CHILD POVERTY IN ARMENIA

National Multiple Overlapping Deprivation Analysis

2016

National
Statistical
Service of RA

unicef

70 YEARS FOR EVERY CHILD

CHILD POVERTY IN ARMENIA

National Multiple Overlapping
Deprivation Analysis

2016

ACKNOWLEDGEMENTS

Lucia Ferrone, Yekaterina Chzhen

The UNICEF Office of Research - INNOCENTI

ACRONYMS

AMD	Armenian Dram
CEE/CIS	Central Eastern Europe / Commonwealth of Independent States
CRC	Convention on the Rights of the Child
DHS	Demographic and Health Survey
ECEC	Early Childhood Education and Care
EHBS	Extended Household Budget Survey
EU-SILC	European Union Statistics on Income and Living Conditions
GDP	Gross Domestic Product
HDI	Human Development Index
ILCS	Integrated Living Conditions Survey
MIC	Middle Income Country
M0	Adjusted headcount ratio
MODA	Multiple Overlapping Deprivation Analysis
NSS RA	National Statistical Service of the Republic of Armenia
SDG	Sustainable Development Goal
TAG	Technical Advisory Board
WHO	World Health Organization

CONTENTS

Child poverty is about more than just money – it's multidimensional. When children grow up in poverty they miss out on things most of us take for granted. For children, poverty can also mean being deprived in crucial aspects of their lives, such as nutrition, education, leisure or housing. These deficiencies go beyond monetary aspects, not only affecting the quality of their life at present but also their ability to grow to their full potential in the future.

Reducing poverty is difficult, but it starts with good data and evidence based policy. The National Multiple Overlapping Deprivation Analysis (N-MODA) is Armenia's first attempt to look at the non-monetary side of child poverty, to see how both multidimensional and monetary measures can be used together to hone a holistic approach in order to reduce poverty for every child. With this analysis, we now have the unique opportunity to understand the many ways in which children and adolescents are affected by poverty; and can begin to monitor it in the scope of the Sustainable Development Goals.

The analysis also carries important implications for policy making. We must work together in order to improve social protection measures; not only ensure that children are protected from risks, but also have improved access to the services they need. I am very hopeful this report will inspire others to take action and join us in the fight to end poverty for every child in Armenia.

Tanja Radocaj
UNICEF Representative in Armenia

The first Sustainable Development Goal adopted by the United Nations General Assembly on 25 September 2015 within the "Transforming our world: the 2030 Agenda for Sustainable Development" resolution, is to reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions by 2030.

Child poverty is significantly different from poverty that is experienced by adults. Children experience poverty through a range of deprivations that negatively affect their physical, intellectual, emotional and spiritual development. Therefore, looking at child poverty only through the prism of consumption is insufficient. This indisputable fact urges researchers to look beyond traditional concepts and methods of poverty measurement and reveal the multidimensional face of child poverty.

This report helps to discover the peculiarities of child poverty in Armenia through a National Multiple Overlapping Deprivation Analysis (N-MODA), a tool that provides valuable insights on the complexity and depth of multidimensional child poverty. This is the first report of its kind that depicts the situation of multidimensional poverty, including its overlap with monetary poverty among children at national level.

My deepest anticipation is that the results of this analysis will be used by decision makers, researchers, academia, civil society organizations and, in general, by stakeholders and the broader public.

Stepan Mnatsakanyan
President
National Statistical Service of the Republic of Armenia

EXECUTIVE SUMMARY

This report provides the first comprehensive national estimates of multidimensional child poverty in Armenia, measured using the Multiple Overlapping Deprivation[1] Analysis (MODA) methodology developed by the UNICEF Office of Research. In addition, this report analyses multidimensional poverty together with monetary poverty, providing estimates of the degree to which the two measures of child poverty overlap, and offering a comprehensive picture of child poverty in the national context. Dimensions and indicators for this study were selected as the result of a broad consultative process with key stakeholders convened by UNICEF Armenia. See Annex A for the full list of dimensions and indicators.

Multidimensional poverty and its monitoring are part of the Sustainable Development Goals (SDGs). The sustainable development goals set by the post-2015 Development Agenda make a clear statement in Goal 1.2:

"By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions."

The definition of national multidimensional child poverty indicators is therefore necessary as a tool to monitor progress towards this SDG target.

In Armenia, 64 per cent of children are deprived in 2 or more dimensions. The headcount is as high as 82 per cent in rural areas, while it is 53 per cent in urban settings. Nationwide 12 per cent of children are not deprived in any dimension. However this is true for only 3 per cent of children in rural areas, while 18 per cent of children in urban areas do not suffer any deprivation. Children who are deprived, are deprived on average in three dimensions at the same time.

Most children are deprived in Utilities, Housing and Leisure. Utilities is defined here as a combination of poor water supply and heating, while housing is defined by crowded living space and reported housing problems. Leisure is measured as a combination of recreation items and space to play. There is a sharp rural/urban divide in the utilities dimension: 87 per cent of children in rural areas are deprived in utilities, a combination of poor access to water and heating. The second relevant divide is found in information: 57 per cent of rural children are deprived of access to information, while this is true for only one third of children in urban settings. However, there are no differences in leisure deprivation rates by area of residence. At the same time, there are no significant gender differences either in deprivation distribution or particular dimensions.

Almost one in three children are both poor and deprived. 28 per cent of children are deprived (in 2 or more dimensions) and live in monetary-poor households. These children are the most vulnerable, and should be prioritized by social policies. At the same time, 36 per cent of children are deprived, but do not live in poor households. These children need direct intervention to tackle deprivation, and are at risk of being missed by policies that only address monetary poverty.

Younger children are mostly deprived in Nutrition. About one third of children age 0-5 are deprived in nutrition, and 23 per cent of children age 3-5 are deprived in early childhood education. The highest deprivation rates for this age groups are found in information (49 per cent), utilities (48 per cent) and housing (51 per cent).

Older children are mostly deprived in Leisure and Social Relations. Both children age 6-14 and age 15-17 have their highest deprivation in leisure, defined as not having a space to play outside or not having books or toys. Almost one half of children age 6-14 are also deprived in social relations. 37 per cent of children age 6-14 are deprived in education (defined as education resources), while 12 per cent of children age 15-17 are not in education or training.

---

[1] A lack of insufficiency of what is deemed essential for the child well being and development

1 INTRODUCTION

Children are consistently found to be at a higher risk of poverty than other age groups. Yet childhood poverty is particularly harmful because it not only hurts children at the time it is experienced (Brooks-Gunn and Duncan 1997), but it also often has longer term consequences (Gregg & Machin 2001; Corak 2006; Esping-Andersen and Myles 2009). Monitoring the levels of child poverty and analysing its determinants is crucial for designing and implementing effective policies for improving children's living conditions. Traditional analysis of poverty focuses on monetary well-being and utilizes income or expenditure measures to assess the poverty status of the household that individuals live in. However, children generally do not participate in household spending and consumption decisions and their needs can differ from those of adult household members (see de Neubourg et al. 2014). Moreover, it has been recognised that poverty is a multidimensional concept encompassing more than just income or consumption of goods and services:

"Children living in poverty are deprived of nutrition, water and sanitation facilities, access to basic health-care services, shelter, education, participation and protection, and that while a severe lack of goods and services hurts every human being, it is most threatening and harmful to children, leaving them unable to enjoy their rights, to reach their full potential and to participate as full members of the society" (United Nations, 2007).

Recently, the Sustainable Development Goals (SDGs) explicitly recognized the importance role of multidimensional measures of poverty, and the fact that poverty affects different groups of the population differently. Goal 1.2 states:

"By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions."

This goal explicitly addresses children, referencing to all dimensions of poverty, and stressing the role of national definitions of poverty. In this context, the construction of specific, nationally validated, child-centered multidimensional poverty indicator is crucial to monitor progress towards this important SDG.

Acknowledging the multidimensional nature of poverty, critical advances have been made in its measurement over the past decade (see Atkinson 2003; Bourguignon and Chakravarty 2003; Gordon et al 2003; Alkire and Foster 2011). Multiple Overlapping Deprivation Analysis (MODA) is a new methodology rooted in this measurement tradition that UNICEF developed to identify the extent and nature of material deprivation and monetary poverty experienced by children (see de Neubourg et al 2012). It draws on the international framework of child rights to construct dimensions of child well-being in the domains of survival, development, protection and social participation. Thus, it includes aspects of children's well-being that may not even be directly related to material resources, but are instead affected by the lack of local infrastructure (e.g. water and sanitation) or relationships within the household (e.g. protection from violence). One of the key features of MODA methodology is to be adaptable to different contexts; while there are two standardized cross-country applications, MODA has been adopted in a number of different national studies, both in middle- and lower-income countries, especially in view of the SDGs. Armenia is one of the few middle income countries (MICs) to have engaged in this type of analysis, the other being upper-MICs Bosnia-Herzegovina in the CEE/CIS region, and Botswana in the region of Eastern and Southern Africa.

Armenia is the first middle-income country to approach a National Child Poverty analysis using MODA methodology.

This study uses the MODA methodology to build a multidimensional child poverty indicator for Armenia; it analyses the incidence and intensity of multidimensional child deprivation as well as the overlaps between monetary poverty and multiple deprivation, providing a comprehensive picture of child poverty in Armenia.

Armenia is a post-soviet, landlocked country, situated in the southern Caucasus region; it borders with Georgia to the north, Turkey to the west and south, Azerbaijan to the east and southwest, and Iran to the south. Stability is

impacted by the volatile regional geo-political context and the unresolved Nagorno-Karabakh conflict[2] that escalated notably in 2014. The border with Turkey remains closed, compounding the challenge of a landlocked state and constraining economic development. The closure of the borders by Azerbaijan and Turkey has a negative influence on the living standards of the population of the Republic of Armenia, especially its vulnerable groups, and on their social and economic rights[3].

Armenia is a country with a medium human development index (HDI). After a period of double-digit economic growth from 2001 to 2007, the country was harshly hit by the global crisis in the last quarter of 2008. As a result, GDP dropped dramatically in 2009, and the country experienced a deep economic recession. The poverty level in the same year increased for the first time ever since 1998. Since 2010, the economy has started to recover: the purchasing power parity adjusted GDP per capita increased from $5,200 in 2011 to $7,526 in 2013. Armenia's HDI value for 2013 was 0.730, which is in the high human development category – positioning

the country at 87 out of 187 countries and territories. Between 1990 and 2013, Armenia's HDI value increased from 0.632 to 0.730[4].

Nevertheless, according to the results of the Social Snapshot and Poverty in Armenia 2015 report (the Integrated Living Conditions Survey of 2014 formed the basis for most of the empirical analysis in the report with Child Needs module commissioned by UNICEF being part of it), 30 per cent of the population is consumption-poor. The child poverty rate among under-8s is even higher at almost 34 per cent[5]. The situation of children in Armenia remains challenging, especially in access to basic services, despite continuing progress over the last decade.

In this context, it is crucial to develop a multidimensional child poverty measure to paint a comprehensive picture of child poverty in Armenia. The availability of both child-specific non-monetary indicators and a standard monetary poverty measure in the same national survey constitutes a unique opportunity for Armenia to assess child poverty in a holistic way.

---

[2]The peaceful resolution of the Nagorno-Karabakh conflict is negotiated under the internationally agreed format of the OSCE Minsk Group, co-chaired by Russian Federation, United States of America and France, on the basis of the following principles of international law: non-use of force or threat of use of force, self-determination and equal rights of people, and territorial integrity.

[3]According to Armenia's National UPR Report 2014

[4]UNICEF in Armenia, SitAn, 2014

[5]Social Snapshot and Poverty in Armenia 2015 report, NSS RA

2 METHODOLOGY

This study uses data from the Integrated Living Condition Survey (ILCS) 2013 and 2014, which interviews a nationally representative sample of Armenian households on a range of topics, and is the official source for national poverty statistics. In particular, between June 2013 and June 2014, the survey administered a Child Needs module with UNICEF support, somewhat similar to that used for the EU-SILC surveys in the European Union and to the Expanded Household Budget Survey (EHBS) conducted in Bosnia-Herzegovina in 2011 (see Chzhen and Ferrone 2016). The Child Needs module includes items specific to children aged 6-17, although the household reference person answers these questions on behalf of all children in this age group in the household. In other words, children do not fill out the Child Needs module themselves.

The present study uses this module to define deprivation dimensions for older children. The final sample for the study consists of 5,519 children 0 to 17 years old, in 3,461 households, interviewed over 2013 and 2014. This is a subsample of the general ILCS sample, but is still representative at national level. Though the ILCS is not as comprehensive as the Demographic and Health Survey in covering younger child deprivations in health or nutrition, it does contain enough basic information to construct an individual deprivation measure. Moreover, it also measures monetary poverty so that both monetary and non-monetary aspects of child well-being can be compared and analysed together to provide a comprehensive picture of children's living conditions.

In line with general MODA methodology, all of the dimensions have been selected using the Convention on the Rights of the Child (CRC) as the guiding principle (United Nations, 1989). Specific decisions on age groups, dimensions, indicators and thresholds have been guided by participants in the Technical Advisory Group on Child Poverty convened by UNICEF-Armenia and the National Statistical Office and composed of key government ministries and other development partners. All choices reflect both international and national standards as well as data availability.

EQUITY AGENDA: MULTIPLE OVERLAPPING DEPRIVATIONS

	Nutrition	Health	Water	Number of deprivations
A	✖	✖	✔	2
B	✔	✖	✔	1
C	✔	✔	✔	0
D	✖	✖	✖	3

Since MODA adopts a life-cycle approach, the analysis is broken down by three age groups in order to capture the varying needs of children across their lives (see Table 1). For children under the age of 6, age-specific indicators on nutrition and early childhood education and care (ECEC) have been selected. For children of school-age (6 to 14 years), and adolescence (15 to 17 years) the analysis includes indicators on education, leisure, social relations and clothing. Information is measured at the household level, but in different ways for different age groups. All age groups include household level-indicators on dimensions of utilities (which includes both water and heating) and housing, to enable the measurement of deprivation in the direct environment in which a child grows up.

The choice of indicators to operationalise the dimensions of deprivation is driven both by the need to find a good match for what it means to be deprived for a child in a specific age group and by the availability of data. In general, a deprivation corresponds to a violation of a child's basic rights. In this regard, deprivations are different from predictors or correlates of deprivation. Table 1 gives details of the specific dimension for each age group, while appendix A shows the detailed list of indicator definitions.

It is important to address here the **limitations** in the choice of specific dimensions and indicators. In particular, the decision to use the 2013 and 2014 surveys limited choices of dimensions and indicators for children under six. The dimension of nutrition is defined by the past breastfeeding of the child: while the information is available for every child in the age range, it is only partial. However, since anthropometric measures were collected

in 2014, this report provides an assessment of nutritional status for 2014, and such measures will be included in the nutrition dimension in subsequent reporting. The dimension of early childhood education and care (ECEC) is defined by kindergarten attendance: however, this does not apply to children under three, who are then considered non-deprived as a result, in order to maintain consistency across dimensions in the same age group. Furthermore, we were not able to define a health dimension, neither for young nor for older children. Indicators of deprivation in health are difficult to define, since most routine information in surveys refers to temporary illnesses during reference periods. This speaks of the need to include more suitable child health indicators in household surveys, measuring access to healthcare rather than temporary health status, which could be accomplished without increasing the length of the questionnaire by an excessive amount. More suitable indicators for health for example would be compliant with routine check-ups or vaccinations, and possibly access to health insurance, while for child development valuable information would be provided by asking about appropriate toys and parents' engagement for children up to three years old.

Indicators are combined into dimensions (see Table 1) as follows: a child is considered deprived in a dimension if s/he is deprived in one or more indicators within that dimension. This 'union approach' has an important implication – the method is insensitive to the depth of deprivation within a given dimension. A child deprived in two indicators within a dimension is treated the same as a child deprived in only one indicator – both are deprived in the dimension. For example, a child is deprived in housing if he/she lives in a crowded household, or lives in a house with dilapidated walls and windows, or both. The logic behind this approach is that one cannot trade one 'right' for another – this is a fundamental pillar of the rights-based approach to programming and policy analysis. While it is possible to weight dimensions to indicate a relative value difference between them, no weighting scheme is applied in this analysis. Each of the selected dimensions reflects a basic right and all of them are therefore considered of equal importance (see de Neubourg et al., 2014 for further details on weighting).

The study estimates the proportion of children in each age group who are deprived in each indicator and dimension, as well as in several dimensions simultaneously, charts

Table 1: Age Groups and Dimensions for Child Deprivation Analysis in Armenia		
0-5 Years Old	6-14 Years Old	15-17 Years Old
Nutrition	Education	Education
ECEC	Leisure	Leisure
	Social Relations	Social Relations
	Clothing	Clothing
Information	Information	Information
Utilities	Utilities	Utilities
Housing	Housing	Housing

the degree of overlap between various dimensions, and analyses the profile of children suffering from several deprivations at once. Finally, using the consumption and poverty variables included in the ILCS, the study also analyses overlaps between multiple deprivation and monetary poverty for each age group.

The distribution of the number of deprivations among children in a given age group at the national level indicates the intensity of the overall child deprivation for this age group. To identify multidimensionally deprived children, a cut-off must be selected. A child is multidimensionally deprived if the number of his/her deprivations is greater or equal to the cut-off. Comparing the results using different cut-offs can give valuable insights into the breadth of child deprivation. The headcount ratio (H) refers to the number of children in a given age group who are multidimensionally deprived according to a particular cut-off point, as a percentage of all children in this age group. Average deprivation intensity (A) can be calculated as the number of deprivations from which a multiply deprived child suffers, divided by the maximum number of dimensions studied (d), averaged out across all the deprived children in the relevant age group. It captures the percentage of all possible deprivations from which a deprived child suffers. Since the headcount ratio is not sensitive to deprivation intensity, it can be adjusted accordingly (Alkire & Foster, 2011), multiplying

the headcount (H) at each cut-off for the average intensity (A): this adjustment allows to take into account changes in deprivation intensity. If a group has the same headcount as another group, but a lower intensity, the resulting adjusted headcount will be lower for the former group. This information would have remained hidden using only the headcount measure. The adjusted headcount ratio *(M0)* is then calculated as:

M0=H*A

Unlike the raw headcount ratio, the adjusted measure is sensitive to the breadth of deprivation experienced by each child. Additionally, it has several useful properties that give insight into what drives multidimensional deprivation at each cut-off: *M0* can be decomposed into the shares contributed by various sub-groups of children and, separately, into the shares contributed by each dimension. A more detailed description, including formulas for all indicators, is given in Annex B.

The rest of the report is organized as follows. First, it presents the headline results on child well-being for all children 0-17 years based on both deprivation and monetary poverty. In subsequent sections we show deprivation profiles by the four age groups as defined by the Technical Advisory Group (TAG). The last sections conclude.

3 RESULTS: MONETARY AND MULTIDIMENSIONAL POVERTY AMONG CHILDREN

Table 2 presents the multidimensional headcount of children in Armenia, together with the intensity of deprivation and the adjusted headcount. In Armenia, 64 per cent of children are deprived, using a cut-off of 2 or more dimensions. The share of deprived children rises to 82 per cent in rural areas, while it decreases to 53 per cent in urban settings.

Looking at the whole distribution, 88 per cent of children are deprived in at least one dimension. In rural areas,

almost every child is deprived in at least one dimension (97 per cent), while the headcount is 82 per cent in urban areas. Children in rural areas are also more severely deprived: the average intensity of deprivation *(A)* is 32 per cent in urban areas, and 41 in rural settings. This means that deprived children are, on average, deprived in 2.2 dimensions in urban areas, and 2.9 in rural areas; the adjusted headcount *(M0)* is therefore considerably higher in rural (0.40) than in urban (0.26) areas.

Table 2: Multidimensional headcounts for each cut-off – All children, by area of residence								
	H			A			M0		
	National	Urban	Rural	National	Urban	Rural	National	Urban	Rural
Deprived in 1+	87.6	81.7	97.1	35.6	31.7	40.8	0.31	0.26	0.40
Deprived in 2+	63.7	52.5	81.7	43.6	41.4	45.8	0.28	0.22	0.37
Deprived in 3+	36.7	26.2	53.6	54.6	54.4	54.9	0.20	0.14	0.29
Deprived in 4+	16.4	11.9	23.6	69.2	68.2	70.1	0.11	0.08	0.17
Deprived in 5+	8.5	6.1	12.4	80.4	78.7	81.7	0.07	0.05	0.10
Deprived in 6+	3.9	2.5	6.3	90.8	89.3	91.7	0.04	0.02	0.06
H: headcount (% deprived); A: average intensity; M0: adjusted headcount ratio								

Figure 1 shows the rates of deprivation by the exact number of dimensions experienced. Most children are deprived in two dimensions, and the national distribution is slightly skewed to the left, showing that the majority of children are deprived in 0 to 3 dimensions. However, substantial differences persist between the rural and the urban distribution. The rural distribution is more right-skewed, indicating that more children are deprived in 2 to 4 dimensions.

However, there are no striking gender differences in deprivation count. The distribution is slightly skewed to the right for girls, but the difference is not statistically significant (Fig. 2).

Figure 3 shows the deprivation rate by single dimension[6]. The dimensions that present the higher rates of deprivation are Leisure, Utilities and Housing, where about one in two children are deprived. They are closely followed by Social Relations and Information.

If we look at the same distribution for rural and urban (Fig. 4), we see that there is a severe rural/urban divide, especially in structural dimensions: the biggest differences occur in utilities and information, but there is a consistent gap in clothing, social relations and ECEC as well. Interestingly, rural children do not appear to be more deprived in housing than urban children; urban children are more deprived in nutrition and education. There is no

---

[6]It should be noted that some dimensions are calculated only for some age groups, so they are not immediately comparable.

Fig. 1: Headcount by number of dimensions - All children

Legend: National, Urban, Rural

Values (National bars): Deprived in 0: 12.4, Deprived in 1: 23.9, Deprived in 2: 27.0, Deprived in 3: 20.3, Deprived in 4: 7.9, Deprived in 5: 4.6, Deprived in 6: 2.5, Deprived in 7: 1.4
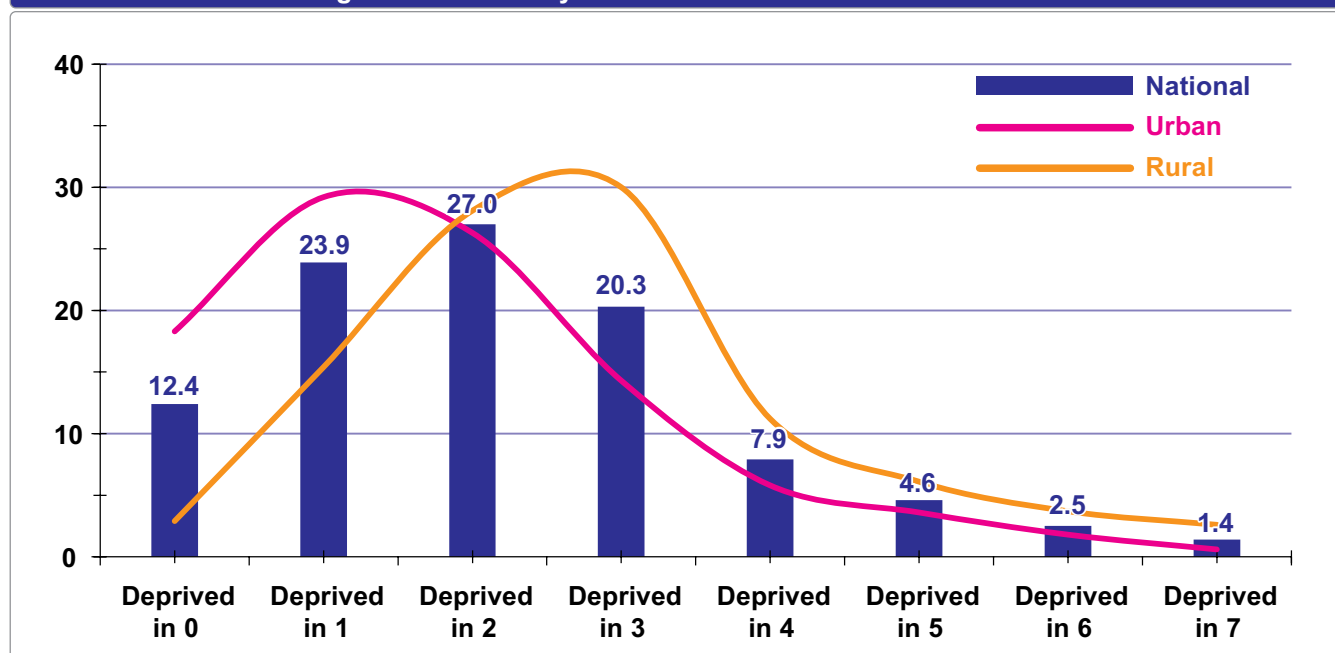
Fig. 2: Deprivations by gender - All children

Legend: Male, Female

	Deprived in 0	Deprived in 1	Deprived in 2	Deprived in 3	Deprived in 4	Deprived in 5	Deprived in 6	Deprived in 7
Male	12.5	24.6	27.5	19.1	8.1	4.4	2.4	1.5
Female	12.3	23.1	26.4	21.7	7.6	4.8	2.8	1.3
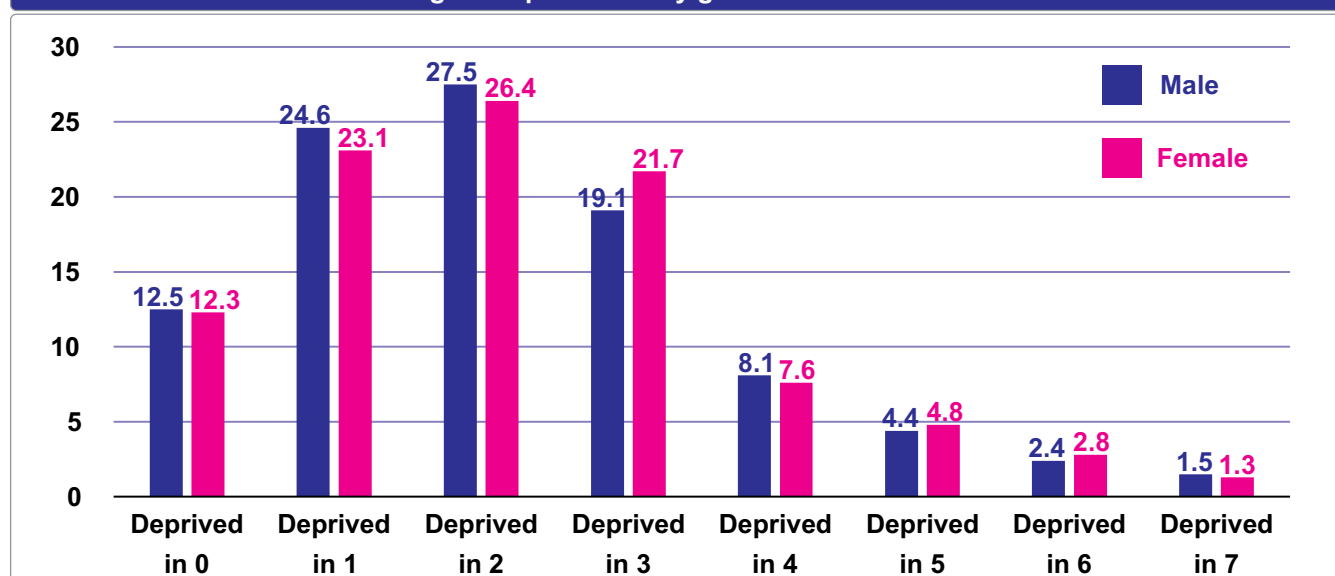
significant difference in leisure.

As regards monetary poverty at national level, 36 per cent of children are poor and 3 per cent are extremely poor (Table 3). The corresponding population-wide numbers are 31 and 2.5 per cent, respectively[7].Comparing this with deprivation, we find a similar proportion of deprived children for a cut-off of three or more deprivations.

[7]Here we are using combined data for 2013 and 2014, therefore poverty rates are an average of the two years.

Fig. 3: Headcount by dimension - All children

Fig. 4: Headcount by dimension and area - All children

THE MAP SHOWS THE PERCENTAGE OF CHILDREN DEPRIVED IN 2 OR MORE DIMENSIONS IN THE REGIONS OF ARMENIA.

LORI

SHIRAK

TAVUSH

ARAGATSOTN

KOTAYK

YEREVAN

ARMAVIR

GEGHARKUNIK

ARARAT

VAYOTS DZOR

SYUNIK

Share of children deprived in 2+(%)

- **76,86**
- **72,76**
- **68,72**
- **45,68**
- **No data**

The darker the shade the higher the rate of deprived children.

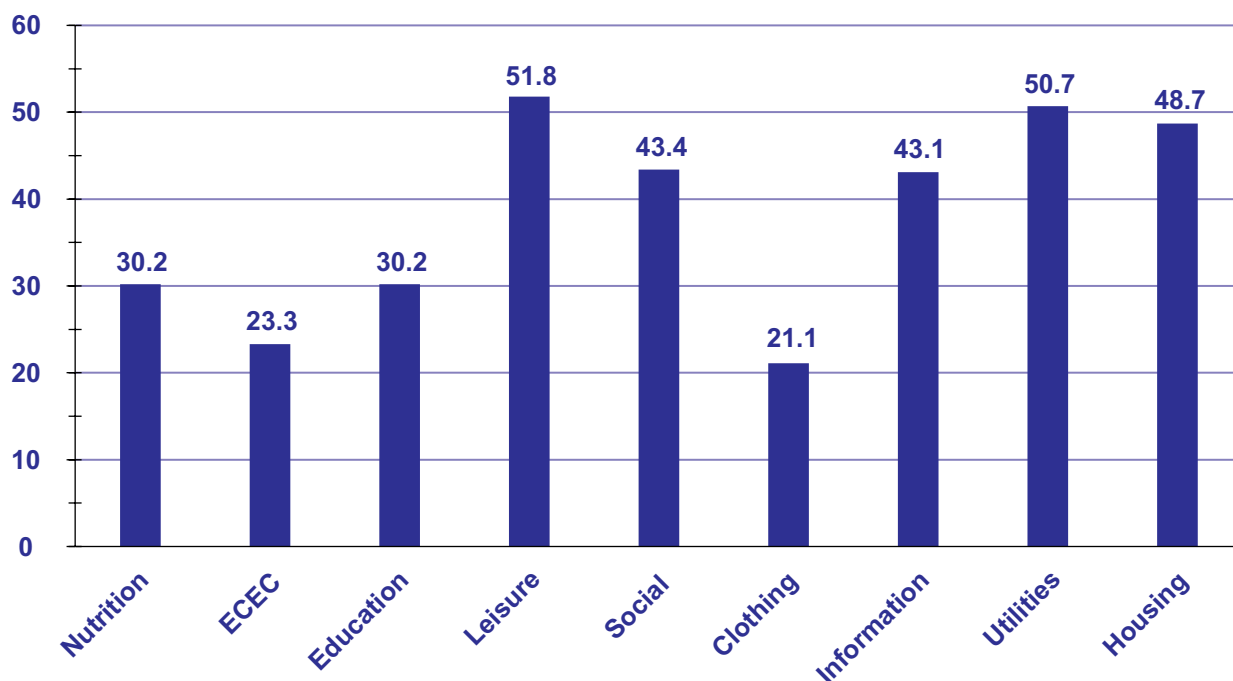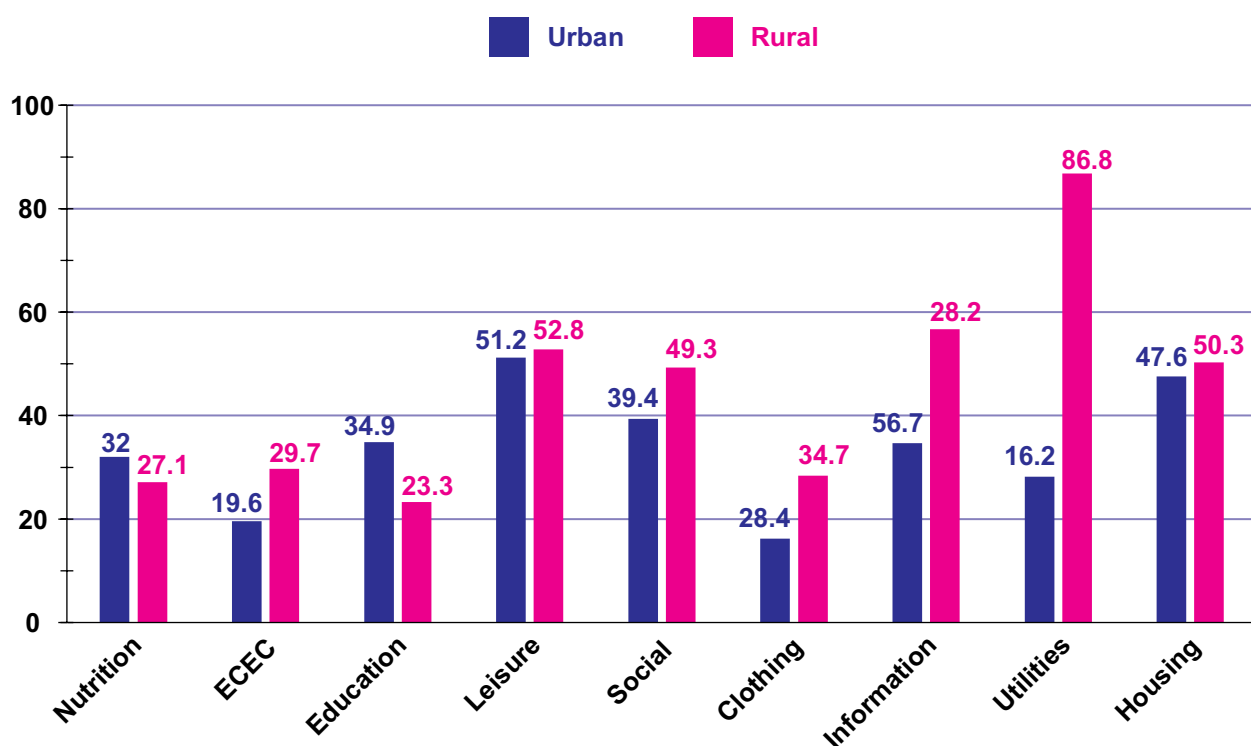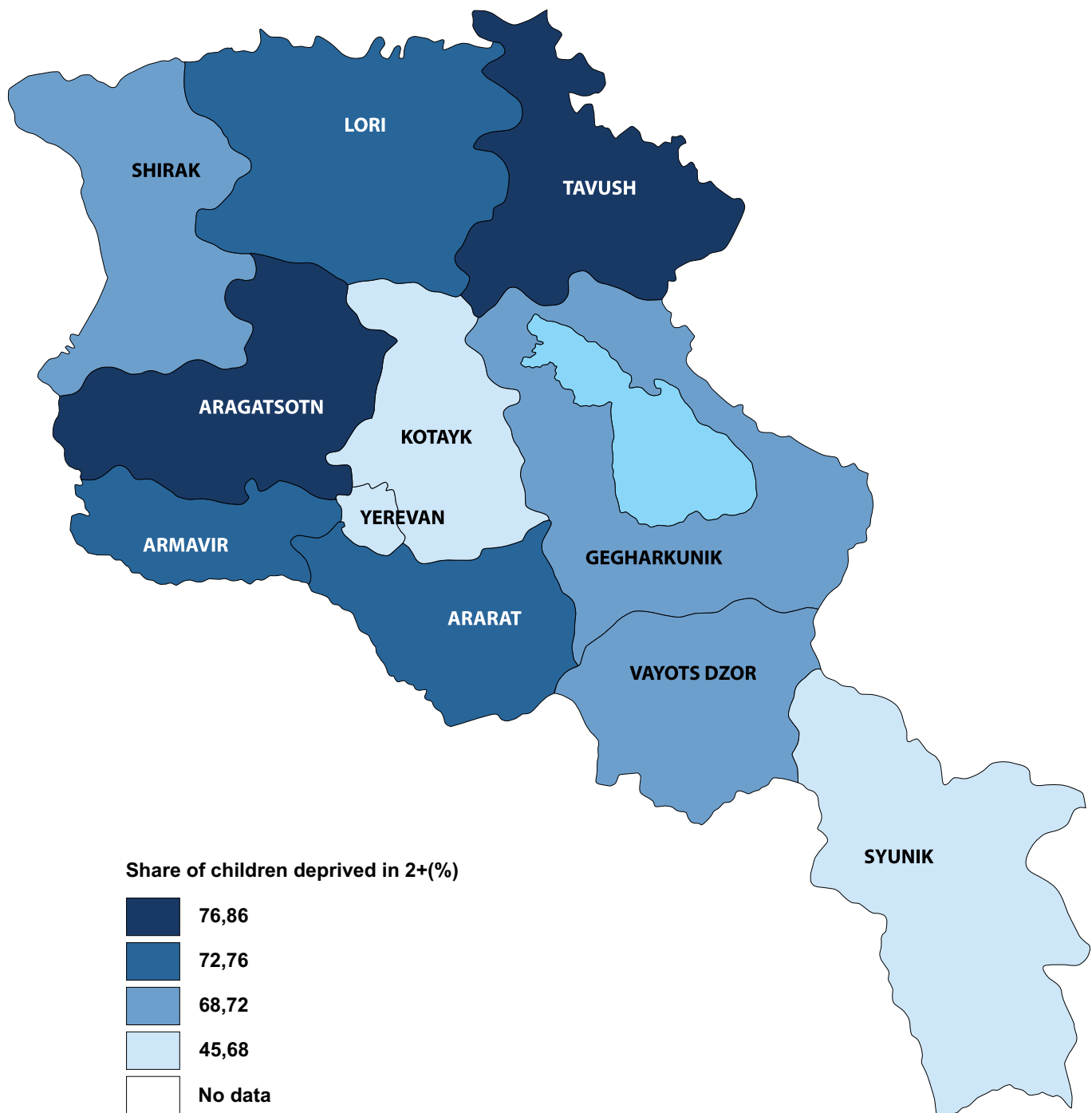| Table 3: Poverty and extreme poverty rates by age groups.						
	National		Urban		Rural	
	Poor	Extremely Poor	Poor	Extremely Poor	Poor	Extremely Poor
Children 0-5	38.4	3.7	36.8	3.7	41.2	3.8
Children 6-14	34.2	2.8	34.7	3.0	33.4	2.5
Children 15-17	35.6	3.9	39.8	5.0	30.5	2.5
Adult 18-25	28.9	2.5	29.3	3.0	28.2	1.7
Adult 26-35	32.2	2.2	31.6	2.2	33.4	2.1
Adults 36-50	29.2	2.4	29.8	2.7	28.2	2.0
Adults 51-65	27.0	1.9	26.9	2.2	27.1	1.4
Over 65	31.4	2.2	31.7	2.3	31.0	1.9
All	31.0	2.5	31.1	2.7	30.8	2.1
All children	36.0	3.3	36.3	3.6	35.5	3.0

Children are also more likely to be deprived than adults: both poverty[8] and extreme-poverty rates are lower for adults, in urban as well as in rural areas. Furthermore, the youngest children are the most likely to be poor.

Figures 5 and 6 show the share of poor and extremely poor in the population by age groups. Children represent 26 per cent of the poor population and 30 per cent of the extremely poor. However, children represent only 22 per cent of the total population. This shows that poverty is more likely to affect children. The previous analysis showed the relationship between monetary poverty[9] and deprivation. It is also useful to show the results for the richest and the poorest quintiles of the population for a picture of inequality across the distribution. The next figure (Fig. 7) shows the different rates of deprivation in each dimension, for the poorest and the richest quintiles.

Children in the poorest quintile are worse off in every dimension, with the exception of nutrition. The largest differences are found in information, utilities, and housing; large differences (around 20 percentage points) are also found in leisure and education.

These results are translated into a distribution of numbers of deprivations that is substantially more concentrated to the right for children in the first quintile, while children in the fifth quintile show a distribution clearly positioned to the left (Fig 7). Children in the richest quintile are five times more likely to not be deprived than their poorest counterparts. While the poorest children are almost twice as likely to experience three deprivations at the same time.

While children living in the poorest quintile of the expenditure distribution are clearly worse off, it is also worth stressing that 74 per cent of children in the richest 25 per cent are also deprived in at least one dimension, and more importantly 44 per cent are deprived in two or more dimensions. This shows that the relationship between deprivation and monetary measures is complex and not linear, as discussed below (Fig. 8).

[8]Extreme poverty refers to people defined as *'extremely poor or undernourished: those with consumption per adult equivalent below the food poverty line'* ("Social Snapshot and Poverty in Armenia", Part 1: Poverty profile and labor market developments in 2008-2014" National Statistical Service of the Republic of Armenia http://www.armstat.am/en/?nid=80&id=1716)).
[9] Defined as having expenditure per capita below the national poverty line.

Fig. 5: Poor by age groups

- Age 0-5: 10%
- Age 6-14: 12%
- Age 15-17: 4.1%
- Age 18+: 74%

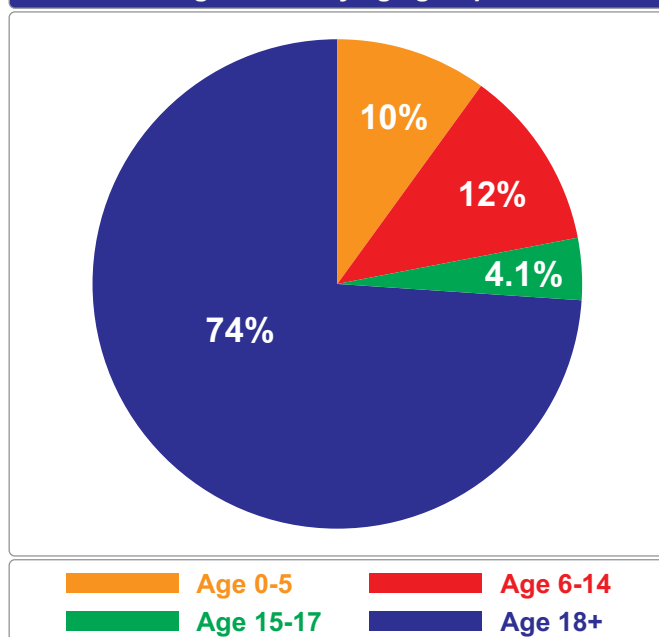**Fig. 6: Extremely poor by age groups**

- Age 0-5: 12%
- Age 6-14: 12%
- Age 15-17: 5.7%
- Age 18+: 70%
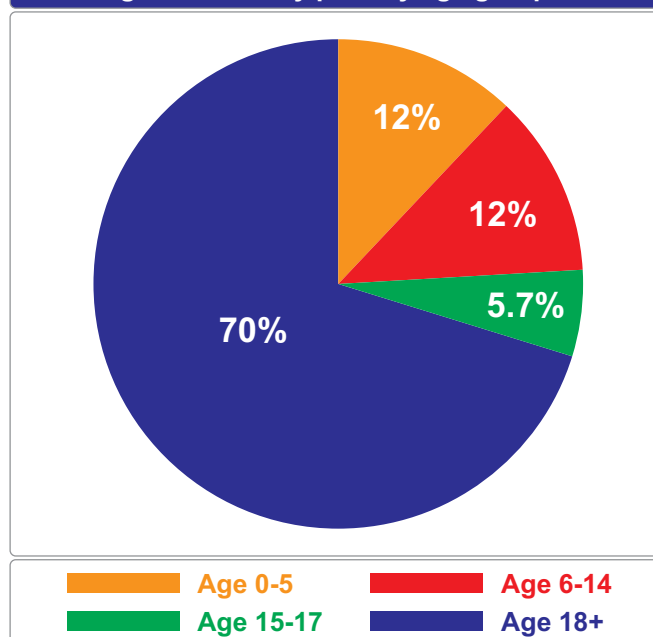
The relationship between deprivation and consumption (Fig 9) presents a wide rural/urban divide, with children in rural areas always significantly more deprived than children in urban settings, for any level of income. Both curves are steeper at lower levels of consumption, signifying that an increase in household spending power can be effective in reducing the number of deprivations a child suffers, when consumption is below the poverty line[10]. However, the curves flatten out quite rapidly as consumption increases, therefore the impact on child deprivation becomes weaker. The curve seems to be steeper at low levels of consumption in rural areas, with respect to urban, but it becomes flatter as consumption increases. This points towards a problem of services availability and infrastructural problems in rural areas.

The national rates of child poverty and deprivation are quite worrying. Taking a cut-off of two or more dimensions, 72 per cent of children are either deprived, poor, or both. There is also a substantial degree of overlap between monetary poverty and deprivation (Fig. 10). For a cut-off of 2 or more dimensions, 28 per cent of children are both poor and deprived. This share is higher in rural areas

Fig 7: Headcount by dimension and quintile

- Poorest Quintile
- Richest Quintile
- National

Dimension	Poorest Quintile	Richest Quintile
Nutrition	30.6	32.9
ECEC	27.6	15.5
Education	43.1	22.9
Leisure	65.8	43.1
Social	53.2	36.3
Clothing	31.3	11.2
Information	65.7	22.9
Utilities	59	33.6
Housing	68.3	35

---
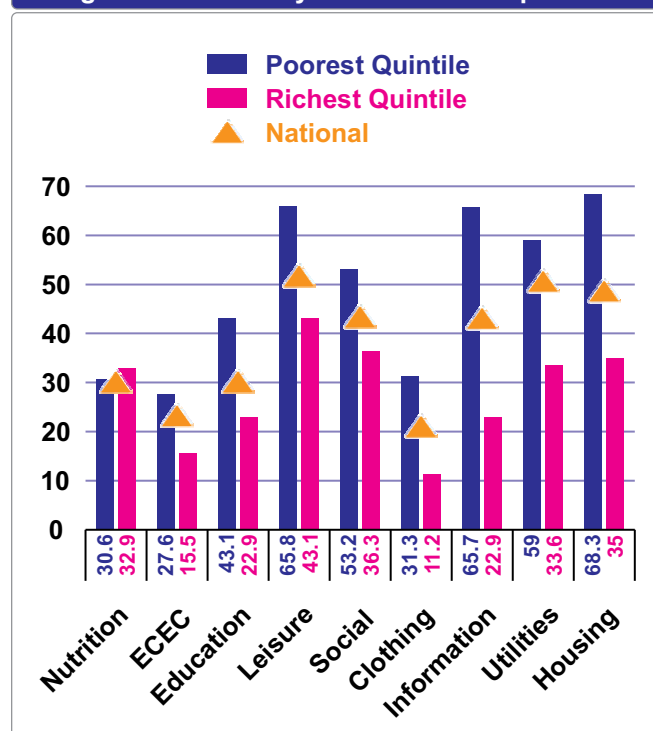
[10]Since we pool data from two rounds of the survey, the poverty line here is an average of the poverty line for 2013 and 2013, traced at 39,731 Armenian Drams (AMD).

Fig 8: Number of deprivation by quintile
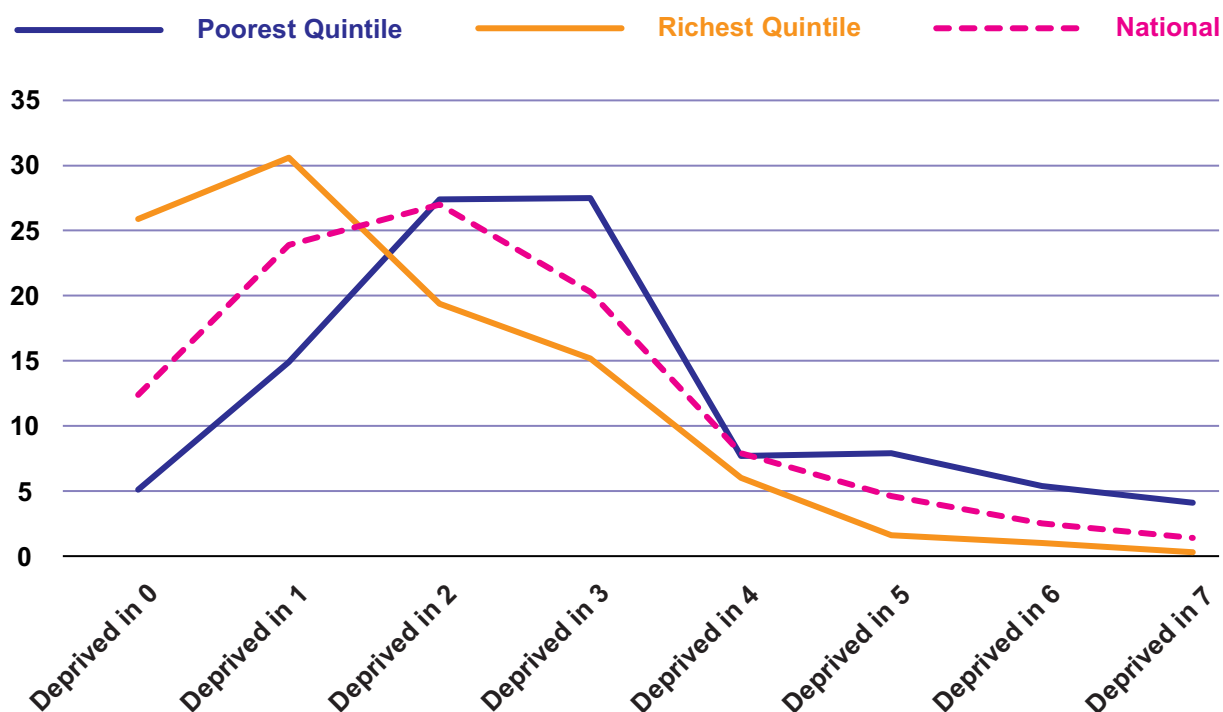
Fig 9: Deprivation and consumption - All Children
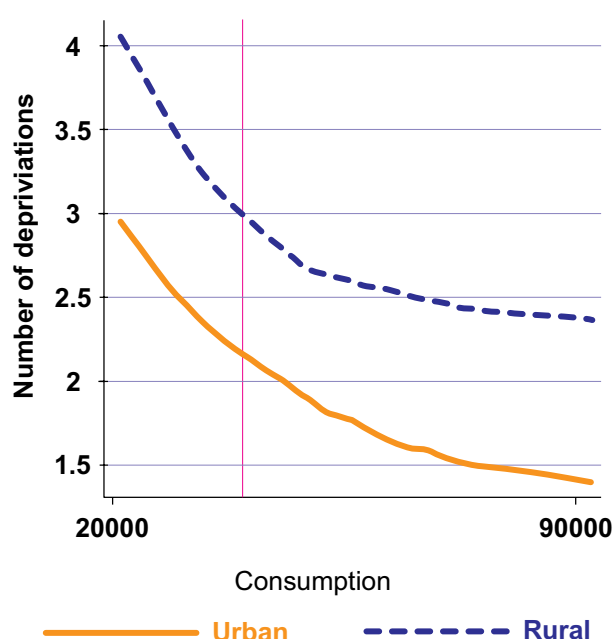
(almost one in three children), and lower in urban ones (one in four – see Table 4). These children are particularly vulnerable, because they lack both the access and the possibility to access goods and services.

However, it is also notable that there are still over one-third of children who are deprived, despite living in non-poor households; they represent more than one half of the totality of deprived children. Their share reaches one in two children in rural areas. These are the children who are likely to be missed by interventions that address only monetary poverty, and need specific targeting.

How can we identify these different groups of children? Table 5 reports some background characteristics for the different categories. Children who are deprived while not living in poor households, tend to be slightly older, have a head of household who is less educated and more likely to work on a farm. More than one half of these children lives in rural areas. Children who are both poor and deprived are more likely to live with a head of household who is more likely to be: female, slightly older, and less likely

Fig. 10: Overlap between deprivation (2+) and poverty

Deprived
36.1%

Poor
7.8%

27.6%

Not poor nor deprived (2+): 28.5%
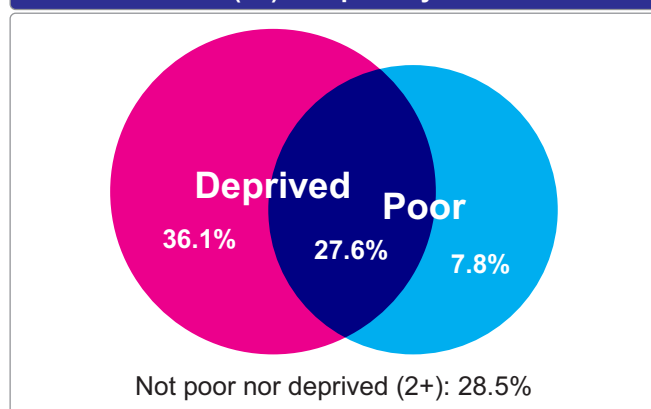
Table 4: Overlap between deprivation (2+) and monetary poverty - All children

	National	Urban	Rural
Poor and deprived	27.6	24.8	32.1
Deprived only	36.1	27.7	49.5
Poor only	7.8	10.9	2.9
Not poor nor deprived	28.5	36.6	15.5
Poor	35.4	35.7	35.0
Deprived	63.7	52.5	81.6

to have a higher education. They are also much more likely to have a head who doesn't work or works unpaid. Children who are poor but not deprived tend to be younger (average age is 4), more likely to have a female head of household, and they are much more likely to live with a household head who is unemployed or works unpaid.

Table 5: Average characteristics of the four groups of children

	All	Poor and deprived in 2+	Deprived only	Poor only	Neither
Age [a]	7	7	9	4	5
Head of householdage [a]	54	57	55	55	51
Male	53.2	51.0	53.7	51.9	54.9
Female	46.8	49.0	46.3	48.1	45.1
Female head	23.1	28.8	22.0	27.3	17.9
Male head of household	76.9	71.2	78.0	72.7	82.1
Head has general education	31.5	34.2	38.2	18.1	22.9
Head completed high school	36.9	47.0	35.9	42.4	26.6
Head has higher education	31.6	18.8	26.0	39.5	50.5
Head doesn't work or unpaid	29.2	38.1	25.0	44.3	22.1
Head is employee	38.5	28.5	35.5	38.7	52.3
Head work on own account	8.5	6.1	7.8	6.2	12.4
Head works on own account in agriculture	23.7	27.3	31.7	10.9	13.2
Head is married	46.3	50.6	49.5	45.9	37.7
Head is single	53.7	49.4	50.5	54.1	62.3
Rural	41.6	47.7	54.8	14.6	24.3
Urban	58.4	52.3	45.2	85.4	75.7

(a): Mean value; all the other characteristics are reported as percentages

Children who are only poor are also much less likely to live in rural areas: only 15 per cent of them live in a rural setting. This fact illustrates how deprivation is much higher in rural areas, as 55 per cent of children who are not poor but deprived live in rural areas.

If we consider the third possible dimension of well-being, which is the subjective assessment of one's situation, we can investigate how this overlaps with the measure of both poverty and deprivation defined here. Using the section of the questionnaire dedicated to the subjective estimation of the living standard, we can estimate the proportion of children who live in a household whose head considers the household to be poor or very poor[11]. About 20 per cent of children live in households that consider themselves poor or very poor: this number is consistently lower than the number of children who are poor and/or deprived. 25 per cent of children live in households that are poor

according to the monetary poverty line, but the household head doesn't consider the household to be poor; while 8 per cent consider themselves to be poor but are not (according to the poverty line). About 19 per cent of children are poor and deprived, but their household head doesn't consider the household to be poor. If we consider only deprivation, 48 per cent of children are deprived, while their head of household does not consider the family to be poor.

This is a very basic measure of self-assessment; however, two major points can be derived from this simple overlap: first, it is well known that people's own self-assessment does not perfectly match with different and more objective measures of poverty. In fact, the mismatch is quite substantial. And secondly, adults can have a different opinion of a child's well-being that may disregard the objective situation and most importantly children's rights.

3.1 SOCIAL PROTECTION

How does social protection help the most deprived children? To have a rigorous evaluation of social policies is beyond the scope of the present paper and of current data availability. However, we can use the data collected on family benefits for the poor to have a clearer picture of the current situation.

The benefit system is a mixed system of cash transfers and other service benefits, based on a scoring method that assigns to each family a vulnerability score. Based on the score, the family is registered to receive these benefits. Here, we are considering those households that answered affirmatively to the question of being registered for family benefits[12].

About one in five children (22 per cent) lives in a family that receives some form of family benefits (poverty). About 10 per cent of children are both poor and deprived (in 2 or more deprivations), and live in families that receive poverty family benefits. However, 17 per cent of all children are both poor and deprived, but are missed by poverty benefits targeting. Or, 63 per cent of children

Fig. 11: Overlap between deprivation (2+), poverty, and social benefits
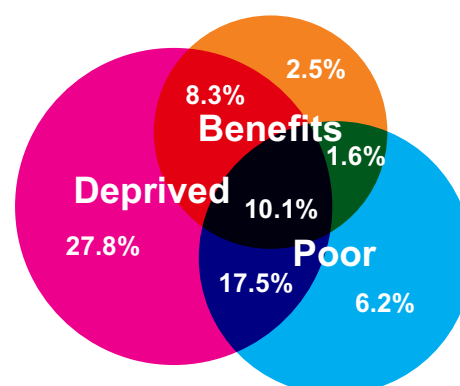
who are both poor and deprived live in families that don't receive poverty benefits. At the same time, 22 per cent of the children who are deprived but not poor receive poverty benefits, which is 8 per cent of all children. Finally, 6 per cent of all children are poor but not deprived, and their families don't receive benefits.

---

[11] We cannot include direct estimates of children's own assessment, because these questions are only for members 16 years-old and above.

[12] SQuestion M.1 in the questionnaire. Here we consider both families that receive regular and non regular benefits.

These numbers are illustrated in Figure 11, which includes one additional group with respect to the previous graph (Fig.10).

If we consider children who are deprived, regardless of their poverty status, we find that 18 per cent of children are deprived and receive benefits, while 45 per cent are deprived but live in families that do not receive poverty benefits. This is equivalent to three-quarters of the children who are deprived.

How do poverty family benefits impact child deprivation? The next graph (Fig 12) reports the results of a multivariate regression on the probability of a child being deprived in 2 or more dimensions. The first thing to notice is that the effect of an increase in spending is very small: this is the same result as shown in Figure 9, but here we are considering several household and individual characteristics at the same time. This tells us that, as

predicted, money, while important, is not completely sufficient to reduce child deprivation. The most relevant factor in decreasing deprivation is the employment of the household head: a child who lives with a head of household who is self-employed in a non-agricultural sector, or is an employee, has a probability 7 or 6 percentage points less of being deprived.

Receiving benefits is associated with a higher probability of being deprived: this does not mean that poverty benefits *cause*, in any way, deprivation. This result means that benefits do target deprived children – at least in part, as stated above. However, the benefits are not enough to reverse the correlation link and therefore don't show a negative effect on deprivation.

Social assistance thus needs to be strengthened both in targeting and generosity, in order to effectively tackle child deprivation.

Fig.12: Changes in the probability to be deprived in two or more dimensions, all children
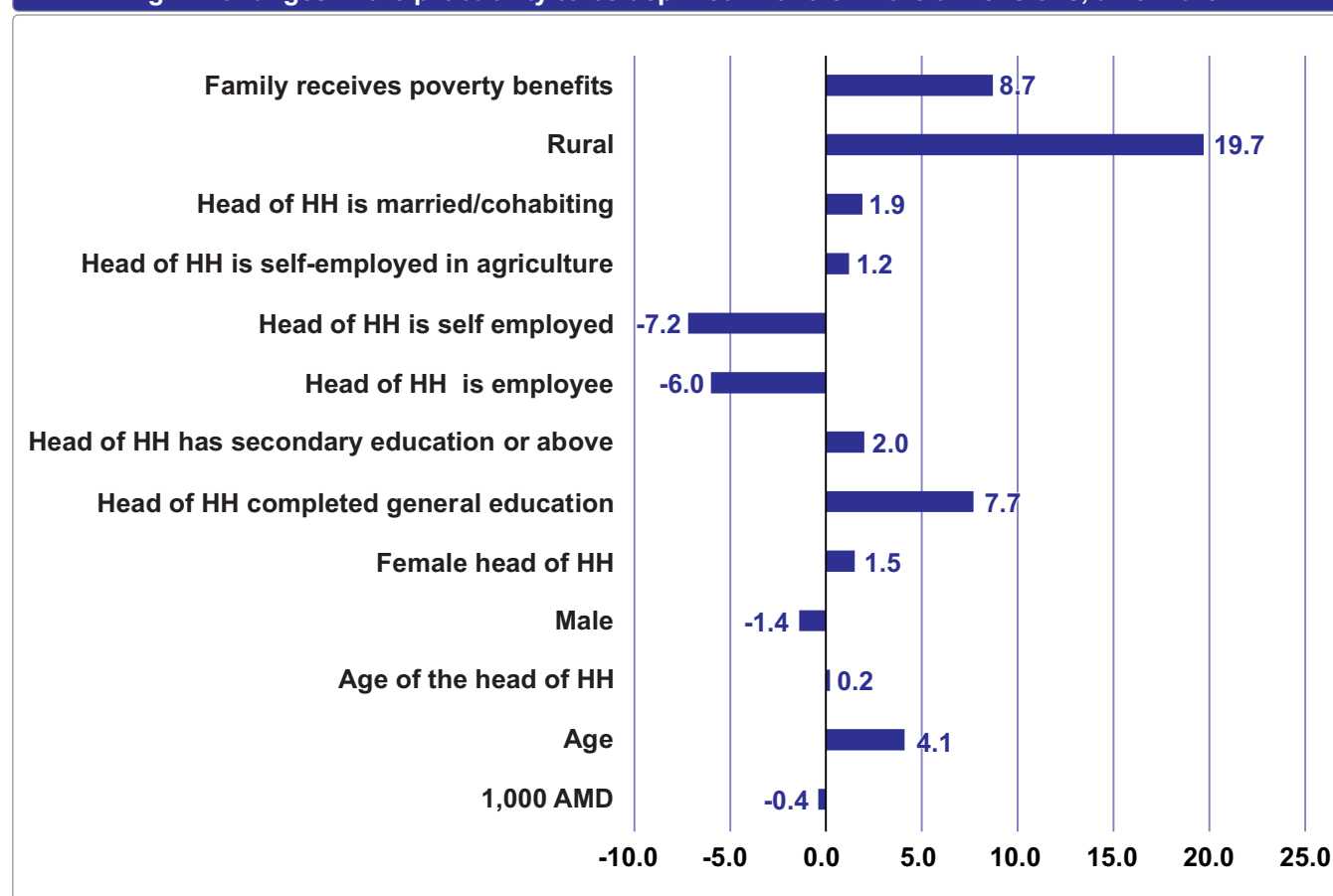
Category	Value
Family receives poverty benefits	8.7
Rural	19.7
Head of HH is married/cohabiting	1.9
Head of HH is self-employed in agriculture	1.2
Head of HH is self employed	-7.2
Head of HH is employee	-6.0
Head of HH has secondary education or above	2.0
Head of HH completed general education	7.7
Female head of HH	1.5
Male	-1.4
Age of the head of HH	0.2
Age	4.1
1,000 AMD	-0.4

4 CHILDREN AGED 0 - 5 YEARS OLD

The highest deprivation rates among children aged 0 to 5 years-old are in the household dimensions: one in two children are deprived in housing and almost the same proportion are deprived in information and utilities. In the housing 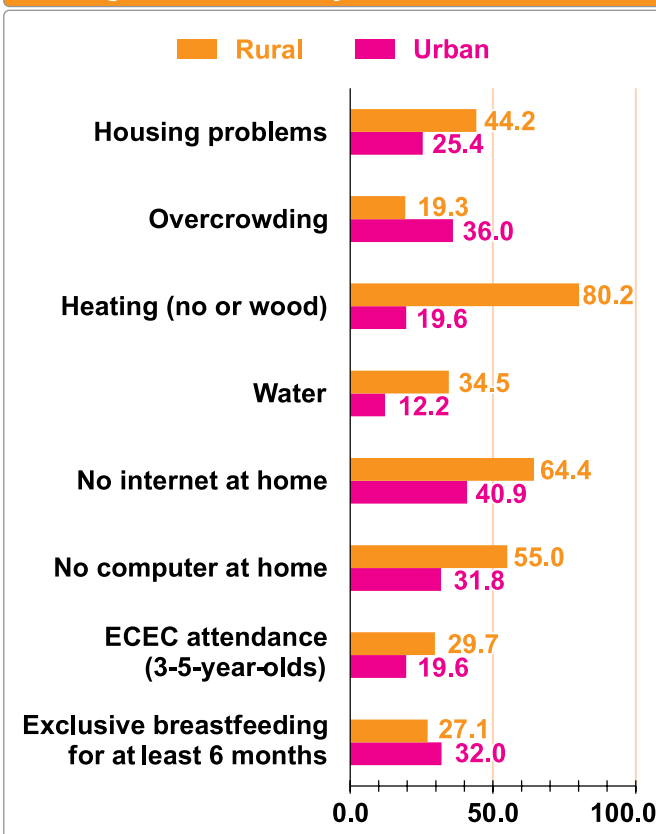dimensions, both housing problems (i.e. dilapidated walls and window) and overcrowding affect about one in three children. Two fifth of children have either wood or no heating at home, and one in two live in houses without access to internet. The indicator for the ECEC dimensions is defined only for children who are 3 to 5 years-old, and are supposed to attend formal care; children aged 0-3 are not considered deprived since they are not expected to attend early education, and cannot therefore experience this deprivation. If we look only at children who are aged 3 to 5, deprivation increases to 53 per cent: more than one half of children aged 3 to 5 in Armenia do not attend any form of early education. This share goes up to 72 per cent in rural areas, while it drops down to 43 per cent, in urban areas. Due to other considerations, it was decided not to separate the under 6 group into two separate groups, however this fact should be kept in mind when reading the following results.

Children in rural areas are worse off, in every indicator, especially in heating and housing (Fig. 15).

Table 6 shows the deprivation rates for each dimension, by background characteristics. Asterisks indicate

Fig. 15: Indicators by area - children 0-5

	Rural	Urban
Housing problems	44.2	25.4
Overcrowding	19.3	36.0
Heating (no or wood)	80.2	19.6
Water	34.5	12.2
No internet at home	64.4	40.9
No computer at home	55.0	31.8
ECEC attendance (3-5-year-olds)	29.7	19.6
Exclusive breastfeeding for at least 6 months	27.1	32.0

differences that are significant at the 95% confidence level.

Fig. 13: Indicators - Children 0-5

Housing problems	32.3
Overcrowding	29.9
Heating (no or wood)	41.6
Water	20.3
No internet at home	49.5
No computer at home	40.2
ECEC attendance (3-5-year-olds)	23.3
Exclusive breastfeeding for at least 6 months	30.2

Fig. 14: Dimensions - Children 0-5

Nutrition	ECEC	Information	Utilities	Housing
30.2	23.3	48.7	48.3	50.9
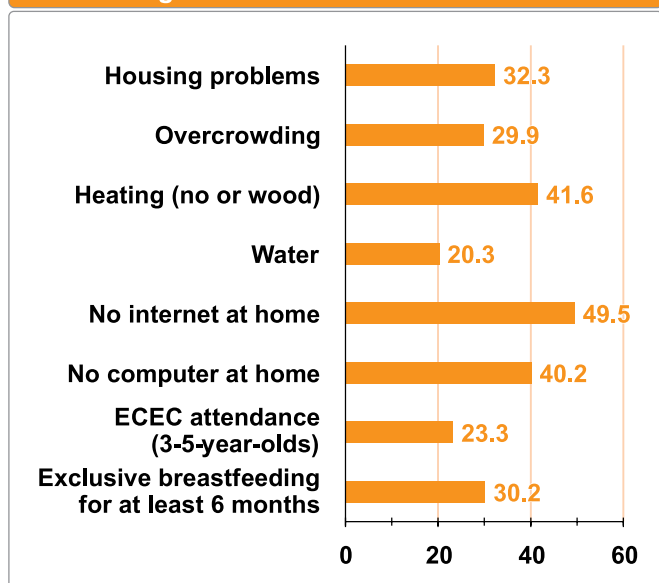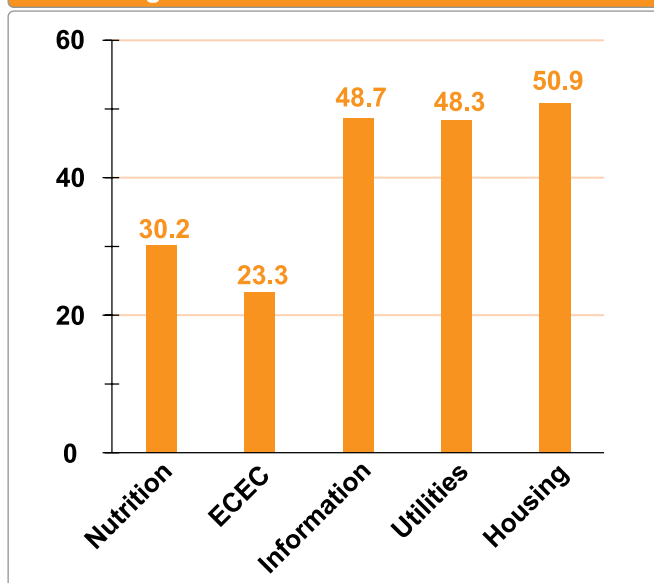
Table 6: Deprivation rates (%) by background characteristics					
	Nutrition	**ECEC**	**Information**	**Utilities**	**Housing**
Female	32.3	23.6	49.3	46.6	52.4
Male	28.4	23.0	48.2	49.7	49.7
Head is younger than 65	30.4	22.7*	47.5	47.6	50.2
Head is over 65	29.2	26.6*	55.4	51.8	54.5
Male head	29.6	22.7	46.6*	47.7	48.9*
Female head	32.3	25.0	55.8*	50.0	57.7*
Head has not completed general ed.	27.7	36.1*	53.3*	56.5*	64.6*
Head has completed general ed	30.6	21.3*	48.0*	47.0*	48.9*
Head does not work	31.6*	23.6	51.3*	49.2	53.3*
Head works	23.5*	21.8	36.1*	43.5	38.9*
Head is single	29.9	22.4	45.2*	45.0*	46.6*
Head is married/cohabiting	30.7	24.7	54.8*	53.9*	58.3*
2 or less children	31.2	20.6*	46.7*	46.0*	44.5*
3 or more children	27.2	31.4*	54.9*	55.1*	70.8*
Urban	32.0	19.6*	41.1*	26.6*	50.5
Rural	27.1	29.7*	62.1*	86.3*	51.6
A * indicates the difference between the two categories is statistically significant at the 95% level.					

Children in female headed households are more likely to be deprived in information and housing, and children of a higher educated head of household are less likely to be deprived in every dimension, except for nutrition. The same is true for children in larger families. Finally, children in rural areas are more deprived in ECEC, information and utilities.

However, bivariate analysis like this cannot account for associations between different factors in determining the deprivation outcomes. In Annex C we report the results of a multivariate analysis on the probability of being deprived in each dimension, controlling for all household characteristics at once.

For most children, deprivation in one dimension is accompanied by deprivation in at least one or two other dimensions at the same time (Fig. 16). The highest degree of overlap between dimensions occurs between the three household-level ones: information, utilities and housing (Fig. 17).

Almost one in five children are deprived in all three of these dimensions (17.6 per cent), while roughly the same

Fig. 16: Dimensions overlap - Children 0-5
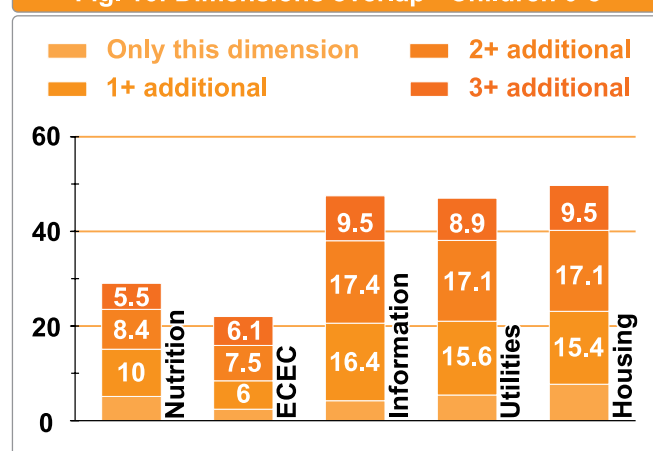
share are not deprived in any of these. About one-third of children are deprived in a combination of two of these three dimension, so around 48 per cent of children result deprived in two or three dimensions.

The distribution of the number of deprivations (Fig. 18) has a modal value at two deprivations: nationally, 32 per cent of children aged 0 to 5 are deprived in exactly two dimensions. This headcount is similar for both rural
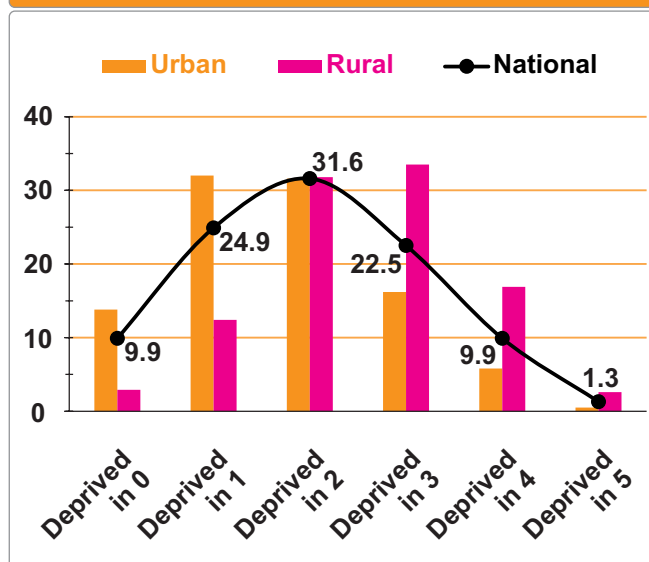
Fig. 17: Overlap of three dimensions Children 0-5

Not deprived in any: 17.9%

11.1%

Utilities

11.3%

8.3%

17.6%

Information

11%

Housing

8.8%

14%
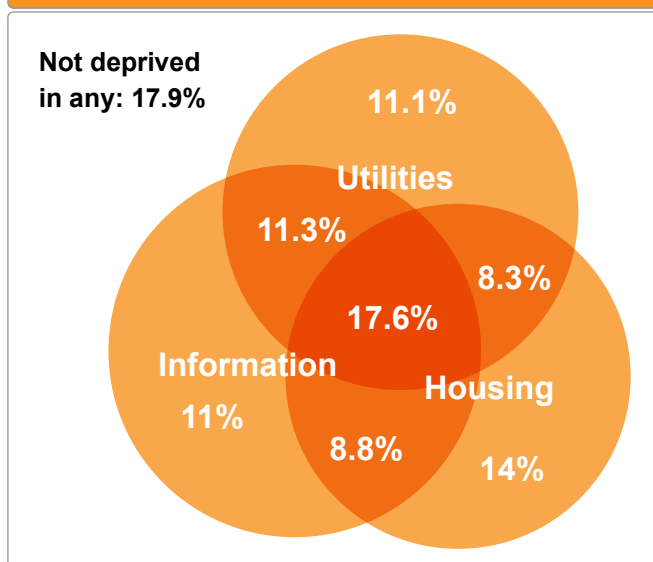
Fig. 18: Headcount by number of deprivations and area - Children 0-5

and urban areas. However, the distribution is skewed much more to the right in rural areas, with more children deprived in three and four dimensions out of five, with respect to urban areas. In the latter, nearly fourteen per cent of children are not deprived in any dimension, while this number is only three per cent in rural areas.

Nationally, 9 in ten children are deprived in at least one dimension, and two-thirds are deprived in two or more (Table 7). However, there is a substantial difference between rural and urban areas: in the latter, 86 per cent of children are deprived in one or more, and 54 per cent in two or more. In rural areas, virtually all children aged 0 to 5 (97) are deprived in at least one dimension and 85 per cent are deprived in two or more. Children in rural areas are also, on average, more severely deprived than children in urban areas: the intensity of deprivation at a

cut-off of two or more, is 51 per cent in urban and 58 per cent in rural areas. This results in a higher adjusted ratio, which is 0.28 in urban and 0.49 in rural areas.

To check if the ECEC dimension substantially changes the distribution of deprivation, a separated count of dimensions was done for children aged 0 to 2 years old, which excludes ECEC, and children aged 3 to 5, for whom it is included. The results are reported in Figure 19. The distribution is more skewed to the right for children aged 3 to 5, because they can experience one more deprivation; however the difference is not substantial, and the distribution looks fairly similar, with a modal value at 2 deprivations for both groups of children.

What are the characteristics associated with multidimensional child deprivation? The following graph

Table 7: Deprivation headcounts – Children aged 0-5								
	H			A			M0		
	National	Urban	Rural	National	Urban	Rural	National	Urban	Rural
Deprived in 1+	90.1	86.2	97.1	44.7	39.4	52.9	0.40	0.34	0.51
Deprived in 2+	65.2	54.1	84.7	54.1	50.9	57.7	0.35	0.28	0.49
Deprived in 3+	33.6	22.6	53	67.4	66.1	68.3	0.23	0.15	0.36
Deprived in 4+	11.1	6.4	19.5	82.3	81.7	82.6	0.09	0.05	0.16

H: headcount (% deprived); A: average intensity; M0: adjusted headcount ratio.

Fig. 19: Distribution of deprivation in children 0-2 and 3-5

the change in probability of being deprived, derived from a unitary change in a background variable, everything else being equal. The marginal effect of age is the effect of one more unit of age: one more month of age reduces the probability of being deprived by 6.3 percentage points. For binary variables, the effect is calculated relative to the reference category, which is not reported[13]. The most relevant characteristics are the education of the head of household, her employment status, and living in rural areas.

A head of household with higher education (completed high school and beyond), reduces the probability of being deprived by 10 percentage points, while if the head is an employee, children are almost 8 percentage points less likely to be deprived in two or more dimensions. If the head is self-employed in the non-agricultural sector, children are almost 24 per cent points less likely to be deprived in 2 or more dimensions, while if they live in rural areas, they are 22 per cent points more likely to be deprived. Interestingly, the effect of an increase of

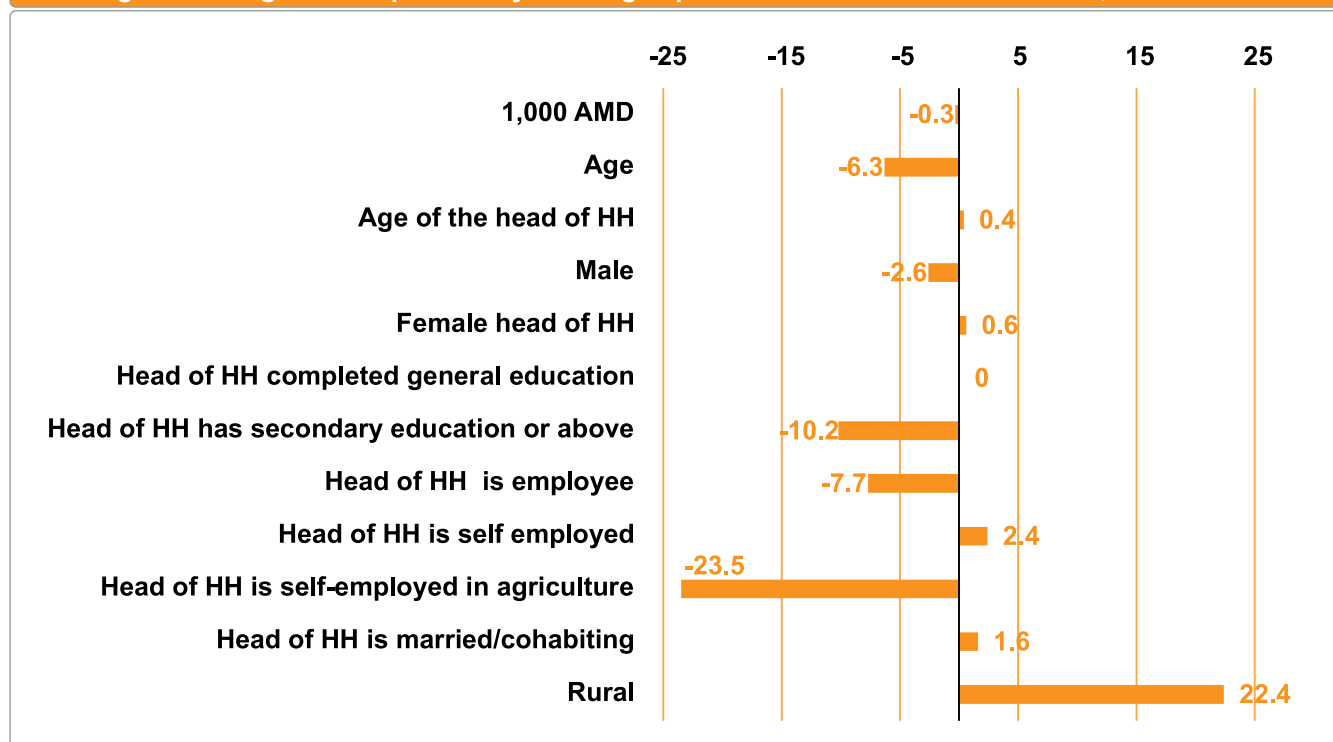shows the marginal effects, in percentage points, of selected background characteristics. Marginal effects give

Fig. 20: Changes in the probability of being deprived in two or more dimensions, children 0-5

[13] For example: urban area, female, or household head not employed are not reported, and the effect of rural, male and employment of the head must be read as 'with respect to [the base category]'.

Fig. 21: Deprivation rates by poverty status - Children 0-5

Nutrition

Housing 66.7 / 31.3 / 29.5 — ECEC

41.1 / 21.4 / 26.3

43.5 / 37.5

Utilities 55.9 / 66.8 Information

— Not poor   — Poor
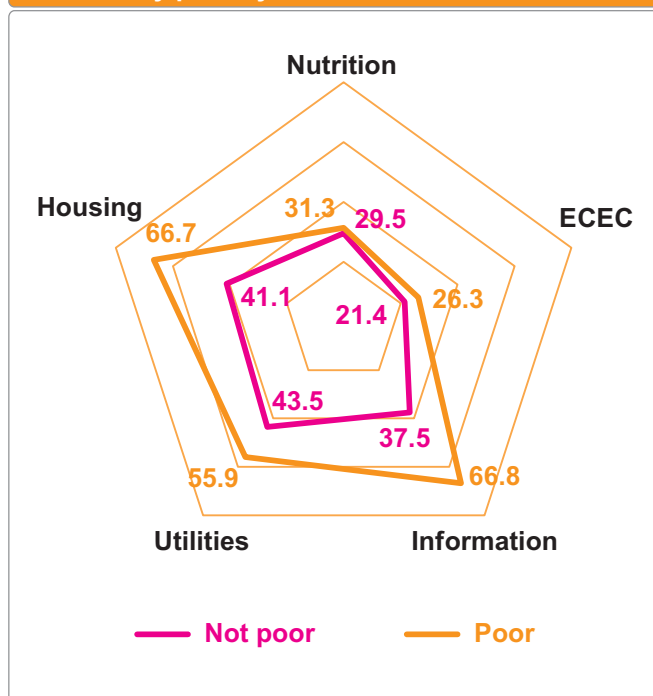
1,000 Armenian Drams (AMD) in monthly per-capita consumption does not reduce substantially the probability of being deprived (even if it is strongly statistically significant).

Poor children are significantly more deprived in every dimension, with the exception of nutrition (Fig. 21). The relationship between monetary poverty (and the underlying consumption) and deprivation is far from linear.

The following figure shows the relationship between consumption and deprivation in each dimension, by area of residence (Fig 22). The steeper the line, the stronger the relationship. As we can see, the shape of the lines varies greatly between dimensions and areas.

The lines are almost flat in both rural and urban settings for both nutrition and ECEC, showing that an increase in consumption does very little to reduce deprivation in these two dimensions. On the contrary, the line for information is quite steep, and it is steeper for rural areas at higher levels of consumption. Utilities show also a very flat curve, with a big rural-urban gap, showing that the problem, in

Fig. 22: Consumption and dimensions of deprivation - children 0-5

Nutrition

ECEC

Information

Utilities

Housing

Fig 23: Deprivation and Consumption-Children 0-5

Fig. 24: Overlap between poverty and deprivation

7.5%

30.7%

Poor

Deprived

34.5%

Not poor and not deprived (2+): 27.2%
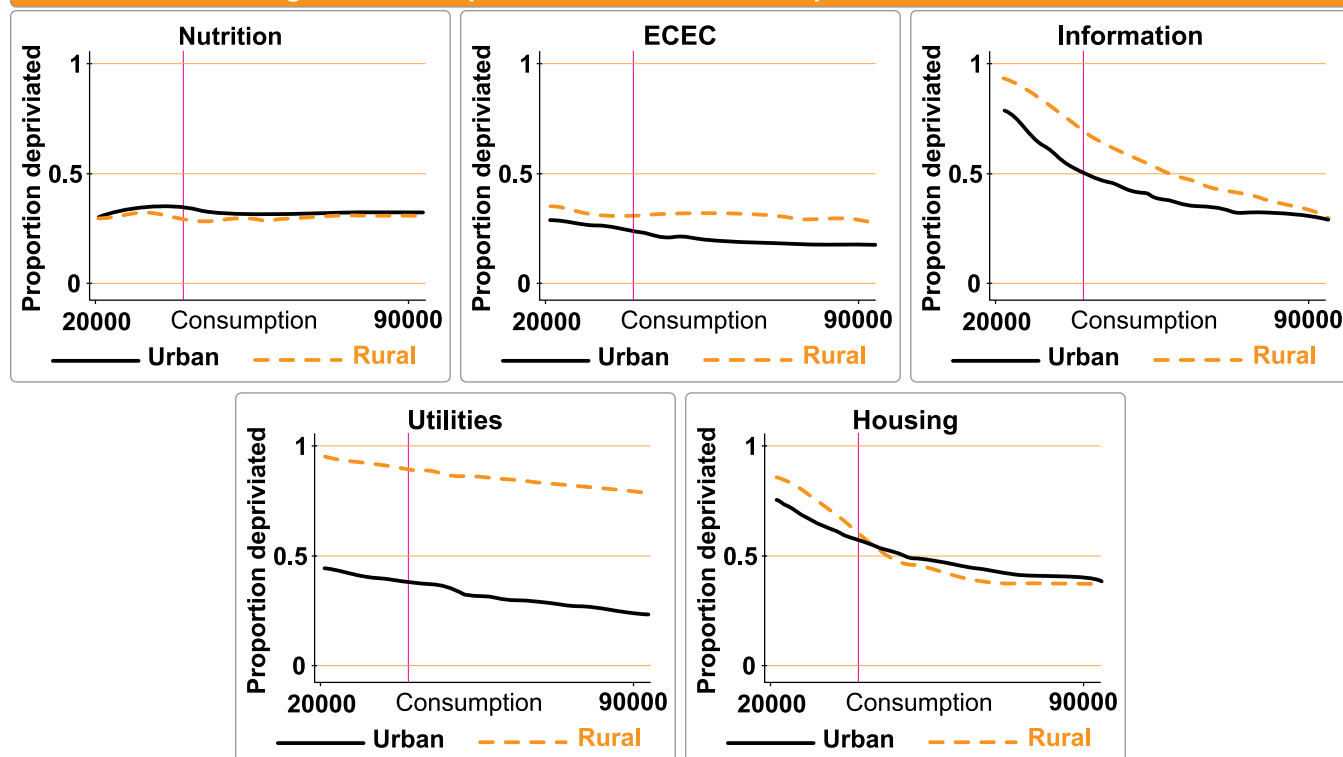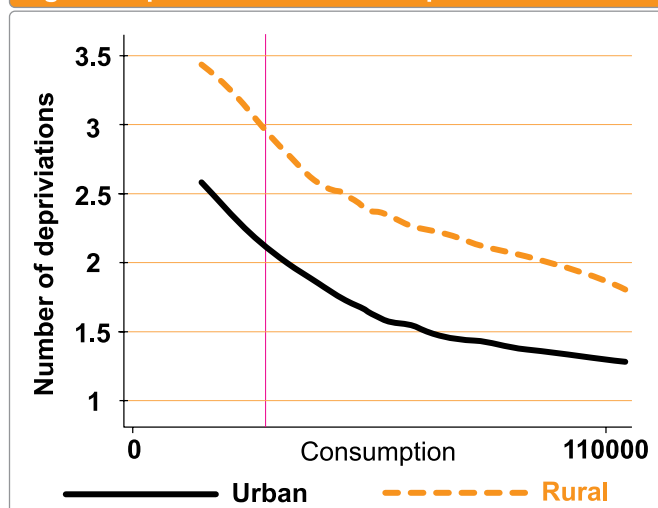
this dimension, lies mostly in the lack of infrastructure and access to services. Finally, the housing dimension presents a curve that is steep at low levels of income, showing that, for those children and families, an increase in spending power can reduce deprivation, while the curve flattens out quite abruptly around the first half of the distribution.

If we look at the relationship between consumption and number of deprivations (Fig. 23), first of all we notice a very substantial gap between rural and urban areas, with rural children always more deprived than urban ones, at any level of income. In fact, the two lines show almost

no sign of convergence. Both lines are steeper towards the left side of the graph, showing a stronger relationship between deprivation and consumption, and they flatten out as consumption increases. The two lines have a similar angle, but the rural one seems to be slightly steeper at a higher level of consumption.

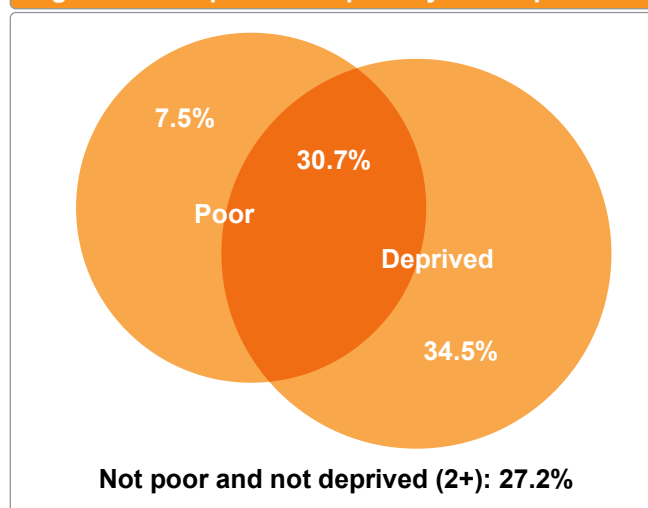Finally, at a cut-off of two or more dimensions we observe that almost one third of children (31 per cent) are both poor and deprived. However, an equivalent amount (35 per cent) of children are deprived without living in a monetary poor household. And only 27 per cent are not poor and not deprived at this cut-off (Fig. 24).

4.1 FOCUS: YOUNG CHILDREN'S PHYSICAL DEVELOPMENT.

This section examines the physical development of children aged under 5, using the anthropometric measure collected in 2014. Since they were only collected for this year, it was not possible to include them as part of the general deprivation analysis. However, since it is a topic of great importance, here we discuss the main findings. Anthropometric scores are calculated according to WHO methodology, for children aged 0-59 months. This leaves out children aged 5, therefore there is not a perfect overlap between this group and the first age group of the rest of the analysis.

In Armenia, 18 per cent of children are stunted, and 16 per cent are overweight. In rural areas, stunting affects one-

fifth of children aged under five, while urban areas have the highest proportion of overweight children (fig. 25).

If we combined these two indicators into a nutrition dimension, we would obtain that 25 per cent of Armenian children are deprived in one indicator or the other or, to a small extent, in both.

It is not possible here to calculate the exact dimensions used in the rest of the report; however, we can construct the two household dimensions of housing and utilities, to investigate to what extent they overlap with stunting and overweight (fig. 26). Overlap of three dimensions is very limited. Nonetheless, about 10 per cent of children

Fig. 25: Proportion of children 0-59 months stunted or overweight

Fig. 26: Proportion of stunted and overweight children by household deprivations
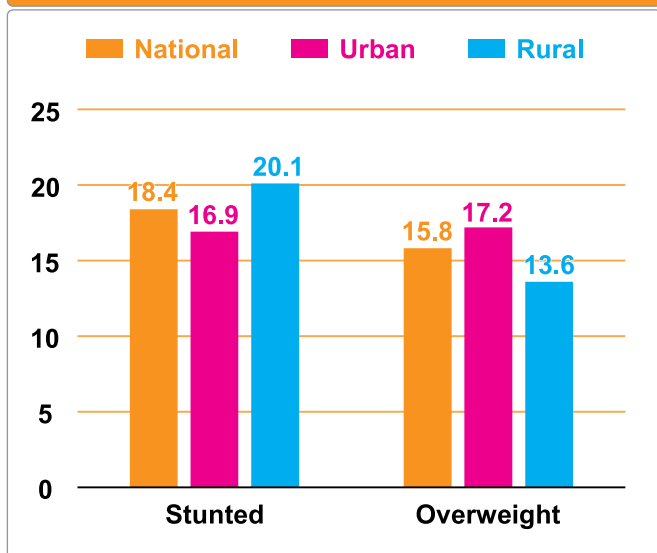
are both stunted and deprived in utilities, and about 9 per cent are both overweight and deprived in utilities. Children who suffer of deprivation in utilities or housing are much more likely to be stunted than children who are not, while the overweight rates don't present substantial differences between deprived and not deprived children.

Children in poor families are more likely to be stunted or overweight. In particular, one in four children living in

Fig. 27: Proportion of stunted and overweight children in poor, extremely poor, and not poor families

extreme poverty are overweight and just slightly fewer (24 per cent) are stunted (Fig. 27).

However, as illustrated in Figure 28, the relationship between this indicator and monetary consumption is far from linear: in rural areas, the proportion of children stunted and overweight initially decreases with the increase of consumption, and then increases again. In urban areas the curve is more clearly decreasing, but still very flat. This means that consumption has a very small role among the determinants of stunting and overweight.

These results are confirmed by a multivariate regression analysis (Fig. 29): when controlling for other household characteristics, the effect of an increase in expenditure of 1,000 AMD per month is close to zero and not statistically significant. The most important factor associated with both stunting and overweight is age. The strongest predictor factor is the employment of the household head: if he/she is self-employed in a non-agricultural business, the chances of a child being overweight are 9 percentage points less with respect to a child who lives with an unemployed head of household. However, most factors turn out to be statistically non-significant: in general, the association of these two indicators with background characteristics seems to be weak. The deeper causes of stunting and overweight should therefore be addressed in more detail in further research that is unfortunately beyond the scope and possibility of this report.

Fig. 28: Physical development and consumption - Children 0-59 months

Stunting and consumption

Urban ——— **Rural** – – –

Proportion stunted

0.75
0.5
0.25
0

20000   50000   80000

Consumption

Overweight and consumption

Urban ——— **Rural** – – –

Proportion stunted

0.75
0.5
0.25
0

20000   50000   80000

Consumption
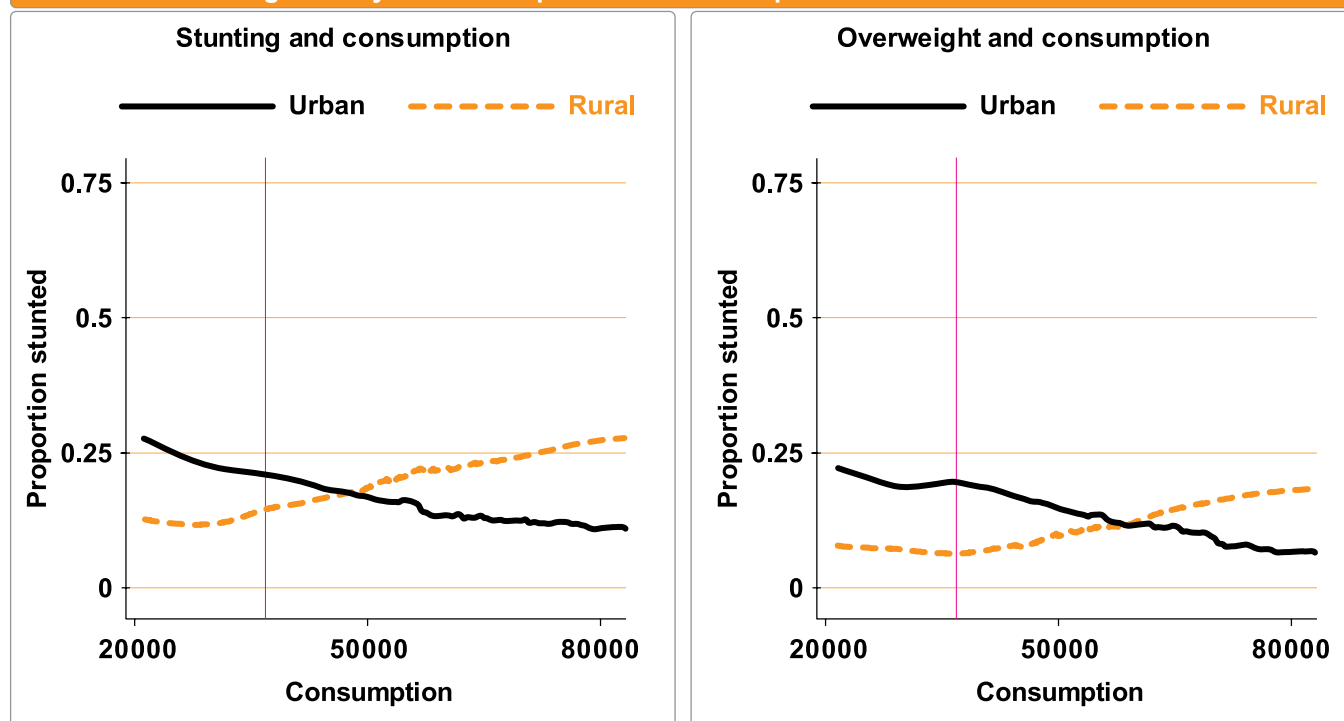
Fig. 29: Changes in the probablily of being stunted and overweight, children 0-5
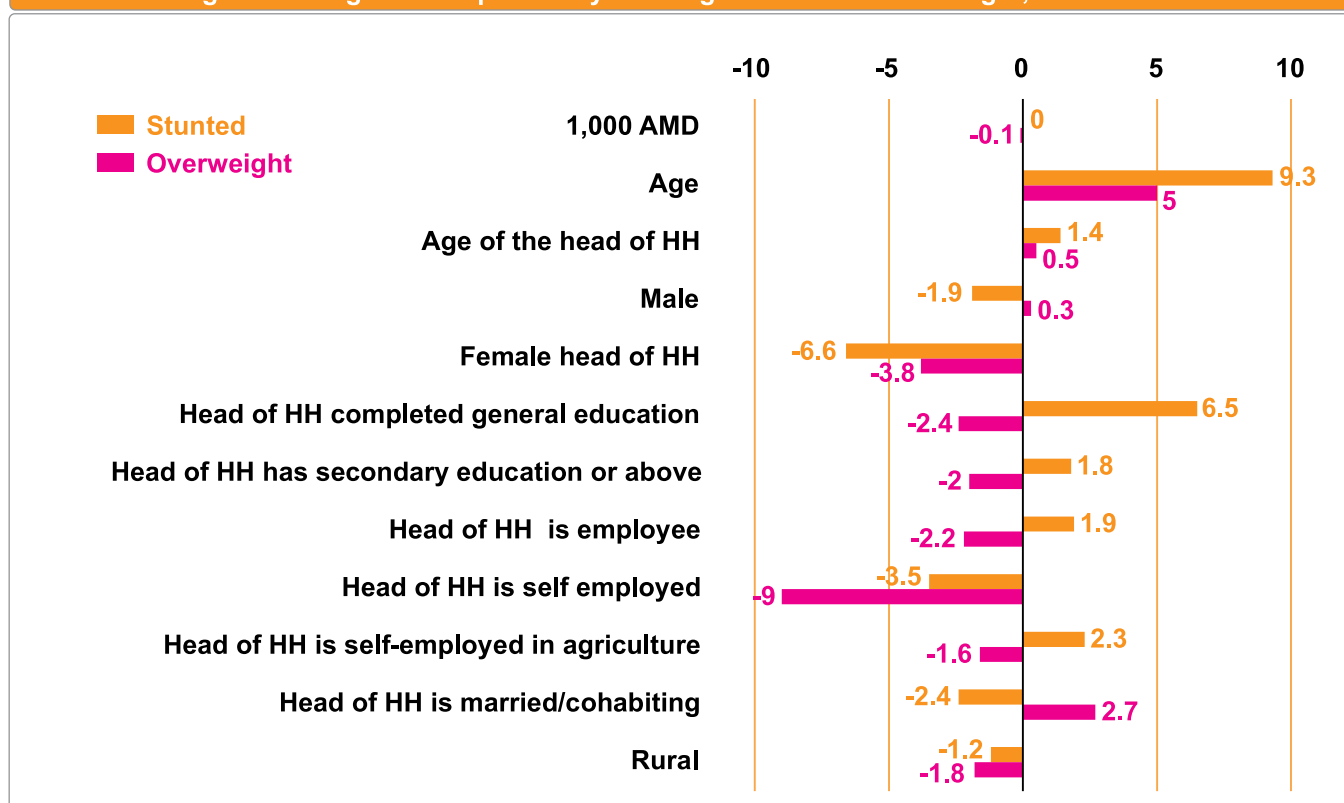
■ Stunted
■ Overweight

	-10	-5	0	5	10
1,000 AMD			0 / -0.1		
Age					9.3 / 5
Age of the head of HH			1.4 / 0.5		
Male			-1.9 / 0.3		
Female head of HH		-6.6 / -3.8			
Head of HH completed general education			6.5 / -2.4		
Head of HH has secondary education or above			1.8 / -2		
Head of HH is employee			1.9 / -2.2		
Head of HH is self employed		-9	-3.5		
Head of HH is self-employed in agriculture			2.3 / -1.6		
Head of HH is married/cohabiting			-2.4 / 2.7		
Rural			-1.2 / -1.8		

5 CHILDREN AGED 6 -14 YEARS OLD

Children aged 6 to 14 years show a high degree of deprivation in the leisure and social relation dimensions, with about one in two children deprived in each (Fig 31). The household level dimensions of utilities and housing present a high degree of deprivation as well. Deprivation in housing is driven by housing problems (i.e. dilapidated walls and windows), while deprivation in utilities is mainly driven by the heating indicator (Fig. 30). More than one in three children are deprived in education, which derives almost completely from the lack of a suitable place for the child to study and do homework. This is likely to be related to a space problem. In fact, while children living in rural areas are generally more deprived in every indicator and dimension, children in urban areas are more likely to be deprived in education, as a result of a higher rate being deprived of a place to do homework (Fig. 32). At the same time, children in urban areas are more likely to be deprived in overcrowding. This points towards a problem of space in urban living arrangements.

There are no relevant gender differences in dimensional deprivation for this age group (Table 8). Children living with a female head of household are more deprived in leisure, information and housing, and children living in bigger families (with two or more siblings) are more deprived in every dimension except Leisure and Social relations. If the head of the household works, children are less likely to be deprived in education and housing, even if they appear to be more deprived in the utilities dimensions. However, bivariate analysis as presented in this table does not capture the simultaneous effects of multiple factors, and when groups are small, differences appear to be significant because of a selection effect in place. For example, in the binary category of work/no work, agricultural work is included. If heads of household in rural areas are mostly engaged in agricultural work, children in those families are more likely to be deprived in utilities for the fact that they live in rural areas.

Table 8: Deprivation rates (%) by background characteristics – Children aged 6-14							
	Education	Leisure	Social	Clothing	Information	Utilities	Housing
Female	36.4	53.1	50.6	20.3	41.3	52.6	46.6
Male	36.9	51.9	45.9	20.6	40.7	51.4	45.5
Head is younger than 65	36.4	53.1	47.5	21.2	40.2	50.4	44.3
Head is over 65	37.6	51.0	50.0	18.4	43.0	56.2	50.9
Male head	34.4	50.2*	48.1	18.7	38.1*	51.8	43.4*
Female head	44.2	60.0*	48.3	26.3	50.5*	52.7	54.7*
Head has not completed general ed.	35.2	53.5	44.8*	20.7	40.4	54.1	44.8
Head has completed general ed	39.1	50.9	53.5*	20.1	41.9	48.6	48.0
Head does not work	46.3*	57.7	50.4	22.7	42.7	40.2*	53.3*
Head works	32.4*	51.6	45.3	19.9	39.4	55.6*	42.1*
Head is single	35.2	49.1*	49.3	17.0*	37.4*	49.9	43.2
Head is married/cohabiting	38.5	56.8*	46.7	24.8*	45.5*	54.5	49.5
2 or less children	34.3*	49.5	46.8	17.0*	37.3*	46.0*	39.4*
3 or more children	41.9*	58.9	51.1	28.0*	48.9*	64.7*	60.2*
Urban	41.8*	52.5	43.2*	15.3*	30.4*	29.7*	44.5
Rural	28.7*	52.4	55.9*	28.5*	57.5*	86.7*	48.5

A * indicates the difference between the two categories is statistically significant at the 95% level.

Fig. 30: Indicators - Children 6-14

Indicator	Value
Housing problems	30.8
Overcrowding	24.3
Heating (no or wood)	43.7
Water	21.1
No internet at home	41.7
No computer at home	37.3
Shoes	20.5
Friends	48.2
Recreation items (toys, bicycle)	39.8
Space to play outside	32.5
Stationary	4.8
Place to do homework	35.5

Fig. 31: Dimensions - Children 6-14

Dimension	Value
Education	36.7
Leisure	52.5
Social	48.2
Clothing	20.5
Information	41.0
Utilities	52.0
Housing	46.0
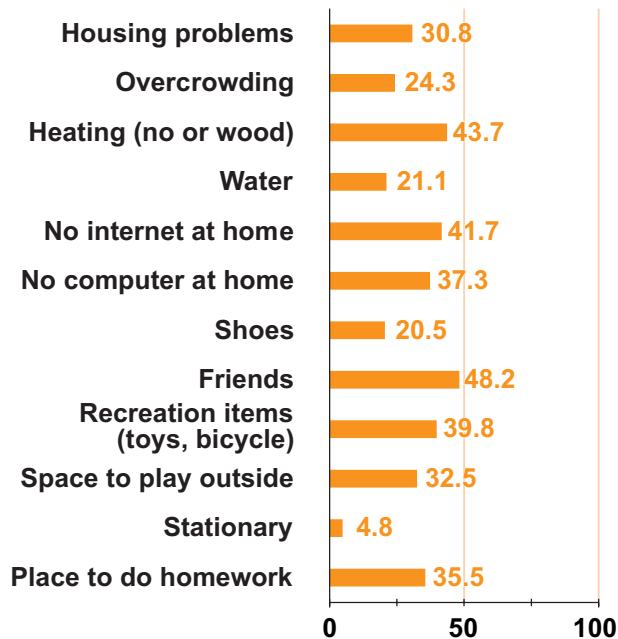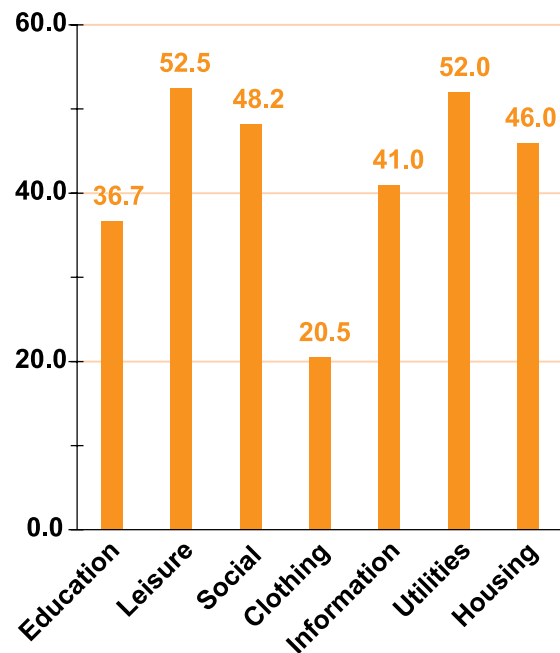
Fig. 32: Indicators by area - Children 6 - 14
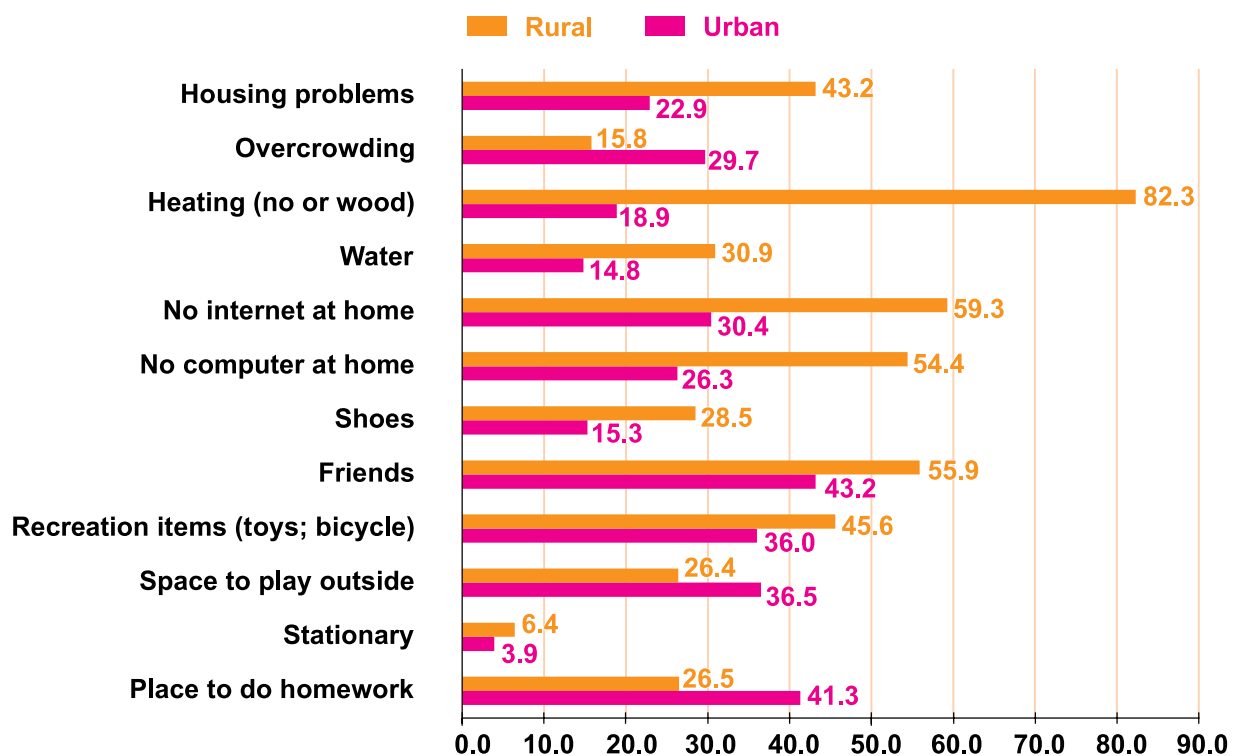
Indicator	Rural	Urban
Housing problems	43.2	22.9
Overcrowding	15.8	29.7
Heating (no or wood)	82.3	18.9
Water	30.9	14.8
No internet at home	59.3	30.4
No computer at home	54.4	26.3
Shoes	28.5	15.3
Friends	55.9	43.2
Recreation items (toys; bicycle)	45.6	36.0
Space to play outside	26.4	36.5
Stationary	6.4	3.9
Place to do homework	26.5	41.3

Fig. 33: Dimensions overlap - Children 6-14

Fig. 33: Dimensions overlap - Children 6-14
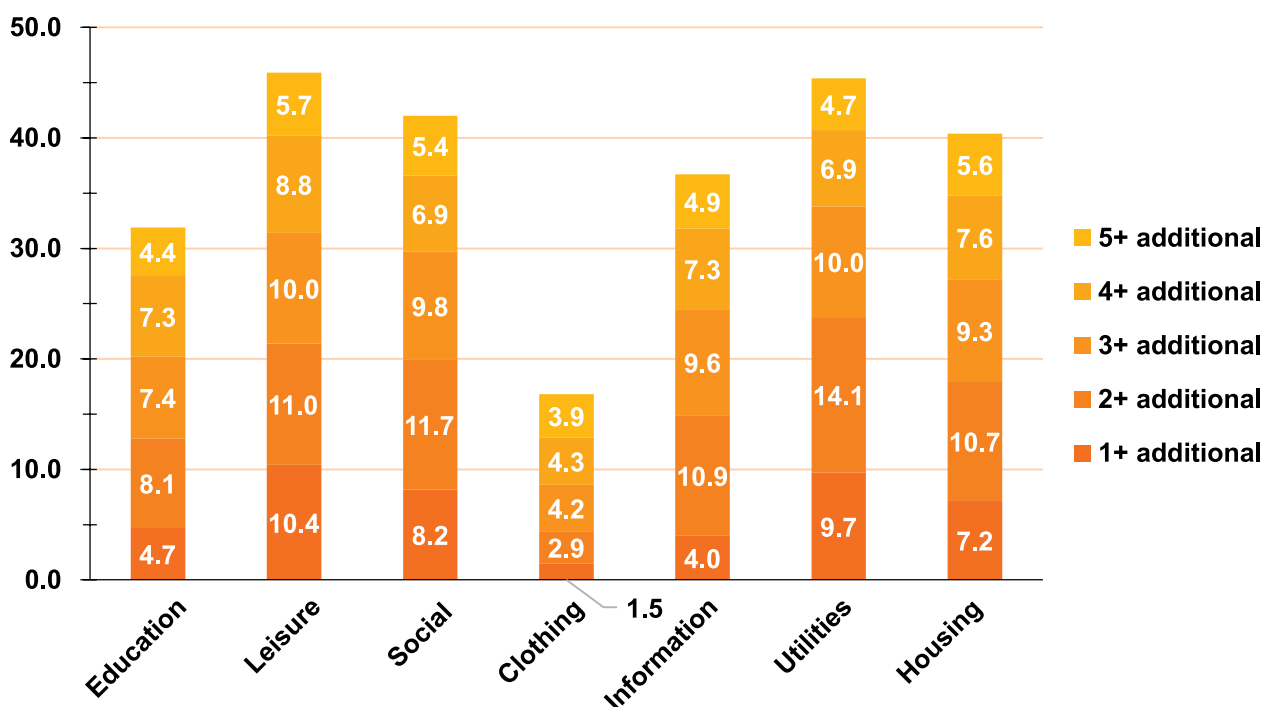
In fact, children in rural areas are more likely to be deprived in social relations, clothing, information and utilities. As mentioned above, they are less likely to be deprived in education.

Fig. 34: Overlap of 3 dimensions – Children 6-14

Fig. 34: Overlap of 3 dimensions – Children 6-14

Social 13.6%
10.3% 6.1%
18.2%
Utilities
Information
12.4% 11.1% 5.6%

Not deprived in any: 22.7%

For the vast majority of children, no dimension is a stand-alone deprivation: about one third of children who are deprived in any dimension, suffer 2 to 3 additional deprivations (Fig. 33). The rate of children deprived in only the specific dimension is less than three per cent for any given dimension (for more clarity, the category is not reported in the graph), while 3.5 per cent of children are deprived in all seven dimensions at once.

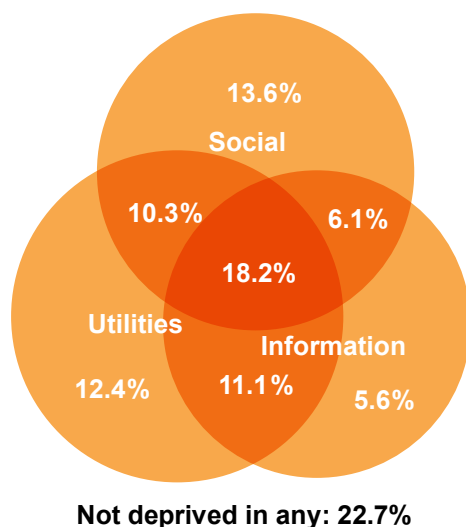We observe the highest degree of overlap between the dimensions of social relations, information and utilities (Fig. 34). More than three out of four children are deprived in at least one of these dimensions. Almost one in five children is deprived in all three, and about one in ten is deprived in either social and utilities or information and utilities. In particular, only six per cent of children are deprived only in information.

Most children are deprived in two or three dimensions (three being the modal number at national level –Fig. 35). As for the younger age group, children in rural areas are generally more deprived, presenting a distribution skewed to the right, with higher rates of deprivation at higher

Fig. 35: Headcount by number of deprivations and area - Children 6 - 14
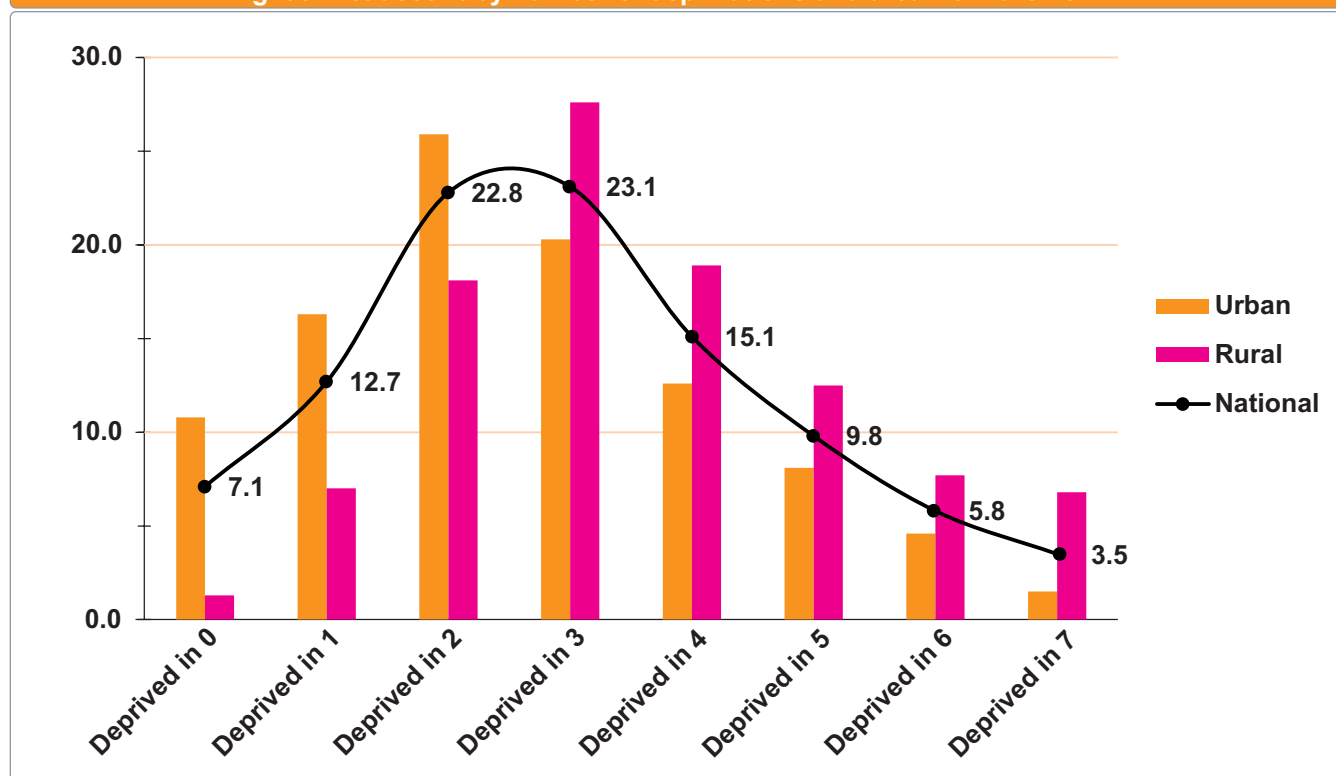
counts. On the contrary, children in urban areas are less deprived. Ten per cent of children in urban areas are not deprived in any dimension, while this is true only for one per cent of children in rural areas.

The vast majority of children in this age group are deprived in at least one dimension in Armenia, but as stated above, virtually all children (99 per cent) are deprived in rural

areas (Table 9). About four in five children are deprived in two or more dimensions, and less than three in five (57 per cent) are deprived in three or more. The difference between rural and urban is reflected also in the intensity of deprivation: children deprived in 2+ in urban areas are deprived, on average, in 3.3 dimensions (47 per cent of the total seven), while rural children are deprived in 3.8 dimensions. This fact is reflected in a higher adjusted

Table 9: Deprivation headcounts by cut-off – Children aged 6-14

	H			A			M0		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Deprived in 1+	92.9	89.2	98.7	45.6	41.2	51.9	0.42	0.37	0.51
Deprived in 2+	80.2	72.9	91.7	50.6	47.3	54.7	0.41	0.34	0.50
Deprived in 3+	57.4	47.0	73.6	59.4	57.6	61.2	0.34	0.27	0.45
Deprived in 4+	34.3	26.7	46.0	70.5	68.7	72.2	0.24	0.18	0.33
Deprived in 5+	19.2	14.1	27.0	81.0	79.0	82.7	0.16	0.11	0.22
Deprived in 6+	9.3	6.0	14.5	91.1	89.2	92.4	0.09	0.05	0.13
H: headcount (% deprived); A: average intensity; M0: adjusted headcount ratio.									

Fig. 36: Changes in the probability of being deprived in two or more dimensions, children 6-14

1,000 AMD	-0.3
Age	-3.4
Age of the head of HH	-0.9
Male	-3.7
Female head of HH	2.5
Head of HH completed general education	6.8
Head of HH has secondary education or above	6.1
Head of HH is employee	-7.4
Head of HH is self employed	-17
Head of HH is self-employed in agriculture	-3
Head of HH is married/cohabiting	5
Rural	16.1
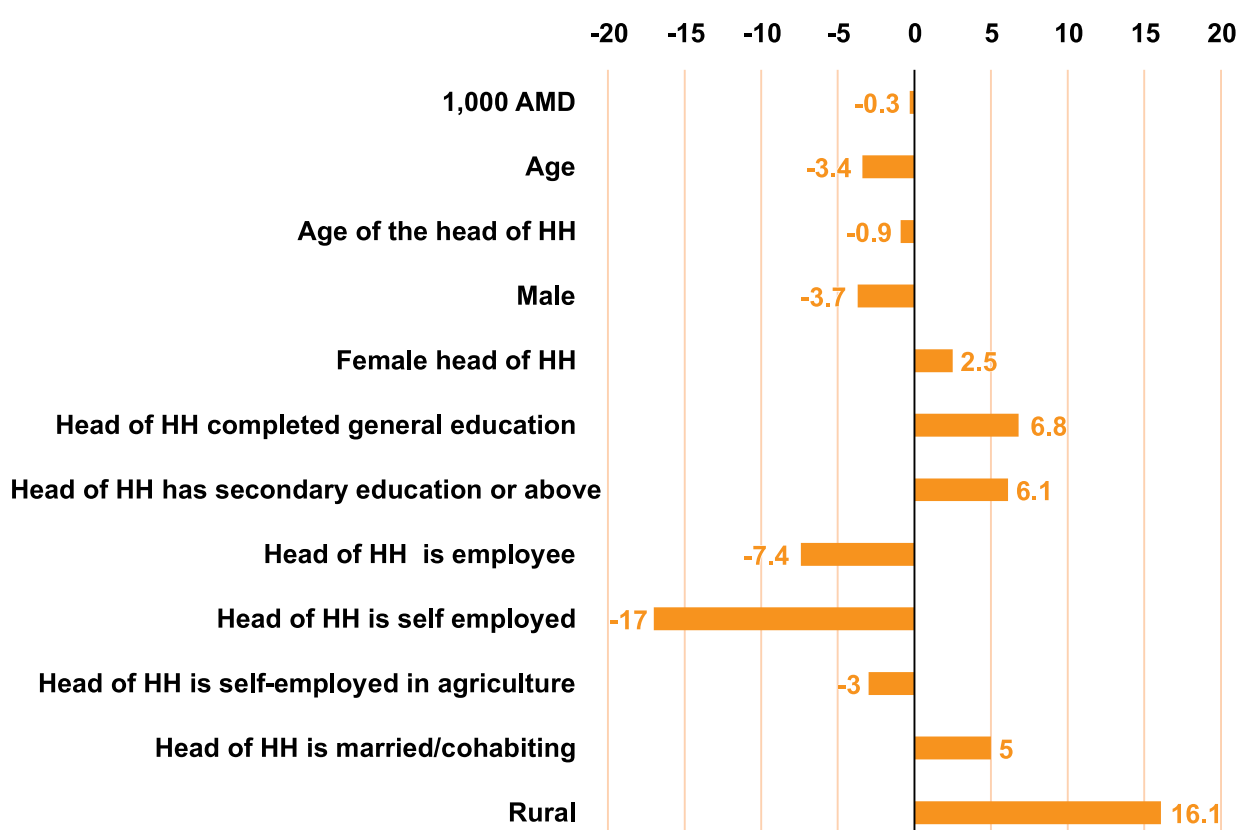
**Fig. 37: Deprivation rates
by poverty status - Children 6-14**
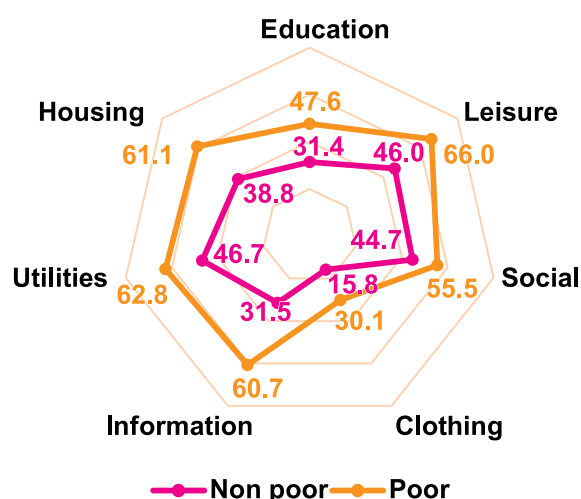
deprivation ratio for rural children (0.50), than urban (0.34).

Taking two or more as cut-off, Figure 36 shows the results of a multivariate regression on the probability of being deprived associated with some background characteristics.

The effect of an increase in spending power is small, albeit statistically significant. Boys are about four percentage points less likely to be deprived than girls. Children with a head of household who is an employee or is self-employed in a sector other than agriculture, are substantially less likely to be deprived in two or more dimensions. Living in rural areas increases the chances of a child to be deprived by sixteen percentage points.

Poor children are consistently more deprived than non-

Fig. 38: Consumption and dimensions of deprivation - Children 6-14

Education
Leisure
Social
Clothing
Information
Utilities
Housing
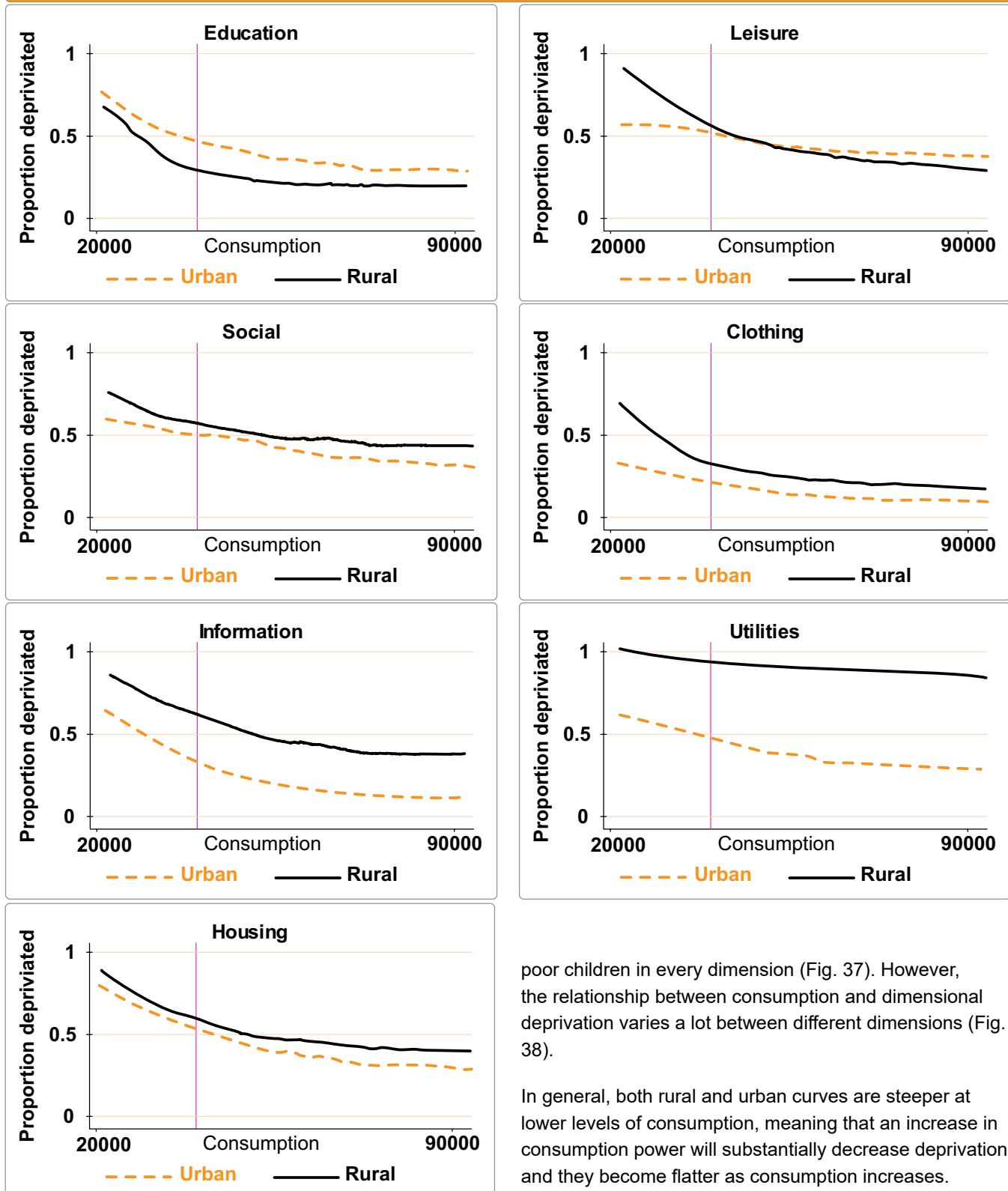
poor children in every dimension (Fig. 37). However, the relationship between consumption and dimensional deprivation varies a lot between different dimensions (Fig. 38).

In general, both rural and urban curves are steeper at lower levels of consumption, meaning that an increase in consumption power will substantially decrease deprivation, and they become flatter as consumption increases.
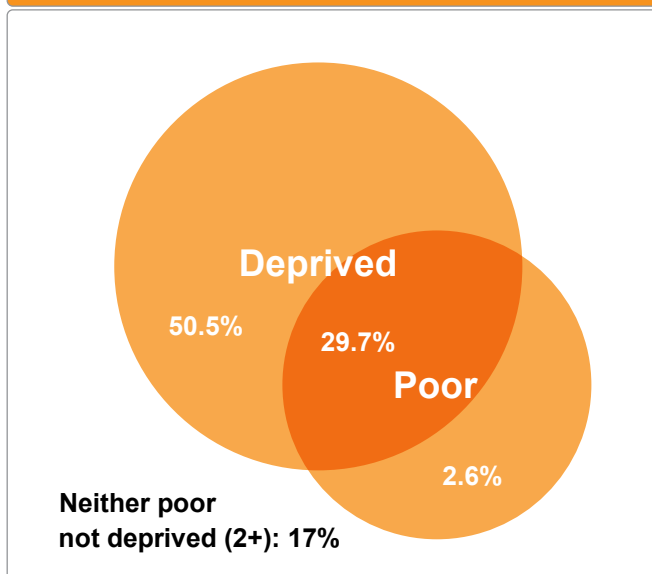
This shape is clear in education, clothing and housing. For social relations and utilities, however, the curve is generally flatter, meaning that an increase in expenditure power does very little to reduce deprivation.

Every dimension presents some degree of rural/urban divide; however, the utilities dimension presents the highest degree of dualism. Furthermore, the utilities curve is almost flat for rural areas: this points towards a problem of lack of access due to infrastructural problems.

The following graph (Fig. 39) summarizes the relationship between number of deprivations and consumption. The divide between rural and urban areas is clear: rural children are more deprived for any level of consumption. Again, the curve is steeper at lower level of consumption, and flattens out as consumption increases. This relationship is particularly evident for rural areas.

If we look at the overlap of deprivation and monetary poverty, we see that almost one in three children is both poor and deprived (Fig. 40); therefore, one-third of children belong to the most vulnerable group. At the same time, less than 3 per cent of children aged 6 to 14 are monetary poor without being deprived. However, half of the children in this age group are deprived in 2 or more dimensions, without living in monetary-poor households. Less than one in five children is neither poor nor deprived in 2 or more dimensions.

Fig. 39: Deprivation and Consumption - Children 6-14

Fig. 40: Overlap between deprivation and poverty
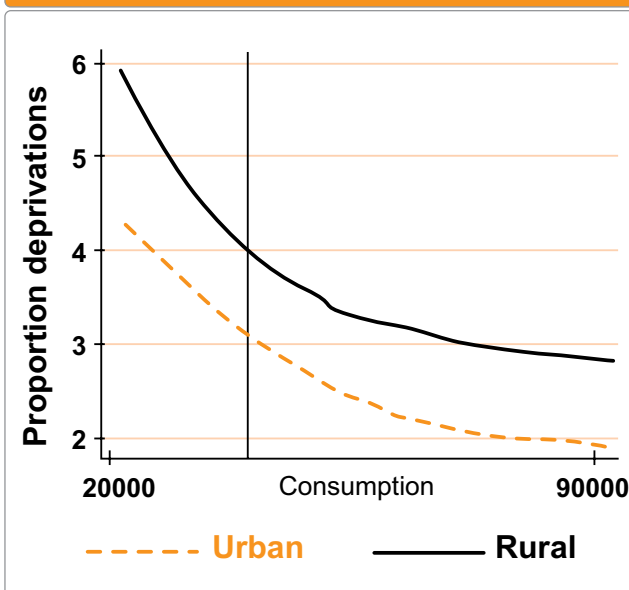
Fig. 41: Indicators - Children 15-17
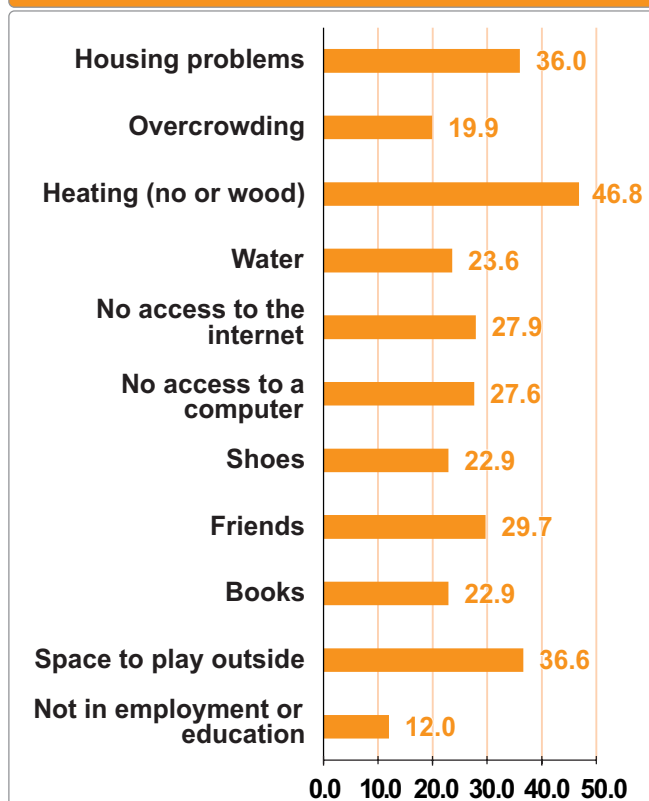
6 CHILDREN AGED 15 - 17 YEARS OLD

Adolescents in Armenia are mostly deprived in leisure (50 per cent), where its two indicators, space to play outside and books, show a respective headcount of 23 per cent for the latter and 37 per cent for the former. This means that the two indicators don't tend to overlap but rather that children are deprived in one or the other. They are also highly deprived in the utilities dimension (driven by the heating indicator again) and in housing. They are less likely to be deprived in information with respect to the younger age group, which probably derives from the slightly different notions of access: for older children we measure access from anywhere (school, library, mobile phone, etc.), rather than only from home. Only twelve per cent of children appear to be out of education or employment or training.

Rural children in this age group are also generally more deprived in every indicator (Fig. 43). The only exception is

Fig. 42: Dimensions - Children 15 - 17

Fig. 43: Indicators by area -Children 15-17

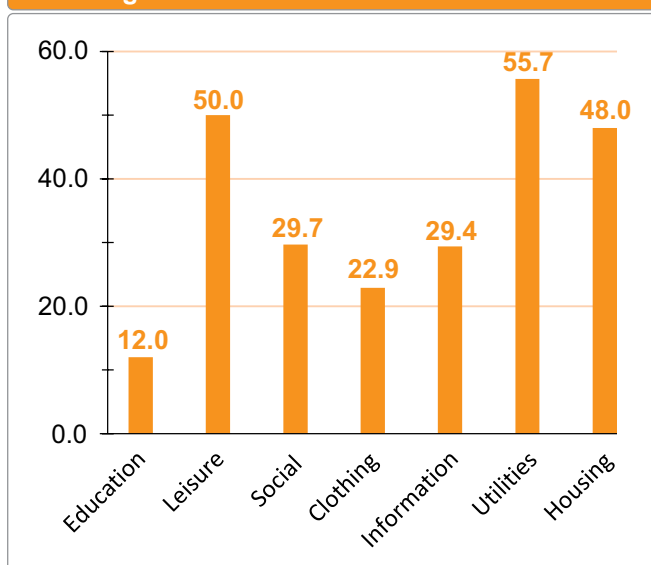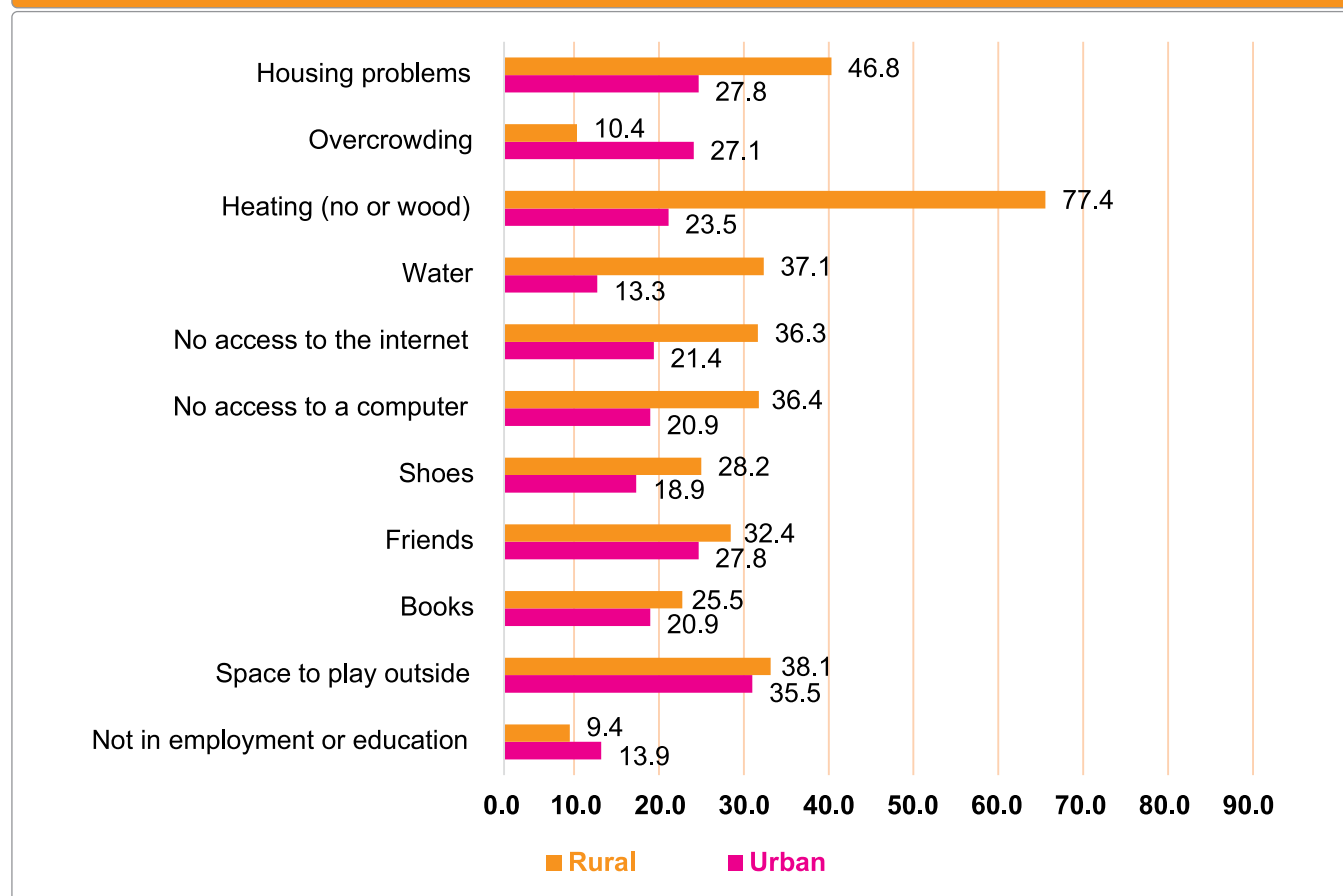| Table 10: Deprivation rate (%) by background characteristics – Children aged 15 - 17							
	Education	Leisure	Social	Clothing	Information	Utilities	Housing
Female	9.6	46.8	32.3	21.6	35.9*	54.5	47.9
Male	14.0	52.7	27.5	24.0	23.7*	56.7	48.2
Head is younger than 65	11.1	52.6	27.7	23.6	28.5	54.6	46.3
Head is over 65	13.6	44.4	34.1	21.4	31.2	57.9	51.6
Male head	12.0	49.8	28.3	21.9	27.6	54.5	44.6*
Female head	11.8	50.7	34.9	26.4	35.5	59.7	59.9*
Head has not completed general ed.	35.0*	55.8	22.3	29.8	36.7	58.3	55.4
Head has completed general ed.	8.5*	49.1	30.9	21.8	28.2	55.3	46.9
Head does not work	17.0	52.3	31.6	19.7	32.1	51.8	55.7
Head works	10.0	51.5	24.5	24.4	28.1	54.5	44.6
Head is single	4.2*	41.1	32.2	23.7	31.5	59.3	43.7
Head is married/cohabiting	13.1*	51.3	29.4	22.8	29.0	55.1	48.7
2 or less children	10.5	50.3	28.6	20.4*	26.4*	53.3	44.1*
3 or more children	17.0	48.8	33.8	31.2*	39.5*	64.0	61.6*
Urban	13.9	47.1*	27.8	18.9	22.3*	30.5*	45.7
Rural	9.4	53.7*	32.4	28.2	38.6*	88.7*	51.1
A * indicates the difference between the two categories is statistically significant at the 95% level.							

Fig. 44: Dimensions overlap - Children 15 - 17
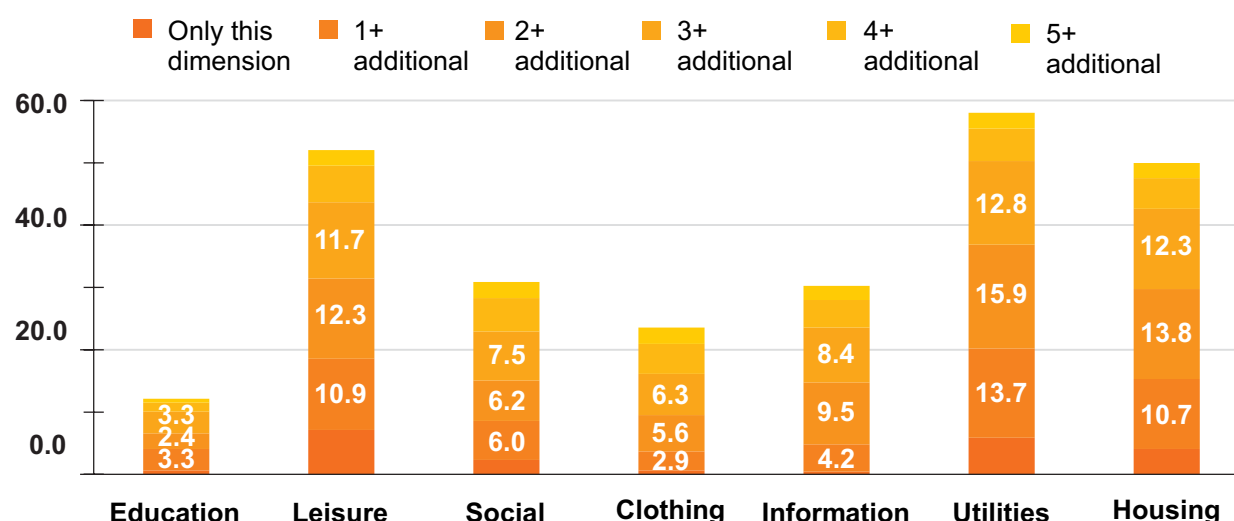
not being in education or training, where children in rural areas appear to be slightly less deprived. The differences in area are wider for household level deprivation such as housing, utilities and information, while the differences at individual-level deprivation are moderate.

In fact, rural children are significantly more deprived in leisure, information and utilities, but not in the other four dimensions (Table 10). Girls are more deprived in Information, and children in female-led households are more likely to be deprived in housing. Where the

Fig. 45: Overlap of three dimensions – Children 15 - 17

12%

Leisure

9.8 %

12.4 %

15.8%

Housing   Utilities

9.3 %   13.1 %   14.4 %

Not deprived in any: 13.2%
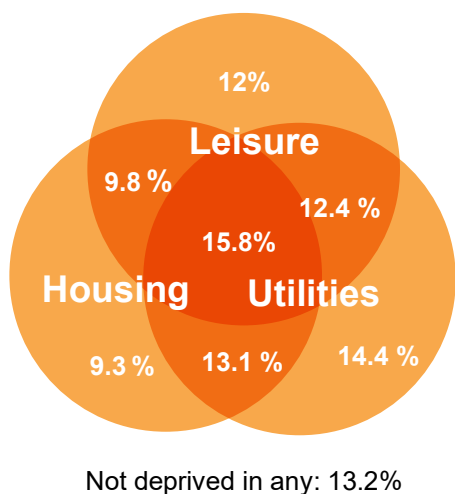
household head has a job, children are much less likely to be deprived in education, but this is the only significant difference. Children with more siblings are more deprived in clothing, information and housing, and these differences are statistically significant at the 95 per cent confidence interval.

There is also quite a high degree of overlap for this age group. While only a very small percentage (0.3 per cent) is deprived in all seven at once, the majority of the children deprived in each dimension are also deprived in 1 to four additional dimensions (Fig. 44).

The three dimensions with the highest degree of overlap are leisure, utilities, and housing (Fig. 45). Around one in six children are deprived in all three at once, and one in three are deprived in any combination of two. Only thirteen per cent of children are not deprived in any of these dimensions.

Fig. 46: Headcount by number of dimensions, children 15 - 17

Urban
Rural
National

7.8 20.0 25.8 21.9 15.6 6.1 2.5 0.3

Deprived in 0, Deprived in 1, Deprived in 2, Deprived in 3, Deprived in 4, Deprived in 5, Deprived in 6, Deprived in 7
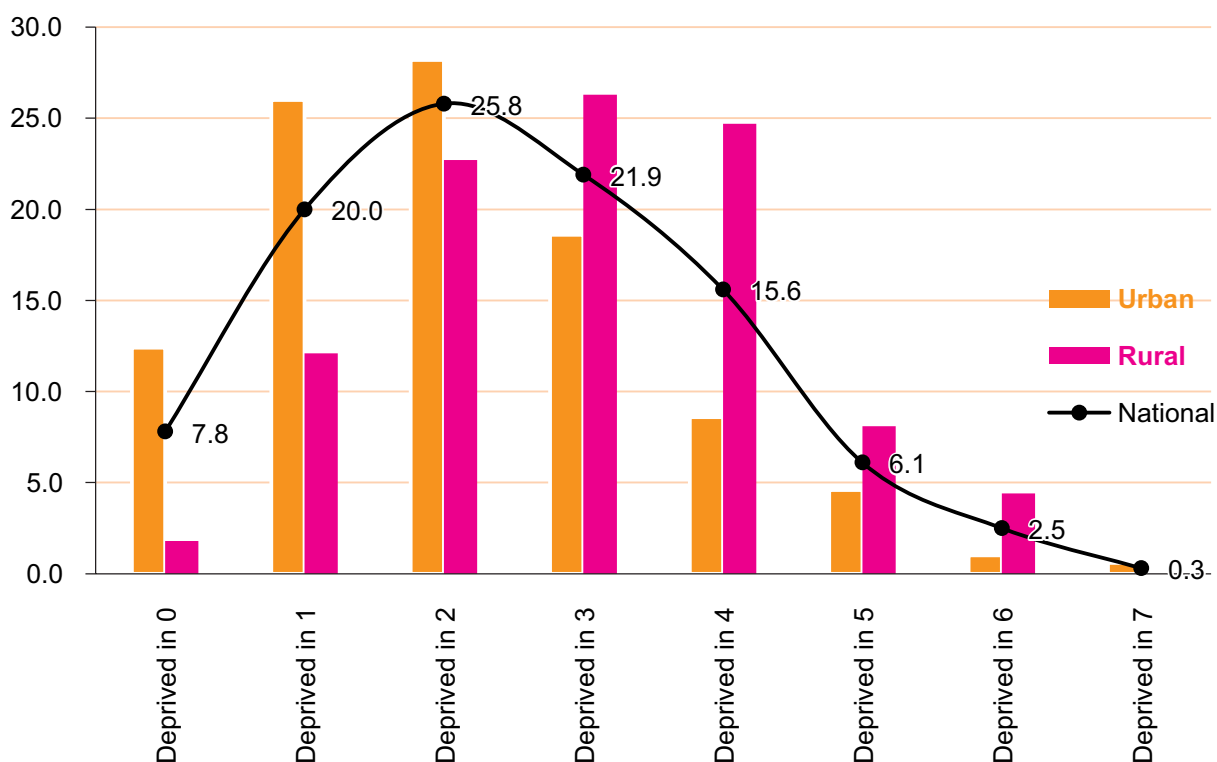
Table 11: Deprivation headcounts – Children aged 15-17									
	H			A			M0		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Deprived in 1+	92.2	87.6	98.2	38.4	33.6	43.9	0.35	0.29	0.43
Deprived in 2+	72.3	61.7	86.2	45.0	41.7	48.1	0.33	0.26	0.41
Deprived in 3+	46.5	33.4	63.5	54.1	52.8	55.0	0.25	0.18	0.35
Deprived in 4+	24.5	14.9	37.2	64.2	65.3	63.7	0.16	0.10	0.24
Deprived in 5+	9.0	6.2	12.5	76.5	76.6	76.4	0.07	0.05	0.10
Deprived in 6+	2.8	1.7	4.4	87.4	91.0	85.7	0.02	0.02	0.04
H: headcount (% deprived); A: average intensity; M0: adjusted headcount ratio.									

Fig. 47: Changes in the probability of being deprived in 2 om, children 15-17
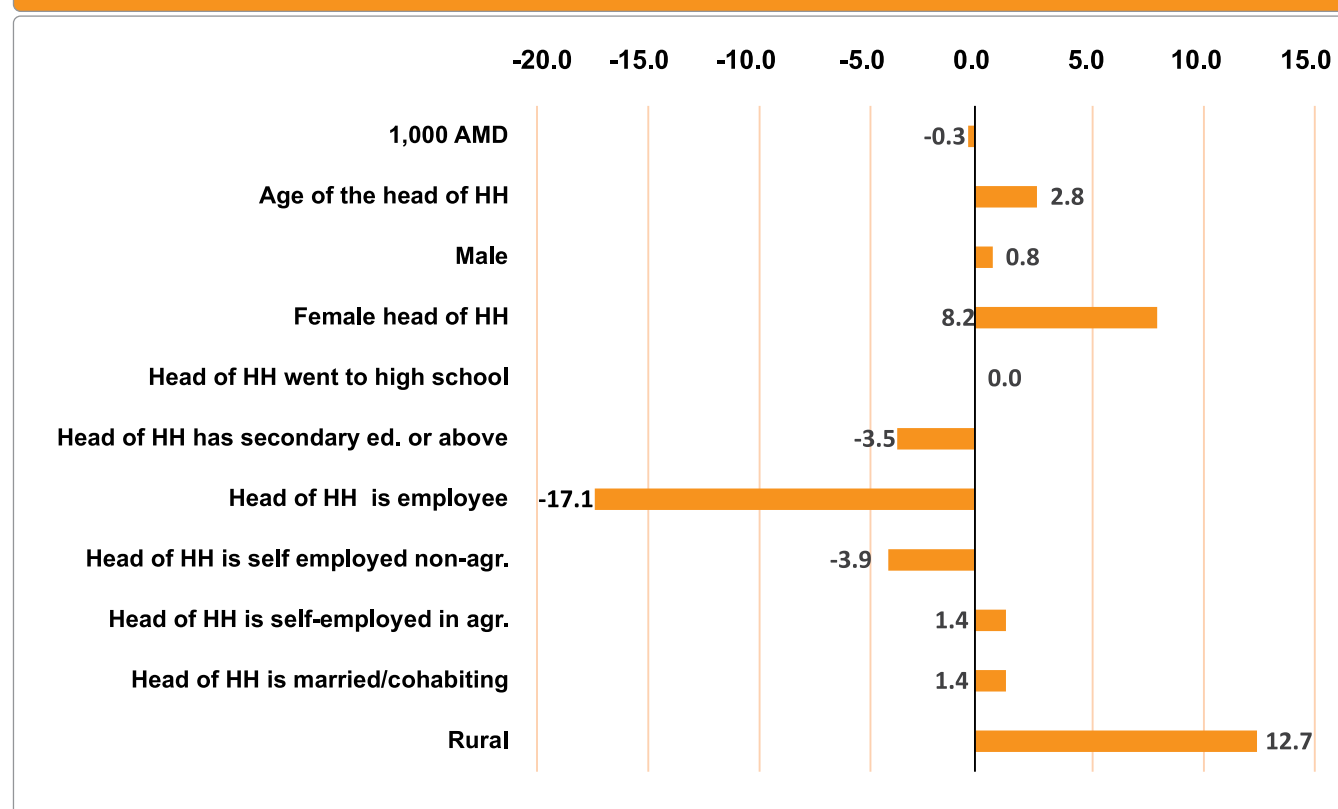
Most children aged 15 to 17 are deprived in 2 dimensions (26 per cent), and about a fifth are either deprived in one or three dimensions (Fig. 46). Rural children are more deprived, with a distribution positioned to the right, and virtually zero per cent of children not deprived in any dimension in rural areas; children living in urban areas are better off, and more than one in ten are not deprived in any dimension.

The divide between rural and urban areas persists at every cut-off, with rural children always more deprived, and deprived on average more than urban children (Table

Fig. 48: Deprivation by poverty status - Children 15 - 17

Among the factors affecting the probability of being deprived in 2+ dimensions, we can see that living in rural areas still plays an important role: almost 13 percentage points more likelihood (Figure 47). At the same time, if the head of the household is an employee, the probability of being deprived decreases by 17 percentage points. The effect of the sex of the head of household, if relevant in magnitude, is not statistically significant.
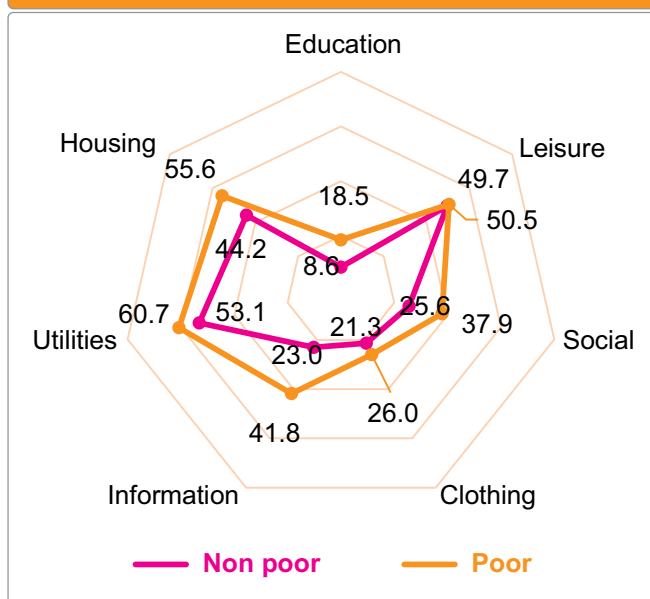
Poor children are more likely to be deprived in education, social relations and information, while for the other four dimensions the difference is not statistically significant (fig. 48).

The relationship between consumption and dimensions seems to be weaker than for the previous age group; while the curve is still steep at low levels of consumption, it becomes flatter quite suddenly. Housing and information seem to present the steeper curves. Additionally, for older children the divide between rural and urban seems considerably less, except for utilities.

11). At the cut-off of 2 or more dimensions, for example, 62 per cent of urban children are deprived, while this is true for 86 per cent of rural children. At the same time, urban children are deprived on average in 42 per cent of the total seven dimensions (i.e. in 2.9 dimensions), while rural children are deprived in 3.4 dimensions (48 per cent of 7). This results in an adjusted headcount of 0.26 for urban children and 0.41 for rural ones.

The relationship between consumption and number of deprivations is similar to that for the younger children. However, the curves for both rural and urban seem slightly flatter, especially at lower level of consumption. This highlights the fact that for adolescents, in particular, an increase in consumption power is not likely to reduce deprivation in a substantial way.

Fig. 50: Deprivation and Consumption - Children 15-17
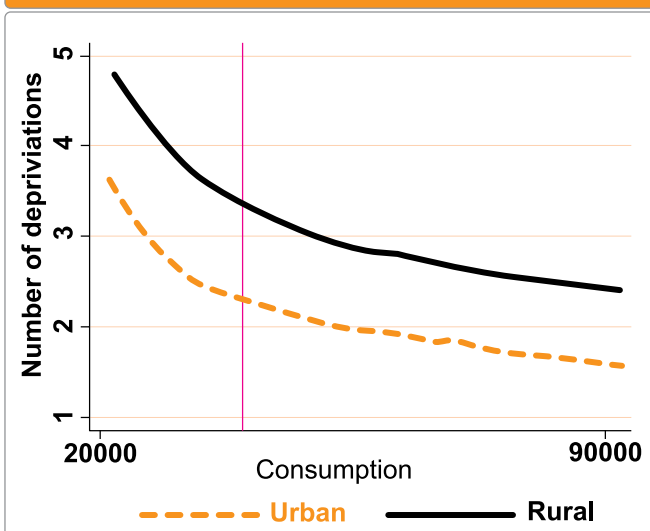
Fig. 51: Overlap between deprivation (2+) and poverty– Children aged 15-17

Neither poor nor deprived (2+): 22.2%
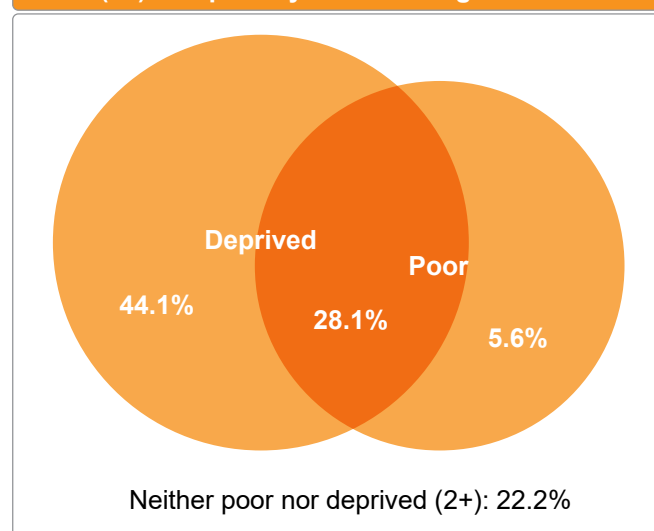
Fig. 49: Consumption and dimensions of deprivation - Children 15-17
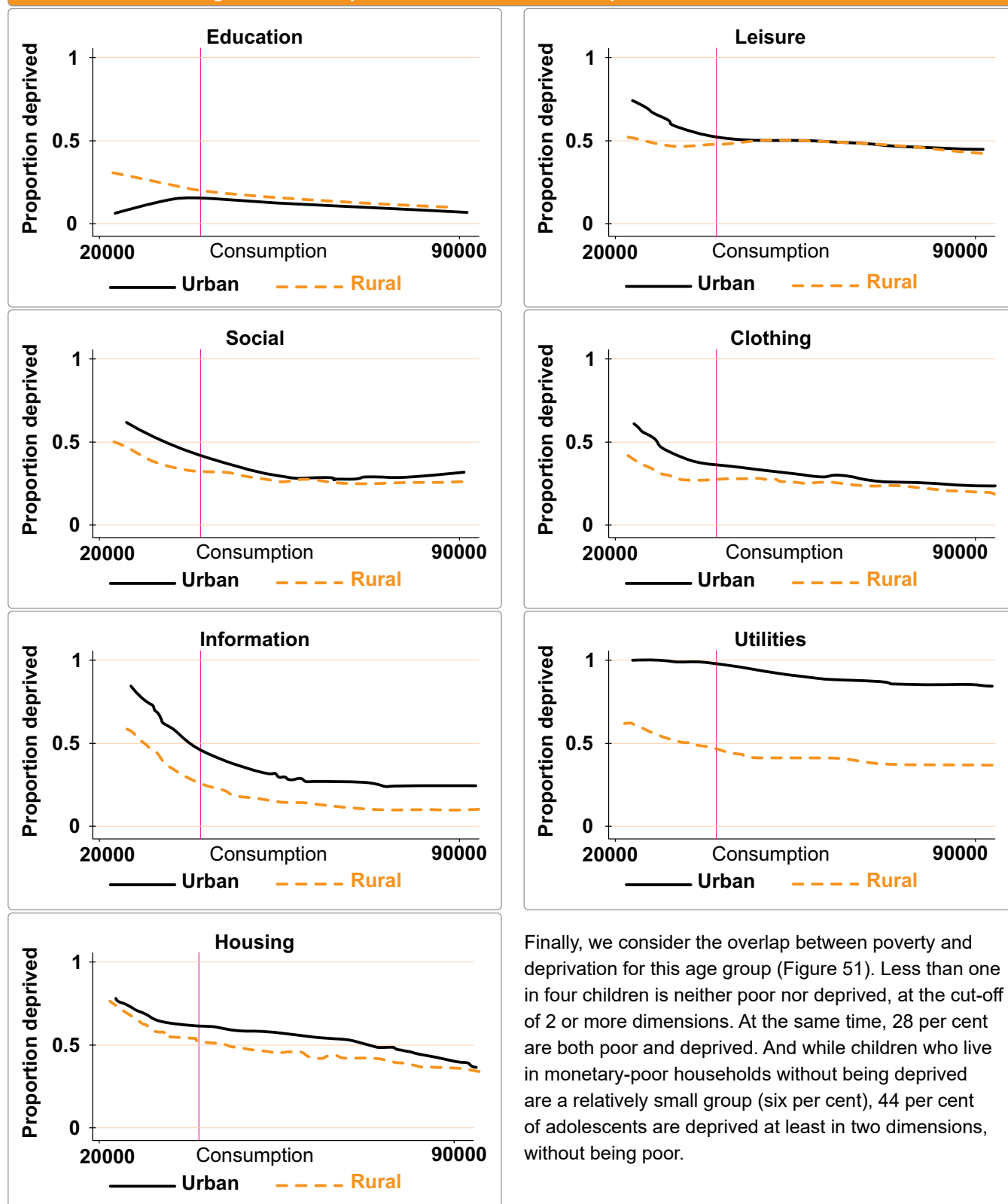
Finally, we consider the overlap between poverty and deprivation for this age group (Figure 51). Less than one in four children is neither poor nor deprived, at the cut-off of 2 or more dimensions. At the same time, 28 per cent are both poor and deprived. And while children who live in monetary-poor households without being deprived are a relatively small group (six per cent), 44 per cent of adolescents are deprived at least in two dimensions, without being poor.

7 CONCLUSIONS

This report assesses the extent of child poverty in Armenia, according to Armenia's nationally defined measures. Multidimensional child poverty is defined using the Multiple Overlapping Deprivation Analysis methodology, applied and tailored to the Armenian context. Using data from the Integrated Living Conditions Surveys of 2013 and 2014, this report also assesses the overlap between child multidimensional and monetary poverty, as measured by the national poverty line.

In Armenia, 64 per cent of children are multidimensionally poor, and 37 per cent of children are monetarily poor. Almost one in three children are both poor and deprived: 28 per cent of children are deprived (in two or more dimensions) and live in monetary-poor households. These children are the most vulnerable, and should be prioritized by social policies. At the same time, 36 per cent of children are deprived, but do not live in poor households. These children need direct intervention to tackle deprivation, and are at risk of being missed by policies that use only monetary metrics as a target measure.

There is a sharp rural/urban divide in deprivation, and in particular in the utilities dimension: 87 per cent of children in rural areas suffer deprivation in this dimension, a combination of poor access to water and heating. The second relevant divide is found in information: 57 per cent of rural children are deprived of access to information, while this is true for only one third of children in urban settings. At the same time, there are no relevant gender differences either in deprivation distribution or particular dimensions.

8 RECOMMENDATIONS

The picture drawn by this report points towards two complementary recommendations: social protection measures should be improved both in generosity and precision of targeting, since there is a share of children (around 17 per cent) who are both poor and deprived, and are therefore particularly vulnerable yet live in families that are not registered for benefits. Efforts to increase take-up of benefits may also be necessary. In addition, measures that aim only at increasing the spending power of families may not be effective in tackling children's poverty, especially children who are not monetary poor: the responsiveness of deprivation to an increase in spending is not very strong.

In order to tackle the most vulnerable children, policies should concentrate on closing the rural/urban gaps in infrastructure, and on strengthening social safety nets in rural areas. It is also important to increase the value and extend the targeting of poverty benefits to include a broader share of children who are likely to be poor and deprived. Furthermore, policies that aim at addressing adult employment conditions are likely to have a positive impact on deprivation, as well as on general household welfare.

Multidimensional and monetary measures of poverty should not be seen as competitive instruments, but as complementary tools, both crucial in addressing child poverty with a holistic approach that keeps the child at the centre of its analysis. In order to prioritize the most vulnerable children, policies should look at the complexity of the picture depicted by the interrelation of the two measures.

REFERENCES

Alkire, S., & Foster, J. (2011). Counting and multidimensional poverty measurement. *Journal of Public Economics, 95(7),* 476–487.

Atkinson, A. B. (2003). Multidimensional deprivation: Contrasting social welfare and counting approaches. *The Journal of Economic Inequality,* 1(1), 51–65.

Brooks-Gunn, J., and Duncan, G. J. (1997). "The effects of poverty on children", in The future of children, Vol. 7, No. 2, *Children and Poverty*, pp. 55-71.

Bourguignon, F., & Chakravarty, S. R. (2003). The measurement of multidimensional poverty. *The Journal of Economic Inequality,* 1(1), 25–49.

Corak, M. (2006). "Do Poor Children Become Poor Adults? Lessons from a Cross-Country Comparison of Generational Earnings Mobility." *Research on Economic Inequality,* 13, 143–188.

Esping-Andersen, G., & Myles, J. (2009). "Economic inequality and the welfare state." *The Oxford Handbook of Economic Inequality,* 639–664.

de Neubourg, C., Chai, J., de Milliano, M., Plavgo, I., & Wei, Z. (2012). Step-by-step guidelines to the multiple overlapping deprivation analysis (MODA). *UNICEF Office of Research Working Paper, WP-2012-10.*

de Neubourg, C., de Milliano, M., & Plavgo, I. (2014). Lost (in) dimensions: Consolidating progress in multidimensional poverty research. UNICEF Office of Research, *Innocenti Working Paper, WP 2014-04.*

Gordon, D. Nandy, S., Pantazis, C., Pemberton, S., Townsend, P. (2003). 'The distribution of child poverty in the developing world', Report to UNICEF. Centre for International Poverty Research, Bristol.

Gregg P and Machin S (2001) Childhood experiences, educational attainment and adult

labour market performance. *Child well-being, child poverty and child policy in modern nations,* 129–150.

UNICEF Armenia (2014) "Situation of child rights in Armenia Overview for the 2016-2020 Country Program development".

United Nations (2007). *UN General Assembly adopts powerful definition of child poverty,* Press Centre News Note, New York: 10 January 2010.

ANNEX A

List of dimensions and indicators selected by stakeholders after the N-MODA consultative process

Dimension	Indicator	Age Groups		
		0-5 years old	6-14 years old	15-17 years old
Nutrition	Exclusive breastfeeding for at least 6 months [a]	X		
ECEC	ECEC attendance (3-5 year-olds)[b]	X		
Education	Place to do homework		X	
	Stationary necessary for school		X	
	Not in employment or education			X
Leisure	Space to play outside		X	X
	Recreation items (toys; bicycle)		X	
	Books			X
Social Interactions	Friends		X	X
Clothing	Shoes		X	X
Information	No computer at home	X	X	
	No internet at home	X	X	
	No access to a computer			X
	No access to the internet			X
Utilities	Water (protected source less than 8 hours per day or 20 days a month)	X	X	X
	Heating (none or wood)	X	X	X
Housing	Overcrowding	X	X	X
	Housing problems	X	X	X

Notes: (a) Asked retrospectively for all children 0 to 5 (b) This is defined only for children aged 3 to 5, children 0 to 3 are counted as not deprived

ANNEX B
Methodology

Following Alkire and Foster (2011), MODA analyses deprivation using three main indices: the headcount ratio, the average deprivation intensity, and the adjusted headcount ratio. The deprivation headcount ratio for each indicator and dimension is the number of children deprived as a share of the child reference population. As an FGT0 measure it shares all the properties of this family of indices (Foster et al. 1984). The dimensional deprivation headcount ratio is calculated as follows:

$$h_{j,r} = \frac{q_{j,r}}{n_r}$$

$$q_{j,r} = \sum_{i=1}^{n_r} y_j$$

Where:

$hj_{,r}$ - headcount ratio of children deprived in dimension j of the reference population r;

q_j - number of deprived children in dimension j of the reference population r;

n_r - total number of children in the reference population r;

y_j - deprivation status of child i in dimension j, with $y_j = 1$ if $x_j < Z_j$ (deprivation) and $y_j = 0$ if $x_j \geq Z_j$ (no deprivation);

x_j - value of dimension j for child i;

Z_j - threshold of the dimension j.

Counting the number of deprivations each child is deprived in, we can then calculate the poverty headcount for each chosen cut-off. The average intensity of multidimensional deprivation A measures the breadth of child deprivation among the multidimensionally deprived children. It is the sum of all existing deprivations among children identified as deprived, as a share of the sum of all possible deprivations among those deprived in at least K dimensions.

The average intensity of deprivation uses the following equation:

$$A = \frac{\sum_1^{q_K} c_K}{q_K \times d}$$

Where:

A - average intensity of multidimensional deprivation according to the cut-off point K for the age group a;

q_K - number of children affected by at least K deprivations in the age group a;

d - total number of dimensions considered per child within the relevant age group a;

c_K - number of deprivations each multidimensionally deprived child i experiences, with $c_K = D_i{}^*y_K$.

Finally, the adjusted headcount ratio M0 consists of both the multidimensional child deprivation headcount ratio and the average intensity of deprivations. The multidimensional child deprivation headcount ratio uses the following formula:

$$M_0 = H * A = \frac{\sum_1^{q_K} c_K}{n_a * d}$$

Where:

$M0$ - adjusted multidimensional child deprivation headcount ratio among children affected by at least K deprivations in age group a;

c_K - number of deprivations each multidimensionally deprived child i experiences, with $c_K = D_i{}^*y_K$.

ANNEX C
Multivariate regressions results

Table C1: Marginal effects for each dimension – Children aged 0-5					
VARIABLES	**Nutrition**	**ECEC**	**Information**	**Utilities**	**Housing**
1,000 AMD	0.000	**0.000**	**-0.005**	**-0.002**	**-0.003**
	(0.63)	(-1.92)	(-12.16)	(-5.85)	(-7.59)
Age	**-0.217**	3.534	0.023	0.006	0.010
	(-10.75)	(0.05)	(1.00)	(0.32)	(0.42)
Age of the head of HH	0.005	0.004	-0.006	0.005	-0.001
	(1.07)	(1.30)	(-1.20)	(1.08)	(-0.20)
Male	**-0.040**	0.004	**0.000**	**0.031**	**-0.041**
	(-2.32)	(0.35)	(-1.92)	(1.97)	(-2.24)
Female head of HH	0.050	-0.016	3.534	-0.044	0.036
	(1.64)	(-0.79)	(0.05)	(-1.58)	(1.11)
Head of HH completed general education	**-0.059**	0.011	0.004	0.020	-0.008
	(-1.70)	(0.51)	(1.30)	(0.65)	(-0.21)
Head of HH has secondary education or above	**-0.070**	-0.017	0.004	**-0.066**	**-0.065**
	(-1.99)	(-0.78)	(0.35)	(-2.08)	(-1.75)
Head of HH is an employee	**-0.046**	**-0.075**	-0.016	0.010	-0.016
	(-1.68)	(-4.23)	(-0.79)	(0.41)	(-0.55)
Head of HH is self-employed (agriculture)	-0.046	0.003	0.011	**0.264**	**-0.131**
	(-1.07)	(0.09)	(0.51)	(5.32)	(-2.81)
Head of HH is self-employed (non-agriculture)	-0.080	**-0.152**	-0.017	-0.054	-0.033
	(-0.96)	(-3.11)	(-0.78)	(-0.65)	(-0.34)
Head of HH Is married/cohabiting	-0.017	-0.006	**-0.075**	0.036	**0.046***
	(-0.65)	(-0.36)	(-4.23)	(1.46)	(1.65)
Rural	**-0.050**	**0.099**	0.003	**0.440**	**-0.054**
	(-2.58)	(8.07)	(0.09)	(37.94)	(-2.60)
No. Children 0-5	**0.030**	**-0.016**	-0.152	**0.017**	**0.113**
	(2.21)	(-1.70)	(-3.11)	(1.37)	(7.43)
No. Children 6-14	-0.011	**0.024**	-0.006	**0.027**	**0.121**
	(-0.70)	(2.34)	(-0.36)	(1.98)	(7.24)
No. Children 15-17	-0.037	0.019	**0.099**	-0.046	**0.083**
	(-0.96)	(0.74)	(8.07)	(-1.36)	(2.00)
No. Adults 18-25	0.011	-0.007	**-0.016**	**-0.021**	**0.066**
	(0.90)	(-0.71)	(-1.70)	(-1.85)	(4.79)
No. Adults 26-35	0.001	**-0.017**	**0.024**	-0.018	**0.068**
	(0.11)	(-2.13)	(2.34)	(-1.59)	(4.98)
No. Adults 36-50	-0.012	-0.014	0.019	-0.024	**0.062**
	(-0.73)	(-1.22)	(0.74)	(-1.55)	(3.38)
No. Adults 51-65	0.005	**-0.038**	-0.007	0.002	**0.038**
	(0.26)	(-2.96)	(-0.71)	(0.13)	(1.86)
No. Over 65	**0.052**	-0.027	**-0.017**	-0.013	0.053
	(1.89)	(-1.39)	(-2.13)	(-0.50)	(1.78)
Observations	*2,617*	*2,617*	*2,617*	*2,617*	*2,617*

z-statistics in parentheses, **Bold** <0.1, **Bold and underlined** < 0.01

Table C2: Marginal effects for each dimension – Children aged 6-14							
VARIABLES	Education	Leisure	Social	Clothing	Informa-tion	Utilities	Housing
1,000 AMD	**_-0.002_**	**_-0.004_**	**_-0.003_**	**_-0.003_**	**_-0.006_**	**_-0.003_**	**_-0.003_**
	(-4.68)	(-7.81)	(-5.98)	(-7.21)	(-11.54)	(-8.07)	(-6.30)
Age	**_-0.114_**	-0.012	**-0.097**	**_-0.093_**	0.005	0.026	-0.030
	(-2.97)	(-0.30)	(-2.37)	(-2.94)	(0.14)	(0.77)	(-0.74)
Age of the head of HH	-0.015	-0.012	0.010	0.014	**0.019**	**_0.024_**	-0.007
	(-1.44)	(-1.12)	(0.93)	(1.59)	(1.90)	(2.58)	(-0.66)
Male	-0.007	-0.030	-0.032	-0.001	0.000	-0.005	-0.022
	(-0.34)	(-1.31)	(-1.38)	(-0.03)	(0.02)	(-0.26)	(-0.98)
Female head of HH	**_0.126_**	**0.065**	-0.006	0.029	0.003	-0.013	**_0.115_**
	(3.53)	(1.68)	(-0.16)	(0.98)	(0.10)	(-0.41)	(3.07)
Head of HH completed general education	**0.054**	0.002	**0.066**	**_0.08_**	**0.062**	0.028	0.024
	(1.67)	(0.05)	(1.94)	(2.82)	(1.99)	(0.98)	(0.72)
Head of HH has secondary education or above	0.035	-0.045	**0.07**	-0.034	0.028	0.018	-0.007
	(0.96)	(-1.16)	(1.83)	(-1.19)	(0.81)	(0.57)	(-0.19)
Head of HH is an employee	**-0.055**	-0.004	**_-0.105_**	**-0.047**	**_-0.093_**	0.039	-0.041
	(-1.81)	(-0.13)	(-3.32)	(-1.81)	(-3.16)	(1.49)	(-1.32)
Head of HH is self-employed (agriculture)	**_-0.093_**	**_-0.119_**	0.035	**-0.07**	-0.023	**_0.091_**	**-0.087**
	(-2.58)	(-3.24)	(0.94)	(-2.52)	(-0.68)	(2.64)	(-2.45)
Head of HH is self-employed (non-agriculture)	**_-0.176_**	**-0.08**	**-0.12**	**_-0.094_**	**_-0.127_**	-0.007	-0.038
	(-4.16)	(-1.66)	(-2.51)	(-2.62)	(-2.92)	(-0.16)	(-0.81)
Head of HH Is married/cohabiting	0.007	**0.072**	-0.033	**_0.079_**	**0.065**	0.006	-0.010
	(0.22)	(2.06)	(-0.96)	(2.91)	(2.03)	(0.20)	(-0.29)
Rural	**_-0.11_**	0.038	0.022	**_0.104_**	**_0.242_**	**_0.417_**	**_0.076_**
	(-4.01)	(1.31)	(0.75)	(4.70)	(9.84)	(21.90)	(2.75)
No. Children 0-5	**0.038**	**_0.064_**	0.005	0.023	**_0.063_**	**_0.049_**	**_0.147_**
	(1.97)	(3.07)	(0.25)	(1.49)	(3.44)	(2.82)	(7.06)
No. Children 6-14	**_0.095_**	0.019	**0.041**	**_0.045_**	**_0.046_**	**_0.073_**	**_0.093_**
	(5.39)	(1.01)	(2.15)	(3.17)	(2.63)	(4.35)	(4.95)
No. Children 15-17	**0.074**	0.042	-0.012	**0.053**	-0.034	0.037	**_0.114_**
	(2.40)	(1.26)	(-0.37)	(2.21)	(-1.13)	(1.30)	(3.56)
No. Adults 18-25	**0.047**	-0.023	-0.022	-0.027	-0.019	0.008	**_0.142_**
	(1.99)	(-0.92)	(-0.86)	(-1.37)	(-0.85)	(0.38)	(5.59)
No. Adults 26-35	**_0.065_**	-0.032	0.006	0.016	**_-0.098_**	-0.009	0.029
	(3.22)	(-1.49)	(0.30)	(0.97)	(-5.21)	(-0.53)	(1.42)
No. Adults 36-50	**_0.067_**	0.024	0.024	0.019	**_-0.102_**	-0.019	0.014
	(3.00)	(1.03)	(1.04)	(1.07)	(-4.84)	(-0.97)	(0.60)
No. Adults 51-65	0.020	**0.049**	**_-0.083_**	-0.007	**_-0.103_**	-0.035	0.038
	(0.81)	(1.88)	(-3.22)	(-0.33)	(-4.32)	(-1.56)	(1.48)
No. Over 65	0.030	**0.085**	**-0.089**	0.054	-0.035	0.021	**0.062**
	(0.81)	(2.18)	(-2.30)	(1.85)	(-0.99)	(0.65)	(1.67)
Observations	*1,752*	*1,752*	*1,752*	*1,752*	*1,752*	*1,752*	*1,752*

z-statistics in parentheses, **Bold** <0.1, **Bold and underlined** < 0.01

VARIABLES	Education	Leisure	Social	Clothing	Informa-tion	Utilities	Housing
1,000 AMD	**_-0.002_**	**-0.001**	**_-0.002_**	**-0.001**	**_-0.003_**	**_-0.003_**	**_-0.002_**
	(-3.12)	(-1.67)	(-2.77)	(-1.94)	(-3.76)	(-4.00)	(-2.65)
Age	1.061	1.155	**-3.288**	1.694	0.248	**-2.988**	0.376
	(1.07)	(0.76)	(-2.44)	(1.38)	(0.19)	(-2.52)	(0.27)
Age of the head of HH	-0.008	0.027	0.018	0.011	0.020	**0.03**	**_0.056_**
	(-0.86)	(1.48)	(1.11)	(0.73)	(1.28)	(2.01)	(3.24)
Male	0.016	0.037	-0.054	0.016	**-0.083**	-0.020	-0.021
	(0.73)	(0.87)	(-1.48)	(0.46)	(-2.31)	(-0.60)	(-0.54)
Female head of HH	0.000	0.012	0.014	0.023	-0.046	**0.08**	**_0.178_**
	(0.01)	(0.18)	(0.25)	(0.46)	(-0.83)	(1.65)	(3.06)
Head of HH completed general education	**_-0.465_**	**-0.131**	0.079	-0.089	0.007	0.043	**-0.108**
	(-8.01)	(-2.00)	(1.54)	(-1.47)	(0.12)	(0.78)	(-1.69)
Head of HH has secondary education or above	**_-0.498_**	**-0.155**	**_0.225_**	-0.012	-0.092	-0.056	0.057
	(-8.41)	(-1.97)	(3.32)	(-0.16)	(-1.34)	(-0.88)	(0.76)
Head of HH is an employee	-0.011	-0.051	**-0.128**	0.005	**-0.119**	**_-0.127_**	**-0.107**
	(-0.37)	(-0.89)	(-2.50)	(0.10)	(-2.41)	(-2.72)	(-1.98)
Head of HH is self-employed (agriculture)	-0.019	-0.000	-0.080	0.057	0.066	0.046	-0.089
	(-0.57)	(-0.00)	(-1.33)	(1.02)	(1.08)	(0.82)	(-1.46)
Head of HH is self-employed (non-agricultural)	0.015	-0.015	**-0.139**	-0.049	0.004	0.045	-0.104
	(0.31)	(-0.18)	(-1.99)	(-0.80)	(0.05)	(0.66)	(-1.29)
Head of HH Is married/cohabiting	-0.051	0.095	0.030	0.032	0.049	-0.021	0.038
	(-1.02)	(1.23)	(0.45)	(0.51)	(0.74)	(-0.34)	(0.52)
Rural	-0.038	-0.013	0.039	0.003	0.063	**_0.415_**	**0.099**
	(-1.36)	(-0.27)	(0.87)	(0.07)	(1.45)	(13.63)	(2.10)
No. Children 0-5	0.009	0.029	0.030	0.015	**_0.166_**	0.021	**_0.222_**
	(0.36)	(0.51)	(0.62)	(0.33)	(3.49)	(0.47)	(3.90)
No. Children 6-14	0.011	0.037	0.033	**_0.12_**	**0.053**	0.001	**_0.088_**
	(0.74)	(1.10)	(1.17)	(4.67)	(1.88)	(0.03)	(2.79)
No. Children 15-17	**0.062**	**-0.091**	**-0.089**	-0.021	-0.009	0.039	0.225
	(2.57)	(-1.78)	(-1.92)	(-0.52)	(-0.20)	(0.95)	(4.87)
No. Adults 18-25	0.014	0.033	**-0.074**	-0.014	-0.015	**-0.054**	**_0.096_**
	(0.84)	(0.97)	(-2.39)	(-0.52)	(-0.51)	(-1.93)	(3.00)
No. Adults 26-35	-0.005	-0.041	-0.010	-0.024	**-0.089**	**_-0.096_**	0.017
	(-0.21)	(-0.92)	(-0.27)	(-0.69)	(-2.31)	(-2.78)	(0.41)
No. Adults 36-50	0.023	0.017	0.010	**-0.065**	**_-0.132_**	0.003	-0.020
	(1.06)	(0.41)	(0.27)	(-1.96)	(-3.74)	(0.09)	(-0.51)
No. Adults 51-65	0.032	-0.010	-0.024	0.021	**-0.081**	-0.042	0.019
	(1.20)	(-0.21)	(-0.54)	(0.54)	(-1.87)	(-1.08)	(0.42)
No. Over 65	-0.014	-0.004	-0.004	0.030	-0.023	0.011	0.049
	(-0.42)	(-0.06)	(-0.08)	(0.60)	(-0.42)	(0.22)	(0.84)
Observations	*562*	*562*	*562*	*562*	*562*	*562*	*562*

Table C3: Marginal effects for each dimension – Children aged 15-17

z-statistics in parentheses, **Bold** <0.1, **Bold and underlined** < 0.01

	Children 0-5		Children 6-14		Children 15-17		All children	
Table C4: Marginal effects on deprivation, by age group and total.								
VARIABLES	De-prived in 2+	N. of Depri-vations	De-prived in 2+	N. of Depri-vations	De-prived in 2+	N. of Depri-vations	De-prived in 2+	N. of Depri-vations
1,000 AMD	**_-0.003_**	**_-0.001_**	**_-0.003_**	**_-0.001_**	**_-0.003_**	**_-0.001_**	**_-0.004_**	**_-0.001_**
	(-9.43)	(-5.22)	(-9.36)	(-6.52)	(-4.68)	(-3.55)	(-14.69)	(-10.02)
Age	**_-0.063_**	**-0.024**	-0.034	-0.022	1.450	0.040	**_0.041_**	**0.010**
	(-3.01)	(-1.78)	(-1.07)	(-1.02)	(1.14)	(0.05)	(7.48)	(2.53)
Age of the head of HH	0.004	-0.001	-0.009	0.004	**0.028**	0.011	0.002	0.002
	(0.80)	(-0.31)	(-1.12)	(0.73)	(1.98)	(1.47)	(0.43)	(0.49)
Male	-0.026	-0.002	-0.037	-0.011	0.008	-0.006	-0.014	-0.006
	(-1.56)	(-0.15)	(-2.11)	(-0.96)	(0.24)	(-0.29)	(-1.17)	(-0.71)
Female head of HH	0.006	0.005	0.025	0.025	0.082	0.025	0.015	0.018
	(0.21)	(0.26)	(0.83)	(1.26)	(1.54)	(0.78)	(0.73)	(1.18)
Head of HH completed general ed.	-0.000	0.024	**_0.068_**	0.012	-0.000	-0.008	**_0.077_**	**0.034**
	(-0.01)	(1.13)	(2.68)	(0.68)	(-0.01)	(-0.24)	(4.23)	(2.51)
Head of HH has secondary ed. or above	**_-0.102_**	-0.032	**0.061**	0.015	-0.035	-0.001	0.020	-0.013
	(-3.07)	(-1.40)	(2.27)	(0.84)	(-0.53)	(-0.03)	(1.03)	(-0.85)
Head of HH is an employee	**_-0.077_**	**_-0.050_**	**_-0.074_**	-0.021	**_-0.171_**	-0.033	**_-0.060_**	-0.024
	(-2.83)	(-2.76)	(-3.29)	(-1.47)	(-3.51)	(-1.25)	(-3.53)	(-2.09)
Head of HH is self-employed (agriculture)	**0.024**	**0.050**	**_-0.170_**	-0.033	-0.039	-0.010	**_-0.072_**	-0.008
	(0.51)	(2.14)	(-4.26)	(-1.32)	(-0.57)	(-0.26)	(-2.84)	(-0.47)
Head of HH is self-employed (non-agr.)	**_-0.235_**	-0.070	-0.030	-0.029	0.014	-0.000	0.012	-0.001
	(-2.48)	(-1.08)	(-1.08)	(-1.25)	(0.28)	(-0.02)	(0.57)	(-0.08)
Head of HH is married/cohabiting	0.016	0.004	**0.050**	-0.005	0.014	0.025	0.019	0.005
	(0.64)	(0.22)	(1.87)	(-0.29)	(0.21)	(0.69)	(1.05)	(0.40)
Rural	**_0.224_**	**_0.101_**	**_0.161_**	**_0.110_**	**_0.127_**	**_0.092_**	**_0.197_**	**_0.144_**
	(12.44)	(6.72)	(7.13)	(5.65)	(3.08)	(3.08)	(12.82)	(10.42)
No. Children 0-5	**_0.059_**	**0.017**	**_0.071_**	0.013	0.074	0.031	**0.026**	0.007
	(4.22)	(1.76)	(3.76)	(1.05)	(1.45)	(0.90)	(2.29)	(0.89)
No. Children 6-14	**0.029**	0.009	**_0.069_**	0.026	0.037	0.003	**_0.083_**	**_0.024_**
	(1.90)	(0.85)	(4.19)	(2.38)	(1.21)	(0.16)	(7.96)	(3.10)
No. Children 15-17	-0.025	0.045	**0.046**	0.007	0.067	-0.006	0.010	-0.003
	(-0.68)	(1.31)	(1.75)	(0.43)	(1.47)	(-0.22)	(0.51)	(-0.20)
No. Adults 18-25	**-0.022**	-0.000	0.003	0.010	0.010	-0.004	0.010	0.012
	(-1.76)	(-0.03)	(0.16)	(0.73)	(0.36)	(-0.26)	(1.03)	(1.55)
No. Adults 26-35	-0.014	0.013	0.001	-0.002	-0.009	0.016	0.002	0.014
	(-1.11)	(1.48)	(0.04)	(-0.16)	(-0.23)	(0.59)	(0.18)	(1.92)
No. Adults 36-50	-0.003	0.030	0.013	0.003	-0.023	-0.005	0.005	0.019
	(-0.15)	(2.51)	(0.72)	(0.27)	(-0.63)	(-0.23)	(0.38)	(2.12)
No. Adults 51-65	-0.008	-0.004	0.020	0.003	-0.012	-0.028	-0.001	0.002
	(-0.41)	(-0.36)	(1.02)	(0.24)	(-0.30)	(-1.14)	(-0.08)	(0.22)
No. Over 65	0.016	-0.021	-0.000	-0.010	0.011	-0.029	0.003	-0.017
	(0.58)	(-1.14)	(-0.01)	(-0.52)	(0.20)	(-0.96)	(0.12)	**(-1.14)**
Family receives poverty benefits							_0.087_	_0.070_
Observations	_2,617_	_2,617_	_1,752_	_1,752_	_562_	_562_	_4,578_	_4,578_

z-statistics in parentheses, **Bold** <0.1, **Bold and underlined** < 0.01

CONNECT WITH US

UNICEF
www.unicef.am

www.facebook.com/unicefarmenia

www.twitter.com/unicefarmenia

www.instagram.com/unicef_armenia

www.youtube.com/unicefarmenian

Published by UNICEF Country Office in Armenia
14 Petros Adamyan, UN House, 3rd floor
Yerevan 0010 Armenia

+ (37410) 580 174
yerevan@unicef.org
www.unicef.am

© UNICEF Country Office in Armenia
Yerevan 2016

ՄԱՆԿԱԿԱՆ
ԱՂՔԱՏՈՒԹՅՈՒՆԸ
ՀԱՅԱՍՏԱՆՈՒՄ
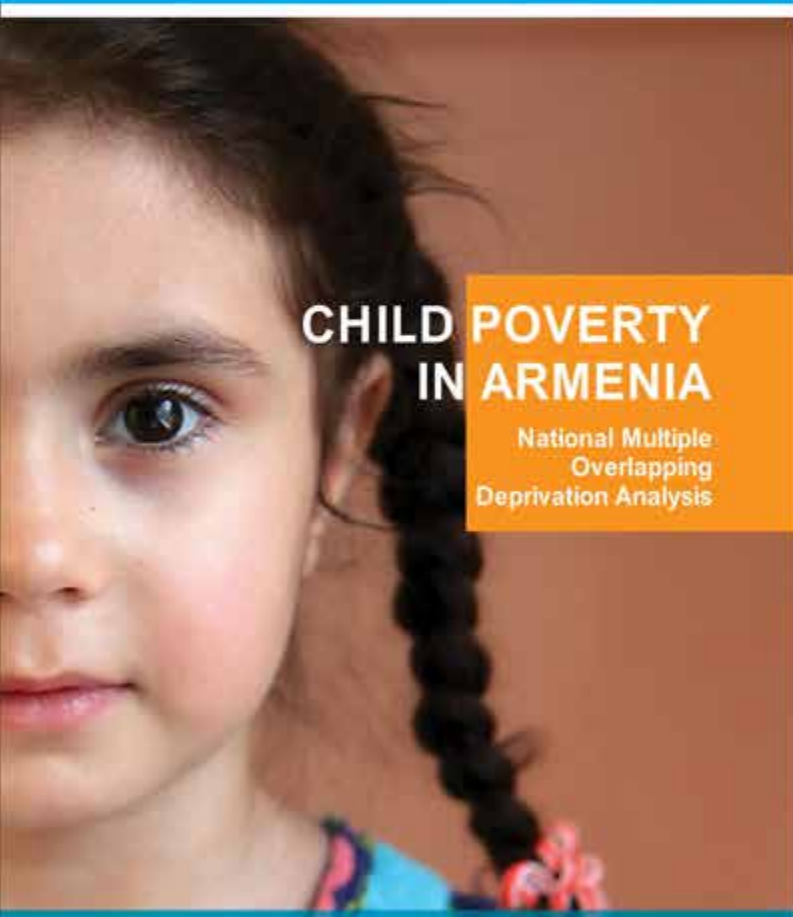
Բազմակի և համընկնող
խոցելիության
ազգային վերլուծություն

ՀՀ ԱԶԳԱՅԻՆ
ՎԻՃԱԿԱԳՐԱԿԱՆ
ԾԱՌԱՅՈՒԹՅՈՒՆ

unicef
70 YEARS FOR EVERY CHILD

CHILD POVERTY
IN ARMENIA

National Multiple
Overlapping
Deprivation Analysis
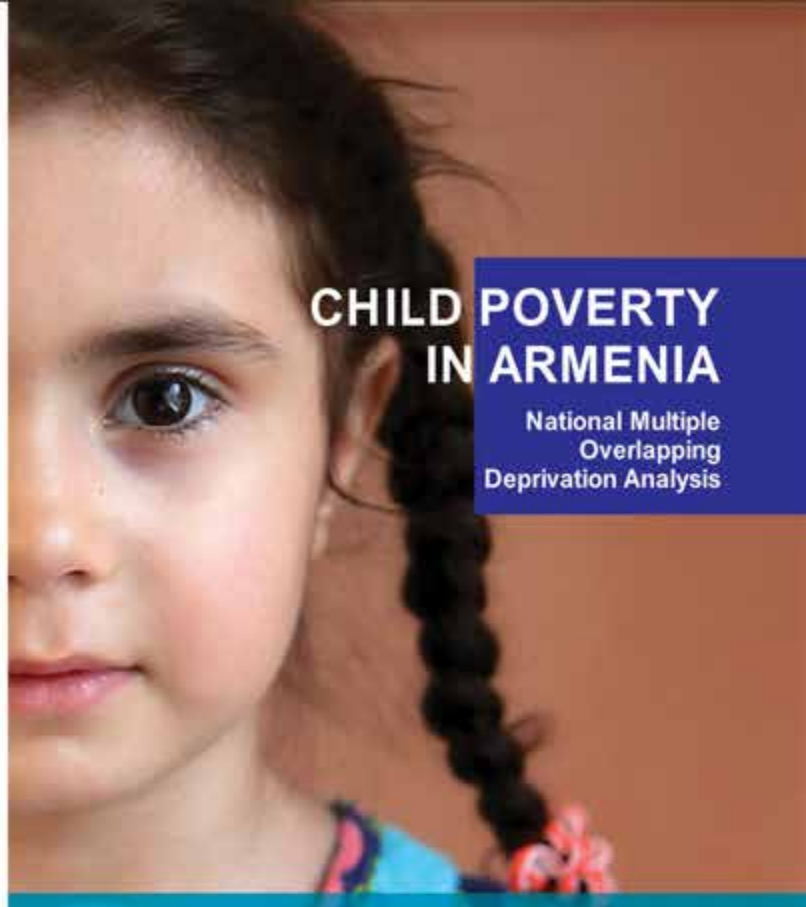
NATIONAL
STATISTICAL
SERVICE OF RA

unicef
70 YEARS FOR EVERY CHILD

CHILD POVERTY
IN ARMENIA

National Multiple
Overlapping
Deprivation Analysis

NATIONAL
STATISTICAL
SERVICE OF RA

unicef
70 YEARS FOR EVERY CHILD

ՄԱՆԿԱԿԱՆ
ԱՂՔԱՏՈՒԹՅՈՒՆԸ
ՀԱՅԱՍՏԱՆՈՒՄ

Բազմակի և համընկնող
խոցելիության
ազգային վերլուծություն

ՀՀ ԱԶԳԱՅԻՆ
ՎԻՃԱԿԱԳՐԱԿԱՆ
ԾԱՌԱՅՈՒԹՅՈՒՆ

unicef
70 YEARS FOR EVERY CHILD