

**The Situation of Children and  
Young People at the Regional Level in Armenia**

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The project to monitor the impact of economic and social change on children in Eastern and Central Europe and the Commonwealth of Independent States (MONEE) was initiated at the UNICEF Innocenti Research Centre in 1992. The project seeks to monitor, analyse and disseminate information on economic and social trends affecting children's rights and wellbeing in countries in the region. A key feature of the Project is a network of correspondents in the 27 National Statistical Offices (NSOs). On an annual basis these correspondents complete an extensive data template which in turn is used for calculating indicators, supporting research of the project and, in due course, being made publicly available as the TransMonee database and in tables and graphs of the Innocenti Social Monitor.

For a number of years, each participating NSO prepared a Country Analytical Report based on extensive outline from UNICEF IRC on a different theme on the situation of children every year. These analytical reports have provided valuable input into the research at UNICEF IRC and, as significantly, have also served as important national documents on monitoring aspects of child wellbeing in the countries. Some of these Country Analytical Reports have been issued by the NSOs (in the national language) as part of their publication programme.

UNICEF IRC attaches great value to these national assessments of the situation of children and is committed to promote the efforts, including through translating the reports into English (where the submitted report has been in Russian) and offering its website to make them accessible to a wider research audience. The Country Analytical Reports are owned and authored by the National Statistical Offices and are not the intellectual property of UNICEF (see below).

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# Analytical report on the situation of children and young people at the regional level

## *1.Introduction*

The basis for administrative-territorial division of the Republic of Armenia is the Law of RA on administrative-territorial division of the Republic of Armenia (adopted on December 4, 1995), according to which the territory of the country is divided into 11 marzes including the city of Yerevan with a marz status (with 12 district communities), 47 urban and 869 rural communities.

### **Administrative-territorial division of RA as of January 1, 2004, by marz**

Table 1

	Number of communities			
	Total	urban	district	rural
Republic of Armenia	928	47	12	869
Yerevan	12	-	12	-
Aragatsotn	113	3	-	110
Ararat	97	4	-	93
Armavir	97	3	-	94
Gegharkunik	92	5	-	87
Lori	113	8	-	105
Kotayk	67	7	-	60
Shirak	119	3	-	116
Syunik	112	7	-	105
Vayots Dzor	44	3	-	41
Tavush	62	4	-	58

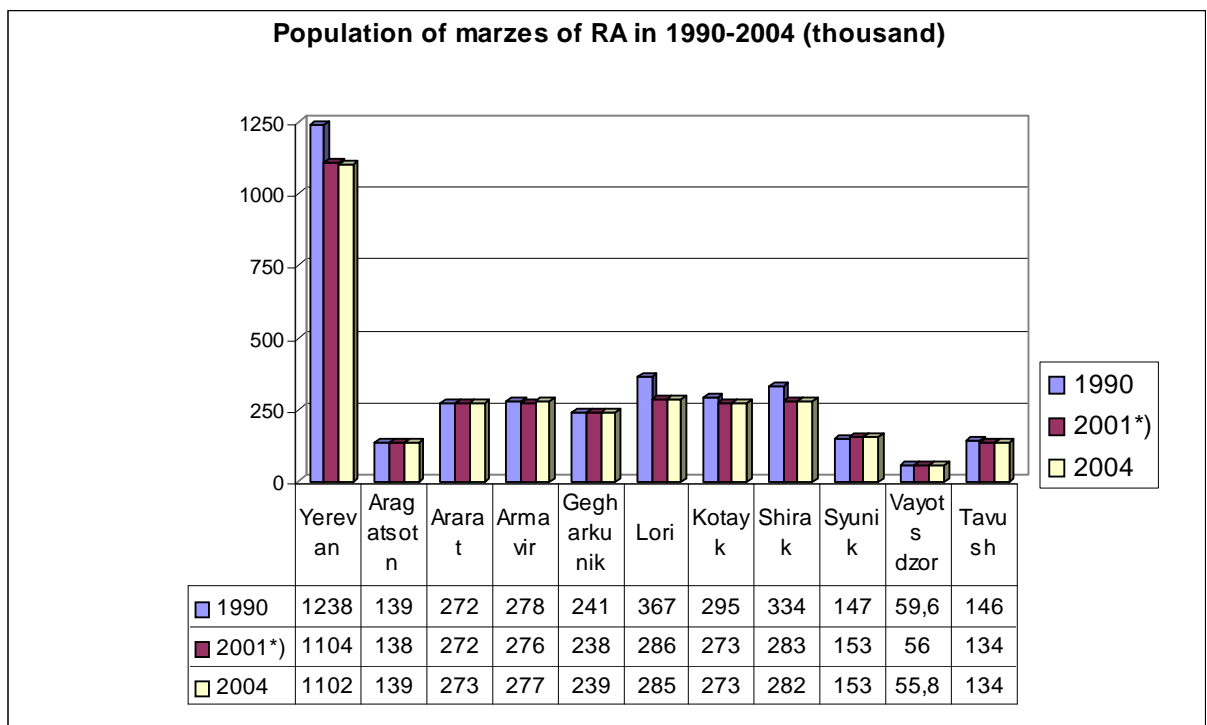
## *2.Population and demographic change*

According to the data of the first national census of Armenia, which was conducted in October 10-19, 2001, the population of Armenia present in the country was 3002.6 thousand, and the permanent population was 3213.0 thousand. The current registration of population is carried out on the basis of permanent population identified from the census.

In the framework of current registration of population conducted by statistical bodies, data on the number of population is updated quarterly on the basis of data on natural population growth (difference of registered births and deaths)<sup>1</sup> and net migration (difference of the arriving and departing)<sup>2</sup> in the given period. According to the findings, growth in permanent population of RA was recorded as of January 1, 2004 as compared to the previous year.

It is worth mentioning that as of the beginning of 2004 as compared to January 1, 1990, the number of permanent population of the republic decreased by more than 302.7 thousand, or by 8.6%, while decreases of population in particular marzes have had different patterns.

Chart 1



\*) according to findings of census of RA in 2001

<sup>1</sup> On the basis of 2<sup>nd</sup> copies of birth and death certificates provided by regional departments of Department of registration of births and civil status of Ministry of Justice of RA.

<sup>2</sup> According to data obtained through processing “Statistical registration tickets of the arriving” and “Statistical registration tickets of the departing” filled on the basis of data on registration and discharge of population by regional passport departments of Police by the Government of RA.

In particular, the population decline has been especially significant in Yerevan (by 135.6 thousand or 11%), Lori (by 82.8 thousand or 22.5%), Shirak (by 51.3 thousand or 15.4%), Kotayk (by 21.5 thousand or 7.3%), Tavush (by 11.4 thousand or 7.8%) marzes, relatively moderate in Vayots Dzor (by 3.8 thousand or 6.4%), Gegharkunik (by 2.5 thousand or 1.0%), Armavir (by 0.7 thousand or 0.3%) and Aragatsotn (by 0.5 thousand or 0.5%) marzes, whereas in Ararat (by 0.4%) and Syunik (by 4.3%) population growth was registered.

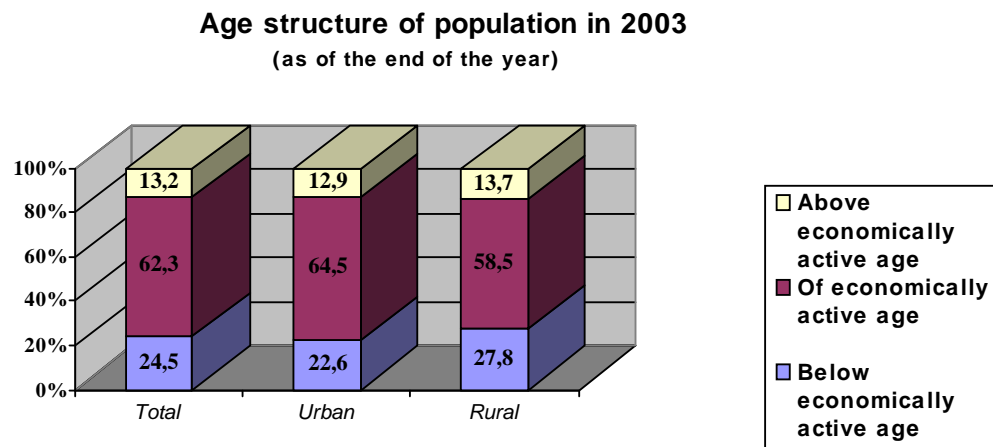
Meanwhile, the permanent population figure produced as a result of 2001 census of RA was lower than the residual figure estimated for the beginning of 2001 (current recording carried out on the basis of 1979 census) by around 590 thousand. That large difference accumulated during inter-census years in the current recording figure was mainly because of large migration flows as a result of deteriorated political and socio-economic situation of the republic in 1990s, information on which, due to imperfection of the existing system of recording of migration, has been left out from the statistical perspective.

During 1990-2004 the structural proportion of urban and rural population has changed as well. In particular, while in 1990 the share of urban population was 68.8% (within limits of existing administrative-territorial division), in 2004 it was 64.2%, the same figures for rural population were 31.2 % and 35.8% respectively.

More than 1/3 of the population of the republic and 53.4% of urban population are concentrated in the capital of the republic, Yerevan, the permanent population of which as of January 1, 2004 was 1101.9 thousand. In other marzes of the republic the urban population is: Syunik (67.9% of marz population or 5% of urban population of RA), Shirak (61.2% of marz population or 8.4% of urban population of RA), Lori (59% of marz population or 8.1% of urban population of RA), Kotayk (56.3% of marz population or 7.5% of urban population of RA). The density of permanent population of the republic was 108 on 1 sq. km, in Yerevan it was 4854 on 1 sq. km.

According to data of current registration of population, as of the beginning of 2004, 24.5% of the total population of the republic were in the age group of 0-15, 62.3% were in the economically active age group and 13.2% were above the economically active age. In 1990 these figures were 32.2%, 58.7% and 9.1% respectively. The composition of population is presented below by the main age groups, with urban and rural distribution (according to Article 12 of the law of RA On State Pension Provision for the Citizens of RA, in 2003 the pension age was considered 59 for women and 63 for men).

Chart 2



In particular it is noteworthy that the rural population under economically active age is higher than that of the urban population by 5.2%, and the population above the economically active age is higher than that of the urban population by 0.8%, due to which the economically active age share in the rural population is lower than that of the urban population by 6%. As of the beginning of 2004 604 children (0-15 years old) and pensioners (above economically active age) were registered for 1000 population.

Table 2

**Distribution of population of RA by main age groups, with marz breakdown (on the basis of data of 2001 census of RA)**

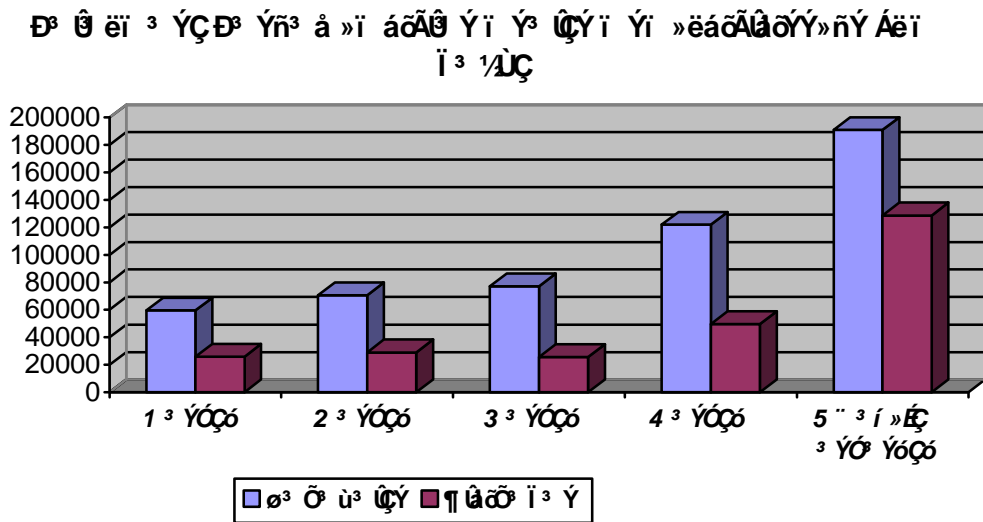
*(percentage)*

	Population by age groups			
	<b>Total</b>	<b>0-15</b>	<b>16-62</b>	<b>63 +</b>
Republic of Armenia	100	25.2	63.2	11.6
Yerevan	100	22.9	65.4	11.7
Aragatsotn	100	30.1	58.1	11.8
Ararat	100	28.8	60.0	11.2
Armavir	100	28.7	60.8	10.5
Gegharkunik	100	30.3	58.8	10.9
Lori	100	26.0	60.9	13.1
Kotayk	100	26.8	63.4	9.8
Shirak	100	28.8	60.0	11.2
Syunik	100	27.2	60.6	12.2
Vayots Dzor	100	28.7	57.6	13.7
Tavush	100	26.3	58.3	15.4

Given figures show that the age structures of population vary across marzes of the republic. In particular, if we estimate on the basis of the share of population of the age of 63 and above, as compared to the average figure for the republic, population in Kotayk, Armavir, Gegharkunik, Ararat and Shirak marzes is younger. It should be noted that according to 2001 census while 1000 population of the age of 16-62 had the population of 584 - children of 0-15 years and adults of 63 and above, for Vayots Dzor, Tavush and Lori marzes the same figures were 736, 715, 642 respectively.

According to findings of 2001 census, the total number of households in the republic was 779.3 thousand, from which 778.6 thousand were individual households and 0.7 thousand were group (institutional). The average number of members of individual households was 4.1 persons, in towns - 4.0, and in rural areas - 4.4 persons.

Chart 3



According to findings of 2001 census in the national composition of population Armenians accounted for 97.8% (as compared to 93.3% in 1989), Ezidis - 1.3% (as compared to 1.6% in 1989), Russians - 0.5% (as compared to 1.6% in 1989), Assyrians - 0.1% (as compared to 0.2% in 1989), Ukrainians - 0.05%, Kurds - 0.05% (as compared to 0.1% in 1989), other nationalities - 0.2% (as compared to 0.3% in 1989). From ethnic minorities Ezidis are concentrated mainly in Armavir, Aragatsotn, Ararat, Kotayk marzes and Yerevan, Assyrians in Ararat, Kotayk, Armavir marzes and in Yerevan. 45.6% of Russian are concentrated in Yerevan, 26.5% in Shirak and 7.2% in Lori marzes. The majority of Ukrainians also live in Yerevan, and 55.7% of Kurds live in Aragatsotn marz.

### 3.Regional economic structure and change

Gross regional product in Armenia in 2003 was 1623.3 billion dram while in 1994 it was 187.1 billion dram. The share of industry in GRP in 2003 was 19.9%, agriculture was 21.3%, service - 33.9%. In 2003 capital investments were 400.6 billion dram as compared to 43.9 billion dram in 1994.

The number of cellular phones went up in comparison with 1997 28 times and was 114.4 thousand.



Unfortunately these indicators are not disaggregates by regions of the country.

#### ***4.Regional standards of living:***

The international community has declared a fight against poverty and inequity in all over the world. UN has formulated goals in development, set in the Declaration of the millennium, in the focus of which is the solution of problems related to poverty, namely reduction of the scale of extreme poverty and coefficients of infant and mother poverty, as well as increase of coverage of basic education.

Living standards in Armenia remain low. The poverty level estimated first in the independent republic of Armenia in 1996 was 54.7% and the share of the extremely poor was 27.7%. Poverty levels have fallen moderately during 1999 - 2002 and remain very high: in 1999 – 55.05%, in 2001 – 50.9%, in 2002 - 49.7%. Due to stable economic growth in the last years poverty has significantly diminished and according to preliminary data was 42.9% in 2003.

Table 3.

#### **Main poverty indicators**

	1996	1999	2001	2002	2003 <sup>x)</sup>
Relatively well-off population, %	45.3	44.9	49.1	50.3	57.1
Poor population, %	27.0	32.1	34.9	36.6	35.5
Extremely poor population, %	27.7	22.9	16.0	13.1	7.4
Poverty depth, %	21.5	19.0	15.1	13.5	8.9
Poverty acuteness, %	11.1	9.0	6.1		

<sup>x)</sup> – preliminary data

Armenia is a small country and to estimate poverty the minimum consumer basket is used for the country and for marzes. In 2003 poverty levels varied from relatively well-off situation in Yerevan (poverty level - 29.6%) to 72.2% in Shirak (the zone of the devastating earthquake in 1988).

Table 4.

**Poverty level in marzes***(percentage)*

	1996	2001	2002	2003
Average for the republic	54.7	50.9	49.7	42.9
Yerevan	58.2	46.7	43.8	29.6
Aragatsotn	51.1	60.3 <sup>1)</sup>	72.1 <sup>1)</sup>	57.0
Ararat	54.2	44.7	45.4	42.8
Armavir	38.1	53.7	51.6	48.3
Gegharkunik	48.1	62.2 <sup>1)</sup>	47.2 <sup>1)</sup>	59.9
Lori	51.5	54.2	44.6 <sup>1)</sup>	34.0
Kotayk	62.4	50.5	55.9	52.5
Shirak	63.1	57.8	73.6 <sup>1)</sup>	72.2
Syunik	47.1	... <sup>2)</sup>	32.7 <sup>1)</sup>	34.6
Vayots Dzor	61.5	51.1 <sup>1)</sup>	53.2	42.9
Tavush	56.1	59.7	42.2 <sup>1)</sup>	30.7

- 1) Data are vaguely representative
- 2) Minimum required representativeness was not obtained

Children represent a vulnerable group in all countries of the world, and in poor countries they are classified as poverty risk groups.

The most vulnerable households are those, which have three or more children aged 0-14, as well as those having children under the age of 5.

Table 5.

**Poverty level by vulnerable groups (population)**

	Poverty level, %			
	1999	2001	2002	2003
Republic	55.1	50.9	49.7	42.9
Including vulnerable groups				
Households with three or more children aged 0-14	62.2	65.3	67.4	66.1
Households with children of 5 or younger	60.0	58.5	58.1	53.9

More detailed data on poverty levels among families with children are given in the following tables.

Table 6.

**Poverty level by presence of children in households (by the number of households)**

*(percentage)*

	Households with three or more children aged 0-14		Households with children of the age of 5 or younger		For comparison All households surveyed	
	2002	2003	2002	2003	2002	2003
Total households	100	100	100	100	100	100
<i>Including</i>						
Relatively well-off	33.1	35.9	44.0	50.0	56.0	63.7
Poor	44.0	49.1	39.2	39.5	33.4	30.7
Extremely poor	22.9	15.0	16.8	10.5	10.6	5.6

Table 7.

**Poverty level of population by the presence of children in households (by population)**

*(percentage)*

	Household types				For comparison	
	Households with three or more children aged 0-14		Households with children of the age of 5 or younger		Total population surveyed in the republic	
	2002	2003	2002	2003	2002	2003
Total population	100	100	100	100	100	100
<i>Including</i>						
Relatively well-off	32.6	33.9	41.9	46.1	50.3	57.1
Poor	43.6	50.2	39.9	41.9	36.6	35.5
Extremely poor	23.8	15.9	18.2	12.0	13.1	7.4

Regression analysis has been carried out to identify key factors shaping the poverty level.

**Factors increasing the probability to be poor *ceteris paribus* (other things held equal).**

1. Presence of one child aged below 14 in a household as compared to a household without children increases the probability to be poor for the members of that household by 2.0%.
2. Presence of two children aged below 14 increases the probability to be poor for the members of that household by 9.6%.
3. Presence of three or more children aged below 14 increases the probability to be poor for the members of that household by 11.4%.
4. Presence of three or more children aged below 5 increases the probability to be poor for the members of that household by 4.5%.

The basis for optimal development and growth of children is the organization of nutrition with various food products according to the age of the child. Household survey gives an opportunity to gain information on consumption of main food products in households with children as compared to average figures for the republic.

Table 8.

Average monthly per capita consumption of the main food products in households with children

		Households with three or more children aged 0-14		Households with children of the age of 5 or younger		Average for the republic	
		1999	2003	1999	2003	1999	2003
Bread	Kg	13.82	12.24	13.12	12.07	14.5	13.12
Potato	-''-	3.86	3.25	3.71	3.28	4.1	3.44
Vegetables	-''-	4.21	5.14	3.95	5.33	4.6	5.18
Fruits, berries and grape	-''-	2.19	2.39	2.14	2.82	2.4	2.73
Sugar	-''-	0.51	0.50	0.49	0.51	0.6	0.51
Vegetable oil	Liter	0.19	0.14	0.18	0.16	0.2	0.18
Meat and products from meat	Kg	0.86	1.12	0.82	1.41	1.0	1.42
Cheese of all types	-''-	0.48	0.54	0.47	0.58	0.53	0.63
Milk and yogurt	Liter	1.64	1.95	1.89	2.03	1.68	1.67
Butter	Kg	0.09	0.11	0.09	0.14	0.10	0.13
Eggs	Piece	5.19	5.99	4.91	6.46	5.83	7.72
Seafood	Kg	0.33	0.32	0.31	0.36	0.4	0.36

#### Situation of nutrition of children

In the stage of the development of market economy high prices of food products make it impossible to organize full nutrition of children. The ration mainly comprising carbohydrates meets energy requirements but not the requirements for proteins of the organism, which is vital for healthy development of children.

Unbalanced and irrational nutrition of children in early ages leads to chronic malnutrition, vitamin disbalance, allergies, intestinal infections and non-infectious diseases. It is obvious that rational nutrition inclusive of various food products,

including exclusively breast-feeding for the period of 4-6 months, is crucial for ensuring the health of children of early age.

Use of homogenous food mainly composed of carbohydrates can temporarily result in increase in the weight of children, however deficiency of proteins, microelements and vitamins, which do not have a considerable impact on the development of the child as yet may have a long-term negative impact on their health and adaptation mechanisms.

In 2000 in Armenia the DHS was conducted, due to which, along with other findings, data on nutritional status of children was obtained.

#### Nutritional status of children

Anthropometrics provides one of the most important indicators of children's nutritional status. Height and weight measurements were obtained for respondents' children who were born in the five-year period preceding the survey. The data on height and weight were used to calculate three summary indices of nutritional status: height-for-age, weight-for-height and weight-for-age. These indices indicate children's susceptibility to diseases and their chances of survival.

The nutritional indices are expressed as standardized scores (Z-scores) or standard deviation units from the median for the international reference population recommended by the World Health Organization. Children who fall more than two standard deviations below the reference median are regarded as undernourished, while those who fall more than three standard deviations below the reference median are considered severely undernourished.

In the survey, children born to female respondents since January 1995 were eligible for height and weight measurements. Of the 1,596 children eligible for measurement (i.e. age 0-59 months at the time of the survey), 1,461 (92 percent) were measured and had consistent results. Table 9 shows the nutritional status for these children by selected demographic and background characteristics.

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height and weight-for-age, by demographic and background characteristics, Armenia 2000

Table 9.

Nutritional status of children

Characteristic	Height-for-age(stunted)			Weight-for-height(wasted)			Weight-for-age(underweight)			Number of children
	Percentage below -3SD	Percentage below -2SD <sup>1)</sup>	Mean Z-score (SD)	Percentage below -3SD	Percentage below -2SD <sup>1)</sup>	Mean Z-score (SD)	Percentage below -3SD	Percentage below -2SD <sup>1)</sup>	Mean Z-score (SD)	
Child's age (months)										
<6	0.0	4.0	-0.1	0.0	3.7	0.5	0.4	1.6	0.4	132
6-11	1.8	5.9	-0.1	0.4	2.5	0.6	0.2	2.0	0.4	135
12-23	1.2	15.2	-0.7	0.8	3.7	0.6	0.4	2.8	0.0	276
24-35	1.9	11.6	-0.4	0.5	1.1	0.5	0.0	3.0	0.1	262
36-47	4.9	16.1	-0.9	0.0	0.4	0.6	0.4	2.3	-0.1	318
48-59	3.2	15.7	-0.9	0.0	1.9	0.5	0.0	3.0	-0.2	340
Child's sex										
Male	3.0	12.3	-0.7	0.4	2.2	0.6	0.2	2.4	0.0	837
Female	2.0	14.0	-0.6	0.1	1.7	0.5	0.2	2.8	0.0	626
Residence										
Urban	1.6	10.1	-0.5	0.5	2.2	0.6	0.2	2.4	0.1	750
Rural	3.6	16.0	-0.8	0.1	1.7	0.5	0.3	2.8	-0.1	713
Region										
Yerevan	0.7	7.5	-0.3	0.3	2.3	0.6	0.0	0.7	0.2	422
Aragatsotn	0.7	8.8	-0.3	0.7	2.7	0.3	0.7	2.0	0.0	85
Ararat	2.7	15.3	-0.8	0.0	0.0	0.4	0.0	3.3	-0.2	171
Armavir	1.4	8.7	-0.6	0.0	0.0	0.6	0.7	1.4	0.1	154
Gegarkunik	8.6	32.1	-1.3	0.0	1.4	0.6	0.0	3.6	-0.3	139
Lori	5.7	12.3	-0.7	0.0	0.9	0.8	0.0	0.0	0.3	127
Kotayk	1.2	8.1	-0.5	2.3	10.5	0.0	1.2	9.3	-0.4	98
Shirak	3.5	22.4	-1.1	0.0	2.4	0.8	0.0	5.9	-0.1	106
Syunik	4.1	15.5	-0.8	0.0	0.0	0.7	0.0	5.2	0.0	53
Vayots Dzor	1.7	11.1	-0.7	0.0	1.7	0.5	0.9	4.3	-0.1	29
Tavush	0.7	10.4	-0.7	0.0	0.7	0.6	0.0	1.4	-0.0	81
Mother's education										
Primary/Middle	4.8	21.0	-1.0	0.0	1.9	0.4	0.0	6.5	-0.3	126
Secondary	2.7	13.7	-0.7	0.0	2.3	0.5	0.3	2.4	-0.0	588
Secondary-special	2.7	12.8	-0.6	0.7	1.7	0.6	0.2	2.5	0.0	493
Higher	0.7	7.9	-0.3	0.2	1.7	0.6	0.0	1.2	0.2	255
Total	2.5	13.0	-0.7	0.3	2.0	0.6	0.2	2.6	0.0	1,463

Note: Table is based on children born 0-59 months preceding the survey, whose mothers were interviewed. Each of the indices<sup>3</sup>s is expressed in standard deviation (SD) units from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below (i.e. away in the negative direction) the median of the International Reference Population (-3 SD and -2 SD)

<sup>1)</sup> includes children who are below -3 standard deviations from the International Reference Population median

are shown according to demographic characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

Children whose height-for-age is below minus two standard deviation from the median of the reference population are considered stunted or short for their age. This condition reflects chronic malnutrition. Overall, 13 percent of children under age five are stunted; 3 percent are severely stunted. In general, children of higher birth orders, children residing in rural areas, and children born to mothers with less education are more likely to be stunted. For example, the children of mothers with a primary/middle school education are almost three times as likely as the children of mothers with a higher education to be stunted (21 percent versus 8 percent). There is significant regional variation in the prevalence of stunted children ranging from a low of 8 percent in Kotayk and Yerevan to a high of 32 percent in Gegharkunik.

Children whose weight-for-height is below minus two standard deviations from the median of the reference population are considered wasted (or thin). This condition reflects an acute or recent nutritional deficit. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are considered underweight. The weight-for-age index does not distinguish between chronic malnutrition (stunting) and acute malnutrition (wasting). A child can be underweight for age because of stunting, because of wasting, or because of both stunting and wasting. Weight-for-age is a good overall indicator of a population's general health.

Overall, 2 percent of children are wasted and 3 percent are underweight, signifying that Armenian children are no more likely to be wasted or underweight than the international reference population. The prevalence of wasted and underweight children does vary by region, however, and levels are markedly high in Kotayk, where 11 percent of the children are wasted and 9 percent are underweight. Children of higher birth orders (four and higher) are significantly more likely to be underweight than first born children (6 percent versus 2 percent). Children of mothers with a primary/middle education are also more likely to be underweight than children of mothers with higher education (1 percent).

## 5. Education

### 5.1 Activities of preschool education institutions

Preschool education is considered the first level of education. In 2003 682 state preschool institutions (PSI) were operating in RA, from which 405 were nursery-kindergardens, 270 - kindergardens, 1 - nursery, 6 – school-kindergardens. As compared to 2002 the number of PSIs has increased by 1. From total number of state PSIs 674 were under marz and community authority, 8 – under the authority of state agencies. Active state PSIs were attended by 46.1 thousand children, from which 23.2 thousand were girls (in 2002 respectively 44.8 and 22.5 thousand). Preschool enrollment was (from the number of children aged 1-6) 19.1%. Average number of children in one group was 22, actual occupancy - 73.0%.

Table 10.

**Figures of activities of state PSIs according to marzes**

(units)

	Number of PSIs	Number of places	Number of children	
			Per 100 places	
			2002	2003
Yerevan	187	29800	69.5	70.2
Aragatsotn	24	830	92.0	107.8
Ararat	74	6294	46.9	47.7
Armavir	79	3553	65.7	86.9
Gegharkunik	43	2707	51.8	85.5
Lori	53	4709	62.9	74.8
Kotayk	52	1878	73.1	156.5
Shirak	50	4581	70.4	72.8
Syunik	60	5086	65.2	70.1
Vayots Dzor	17	993	130.4	71.9
Tavush	43	2789	68.1	66.3
Total for RA	682	63220	66.5	73.0

During 2003 in PSIs 33.1 thousand disease cases have been registered, from which 47.3% were cases of flu and acute respiratory infections (in 2002 - 49.5%).

In 2003 the total number of employees at state PSIs was 11.8 thousand (in 2002 - 12.1 thousand), 45.1% of them were pedagogues and teachers (in 2002 - 44.5%).

Total area used by PSIs was 594.3 thousand sq. m, 76.9% of which was used by nursery-kindergardens. The total area of auxilliary territories of PSIs was 618.8 thousand sq. m, 77.3% of which were those of nursery-kindergardens.



During 2003 148 state PSIs did not function, from which 127 were kindergardens and 21 – nursery-kindergardens. Meanwhile, National Statistical Service of RA does not have information on non-functioning PSIs in Yerevan and Shirak marz.

The area used by non-functioning PSIs was 34.8 thousand sq. m. The area of auxiliary territories of kindergardens was 41.3 thousand sq.m.

In 2003 17 non-state PSI were operating in RA (all were in Yerevan), from which one was on one-day operating basis, 14 on five-days basis, 2 on six-days basis. The number of children was 714. 4 children are aged under 1.5, 68 – aged 1.5-3, 642 - 3 and up. 36 teachers' groups were functioning, number of places was 1351. Average number of children in one group was 20, actual occupancy was 52.8%. On average one PSI was attended by 42 children. In 2003 in non-state PSIs registered cases of diseases were 236, 58.5% of which were cases of flu and acute respiratory infections. In non-state PSIs 162 employees were employed, 42.6% of them was the staff of pedagogues and teachers. On average one pedagogue served 10 children. The total area used by non-state PSIs was 9.2 thousand sq. m, auxiliary area was 500 sq.m.

According to data of household survey implemented in 2003 preschool institutions were attended by 13,2% of children of respective age group. Meanwhile, 8-9 children of each ten children of the respective age did not attend preschool institutions. The following were more frequently mentioned as causes: the mother of the child did not work 42,6%, 14.0% of children did not attend because the kindergarden had been closed, and 7.9% have cited that “ it was too expensive for them to afford”.

## **5.2 Mainstream education**

The state ensures free general education and on tender basis - free secondary, higher and postgraduate professional education at state educational institutions.

As suggested by the findings of 2001 census and 2003 household survey, about two thirds of population above 7 have secondary and higher education. It should be

mentioned that about half of them have received either secondary professional or higher education.

Table 11.

**Analysis of educational level of population aged 7 or above**

*(percentage)*

	According to the data of census 2001	According to the data of household survey 2003
Do not have basic education	7.7	4.9
Basic education	14.7	12.1
General base education	12.0	13.4
Secondary education	31.8	35.0
Secondary professional	18.2	20.6
Higher including incomplete	15.6	14.0

During education year 2003/4 1439 state and 33 non-state mainstream schools operated in RA, including boarding schools, colleges and other educational institutions conducting mainstream programs (hereinafter schools). According to education programs realized, basic education was provided by 18 state and 2 non-state schools, basic mainstream education – by 148 state, general (complete) secondary education – by 1157 state and 16 non-state schools.

In 2003 19 mainstream schools opened with 2633 student seats, including in the disaster zone - 17 and 2553 respectively.

**Quantitative distribution of newly opened schools and their student seats by marzes, 2003**

*(units)*

	Number of schools	Number of student seats
Aragatsotn	4	442
Gegharkunik	1	30
Lori	6	678
Shirak	6	1333
Syunik	1	50
Tavush	1	100
Total for RA	19	2633

In 2003 1 mainstream school was renovated with 192 student seats (Aragatsotn marz).

In state and non-state mainstream schools 46548 teachers were teaching, of which 83.6% were women, and in non-state schools respectively 581 and 80.9% of them were women.

**The distribution of state and non-state mainstream schools by marzes, towns and villages and by the number of teachers, 2003/2004 education year**

(units)

	Total		including		Number of teachers	
	state	non-state	in urban communities	in rural communities	Total	Of which women
Yerevan	234	26	260	-	11383	10253
Aragatsotn	127	-	16	111	3101	2401
Ararat	112	-	21	91	4077	3494
Armavir	123	1	33	91	4155	3454
Gegharkunik	128	-	29	99	4268	3341
Lori	169	1	66	104	3696	3127
Kotayk	109	2	47	64	4000	3355
Shirak	177	3	65	115	5516	4638
Syunik	126	-	38	88	2862	2187
Vayots dzor	51	-	10	41	1174	853
Tavush	83	-	21	62	2316	1818
Total for RA	1439	33	606	866	46548	38921

In state mainstream schools 498.5 thousand students were studying, of which 246.1 thousand or 49.4% were girls, and in non-state schools 3.4 thousand were studying, of which 1.4 thousand or 40.4% were girls.

The distribution of students in state mainstream schools according to marzes and mainstream programs in 2003/2004 education year, the distribution of droupouts from state and non-state mainstream schools by their age and reason in 2003/2004 education year, are presented in tables 1 and 2 of the appendix.

During transition to market economy, the risk of children from poor families not being able to receive adequate education to secure future effective performance is high. As result of the reduction in state budget funding for educational system, the expenses related to education are borne by families. According to the findings of the study, 97% of children aged 7-9 attended the school, 99% of children aged 10-14, and

86% of children aged 15-16. From children aged 15-16 14% did not attend and the following reasons have been mentioned : 65% had graduated from the school, 9% had completed their education, 14% did not want to study, 6% were ill, and 2% had to leave the school for working and another 2% because of the education being expensive.

Many households had to pay for additional study programs for their children. According to study findings average expenses for providing private classes per month per student (excluding expenses associated with preparation courses for entering higher educational institutions) accounted to 6200 dram. In addition, monthly schooling expenses per student on average accounted to 2700 dram.

Market economy poses large demands on highly qualified workforce. At present for poor families it is difficult to provide adequate education for their children because of high costs.

In the total number of higher school grade students surveyed, the highest cost of preparation course for entering a higher educational institution registered during this survey was 860 US dollars as compared to the same figure registered in the last year of 700 US dollars. The analysis shows that usually higher education level and higher qualification ensure comparatively higher living standards. 75.7% of households with heads having higher education manage to provide relatively high living standards, while only 56.3% of those with heads having incomplete secondary education manage to overcome the poverty line.

### **5.3 Secondary professional education**

In 2003/2004 education year 81 state secondary professional institutions were operating (in 2002/2003 education year - 77 institutions and 5 branches). The number of students was 28636, of which 69.1% were women. The educational process was performed on the basis of mainstream basic and secondary (complete) mainstream education.

80.1% of students were studying on a paid basis and 19.9% on free state order basis.

Table 14

**Distribution of students admitted to state and non-state secondary professional education in state order and paid systems by marzes, 2003/2004 education year**  
(persons)

	Number of the admitted			
	State	Including		Non-state
		State order	Paid	
Yerevan	4254	953	3301	823
Aragatsotn	-	-	-	9
Ararat	532	72	460	44
Armavir	670	77	593	36
Gegharkunik	798	115	683	30
Lori	891	169	722	96
Kotayk	725	107	618	10
Shirak	1160	166	994	98
Syunik	663	169	494	-
Vayots Dzor	91	29	62	48
Tavush	542	96	446	73
Total for RA	10326	1953	8373	1267

16.0% of the total number of students receive study benefits (80.1% of students studying within the state order system).

In 2003/2004 education year 24 non-state secondary professional institutions were operating. The number of students was 2479, 76.3% of which were women.

#### 5.4 Higher professional education

In 2003/2004 education year 20 state higher education institutions (HEI) were functioning and 10 branches, where 55.9 thousand students were studying, 36.7 thousand or 65.7% of them were studying in the paid system, and 19.2 thousand or 34.3% were studying in the state order system.

Table 15.

**Distribution of students admitted to state higher education institutions in state order and paid systems by marzes and education types, 2003/2004 education year**  
(persons)

	Number of the admitted		Including			
	Total	of which women	state order		paid	
			Total	of which women	Total	of which women
Yerevan	11528	5699	3820	1640	7708	4059

	Number of the admitted		Including			
	Total	of which women	state order		paid	
			Total	of which women	Total	of which women
Gegharkunik	538	283	-	-	538	283
Lori	892	501	175	103	717	398
Shirak	1207	615	266	128	941	487
Syunik	327	191	74	40	253	151
Tavush	276	159	96	65	180	94
Total for RA	14768	7448	4431	1976	10337	5472

31.5% of the total number of students receive study benefits, which is 91.8% of students studying in the state order system.

In 2003/2004 education year, 73 non-state higher education institutions were operating. The number of students was 22.0 thousand, 66.9% of which were women.

Table 16.

**Flows of the number of students at non-state higher education institutions by marzes and education modes, 2003/2004 education year**

*(pers  
ons)*

	Number of HEIs	Students admitted		Number of students	
		total	including women	total	including women
Yerevan	52	5731	3587	18583	12475
Aragatsotn	1	15	10	30	22
Ararat	1	17	8	134	80
Armavir	3	264	151	882	528
Gegharkunik	3	66	41	263	182
Lori	6	128	84	611	368
Kotayk	1	66	32	193	104
Shirak	2	293	205	880	656
Syunik	3	89	84	279	245
Tavush	1	38	20	161	73
Total for RA	73	6707	4222	22016	14733

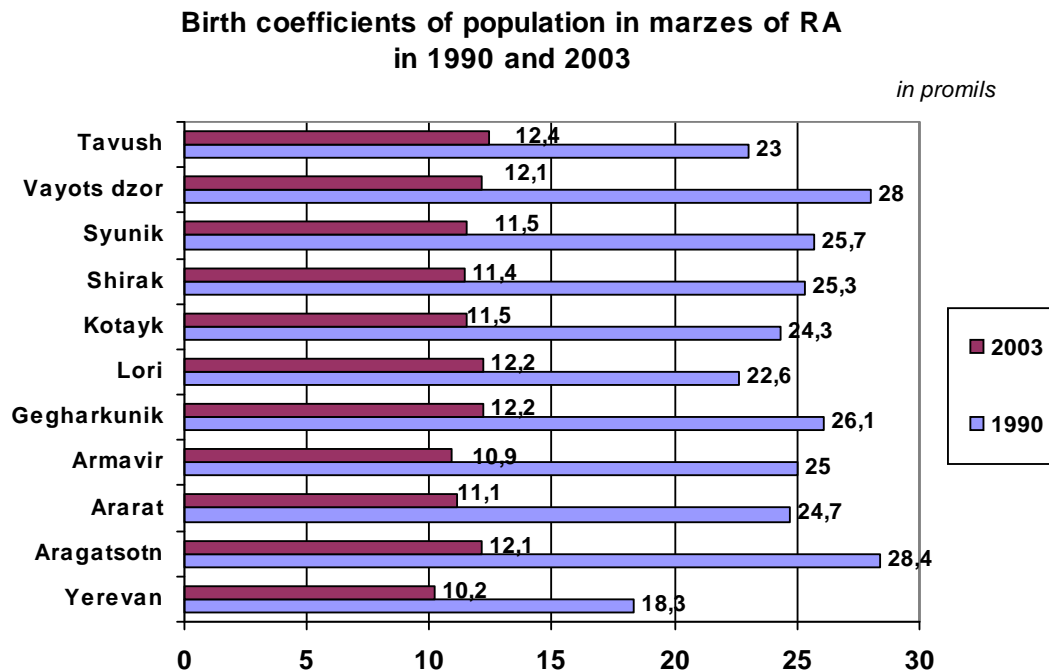
The distribution of the number of students at non-state higher educational institutions by marzes and study fees for 2003/2004 education year is presented in Table 3 of the appendix.

1170 of students at state HEIs needed campus, 53.7% of them were provided with it, and in non-state HEIs, the figures were 47 and 59.6% respectively.

### 6. Health

In the period of 1990-2001 decline in birth rate has been observed : the number of births in 2001 has fallen by 47.8 thousand or 40.2% as compared to 1990, and the birth rate - by 12.5 promile points, but starting from 2002 birth rates have increased (both absolute and relative). In 1990-2001 the decline in the birth rate was especially significant in Vayots Dzor (by 56.8%), Armavir (by 56.4%), Syunik (by 55.2%), Shirak (by 54.9%), Ararat (by 54.1%).

Chart 4



The decline in birth rate has affected age coefficients of birth rates among women –with respect to both different age groups and as a whole. In the republic starting from 1986,

the decrease in birth coefficient was blocked by the famous phenomenon of substitution in 1989-1990 as a consequence of the earthquake. In subsequent years the annual decline in the birth rate has continued and in 2003 cumulated birth rate (number of children, a woman is expected to give birth to during her entire fertility period) accounted to 1.349 as compared to 2.620 in 1990.

In 2003 the average life expectancy of population of RA calculated from the moment of birth, was 72.9 years, including among men - 69.9, and among women 75.8 years, while in 1990 these figures were respectively 70.7, 67.9 and 73.4. These figures vary for urban and rural population slightly, for urban population this figure was 72.4 years and for rural population - 74 years, for urban women - 75.3, rural women - 76.9, for men 69.3 and 71.1 years respectively.

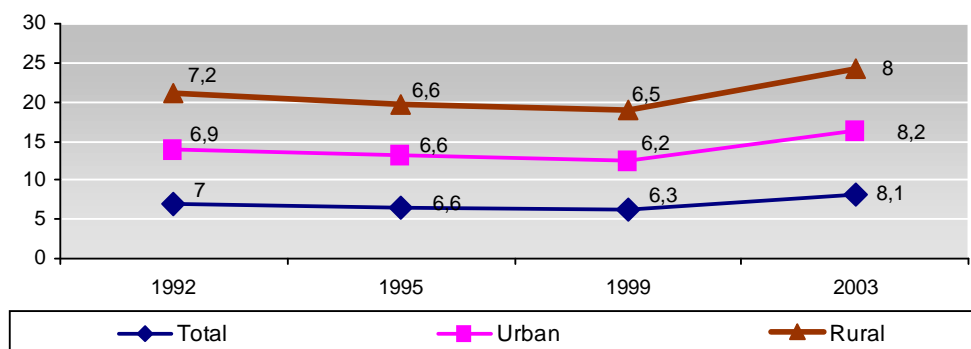
The dynamics of the absolute number of deaths and total mortality rate evidences that in post-Soviet period the mortality stability has deteriorated to certain extent and a growth tendency has been observed. In particular, while in 1992 in the total number of population of more than 3.6 million 25.6 thousand deaths had been registered (7.0 per 1000 population), in 2003 for 3.2 million of total population again 26 thousand deaths have been registered (8.1 per 1000 population), this means that growth in mortality rate has been registered. It is mainly caused by the decrease in the living standards of the population, as well as the growth in the share of population above economically active age (whose mortality coefficient is higher). However it should be mentioned that in the period of 1994-2001 the pace of mortality rate growth has fallen to a certain degree (even given the omissions in registration of death cases in the last years).



Chart 5

### Dynamics of mortality among population of RA in 1992-2002

(per 1000 population)



In gender-age breakdown the mortality in the republic varies significantly.

Table 17

### Mortality levels of the main age groups of population of Armenia in 1992 and 2002

(per 1000 population)

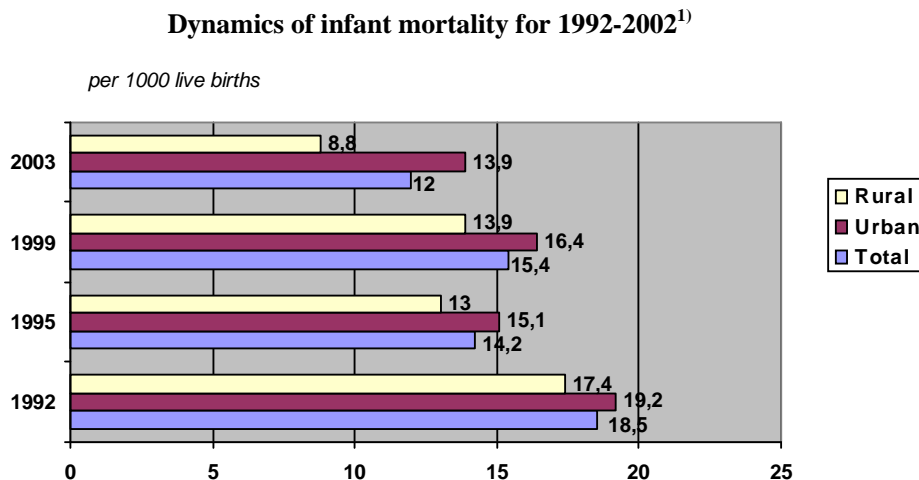
Age groups	Mortality indicators			
	1992		2002	
	male	female	male	Female
0-15	1.8	1.4	0.9	0.6
16-59	4.6	1.8	3.2	1.5
60 and above	48.6	39.9	51.5	40.6
Total population	7.8	6.3	8.5	7.5

As suggested by data above in the period under consideration a decrease in the total mortality rate of the age groups of 0-15 and 16-59 has been recorded with regard to both male and female population, yet for age groups of 60 and above an increase has been recorded.

One of the most widely accepted indicators of welfare of the child and in fact of the nation is the infant mortality rate.

It should be mentioned that in the last years due to both objective and subjective factors the statistical recording do not cover all infant mortality cases in the republic (as well as other cases recorded by bodies of birth and civil status registration), as a result of which the official infant mortality rate does not fully reflect the situation. Based on the findings of Armenia Demographic Health Survey conducted by National Statistical Service of RA in 2000 with funding by USAID, technical assistance by American ORC Macro organization, participation of Ministry of Health of RA, the infant mortality rate was estimated at 36 promile, while as a result of the Infant Mortality Survey in Armenia, which studied the procedures of registration, classification and related health services carried out jointly by UNICEF, Ministry of Health of RA and National Statistical Service of RA in May/June 2001 the same figure was estimated at 22 promile. It should be mentioned that the deviation between these two estimates is caused mainly by the difference of the methodologies (data collection), sampling nature of ADHS, cases when the health officer does not issue a death certificate for child deaths occurring at home, as well as under-registration of infant death cases by medical staff, etc. Nevertheless, irrespective of different data sources and collection ways and different methodologies applied for calculation of indicators, there is no alternative to analysis of dynamics of infant mortality as well as mortality rates in the republic.

Chart 6



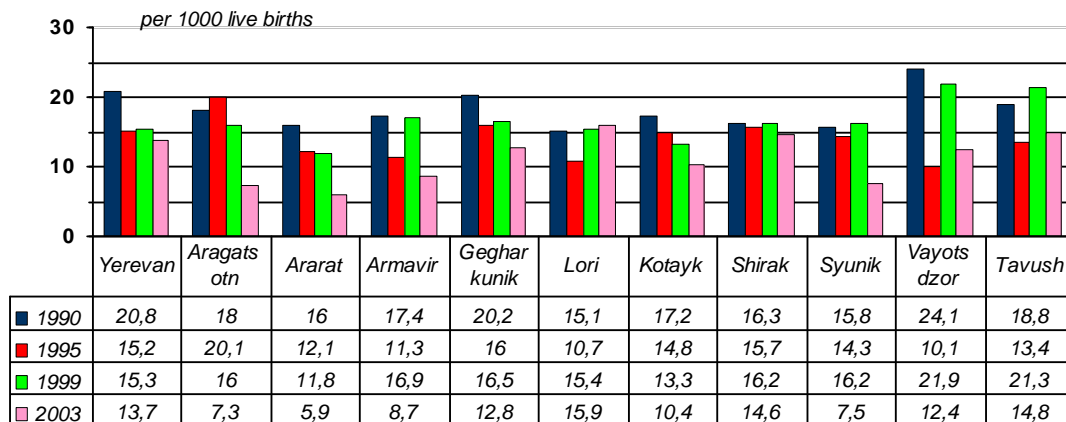
1) Source: 2<sup>nd</sup> copies of death certificates provided by regional departments of bodies of registration of births and civil status of Ministry of Justice of RA

The data demonstrates that infant mortality rates are higher in urban areas. In 2003 the infant mortality rate in the republic equaled 12.0 per 1000 live births, as compared to 15.4 in 2001 and 14.0 promile in 2002, the absolute number of deaths under the age of 1 was 422 cases as compared to 450 in the last year.

On the background of decreasing infant mortality at the national level, marz and regional patterns vary significantly. The same is true for specific locations. In particular, in 2003 high infant mortality rates have been recorded (above the average for the republic) in marzes of Lori - 15.9, Tavush - 14.8, Shirak - 14.6, Yerevan - 13.7, Gegharkunik - 12.8, and Armavir - 12.4 promile.

Chart 7

**Infant mortality rates in marzes of RA, 1992-2002**



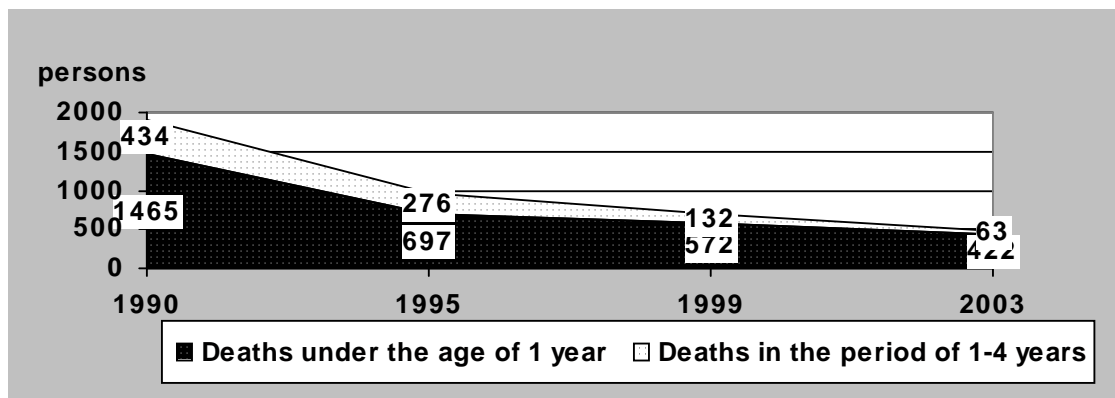
Data shows that in the period under consideration in some marzes of the republic decreases in the infant mortality rate have been recorded, except for Lori marz. In the republic, urban infant mortality rates have been higher than the average in towns of Talin - 14.3 , Armavir - 17.9, Gavar - 19.1, Sevan - 25.0, Alaverdi - 29.5, Stepanavan - 14.2, Gyumri - 23.3, Eghegnadzor - 21.1 and Vayk - 26.0 promile. Cases of rural infant mortality rates exceeding the average for the republic have been recorded in the following regions (former administrative regions): Stepanavan - 14.7, Tashir - 32.4, Sevan - 15.3, Amasia - 19.2, Aparan - 18.4 promile.

In 2003 45.7% of infants who have died in their first year of life, died as a result of perinatal conditions (0-6 days), 24.2% - congenital defects, 11.1% - respiratory diseases, more than half of which are higher respiratory diseases.

In the structure of infant mortality among children under the age of 5, the children who have died under the age of 1 constitute the largest share - 87.0% in 2003, as compared to 77.1% in 1990.

Chart 8

Infant mortality 1990-2003



In 2003 in the composition of reasons of infant mortality among children aged 1-5 the following were the most important: death cases as a result of respiratory diseases - 27 %, congenital defects - 14.3%, malformations - 14.3%, accidents, poisoning and injuries - 12.7%, diseases of neurology and sensory organs - 12.7%, infections and parasitoid diseases - 11.1%.

In 2003 8 cases of mother deaths have been recorded, which led to mother mortality coefficient at 22.4 per 100 000 live births, and in January-June 2004 4 cases have been recorded and the mother mortality coefficient amounted to 22.5. Main reasons of mother mortality are pregnancy complications during labor and antenatal period.

In 2003 the number of doctors and hospital beds, as well as their accessibility rate for the population vary across marzes, which is seen from the table given below.

Table 18.

	Number of doctors	Population per one doctor	Number of hospital beds	Population per one hospital bed
Total for the republic	11728	273.7	14208	226
<i>including</i>				
Yerevan	7974	138.2	7291	151.1
Aragatsotn	222	623.9	468	295.5
Ararat	410	663.7	740	367.7
Armavir	407	680.1	632	438
Gegharkunik	303	785.5	504	472.2
Lori	499	571.1	830	343.4
Kotayk	459	593.4	475	573.5
Shirak	561	503.6	988	285.9
Syunik	273	559.7	735	207.9
Vayots Dzor	101	553.5	180	310.6
Tavush	231	581.4	385	348.8

While on average for the republic 274 population is served by 1 doctor, this load varies from well-off Yerevan (138 population per 1 doctor) to overloaded Gegharkunik, Armavir, Ararat, Aragatsotn, where the load rate varies from 624 to 786 population per 1 doctor.

### ***7. Government Finance***

At the beginning of the transition period Armenia did not have debts, and thus the debt accumulation in the country can be easily traced. The main part of the government debt, accumulated in early 1990s emerged as a result of credits received for backing of current government spending after the collapse of the Soviet Union. Attaining independence, the country lost not only fuel imports and respective markets, but also many institutions necessary for the management of the modern economy. The most important example in this sense are financial and tax agencies. Many state enterprises turned up to be on the edge of bankruptcy, when they were left without

their traditional markets and had to pay for the fuel on the basis of world prices. In order to avoid default of state enterprises and state agencies, the government was taking huge credits.

It was primarily those first borrowings that laid down the outset of the present crisis of external debt.

According to data of Ministry of Finance and Economy of RA government external debt as of December 31, 2003 totalled 1097.7 million US dollars, or 39.3% of GDP. As compared to the same period of the previous year the amount of government external debt has increased by 72.2 million US dollars or by 7.0%.

By the end of 2003 87.9% of external debt of RA (without guarantees) were credit resources, received from multi-lateral creditors (international financial organizations), 68.2% of which are credits extended to Government of RA and 19.7% - credits extended to Central Bank of RA provided by International Monetary Fund. The remaining 12.1% were credits, extended by bi-lateral creditors (foreign states) to Government of RA. As in preceding years (starting from 1996) in 2003 in the structure of creditors of RA the largest share is represented by the World Bank.

External debt of Armenia mainly consists of credits, extended for periods of 25 to 40 years, zero repayment period varies from 7 to 10 years (in that period repayment of the loan amount is not performed).

Starting from 1997 in the structure of the external debt of RA a steady tendency of growth of the share of low-cost (long zero repayment periods) credits has been observed, as a result of which by the end of 2003 the share of low-cost credits accounted to 93.0%.

## ***8. Other issues***

### **Human poverty index for Armenia's marzes**

Considering that human poverty is the inability to meet the basic requirements necessary for conducting a decent life, the adjusted human poverty index (AHPI) was calculated as the mathematical mean of indicators for access to education, healthcare, safe drinking water and absence of permanent shelter for Armenia's marzes. The

mentioned components of AHPI were taken into account by different weights corresponding to their importance in the human poverty specifics in Armenia.

The AHPI was calculated with following formula:

$$HP_i = 1/3(E_i + H_i + LC_i) \quad i = 1.11$$

where E is the lack of access to education

H is the lack of access to healthcare

LC is the lack of access to safe drinking water and permanent shelter

The AHPI calculated by this methodology can have a value between 0 and 1. Results of AHPI calculations by marzes are presented in the table 19. According to the results of calculations, Aragatzotn marz is in the worst condition with regard to human poverty, followed by Gegharkunik, Ararat and Tavush marzes; best conditions were recorded in Yerevan, Syunik and Kotayk marzes. The table clearly reveals the pattern that human poverty is more underlined in marzes with predominantly rural population and less underlined in marzes with predominantly urban population. Thus, from the viewpoint of human poverty, contrary to income poverty, rural population is more vulnerable. The other conclusion derived from the analysis of the components of AHPI in marzes is that the factor having the highest impact on the level of human poverty in marzes is lack of access to healthcare services.

Table 19.

**Adjusted human poverty indexes (AHPI) in Armenia's marzes and their classification by human poverty**

AHPI rank (Classification of marzes from the lowest human poverty index to the highest)	AHPI	Lack of access to education	Lack of access to healthcare	Lack of access to safe drinking water and permanent shelter
Yerevan	0.325	0.096	0.225	0.005
Syunik	0.361	0.106	0.220	0.036
Kotayk	0.414	0.084	0.263	0.067
Vayots Dzor	0.438	0.136	0.256	0.047
Armavir	0.517	0.125	0.212	0.181
Shirak	0.520	0.092	0.256	0.172
Lori	0.575	0.176	0.248	0.151
Tavush	0.624	0.169	0.263	0.195
Ararat	0.626	0.178	0.285	0.163
Gegharkunik	0.634	0.211	0.242	0.182
Aragatzotn	0.753	0.215	0.283	0.256

## Appendix

Table 1.

### Distribution of the number of students at state mainstream education by marzes and grades, 2003/2004 education year

(persons)

	Grades I - III		Grades IV - VIII		Grades IX – X	
	total	of which girls	Total	Of which girls	total	of which girls
Yerevan	38020	18344	76824	37555	28702	14609
Aragatsotn	7203	3544	14685	7263	5017	2633
Ararat	12665	6122	25315	12299	8624	4642
Armavir	13386	6417	26104	12670	8454	4455
Gegharkunik	12539	6073	23140	11222	8282	4219
Lori	10704	5173	22936	11334	8515	4537
Kotayk	11306	5465	24019	11709	7858	4150
Shirak	12481	6077	27465	13474	9192	4861
Syunik	6221	3104	12193	5960	4493	2425
Vayots dzor	2783	1358	5662	2717	2309	1210
Tavush	6166	2930	11140	5361	4047	2206
Total for RA	133474	64607	269483	131564	95493	49947

Table 2.

### Distribution of the number of dropouts from state and non-state mainstream schools by age and reason, 2003/2004 education year

(persons)

Age, years	Total	including according to reasons									
		Absence of desire	Poor socio-economic conditions	Parents do not send children to school (do not allow)	Disabilities					Has been expelled as a result of difficult behaviour	Other
					Hearing disorders	Vision disorders	Motor disorders	Cognitive developmental disorders	Other		
Under 7	319	146	7	134	-	5	4	9	1	-	13
7	367	205	15	14	-	-	1	6	1	5	120
8	503	314	18	10	-	1	-	1	2	1	156
9	491	289	10	13	-	1	-	2	-	-	176
10	476	253	8	15	1	-	2	7	-	-	190
11	475	258	11	19	-	-	1	6	3	2	175
12	502	236	18	20	3	2	1	2	-	-	220
13	588	290	10	28	-	-	-	5	-	2	253
14	797	398	10	60	-	1	3	7	1	2	315
15	1200	739	42	54	1	1	-	1	1	11	350
16	870	564	15	31	-	-	-	2	4	13	241
17	163	58	5	9	-	-	-	1	4	6	80
Total	6751	3750	169	407	5	11	12	49	17	42	2289



Table 3.

**Distribution of the number of students at non-state higher education institutions by  
marzes and fees, 2003/2004 education year**

(persons)

	Number of students		Including according to fees									
	Total	Of which women	Below 150 th. dram		151 - 200 th. dram		201 - 300 th. Dram		301 - 400 th. dram		401 - 500 th. dram	
			Total	Of which women	Total	Of which women	Total	Of which women	Total	Of which women	Total	Of which women
Yerevan	18386	12405	5910	4032	4764	3237	5844	3972	825	482	1043	682
Aragatsotn	30	22	-	-	-	-	30	22	-	-	-	-
Ararat	134	80	134	80	-	-	-	-	-	-	-	-
Armavir	870	524	792	469	55	39	23	16	-	-	-	-
Gegharkuni k	263	182	243	174	20	8	-	-	-	-	-	-
Lori	611	368	134	83	477	285	-	-	-	-	-	-
Kotayk	193	104	147	84	46	20	-	-	-	-	-	-
Shirak	880	656	690	495	190	161	-	-	-	-	-	-
Syunik	279	245	74	40	205	205	-	-	-	-	-	-
Tavush	161	73	24	11	137	62	-	-	-	-	-	-
Total for RA	21807	14659	8148	5468	5894	4017	5897	4010	825	482	1043	682

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