4,994
burned	35,971	2,240	33,731	30,509	2,790	432	4,994
collected near the house	49,593	160	49,433	27,053	1,860	20,520	908
other	46,570	2,400	44,170	16,306	-	27,864	1,816
In %)							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Taken away by public utility	9.2	15.0	8.8	8.2	19.2	5.5	16.2
disposed of at a public dump	22.4	20.3	22.5	6.1	53.6	33.3	8.1
left at an illegal dump	23.1	38.3	22.1	31.7	15.2	11.5	29.7
burned	12.3	12.3	12.3	22.3	7.2	0.4	29.7
collected near the house	17.0	0.9	18.1	19.8	4.8	20.9	5.4
other	16.0	13.2	16.1	11.9	-	28.4	10.8

CHARACTERISTICS OF THE POPULATION SURVEYED

Table B-1 Mothers (carers) with children under five years of age, by age and type of settlement

Age of mother (carer)	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	585,392	40,640	544,752	275,018	89,590	180,144	69,008
16	315	-	315	315	-	-	-
17	841	-	841	315	310	216	-
18	4,413	-	4,413	2,835	930	648	-
19	5,672	400	5,272	2,520	1,240	1,512	-
20 - 24	128,360	7,360	121,000	65,576	21,080	34,344	6,356
25 - 29	225,283	13,040	212,243	121,139	29,760	61,344	45,854
30 - 34	133,884	10,480	123,404	51,216	22,940	49,248	10,896
35 and over	86,624	9,360	77,264	31,102	13,330	32,832	5,902
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16	0.1	-	0.1	0.1	-	-	-
17	0.1	-	0.2	0.1	0.4	0.1	-
18	0.8	-	0.8	1.0	1.0	0.4	-
19	1.0	1.1	1.0	0.9	1.4	0.8	-
20 - 24	21.9	18.1	22.2	23.8	23.5	19.1	9.2
25 - 29	38.5	32.1	39.0	44.1	33.2	34.1	66.5
30 - 34	22.9	25.8	22.7	18.6	25.6	27.3	15.8
35 and over	14.8	23.0	14.2	11.3	14.9	18.2	8.6
	In urban settlements						
Total	261,181	22,000	239,181	135,055	49,910	54, 216	52,210
16	-	-	-	-	-	-	-
17	216	-	216	-	-	216	-
18	1,997	-	1,997	945	620	432	-
19	2,199	80	2,119	945	310	864	-
20 - 24	48,316	3,040	45,276	24,246	10,230	10,800	4,086
25 - 29	104,484	7,440	97,044	63,484	17,360	16,200	34,504
30 - 34	60,567	5,760	54,807	27,841	12,710	14,256	8,626
35 and over	43,402	5,680	37,722	17,594	8,680	11,448	4,994
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16	-	-	-	-	-	-	-
17	0.1	-	0.1	-	-	0.4	-
18	0.8	-	0.8	0.7	1.2	0.8	-
19	0.8	0.4	0.9	0.7	0.6	1.6	-
20 - 24	18.5	13.8	18.9	18.0	20.5	19.9	7.8
25 - 29	40.0	33.8	40.6	47.0	34.8	29.9	66.1
30 - 34	23.2	26.2	22.9	20.6	25.5	26.3	16.5
35 and over	16.6	25.8	15.8	13.0	17.4	21.1	9.6
	In other settlements						
Total	324,211	18,640	305,571	139,963	39,680	125,928	16,798
16	315	-	315	315	-	-	-
17	625	-	625	315	310	-	-
18	2,416	-	2,416	1,890	310	216	-
19	3,473	320	3,153	1,575	930	648	-
20 - 24	80,044	4,320	75,724	41,330	10,850	23,544	2,270
25 - 29	120,799	5,600	115,199	57,655	12,400	45,144	11,350
30 - 34	73,317	4,720	68,597	23,375	10,230	34,992	2,270
35 and over	43,222	3,680	39,542	13,508	4,650	21,384	908
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
16	0.1	-	0.1	0.2	-	-	-
17	0.2	-	0.2	0.2	0.8	-	-
18	0.8	-	0.8	1.4	0.8	0.2	-
19	1.1	1.7	1.0	1.1	2.3	0.5	-
20 - 24	24.7	23.2	24.8	29.5	27.3	18.7	13.5
25 - 29	37.3	30.0	37.7	41.2	31.3	35.9	67.6
30 - 34	22.6	25.3	22.5	16.7	25.1	27.8	13.5
35 and over	13.3	19.7	12.9	9.7	11.7	17.0	5.4

Table B-3 Children under five years of age by age and sex

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	**762,222**	**54,080**	**708,142**	**340,752**	**46,810**	**185,544**	**83,082**
Under 1 year	150,791	9,440	141,351	67,161	10,850	32,832	17,706
1-2 years	149,970	11,520	138,450	70,978	6,510	37,800	16,798
2-3 years	147,948	10,640	137,308	64,576	8,990	35,424	15,436
3-4 years	155,085	11,520	143,565	67,893	12,710	36,288	19,068
4-5 years	158,428	10,960	147,468	70,144	7,750	43,200	14,074
In %							
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Under 1 year	19.8	17.5	20.0	19.7	23.2	17.7	21.3
1-2 years	19.7	21.3	19.6	20.8	13.9	20.4	20.2
2-3 years	19.4	19.7	19.4	19.0	19.2	19.1	18.6
3-4 years	20.3	21.3	20.3	19.9	27.2	19.6	23.0
4- 5 years	20.8	20.3	20.8	20.6	16.6	23.3	16.9
	Male						
Total	**404,210**	**28,560**	**375,650**	**181,554**	**25,420**	**101,736**	**43,584**
Under 1 year	80,115	5,120	74,995	36,411	6,820	17,280	10,896
1-2 years	83,101	5,280	77,821	40,441	4,650	21,384	8,626
2-3 years	74,807	5,840	68,967	34,039	2,790	20,736	7,264
3-4 years	84,367	6,320	78,047	37,041	7,440	17,928	10,896
4-5 years	81,820	6,000	75,820	33,622	3,720	24,408	5,902
In %							
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Under 1 year	19.8	17.9	20.0	20.1	26.8	17.0	25.0
1-2 years	20.6	18.5	20.7	22.3	18.3	21.0	19.8
2-3 years	18.5	20.4	18.4	18.7	11.0	20.4	16.7
3-4 years	20.9	22.1	20.8	20.4	29.3	17.6	25.0
4- 5 years	20.2	21.0	20.2	18.5	14.6	24.0	13.5
	Female						
Total	**358,012**	**25,520**	**332,492**	**159,198**	**21,390**	**83,808**	**39,498**
Under 1 year	70,676	4,320	66,356	30,750	4,030	15,552	6,810
1-2 years	66,869	6,240	60,629	30,537	1,860	16,416	8,172
2-3 years	73,141	4,800	68,341	30,537	6,200	14,688	8,172
3-4 years	70,718	5,200	65,518	30,852	5,270	18,360	8,172
4-5 years	76,608	4,960	71,648	36,522	4,030	18,792	8,172
In %							
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Under 1 year	19.7	16.9	20.0	19.3	18.8	18.6	17.2
1-2 years	18.7	24.5	18.2	19.2	8.7	19.6	20.7
2-3 years	20.4	18.8	20.6	19.2	29.0	17.5	20.7
3-4 years	19.8	20.4	19.7	19.4	24.6	21.9	20.7
4- 5 years	21.4	19.4	21.5	22.9	18.8	22.4	20.7

MODULE 1

Table 1.1. Population by method of water supply and liquid waste disposal, by type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	**10,637,910**	**620,768**	**10,017,142**	**5,944,792**	**2,089,946**	**1,982,405**	**1,630,205**
Water supply							
urban and rural systems	8,152,464	533,064	7,619,00	4,674,016	1,923,104	1,022,280	1,551,264
wells	1,112,356	17,021	1,095,332	345,399	156,860	593,073	33,832
other	1,373,090	70,680	1,302,410	925,377	9,982	367,051	45,109
Distance from water source							
in the dwelling	8,510,897	553,432	7,957,465	4,960,485	1,936,793	1,060,186	1,551,681
in the yard	1,782,564	48,260	1,734,304	802,081	97,824	834,399	59,311
other	344,450	19,076	325,374	182,226	55,329	87,819	19,213
Type of toilet							
flush to sewage system	4,193,759	217,512	3,976,247	2,811,345	466,587	698,315	1,101,840
flush to septic tank	3,616,864	304,076	3,312,788	1,608,934	1,258,873	444,982	410,579
latrine	2,432,840	92,948	2,339,892	1,261,053	352,507	726,332	114,862
other	394,446	6,232	388,214	263,460	11,978	112,776	2,924
Distance from toilet facility							
in the dwelling	7,412,975	514,444	6,898,531	4,363,683	1,699,507	835,341	1,514,508
less than 50 m	2,981,846	76,076	2,905,770	1,443 016	368,193	1,094,561	109,432
other	243,089	30,248	212,841	138 093	22,246	52,503	6,265
	In urban settlements						
Total	**5,059,146**	**382,736**	**4,676,410**	**2,964,127**	**1,153,349**	**558,935**	**1,251,787**
Water supply							
urban and rural systems	4,973,530	379,848	4,593,682	2,939,837	1,117,984	535,861	1,246,775
wells	49,210	2,812	46,398	12,459	33,939	-	835
other	36,406	76	36,330	11,831	1,426	23,073	4,177
Distance from water source							
in the dwelling	4,896,927	370,652	4,526,275	2,897,507	1,105,150	523,619	1,243,851
in the yard	139,595	11,780	127,815	59,130	33,368	35,316	6,683
other	22,624	304	22,320	7,490	14,830	-	1,253
Type of toilet							
flush to sewage system	3,690,297	191,900	3,498,397	2,560,683	447,164	489,951	1,057,566
flush to septic tank	1,051,075	172,976	878,099	278,981	579,812	19,306	163,313
latrine	285,473	15,504	269,969	102,948	120,640	46,382	29,238
other	32,301	2,356	29,945	21,516	5,134	3,296	1,671
Distance from toilet facility							
in the dwelling	4,648,262	358,644	4,289,618	2,816,402	1,012,460	460,756	1,221,714
less than 60 m	394,235	21,508	372,727	139,400	136,326	97,001	27,985
other	16,650	2,584	14,066	8,325	4,563	1,177	2,088
	In other settlements						
Total	**5,578,764**	**238,032**	**5,340,732**	**2,980,665**	**936,597**	**1,423,470**	**378,418**
Water supply							
urban and rural systems	3,178,934	153,216	3,025,718	1,734,179	805,120	486,419	304,489
wells	1,063,146	14,212	1,048,934	332,940	122,921	593,073	32,997
other	1,336,683	70,604	1,266,079	913,546	8,556	343,978	40,933
Distance from water source							
in the dwelling	3,613,970	182,780	3,431,190	2,062,979	831,643	536,568	307,830
in the yard	1,642,969	36,480	1,606,489	742,950	64,455	799,083	52,628
other	321,825	18,772	303,053	174,736	40,498	87,819	17,960
Type of toilet							
flush to sewage system	503,462	25,612	477,850	250,662	18,823	208,364	44,274
flush to septic tank	2,565,790	131,100	2,434,690	1,329,953	679,061	425,676	247,267
latrine	2,147,367	77,444	2,069,923	1,158,105	231,868	679,951	85,624
other	362,145	3,876	358,269	241,945	6,845	109,480	1,253
Distance from toilet facility							
in the dwelling	2,764,713	155,800	2,608,913	1,547,281	680,047	374,585	292,794
less than 60 m	2,587,611	54,568	2,533,043	1,303,616	231,868	997,559	81,448
other	226,440	27,664	198,776	129,767	17,682	51,326	4,177

Table 1.1a Population by method of water supply and liquid waste disposal, by type of settlement (%)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	76.6	85.9	76.1	78.6	92.0	51.6	95.2
wells	10.5	2.7	10.9	5.8	7.5	29.9	2.1
other	12.9	11.4	13.0	15.6	0.5	18.5	2.8
Distance from water source							
in the dwelling	80.0	89.2	79.4	83.4	92.7	53.5	95.2
in the yard	16.8	7.8	17.3	13.5	4.7	42.1	3.6
other	3.2	3.1	3.2	3.1	2.6	4.4	1.2
Type of toilet							
flush to sewage system	39.4	35.0	39.7	47.3	22.3	35.2	67.6
flush to septic tank	34.0	49.0	33.1	27.1	60.2	22.4	25.2
latrine	22.9	15.0	23.4	21.2	16.9	36.6	7.0
other	3.7	1.0	3.9	4.4	0.6	5.7	0.2
Distance from toilet facility							
in the dwelling	69.7	82.9	68.9	73.4	81.3	42.1	92.9
less than 50 m	28.0	12.3	29.0	24.3	17.6	55.2	6.7
other	2.3	4.9	2.1	2.3	1.1	2.6	0.4
	In urban settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	98.3	99.2	98.2	99.2	96.9	95.9	99.6
wells	1.0	0.7	1.0	0.4	2.9	-	0.1
other	0.7	0.0	0.8	0.4	0.1	4.1	0.3
Distance from water source							
in the dwelling	96.8	96.8	96.8	97.8	95.8	93.7	99.4
in the yard	2.8	3.1	2.7	2.0	2.9	6.3	0.5
other	0.4	0.1	0.5	0.3	1.3	-	0.1
Type of toilet							
flush to sewage system	72.9	50.1	74.8	86.4	38.8	87.7	84.5
flush to septic tank	20.8	45.2	18.8	9.4	50.3	3.5	13.0
latrine	5.6	4.1	5.8	3.5	10.5	8.3	2.3
other	0.6	0.6	0.6	0.7	0.4	0.6	0.1
Distance from toilet facility							
in the dwelling	91.9	93.7	91.7	95.0	87.8	82.4	97.6
less than 60 m	7.8	5.6	8.0	4.7	11.8	17.4	2.2
other	0.3	0.7	0.3	0.3	0.4	0.2	0.2
	In other settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water supply							
urban and rural systems	57.0	64.4	56.7	58.2	86.0	34.2	80.5
wells	19.1	6.0	19.6	11.2	13.1	41.7	8.7
other	24.0	29.7	23.7	30.6	0.9	24.2	10.8
Distance from water source							
in the dwelling	64.8	76.8	64.2	69.2	88.8	37.7	81.3
in the yard	29.5	15.3	30.1	24.9	6.9	56.1	13.9
other	5.8	7.9	5.7	5.9	4.3	6.2	4.7
Type of toilet							
flush to sewage system	9.0	10.8	8.9	8.4	2.0	14.6	11.7
flush to septic tank	46.0	55.1	45.6	44.6	72.5	29.9	65.3
latrine	38.5	32.5	38.8	38.9	24.8	47.8	22.6
other	6.5	1.6	6.7	8.1	0.7	7.7	0.3
Distance from toilet facility							
in the dwelling	49.6	65.5	48.8	51.9	73.4	26.3	77.4
less than 60 m	46.4	22.9	47.4	43.7	24.8	70.1	21.5
other	4.1	11.6	3.7	4.4	1.9	3.6	1.1

MODULE 2

Table 2.2. Mothers (carers) by symptoms that lead them to take the child to a doctor in case of ARI and by type of settlement

Symptoms	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
				Total			
Total	585,392	40,640	544,752	275,018	89,590	180,144	69,008
%	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Blocked nose	194,655	11,200	183,455	99,347	31,620	52,488	24,062
%	33. 3	27. 6	33. 7	36. 1	35. 3	29. 1	34. 9
Less food taken	82,095	10,880	71,215	40,265	20,150	10,800	9,080
%	14. 0	26. 8	13. 1	14. 6	22. 5	6. 0	13. 2
Fever	502,791	37,600	465,191	225,701	75,330	164,160	54,026
%	85. 9	92. 5	85. 4	82. 1	84. 1	91. 1	78. 3
Sleeping disorders	98,246	10,720	87,526	48,696	22,630	16,200	10,896
%	16. 8	26. 4	16. 1	17. 7	25. 3	9. 0	15. 8
Fast breathing	95,081	14,160	80,921	35,753	18,600	26,568	7,718
%	16. 2	34. 9	14. 9	13. 0	20. 8	14. 7	11. 2
Difficult breathing	219,730	20,880	198,850	96,642	42,160	60,048	28,602
%	37. 5	51. 4	36. 5	35. 1	47. 1	33. 3	41. 4
Ill for a longer period of time	119,575	16,000	103,575	41,247	26,040	36,288	8,172
%	20. 4	39. 4	19. 0	15. 0	29. 1	20. 1	11. 8
Other symptoms	23,206	320	22,886	8,468	8,370	6,048	908
%	4. 0	0. 8	4. 2	3. 1	9. 3	3. 4	1. 3
				In urban settlements			
Total	261,181	22,000	239,181	135,055	49,910	54,216	52,210
%	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Blocked nose	85,836	5,120	80,716	45,954	17,050	17,712	16,344
%	32. 9	23. 3	33. 7	34. 0	34. 2	32. 7	31. 7
Less food taken	43,844	7,040	36,804	20,948	12,400	3,456	7,718
%	16. 8	32. 0	15. 4	15. 5	24. 8	6. 4	14. 8
Fever	218,672	19,520	199,152	109,632	40,920	48,600	42,222
%	83. 7	88. 7	83. 3	81. 2	82. 0	89. 6	80. 9
Sleeping disorders	51,266	7,200	44,066	23,570	14,880	5,616	9,080
%	19. 6	32. 7	18. 4	17. 5	29. 8	10. 4	17. 4
Fast breathing	44,214	8,800	35,414	16,788	10,850	7,776	5,448
%	16. 9	41. 1	14. 8	12. 4	21. 7	14. 3	10. 4
Difficult breathing	114,291	13,760	100,531	51,717	26,350	22,464	21,792
%	43. 8	62. 5	42. 0	38. 3	52. 8	41. 4	41. 7
Ill for a longer period of time	56,557	11,520	45,037	21,263	16,430	7,344	7,718
%	21. 7	52. 4	18. 8	15. 7	32. 9	13. 5	14. 8
Other symptoms	13,064	320	12,744	4,234	5,270	3,240	454
%	5. 0	1. 5	5. 3	3. 1	10. 6	6. 0	0. 9
				In other settlements			
Total	324,211	18,640	305,571	139,963	39,680	125,928	16,798
%	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0	100. 0
Blocked nose	108,819	6,080	102,739	53,393	14,570	34,776	7,718
%	33. 6	32. 6	33. 6	38. 1	36. 7	27. 6	45. 9
Less food taken	38,251	3,840	34,411	19,317	7,750	7,344	1,362
%	11. 8	20. 6	11. 3	13. 8	19. 5	5. 8	8. 1
Fever	284,119	18,080	266,039	116,069	34,410	115,560	11,804
%	87. 6	97. 0	87. 1	82. 9	86. 7	91. 8	70. 3
Sleeping disorders	46,980	3,520	43,460	25,126	7,750	10,584	1,816
%	14. 5	18. 9	14. 2	18. 0	19. 5	8. 4	10. 8
Fast breathing	50,867	5,360	45,507	18,965	7,750	18,792	2,270
%	15. 7	28. 8	14. 9	13. 6	19. 5	14. 9	13. 5
Difficult breathing	105,439	7,120	98,319	44,925	15,810	37,584	6,810
%	32. 5	38. 2	32. 2	32. 1	39. 8	29. 8	40. 5
Ill for a longer period of time	63,018	4,480	58,538	19,984	9,610	28,944	454
%	19. 4	24. 0	19. 2	14. 3	24. 2	23. 0	2. 7
Other symptoms	10,142	-	10,142	4,234	3,100	2,808	454
%	3. 1	-	3. 3	3. 0	7. 0	2. 2	2. 7

MODULE 3

Table 3.1. Children under five years of age by diarrhea morbidity and type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	762,222	54,080	708,142	340,752	108,190	259,200	83,082
children who have had diarrhea	383,030	24,960	358,070	179,516	56,730	121,824	47,216
- in past two weeks	51,284	2,480	48,804	16,130	5,890	26,784	2,270
- earlier	331,746	22,480	309,266	163,386	50,840	95,040	44,946
never had diarrhea	374,883	29,120	345,763	159,031	50,220	136,512	35,866
unknown	4,309	-	4,309	2,205	1,240	864	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
children who have had diarrhea	50.3	46.2	50.6	52.7	52.4	47.0	56.8
- in past two weeks	6.7	4.6	6.9	4.7	5.4	10.3	2.7
- earlier	43.5	41.6	43.7	47.9	47.0	36.7	54.1
never had diarrhea	49.2	53.8	48.8	46.7	46.4	52.7	43.2
unknown	0.6	-	0.6	0.6	1.1	0.3	-
	In urban settlements						
Total	327,620	28,400	299,220	164,184	61,380	73,656	64,014
children who have had diarrhea	161,092	11,680	149,412	86,998	31,310	31,104	37,228
- in past two weeks	18,372	960	17,412	8,292	3,720	5,400	1,362
- earlier	142,720	10,720	132,000	78,706	27,590	25,704	35,866
never had diarrhea	165,151	16,720	148,431	76,241	30,070	42,120	26,786
unknown	1,377	-	1,377	945	-	432	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
children who have had diarrhea	49.2	41.1	49.9	53.0	51.0	42.2	58.2
- in past two weeks	5.6	3.4	5.8	5.1	6.1	7.3	2.1
- earlier	43.6	37.7	44.1	47.9	44.9	34.9	56.0
never had diarrhea	50.4	58.9	49.6	46.4	49.0	57.2	41.8
unknown	0.4	-	0.5	0.6	-	0.6	-
	In other settlements						
Total	434,602	25,680	408,922	176,568	46,810	185,544	19,068
children who have had diarrhea	221,938	13,280	208,658	92,518	25,420	90,720	9,988
- in past two weeks	32,912	1,520	31,392	7,838	2,170	21,384	908
- earlier	189,026	11,760	177,266	84,680	23,250	69,336	9,080
never had diarrhea	209,732	12,400	199,332	82,790	20,150	94,392	9,080
unknown	2,932	-	2,932	1,260	1,240	432	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
children who have had diarrhea	51.1	51.7	51.0	52.4	54.3	48.9	52.4
- in past two weeks	7.6	5.9	7.7	4.4	4.6	11.5	4.8
- earlier	43.5	45.8	43.3	48.0	49.7	37.4	47.6
never had diarrhea	48.3	48.3	48.3	46.9	43.0	50.9	47.6
unknown	0.7	-	0.7	0.7	2.6	0.2	-

Table 3.5. Children under five years of age with diarrhea by type of liquid they received during the episode of diarrhea and by type of settlement

Type of liquid	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	383,030	24,960	358,070	179,516	56,730	121,824	47,216
%	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Breastmilk	80,446	3,920	76,526	26,646	9,920	39,960	10,896
%	**21.0**	**15.7**	**21.4**	**14.8**	**17.5**	**32.8**	**23.1**
Gruel or soup	270,812	14,480	256,332	130,440	39,060	86,832	34,050
%	**70.7**	**58.0**	**71.6**	**72.7**	**68.9**	**71.3**	**72.1**
Other fluids	279,340	19,040	260,300	121,138	39,370	99,792	30,418
%	**72.9**	**76.3**	**72.7**	**67.5**	**69.4**	**81.9**	**64.4**
ORS	118,053	7,600	110,453	48,233	9,300	52,920	14,528
%	**30.8**	**30.4**	**30.8**	**26.9**	**16.4**	**43.4**	**30.8**
Infant formula etc.	145,720	10,960	134,760	57,164	17,980	59,616	11,804
%	**38.0**	**43.9**	**37.6**	**31.8**	**31.7**	**48.9**	**25.0**
Water with food	253,147	13,200	239,947	23,945	35,650	80,352	27,240
%	**66.1**	**52.9**	**67.0**	**69.0**	**62.8**	**66.0**	**57.7**
Water only	199,713	14,960	184,753	103,729	18,600	62,424	20,884
%	**52.1**	**59.9**	**51.6**	**57.8**	**32.8**	**51.2**	**44.2**
Glucose water. tea. etc..	218,107	14,560	203,547	90,601	22,010	90,936	22,246
%	**56.9**	**58.3**	**56.8**	**50.5**	**38.8**	**74.6**	**47.1**
	In urban settlements						
Total	161,092	11,680	149,412	86,998	31,310	31,104	37,228
%	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**
Breastmilk	26,720	1,600	25,120	11,952	4,960	8,208	8,172
%	**16. 6**	**13. 7**	**16. 8**	**13. 7**	**15. 8**	**26. 4**	**22. 8**
Gruel or soup	113,690	6,800	106,890	64,586	19,840	22,464	26,786
%	**70. 6**	**58. 2**	**71. 5**	**74. 2**	**63. 4**	**72. 2**	**72. 0**
Other fluids	113,880	8,000	105,880	58,814	22,010	25,056	25,424
%	**70. 7**	**68. 5**	**70. 9**	**67. 6**	**70. 3**	**80. 6**	**68. 3**
ORS	50,128	2,960	47,168	25,942	5,890	15,336	12,712
%	**31. 1**	**25. 3**	**31. 6**	**29. 8**	**18. 8**	**49. 3**	**34. 1**
Infant formula etc.	45,373	4,640	40,733	21,995	8,375	10,368	9,080
%	**28. 2**	**39. 7**	**27. 3**	**25. 3**	**26. 7**	**33. 3**	**24. 4**
Water with food	105,309	5,920	99,389	59,555	19,530	20,304	22,700
%	**65. 4**	**50. 7**	**66. 5**	**68. 5**	**62. 4**	**65. 3**	**61. 0**
Water only	79,223	6,160	73,063	46,445	10,850	15,768	15,890
%	**49. 2**	**52. 7**	**48. 9**	**53. 4**	**34. 7**	**50. 7**	**42. 7**
Glucose water. tea. etc..	84,863	5,600	79,263	40,877	13,330	25,056	17,252
%	**52. 7**	**47. 9**	**53. 0**	**47. 0**	**42. 6**	**80. 6**	**46. 3**
	In other settlements						
Total	221,938	13,280	208,658	92,518	25,420	90,720	9,988
%	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**	**100. 0**
Breastmilk	53,726	2,320	51,406	14,694	4,960	31,752	2,724
%	**24. 2**	**17. 5**	**24. 6**	**15. 9**	**19. 5**	**35. 0**	**27. 3**
Gruel or soup	157,122	7,680	149,442	65,854	19,220	64,368	7,264
%	**70. 8**	**57. 8**	**71. 6**	**71. 2**	**75. 6**	**71. 0**	**72. 7**
Other fluids	165,460	11,040	154,420	62,324	17,360	74,736	4,994
%	**74. 6**	**83. 1**	**74. 0**	**67. 4**	**68. 3**	**82. 4**	**50. 0**
ORS	67,925	4,640	63,285	22,291	3,410	37,584	1,816
%	**30. 6**	**34. 9**	**30. 3**	**24. 1**	**13. 4**	**41. 4**	**18. 2**
Infant formula etc.	100,347	6,320	94,027	35,169	9,610	49,248	2,724
%	45. 2	47. 6	45. 1	38. 0	37. 8	54. 3	27. 3
Water with food	147,838	7,280	140,558	64,390	16,120	60,048	4,540
%	**66. 6**	**54. 8**	**67. 4**	**69. 6**	**63. 4**	**66. 2**	**45. 5**
Water only	120,490	8,800	111,690	57,284	7,750	46,656	4,994
%	**54. 3**	**66. 3**	**53. 5**	**61. 9**	**30. 5**	**51. 4**	**50. 0**
Glucose water. tea. etc..	133,244	8,960	124,284	49,724	8,680	65,880	4,994
%	**60. 0**	**67. 5**	**59. 6**	**53. 7**	**34. 1**	**72. 6**	**50. 0**

Table 3.8. Symptoms that will lead a mother to take her child with diarrhea to a doctor by type of settlement (in %)

Symptoms and clinical signs	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Dry lips and tongue	20.1	35.3	19.1	18.7	16.9	20.6	16.3
Increased thirst	21.2	36.9	20.1	21.5	16.9	19.7	11.5
No tears	4.5	4.5	4.5	3.0	1.6	8.0	1.9
Loss of weight	38.1	50.6	37.2	25.6	26.2	59.4	22.1
Irritability	26.9	31.4	26.6	28.0	21.5	23.2	21.2
Limpness	49.5	71.5	48.0	42.0	36.1	62.2	40.4
Other	20.6	5.1	21.7	26.2	35.0	8.7	31.7
Unknown	8.2	6.4	8.3	7.2	10.9	8.7	6.7
	In urban settlements						
Dry lips and tongue	17.3	32.9	16.1	16.7	18.8	11.8	17.1
Increased thirst	16.2	28.1	15.2	14.0	13.9	20.1	9.8
No tears	2.9	2.7	2.9	2.5	2.0	4.9	2.4
Loss of weight	32.6	52.7	31.0	23.1	21.8	62.5	24.4
Irritability	27.8	30.8	27.5	26.7	33.7	23.6	24.4
Limpness	43.3	68.5	41.3	38.9	29.7	59.7	42.7
Other	27.5	6.8	29.1	29.0	43.6	14.6	28.0
Unknown	9.9	8.2	10.1	8.9	12.9	10.4	7.3
	In other settlements						
Dry lips and tongue	22.1	37.3	21.1	20.5	14.6	23.6	13.6
Increased thirst	24.9	44.6	23.7	28.5	20.7	19.5	18.2
No tears	5.6	6.0	5.6	3.4	1.2	9.0	-
Loss of weight	42.1	48.8	41.7	28.0	31.7	58.3	13.6
Irritability	26.3	31.9	26.0	29.2	24.4	23.1	9.1
Limpness	54.0	74.1	52.7	45.0	43.9	63.1	31.8
Other	15.6	3.6	16.1	23.6	24.4	6.7	45.5
Unknown	6.9	4.8	7.0	5.6	8.5	8.1	4.5

MODULE 4

Table 4.1. Children under five years of age by whether they have been or are still being breastfed and by type of settlement

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
				Total			
Total	762,222	54,080	708,142	340,752	108,190	259,200	83,082
breastfed children	669,918	43,840	626,078	302,868	96,410	226,800	73,548
non-breastfed children	92,304	10,240	82,064	37,884	11,780	32,400	9,534
Breastfed children							
still breastfed	124,723	5,760	118,963	42,081	17,050	59,832	10,896
no longer breastfed	544,979	38,080	506,899	260,787	79,360	166,752	62,652
unknown	216	-	216	-	-	216	-
In %							
Total	00.0	100.0	100.0	100.0	100.0	100.0	100.0
breastfed children	87.9	81.1	88.	88.9	89.1	87.5	88.5
nonbreastfed children	12.1	18.9	11.	11.1	10.9	12.5	11.5
Breastfed children	100.0	100.0	100.0	100.0	100.0	100.0	100.0
still breastfed	18.6	13.1	19.0	13.9	17.7	26.4	14.8
no longer breastfed	81.4	86.9	81.0	86.1	82.3	73.5	85.2
unknown	0.0	-	0.0	-	-	0.1	-
				In urban settlements			
Total	327,620	28,400	299,220	164,184	61,380	73,656	64,014
breastfed children	285,254	22,160	263,094	145,302	55,800	61,992	55,842
non-breastfed children	42,366	6,240	36,126	18,882	5,580	11,664	8,172
Breastfed children							
still breastfed	48,797	2,560	46,237	20,633	11,780	13,824	7,718
no longer breastfed	236,241	19,600	216,641	124,669	44,020	47,952	48,124
unknown	216	-	216	-	-	216	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
breastfed children	87.1	78.0	87.9	88.5	90.9	84.2	87.2
nonbreastfed children	12.9	22.0	12.1	11.5	9.1	15.8	12.8
Breastfed children	100.0	100.0	100.0	100.0	100.0	100.0	100.0
still breastfed	17.1	11.5	17.6	14.2	21.1	22.3	13.8
no longer breastfed	82.8	88.5	82.3	85.8	78.9	77.4	86.2
unknown	0.1	-	0.1	-	-	0.3	-
				In other settlements			
Total	434,602	25,680	408,922	176,568	46,810	185,544	19,068
breastfed children	384,664	21,680	362,984	157,566	40,610	164,808	17,706
non-breastfed children	49,938	4,000	4, 938	19,002	6,200	20,736	1,362
Breastfed children							
still breastfed	75,926	3,200	72,726	21,448	5,270	46,008	3,178
no longer breastfed	308,738	18,480	290,258	136,118	35,340	118,800	14,528
unknown	-	-	-	-	-	-	-
In %							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
breastfed children	88.5	84.4	88.8	89.2	86.8	88.8	92.9
nonbreastfed children	11.5	15.6	11.2	10.8	13.2	11.2	7.1
Breastfed children	100.0	100.0	100.0	100.0	100.0	100.0	100.0
still breastfed	19.7	14.8	20.0	13.6	13.0	28.0	18.0
no longer breastfed	80.3	85.2	80.0	86.4	87.0	72.0	82.0
unknown	-	-	-	-	-	-	-

Table 4.11. Breastfed children under five years of age by time of first breastfeed and frequency of feeding and by type of settlement (in %)

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
	Total						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
First breastfeed::							
2 hours within birth	12.5	15.0	12.3	5.4	10.9	22.1	5.6
up to 24 hours within birth	54.3	59.9	53.9	55.4	62.1	48.5	44.4
after 24 hours	31.9	24.5	32.5	37.9	25.4	28.2	49.4
unknown	1.3	0.7	1.3	1.3	1.6	1.2	0.6
Frequency of breastfeeds:							
according to schedule	38.4	29.7	39.0	52.2	61.4	11.9	68.5
on demand	59.6	69.3	58.9	47.0	38.3	83.6	30.9
unknown	2.0	0.9	2.0	0.8	0.3	4.5	0.6
	In urban settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
First breastfeed::							
2 hours within birth	8.7	16.2	8.1	5.5	13.3	9.4	6.5
up to 24 hours within birth	59.1	70.0	58.2	55.3	61.7	61.7	46.3
after 24 hours	30.7	12.3	32.2	37.8	23.9	26.8	46.3
unknown	1.5	1.4	1.5	1.4	1.1	2.1	0.8
Frequency of breastfeeds:							
according to schedule	48.7	39.7	49.4	58.9	63.9	14.3	69.1
on demand	49.6	58.5	48.8	40.2	36.1	80.5	31.1
unknown	1.8	1.8	1.8	1.0	-	5.2	0.8
	In other settlements						
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
First breastfeed::							
2 hours within birth	15.3	13.7	15.3	5.3	7.6	26.9	2.6
up to 24 hours within birth	50.8	49.4	50.9	55.5	62.6	43.5	38.5
after 24 hours	32.8	36.9	32.6	38.0	27.5	28.7	59.0
unknown	1.1	-	1.2	1.2	2.3	0.9	-
Frequency of breastfeeds:							
according to schedule	30.8	19.6	31.5	46.1	58.0	11.0	66.7
on demand	67.1	80.4	66.3	53.3	41.2	84.8	33.3
unknown	2.1	-	2.2	0.6	0.8	4.2	-

MODULE 5

Table 5.1. Compulsory immunization of children under five years of age by type of vaccine and source of information and by type of settlement

- Total -

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	762,222	54,080	708,142	340,752	108,190	259,200	83,082
BCG							
vaccinated children	732,328	53,360	678,968	334,174	106,330	238,464	82,174
in %	**96.1**	**98.7**	**95.9**	**98.1**	**98.3**	**92.0**	**98.9**
not vaccinated	24,576	160	24,416	4,234	310	19,872	454
in %	**3.2**	**0.3**	**3.4**	**1.2**	**0.3**	**7.7**	**0.5**
unknown	5,318	560	4,758	2,344	1 550	864	454
in %	**0.7**	**1.0**	**0.7**	**0.7**	**1.4**	**0.3**	**0.5**
Source of information							
medical records	231,073	33,520	197,553	90,657	48,360	58,536	28,602
in %	**30.5**	**62.0**	**27.9**	**26.6**	**44.7**	**22.6**	**34.4**
mother's (carer's) statement	531,149	20,560	510,589	250,095	59,830	200,664	54,480
in %	**69.7**	**38.0**	**72.1**	**73.4**	**55.3**	**77.4**	**65.6**
DTP							
children who received 1 dose	30,627	2,880	27,747	13,499	4,960	9,288	4,994
in %	**4.0**	**5.3**	**3.9**	**4.0**	**4.6**	**3.6**	**6.0**
children who received 2 doses	31,046	2,400	28,646	14,342	3,720	10,584	3,632
in %	**4.1**	**4.4**	**4.0**	**4.2**	**3.4**	**4.1**	**4.4**
children who received 3 doses	591,300	43,760	547,540	281,188	85,560	180,792	64,468
in %	**77.6**	**80.9**	**77.3**	**82.5**	**79.1**	**69.8**	**77.6**
not vaccinated	92,759	4,320	88,439	24,941	12,090	51,408	6,356
in %	**12.2**	**8.0**	**12.5**	**7.3**	**11.2**	**19.9**	**7.7**
unknown	16,490	720	15,770	6,782	1,860	7,128	3,632
in %	**2.2**	**1.3**	**2.2**	**2.0**	**1.7**	**2.8**	**4.4**
Source of information							
medical records	350 350	45 920	304 430	169 380	77 810	57 240	40 860
in %	**46.0**	**84.9**	**43.0**	**49.7**	**71.9**	**22.1**	**49.2**
mother's (carer's) statement	411 872	8 160	403 712	171 372	30 380	201 960	42 222
in %	**54.0**	**15.1**	**57.0**	**50.3**	**28.1**	**77.9**	**50.8**
OPV							
children who received 1 dose	75,051	2,960	72,091	16,399	5,580	50,112	7,264
in %	**9.8**	**5.5**	**10.2**	**4.8**	**5.2**	**19.3**	**8.7**
children who received 2 doses	28,296	2,320	25,976	15,250	4,030	6,696	4,540
in %	**3.7**	**4.3**	**3.7**	**4.5**	**3.7**	**2.6**	**5.5**
children who received 3 doses	589,467	43,920	545,547	277,871	84,940	182,736	60,836
in %	**77.4**	**81.1**	**77.1**	**81.6**	**78.5**	**70.6**	**73.3**
not vaccinated	52,774	4,320	48,454	22,634	11,780	14,040	4,994
in %	**6.9**	**8.0**	**6.8**	**6.6**	**10.9**	**5.4**	**6.0**
unknown	16,634	560	16,074	8,598	1,860	5,616	5,448
in %	**2.2**	**1.0**	**2.3**	**2.5**	**1.7**	**2.2**	**6.6**
Source of information							
medical records	351,050	46,000	305,050	169,380	78,430	57,240	40,860
in %	**46.1**	**85.1**	**43.1**	**49.7**	**72.5**	**22.1**	**49.2**
mother's (carer's) statement	411,172	8,080	403,092	171,372	29,760	201,960	42,222
in %	**53.9**	**14.9**	**56.9**	**50.3**	**27.5**	**77.9**	**50.8**
Measles							
vaccinated children	521,498	39,840	481,658	242,470	70,060	169,128	52,210
in %	**68.4**	**73.7**	**68.0**	**71.2**	**64.8**	**65.3**	**62.8**
not vaccinated	211,444	12,960	198,484	85,450	34,410	78,624	24,970
in %	**27.7**	**24.0**	**28.0**	**25.1**	**31.8**	**30.3**	**30.1**
unknown	29,280	1,280	28,000	12,832	3,720	11,448	5,902
in %	**3.8**	**2.4**	**4.0**	**3.8**	**3.4**	**4.4**	**7.1**
Source of information							
medical records	327,902	43,360	284,542	158,012	70,370	56,160	37,682
in %	**43.0**	**80.2**	**40.2**	**46.4**	**65.0**	**21.7**	**45.4**
mother's (carer's) statement	434,320	10,720	423,600	182,740	37,820	203,040	45,400
in %	**57.0**	**19.8**	**59.8**	**53.6**	**35.0**	**78.3**	**54.6**

Table 5.1a Compulsory immunization of children under five years of age by type of vaccine and source of information and by type of settlement

- In urban settlements -

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	327,620	28,400	299,220	164,184	61,380	73,656	64,014
BCG							
vaccinated children	320,981	28,000	292,981	162,331	60,450	70,200	63,106
in %	**98.0**	**98.6**	**97.9**	**98.9**	**98.5**	**95.3**	**98.6**
not vaccinated	4,404	80	4,324	1,084	-	3,240	454
in %	**1.3**	**0.3**	**1.4**	**0.7**	**-**	**4.4**	**0.7**
unknown	2,235	320	1,915	769	930	216	454
in %	**0.7**	**1.1**	**0.6**	**0.5**	**1.5**	**0.3**	**0.7**
Source of information							
medical records	129,437	15,040	114,397	55,525	26,040	32,832	24,970
in %	**39.5**	**53.0**	**38.2**	**33.8**	**42.4**	**44.6**	**39.0**
mother's (carer's) statement	198,183	13,360	184,823	108,659	35,340	40,824	39,044
in %	**60.5**	**47.0**	**61.8**	**66.2**	**57.6**	**55.4**	**61.0**
DTP							
children who received 1 dose	14,404	1,760	12,644	7,412	3,720	1,512	3,632
in %	**4.4**	**6.2**	**4.2**	**4.5**	**6.1**	**2.1**	**5.7**
children who received 2 doses	12,874	1,360	11,514	6,226	2,480	2,808	1,816
in %	**3.9**	**4.8**	**3.8**	**3.8**	**4.0**	**3.8**	**2.8**
children who received 3 doses	257,952	22,080	235,872	133,832	45,880	56,160	51,302
in %	**78.7**	**77.7**	**78.8**	**81.5**	**74.8**	**76.2**	**80.1**
not vaccinated	33,963	2,800	31,163	13,045	7,750	10,368	4,540
in %	**10.4**	**9.9**	**10.4**	**7.9**	**12.6**	**14.1**	**7.1**
unknown	8,427	400	8,027	3,669	1,550	2,808	2,724
in %	**2.6**	**1.4**	**2.7**	**2.2**	**2.5**	**3.8**	**4.3**
Source of information							
medical records	185,276	24 080	161 196	84 626	43 090	33 480	33 596
in %	**56.6**	**84.8**	**53.9**	**51.5**	**70.2**	**45.5**	**52.5**
mother's (carer's) statement	142,344	4 320	138 024	79 558	18 290	40 176	30 418
in %	**43.4**	**15.2**	**46.1**	**48.5**	**29.8**	**54.5**	**47.5**
OPV							
children who received 1 dose	26,154	1,920	24,234	9,404	4,030	10,800	4,994
in %	**8.0**	**6.8**	**8.1**	**5.7**	**6.6**	**14.7**	**7.8**
children who received 2 doses	12,043	1,200	10,843	6,541	2,790	1,512	1,816
in %	**3.7**	**4.2**	**3.6**	**4.0**	**4.5**	**2.1**	**2.8**
children who received 3 doses	255,768	22,000	233,768	132,470	45,570	55,728	49,940
in %	**78.0**	**77.4**	**78.2**	**80.7**	**74.3**	**75.6**	**78.0**
not vaccinated	24,594	2,960	21,634	10,738	7,440	3,456	3,178
in %	**7.5**	**10.4**	**7.2**	**6.5**	**12.1**	**4.7**	**5.0**
unknown	9,061	320	8,741	5,031	1,550	2,160	4,086
in %	**2.8**	**1.1**	**2.9**	**3.1**	**2.5**	**2.9**	**6.4**
Source of information							
medical records	185,981	24,160	161,821	84,941	43,400	33,480	33,596
in %	**56.8**	**85.1**	**54.1**	**51.7**	**70.7**	**45.5**	**52.5**
mother's (carer's) statement	141,639	4,240	137,399	79,243	17,980	40,176	30,418
in %	**43.2**	**14.9**	**45.9**	**48.3**	**29.3**	**54.5**	**47.5**
Measles							
vaccinated children	220,584	19,440	201,144	115,654	36,890	48,600	41,314
in %	**67.3**	**68.5**	**67.2**	**70.4**	**60.1**	**66.0**	**64.5**
not vaccinated	93,338	8,400	83,938	41,192	22,010	20,736	17,252
in %	**28.2**	**29.6**	**28.1**	**25.1**	**35.9**	**28.2**	**27.0**
unknown	14,698	560	14,138	7,338	2,480	4,320	5,448
in %	**4.5**	**2.0**	**4.7**	**4.5**	**4.0**	**5.9**	**8.5**
Source of information							
medical records	173,378	22,560	150,818	78,400	39,370	33,048	31,780
in %	**52.9**	**79.4**	**50.4**	**47.8**	**64.1**	**44.9**	**49.6**
mother's (carer's) statement	154,242	5,840	148,402	85,784	22,010	40,608	32,234
in %	**47.1**	**20.6**	**49.6**	**52.2**	**35.9**	**55.1**	**50.4**

Table 5.1b Compulsory immunization of children under five years of age by type of vaccine and source of information and by type of settlement

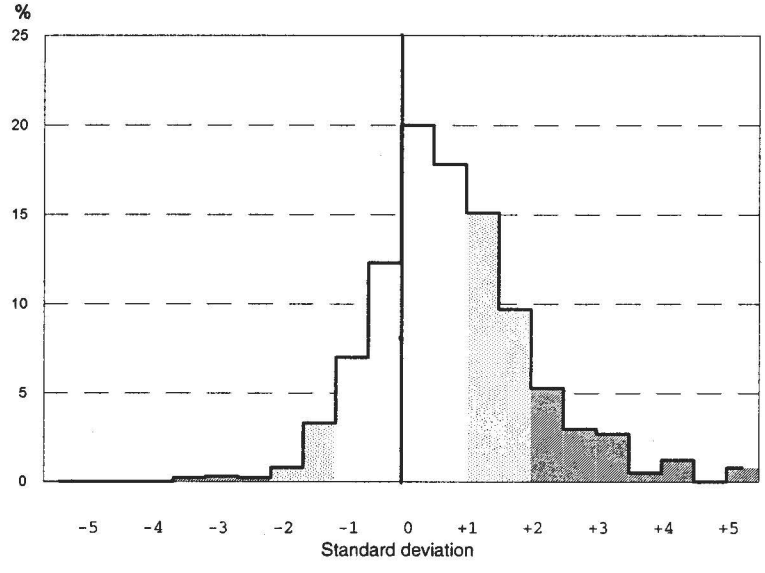
- In other settlements -

	FR Yugoslavia	Montenegro	Serbia				Belgrade area
			Total	Central Serbia	Vojvodina	Kosovo-Metohija	
Total	434,602	25,680	408,922	176,568	46,810	185,544	19,068
BCG							
vaccinated children	411,347	25,360	385,987	171,843	45,880	168,264	19,068
in %	**94.6**	**98.8**	**94.4**	**97.3**	**98.0**	**90.7**	**100.0**
not vaccinated	20,172	80	20,092	3,150	310	16,632	-
in %	**4.6**	**0.3**	**4.9**	**1.8**	**0.7**	**9.0**	**-**
unknown	3,083	240	2,843	1,575	620	648	-
in %	**0.7**	**0.9**	**0.7**	**0.9**	**1.3**	**0.3**	**-**
Source of information							
medical records	101,636	18,480	83,156	35,132	22,320	25,704	3,632
in %	**23.4**	**72.0**	**20.3**	**19.9**	**47.7**	**13.9**	**19.0**
mother's (carer's) statement	332,966	7,200	325,766	141,436	24,490	159,840	15,436
in %	**76.6**	**28.0**	**79.7**	**80.1**	**52.3**	**86.1**	**81.0**
DTP							
children who received 1 dose	16,223	1,120	15,103	6,087	1,240	7,776	1,362
in %	**3.7**	**4.4**	**3.7**	**3.4**	**2.6**	**4.2**	**7.1**
children who received 2 doses	18,172	1,040	17,132	8,116	1,240	7,776	1,816
in %	**4.2**	**4.0**	**4.2**	**4.6**	**2.6**	**4.2**	**9.5**
children who received 3 doses	333,348	21,680	311,668	147,356	39,680	124,632	13,166
in %	**76.7**	**84.5**	**76.2**	**83.5**	**84.7**	**67.2**	**69.0**
not vaccinated	58,796	1,520	57,276	11,896	4,340	41,040	1,816
in %	**13.5**	**5.9**	**14.0**	**6.7**	**9.3**	**22.1**	**9.5**
unknown	8,063	320	7,743	3,113	310	4,320	908
in %	**1.9**	**1.2**	**1.9**	**1.8**	**0.7**	**2.3**	**4.8**
Source of information							
medical records	165,074	21,840	143,234	84,754	34,720	23,760	7,264
in %	**38.0**	**85.0**	**35.0**	**48.0**	**74.2**	**12.8**	**38.1**
mother's (carer's) statement	269,528	3,840	265,688	91,814	12,090	161,784	11,804
in %	**62.0**	**15.0**	**65.0**	**52.0**	**25.8**	**87.2**	**61.9**
OPV							
children who received 1 dose	48,897	1,040	47,857	6,995	1,550	39,312	2,270
in %	**11.3**	**4.0**	**11.7**	**4.0**	**3.3**	**21.2**	**11.9**
children who received 2 doses	16,253	1,120	15,133	8,709	1,240	5,184	2,724
in %	**3.7**	**4.4**	**3.7**	**4.9**	**2.6**	**2.8**	**14.3**
children who received 3 doses	333,699	21,920	311,779	145,401	39,370	127,008	10,896
in %	**76.8**	**85.4**	**76.3**	**82.3**	**84.1**	**68.4**	**57.1**
not vaccinated	28,180	1,360	26,820	11,896	4,340	10,584	1,816
in %	**6.5**	**5.3**	**6.6**	**6.7**	**9.3**	**5.7**	**9.5**
unknown	7 573	240	7,333	3,567	310	3,456	1,362
in %	**1.7**	**0.9**	**1.8**	**2.0**	**0.7**	**1.9**	**7.1**
Source of information							
medical records	165,069	21,840	143,229	84,439	35,030	23,760	7,264
in %	**38.0**	**85.0**	**35.0**	**47.8**	**74.8**	**12.8**	**38.1**
mother's (carer's) statement	269,533	3,840	265,693	92,129	11,780	161,784	11,804
in %	**62.0**	**15.0**	**65.0**	**52.2**	**25.2**	**87.2**	**61.9**
Measles							
vaccinated children	300,914	20,400	280,514	126,816	33,170	120,528	10,896
in %	**69.2**	**79.4**	**68.6**	**71.8**	**70.9**	**65.0**	**57.1**
not vaccinated	119,106	4,560	114,546	44,258	12,400	57,888	7,718
in %	**27.4**	**17.8**	**28.0**	**25.1**	**26.5**	**31.2**	**40.5**
unknown	14,582	720	13,862	5,494	1,240	7,128	454
in %	**3.4**	**2.8**	**3.4**	**3.1**	**2.6**	**3.8**	**2.4**
Source of information							
medical records	154,524	20,800	133,724	79,612	31,000	23,112	5,902
in %	**35.6**	**81.0**	**32.7**	**45.1**	**66.2**	**12.5**	**31.0**
mother's (carer's) statement	280,078	4,880	275,198	96,956	15,810	162,432	13,166
in %	**64.4**	**19.0**	**67.3**	**54.9**	**33.8**	**87.5**	**69.0**

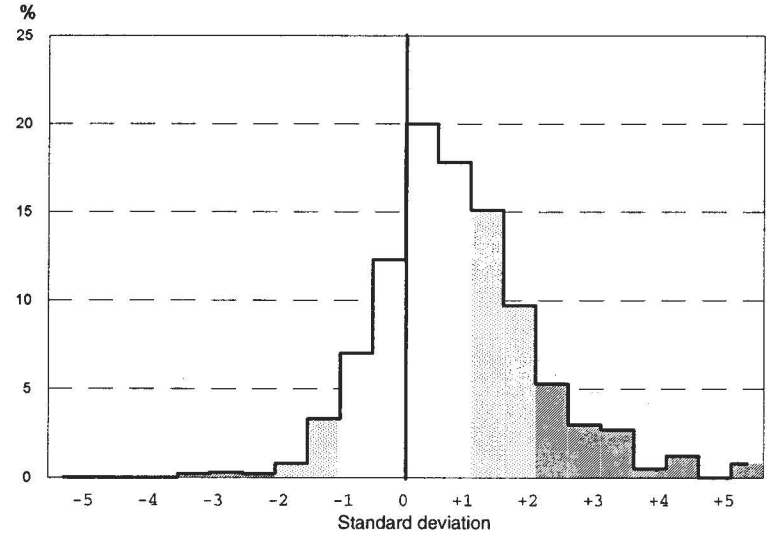
MODULE 6

Montenegro

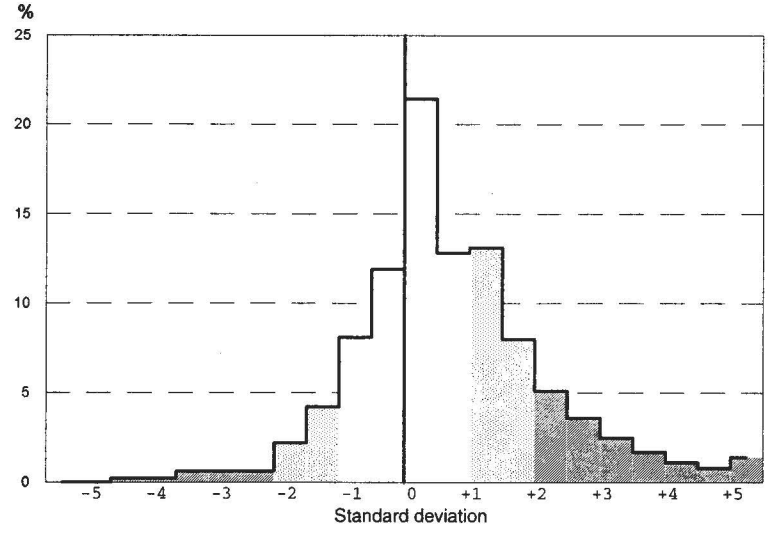
Graph 6.1. Weight for age



Graph 6.2. Height for age

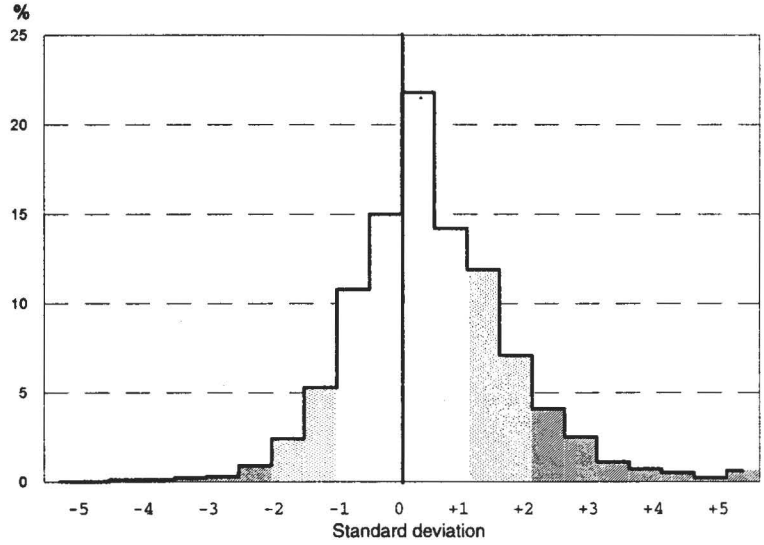


Graph 6.3. Weight for height

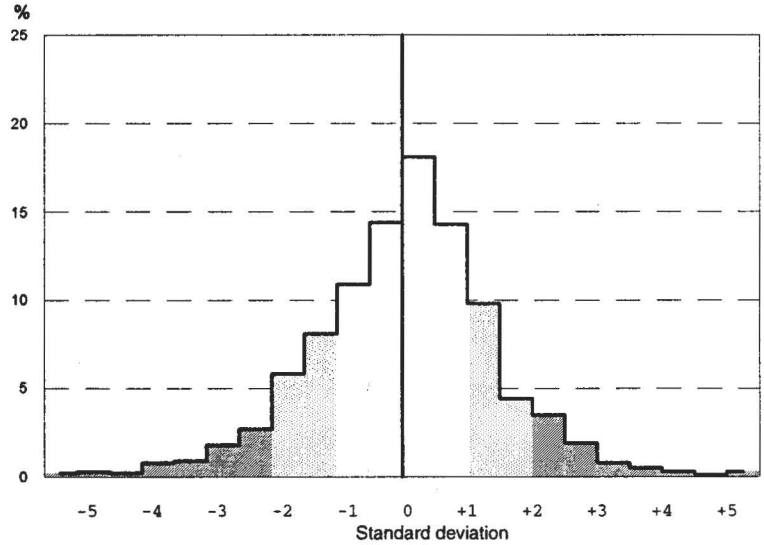


Republic of Serbia

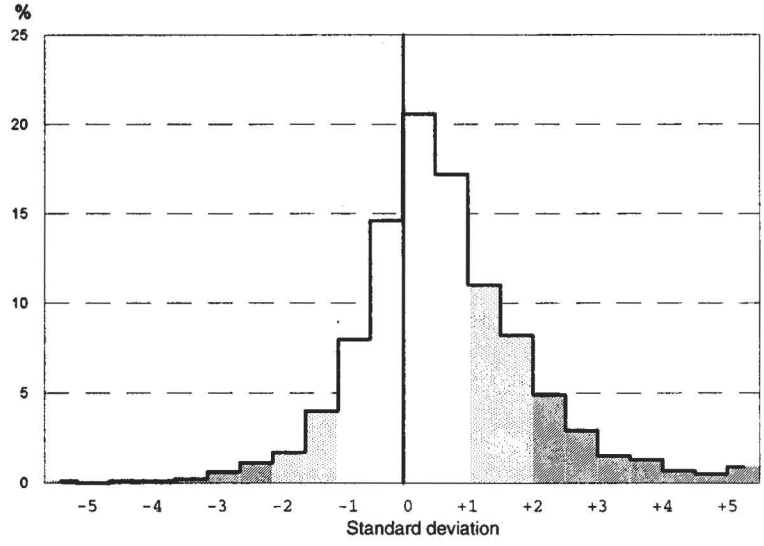
Graph 6.1. Weight for age



Graph 6.2 Height for age

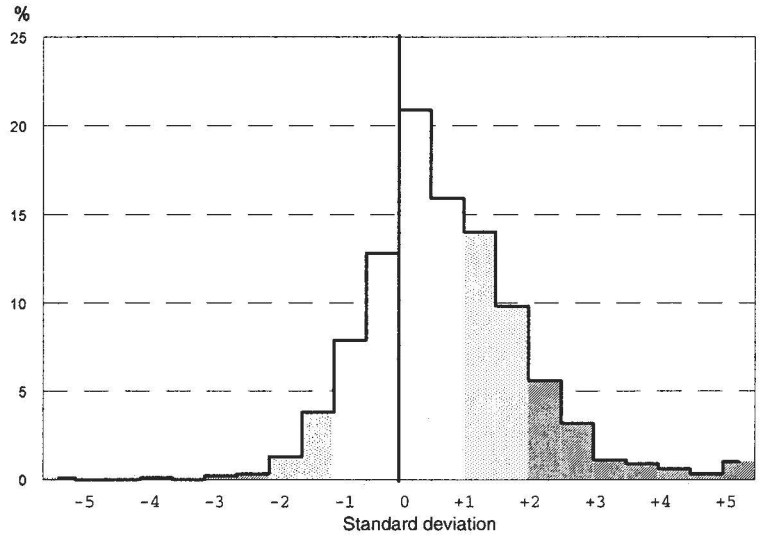


Graph 6.3. Weight for height

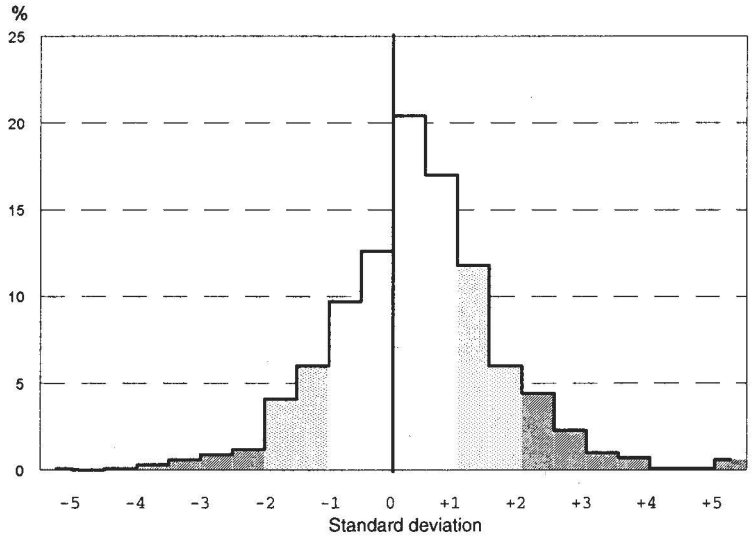


Central Serbia

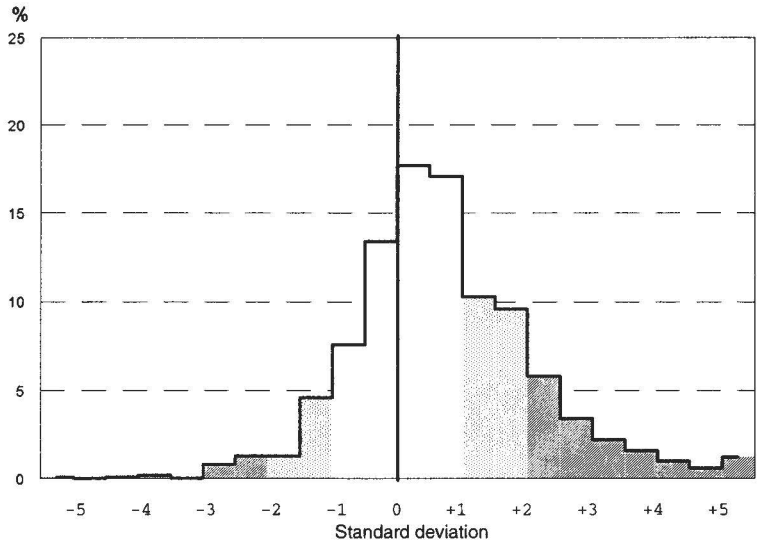
Graph 6.1. Weight for age



Graph 6.2. Height for age

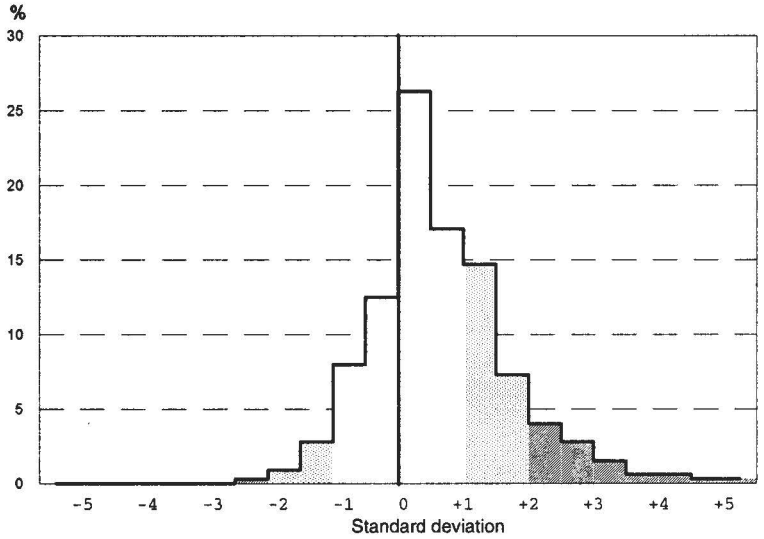


Graph 6.3. Weight for height

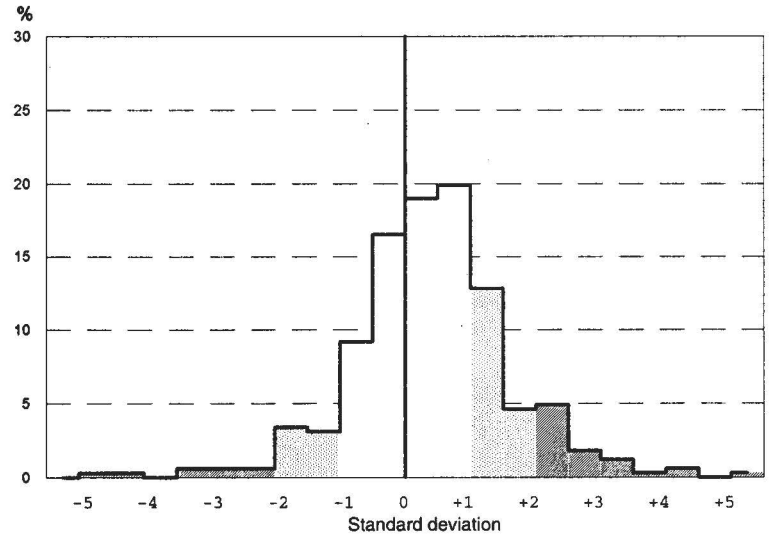


Vojvodina

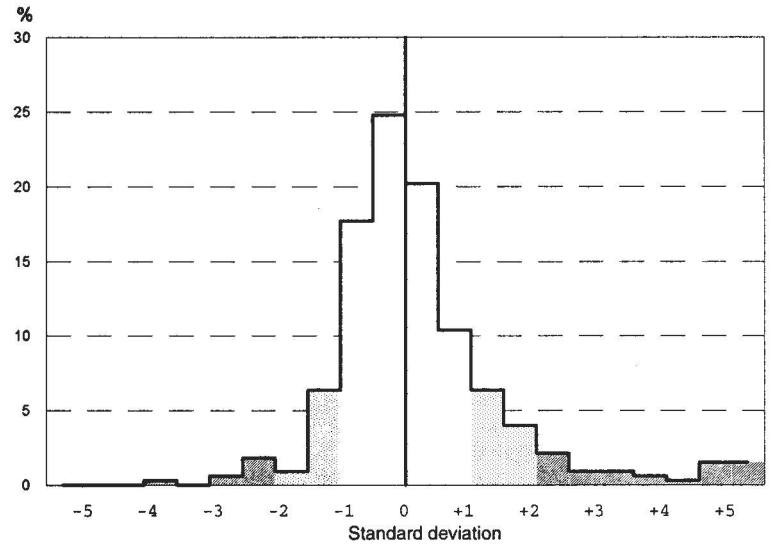
Graph 6.1. Weight for age



Graph 6.2. Height for age

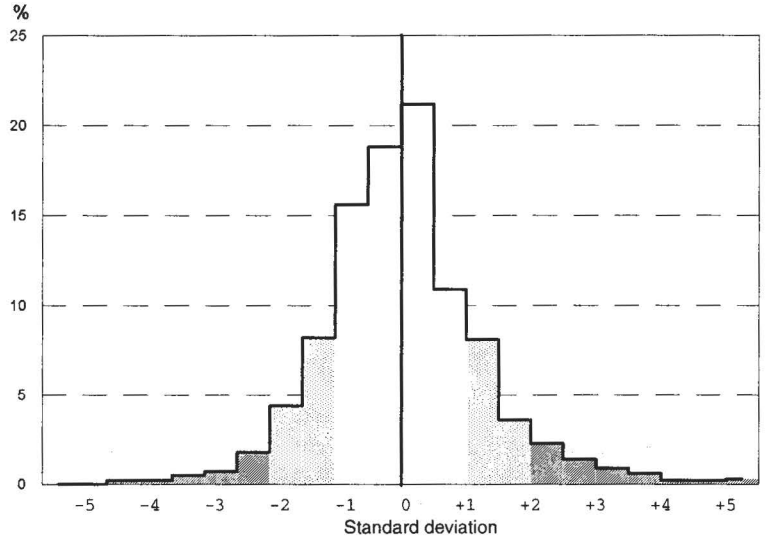


Graph 6.3. Weght for height

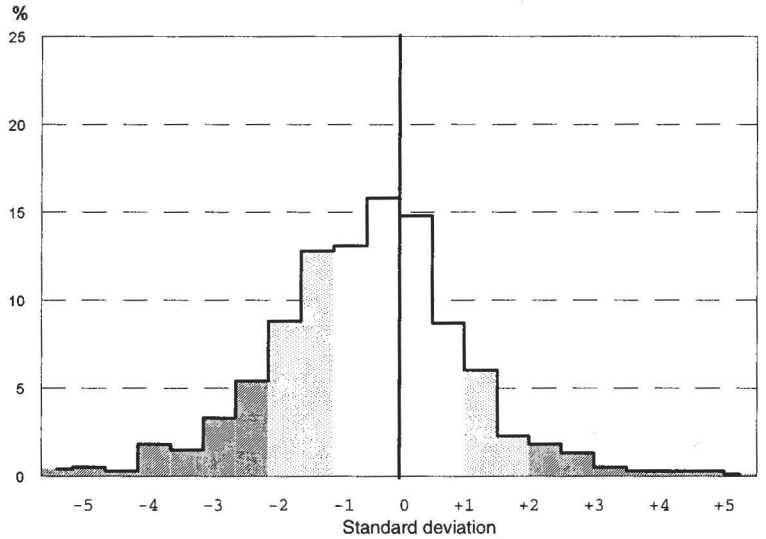


Kosovo-Metohija

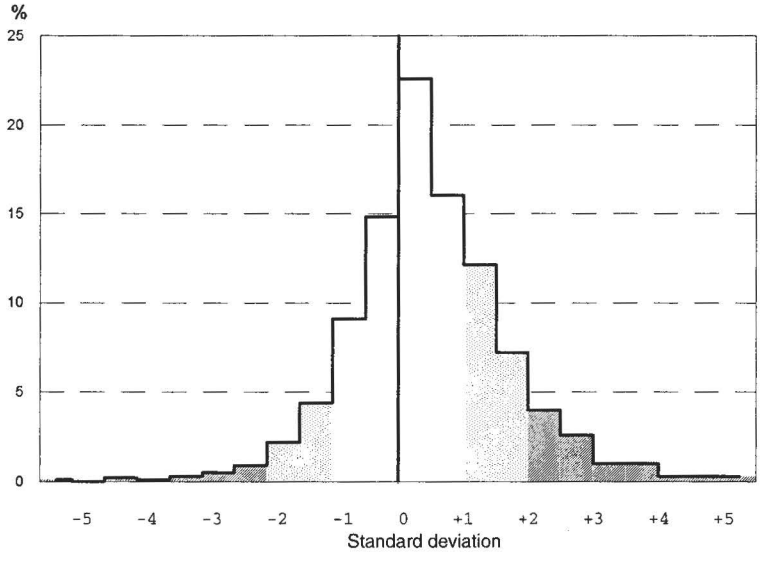
Graph 6.1. Weight for age



Graph 6.2. Height for age

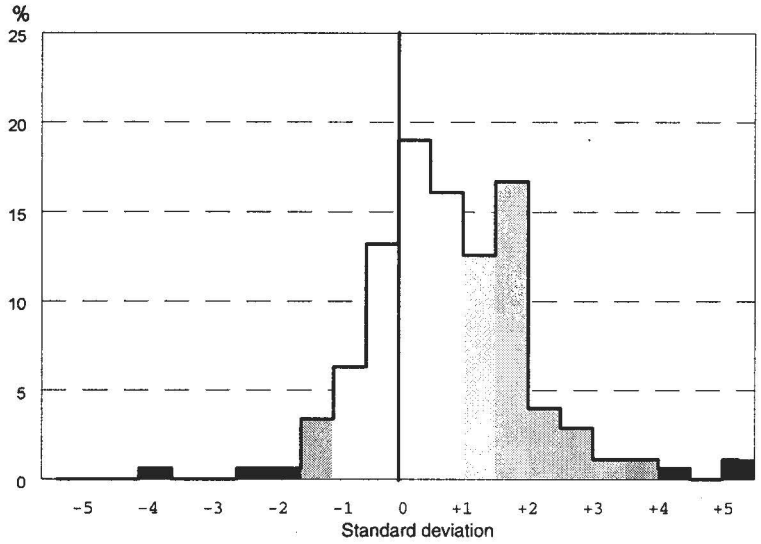


Graph 6.3. Weight for height

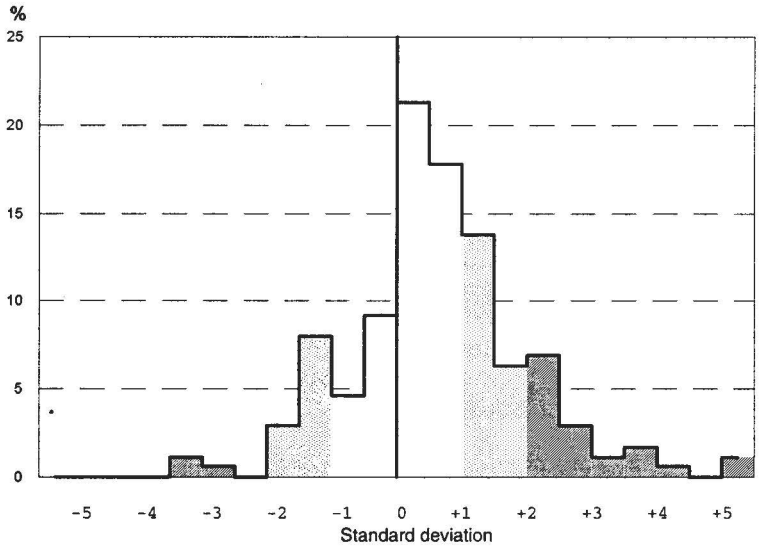


Belgrade area

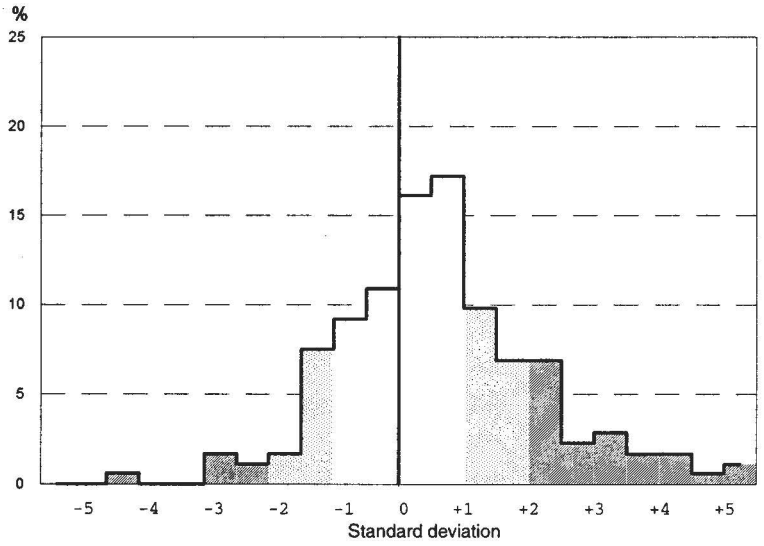
Graph 6.1. Weight for age



Graph 6.2. Height for age



Graph 6.3. Weight for height



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The results of the survey "Monitoring Progress Towards Achieving the Goals of the World Summit for Children in the FR Yugoslavia":

⇒ About 8,127,000 people (76.4 percent of the population) get drinking water in the dwelling/yard from a public water-supply system.

⇒ About 7,372,000 people (69.3 percent of the population) use toilet facilities linked to a sewage system or septic tank in the dwelling.

⇒ 43.1 percent of mothers (carers) of children under five years of age cite major symptoms of acute respiratory infections - difficult and rapid breathing - as reasons for taking the child to a doctor immediately.

⇒ 98.5 percent of children under five years of age have been treated with an oral rehydration solution and/or some other recommended fluid (oral rehydration therapy according to the pre-1993 definition) during an episode of diarrhoea.

⇒ 41.3 percent of children under five years of age have been treated with oral rehydration therapy (increased fluids and continued feeding) during an episode of diarrhoea.

⇒ 6.2 percent of children are exclusively breastfed through the 4th month of life

⇒ 70 percent of children are predominantly breastfed through the 4th month of life.

⇒ 35.2 percent of children begin to receive supplementary food at the age of 6-9 months (180-299 days).

⇒ 13.4 percent of children continue to breastfeed through the 20th-23rd month of life.

⇒ 97.1 percent of children are covered by BCG vaccinations in the first year of life.

⇒ 88.0 percent of children are vaccinated against diphtheria, tetanus and pertussis in the first year of life.

⇒ 86.6 percent of children are vaccinated against polio in the first year of life.

⇒ 90.8 percent of children are vaccinated against measles in the second year of life.

⇒ 1.6 percent of children under five years of age fall below -2 standard deviations, and 0.4 percent below -3 standard deviations from the reference weight for age (according to *NCHS/WHO* standards).

⇒ 6.8 percent of children under five years of age fall below -2 standard deviations, and 2.4 percent below -3 standard deviations from the reference height for age (according to *NCHS/WHO* standards).

⇒ 2.1 percent of children under five years of age fall below -2 standard deviations, and 0.5 percent below -3 standard deviations from the reference weight for height (according to *NCHS/WHO* standards).

UNICEF Belgrade Office

May, 1997

MONITORING PROGRESS TOWARDS THE GOALS OF THE WORLD SUMMIT FOR CHILDREN