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Multidimensional Poverty in Jordan

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Contents

Page

List of tables

Technical Annex

List of figures

Abbreviations

A	Poverty Intensity
AF	Alkire-Foster
BMI	Body Mass Index
DHS	Demographic and Health Survey
ESCWA	Economic and Social Commission of Western Asia
FHHs	Female Headed Households
GDP	Gross Domestic Product
GNI	Gross National Income
H	Headcount Ratio
HDI	Human Development Index
HHs	Households
MHHs	Male Headed Households
MPI	Multidimensional Poverty Index
OPHI	Oxford Poverty and Human Development Initiative
UNDP	United Nations Development Program
USAIDS	US Agency for International Development
WI	Wealth Index

I. INTRODUCTION

1.1 Jordan is an upper-middle income country[1] in a central position in the Arab region. Table 1 shows some of the main socio-economic indicators for Jordan. The Human Development Index (HDI) – a measure of basic human development achievements in a country – for Jordan in 2015 was 0.741, which puts the country in the high human development category, positioning it 86 out of 188 countries and territories. In terms of money metric poverty, 14.4% of the population in Jordan lived below the national poverty line in 2010 (the most recent year for which data is available) (World Bank 2016a).

Table 1: Main socio-economic indicators for Jordan

Indicators	Value (2015 unless otherwise indicated)
Population	9,159,302
GDP (current US$)	US$ 37.5 billion
Human Development Index (HDI[2])	0.741
Life expectancy at birth	74.2
Expected years of schooling	13.1
Mean years of schooling	10.1
GNI per Capita (2011 PPP$)	US$ 10,111
Human Development 2014 rank	86
Gender Development Index	0.864
Inequality adjusted HDI	0.619
Gini coefficient	13.5
Poverty headcount ratio at national poverty lines (% of population)	14.4% (2010)
Gross enrolment ratio, secondary (% of secondary school-age population)	70.1 (2014)

Sources: for population, GDP, GNI p.c., poverty headcount,: World Bank World Development Indicators data accessed January 2017. For HDI, expected years of schooling, life expectancy, gross enrolment ratio, gender development index and Gini coefficient: UNDP Human Development Reports accessed January 2016.

1.2 The objective of the present paper is to provide in-depth analysis of the prevalence, distribution (geographical and by gender among other household socio-economic characteristics), and severity of multi-dimensional poverty in Jordan. It is one of several country profiles prepared by ESCWA as background papers for the Arab Multidimensional Poverty Report[3] making use of the new Multidimensional Poverty Index proposed for Arab States.

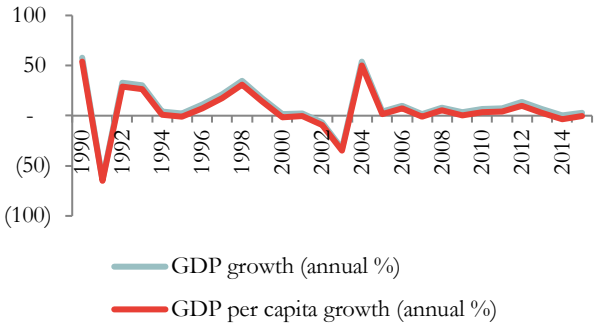
1.3 Jordan has made significant progress in human development and economic growth in the last decades. Jordan's economy grew on average 6.5% from 2000-2009, while from 2010-2014 it slowed down to an average of 2.7% (World Bank, 2016b and Figure 1). The crisis in neighbouring Syria and Iraq have deeply affected Jordan, chiefly through the influx of refugees that have put strains on public resources and the economy, but also through disrupted trade routes and lower investments and tourism inflows. According to the latest census, 19% of Jordan's populations are Syrian refugees. (World Bank 2016b).

1.4 Although Jordan has made significant progress in reducing poverty in the last decades, there are still pockets of (monetary) poverty throughout the country and rural areas are far poorer than urban areas (World Bank, 2016a 2016b). The same is observed for food security. While some governorates are food secure, other

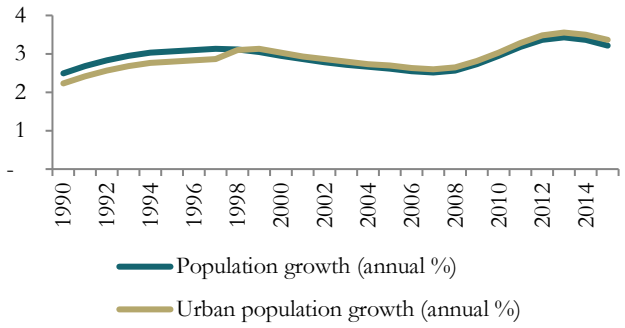
governorates exhibit pockets of food insecurity (WFP, 2014). Jordan is one of the most water scarce countries in the world. The rapid population growth, urbanization, income growth, and the influx of refugees, put severe pressure on the demand for water and sanitation infrastructure in the country.

Figure 1: GDP, GDP p.c. and population growth (%)

GDP and GDP p.c. annual growth (%)



Population and urban population growth, annual (%)



Source: World Bank data.

II. METHODOLOGY AND DATA

2.1 Multidimensional poverty captures multiple deprivations in basic services and capabilities, such as poor health, lack of education or illiteracy, and lacking access to safe drinking water. The multidimensional poverty approach complements monetary measures of poverty by considering these multiple deprivations and their overlap. The conceptual framework of multidimensional poverty measures draws from Sen's capability approach which states that development is realised not only through increased incomes and share in assets, but also through people's increased capabilities to lead lives that they have reason to value. Sen contends that capability deprivation is a more complete measure of poverty than income as it captures the aspects of poverty which may get lost or hidden in aggregate statistics (Sen 1985, 1999). In recent years, this conceptual framework was translated into practice to measure household poverty through the Multidimensional Poverty Index (MPI).

2.2 The methodology of the MPI is based on the Alkire-Foster (AF) Method (Alkire, Foster 2011) offering a comprehensive methodology for counting deprivation and analysing multidimensional poverty. The AF-methodology builds on the Foster-Greer-Thorbecke poverty measure, but it considers multiple dimensions. The AF-methodology includes two steps: first, it identifies the poor using a dual cut-off approach and by "counting" the simultaneous deprivations that a person or a household experiences across the different poverty indicators. And the second step is to aggregates this information into the adjusted headcount ratio (or MPI value) which can be decomposed and disaggregated geographically, by socio-economic characteristics, and by indicator.

2.3 Under the first step, to identify multidimensionally poor people, the AF-methodology uses a dual cut-off identification approach. The first cut-off sets a deprivation threshold for each indicator which determines whether a household or a person is considered as deprived or non-deprived in the respective indicator. After the cut-offs have been applied for each indicator, the deprivations of each person in all indicators are counted to calculate a deprivation score for that household or person. Weights are assigned to the indicators which reflect a normative value judgement to assess the relative importance of a given indicator as compared to the other indicators in constructing the deprivation score for a household or person. As a result, the deprivation score is a weighted sum of all deprivations. The second cut-off (the poverty cut-off) is set at a value say 20% or 30% against which the deprivation score is compared to in order to define and

distinguish multidimensionally poor (those whose deprivation score is equal to or more than the poverty cut-off) from non-poor (whose deprivation score falls below the poverty cut-off).

2.4 In the aggregation step of the AF Method, two indices are calculated; the headcount ratio and poverty intensity. The headcount ratio (H) is the proportion of multidimensionally poor people to the total population. The headcount ratio is a useful measure to learn about the incidence of poverty, but it is insensitive to increases in the number of deprivations a poor person is deprived in. However, utilizing the information on the number of deprivations that poor people experience, the poverty intensity can be calculated. The poverty intensity (A), is the average deprivation score that multidimensionally poor people experience. The product of the poverty headcount and poverty intensity is the MPI, which "adjusts" the headcount for the average poverty intensity that poor people experience.

2.5 The use of Multidimensional Poverty Index (MPI) to describe the application of AF Method was coined with the Global MPI launched in 2010 by OPHI and the United Nations Development Program (UNDP). However, the Global MPI has a major shortcoming: it is not very effective in capturing the less severe forms of poverty that characterise many Arab middle-income countries such as Jordan, Egypt or Morocco and thus underestimates the prevalence of less severe forms of multidimensional poverty. However, the AF-Method offers flexibility and it can be tailored to a variety of situations by selecting different dimensions, indicators of poverty within each dimension, and poverty cut offs.

2.6 In order to capture a broader spectrum of level and intensity of deprivation that better reflects the conditions of Arab countries, ESCWA and OPHI proposed an Arab MPI with two different levels: poverty and acute poverty. The Arab MPI is composed of three dimensions and twelve indicators. The education dimension has two indicators: school attendance and years of schooling. The health dimension includes three indicators: nutrition, child mortality, and early pregnancy combined with female genital mutilation. The living standard indicators are: access to electricity, improved sanitation facility, safe drinking water, clean cooking fuel, having suitable floor and roof, no overcrowding, and minimum assets of information, mobility, and livelihood (the deprivation cut-offs for the Arab MPI are presented in Table 2). Each of these indicators has two associated deprivation cut-offs, one reflects the deprivation of acute poverty which is similar (but not identical) to the global MPI. And the other, a higher cut-off denoting a slightly higher standard to measure poverty which is inclusive of acute poverty. While the cut offs usually vary across indicators for acute poverty and poverty, in case of the aggregate score for identifying a poor household, the cut off is the same. A household is considered acutely poor or poor if its total level of deprivation (total of weighted deprivations in all indicators) is higher than one-third of the total possible deprivation (k=33.3%). Similar to the Global MPI, the Arab MPI assigns equal weights to the three dimensions (one third), and indicators within each dimension are equally weighted. To obtain the set of multidimensionally poor people only, all information of deprivation of non-poor persons is censored from the data. Thus, the focus of the MPI measure is purely on the profile of the multidimensionally poor people and the indicators/dimensions in which they are deprived.

2.7 The MPI can be decomposed by population sub-groups, such as sub-national regions, or any socio-economic characteristic of a household that is available from the data. Another feature of the MPI is that it can be decomposed to show how much each indicator contributes to poverty. Furthermore, the MPI can also give insight into the percentage of people that are deprived in multiple indicators, but below the poverty cut-off. This percentage of the population is considered vulnerable to poverty. In the case of the Arab MPI, population whose deprivation score is between 20-33.3% is considered as vulnerable to poverty. On the other side of the scale, the MPI can also give insight into how many people are deprived in for example more than half of all the weighted indicators. This percentage share of the population is considered to be in severe poverty. In the Arab MPI, poor people who are deprived in 50% or more of the indicators are considered as severely poor.

2.8 The results of this study are based on data from the Demographic and Health Survey (DHS), a survey conducted by countries with the support and funding of the US Agency for International Development (USAIDS)[4]. The survey for Jordan, conducted in 2012, covers 50,450 individuals. It provides data on education status for all members of the household; health and nutrition status of children and women; child mortality; housing conditions (availability of safe drinking water, sanitation facilities, electricity, etc.); and information on ownership of assets (refrigerator, motorbike, cattle, radio, TV etc.)

Table 2: Deprivation definitions and indicator weights

Dimension	Indicator	Acute poverty if	Poverty if	Weight
Education	Years of Schooling	No household member has completed primary schooling[5].	No household member has completed secondary schooling.	1/6
	School Attendance	Any child of primary school age is not attending school.	Any school-age child is not attending school **or** is 2 years or more behind the right school grade.	1/6
Health	Child Mortality	Any child less than 60 months has died in the family during the 59 months prior to the survey.	Same as acute poverty	1/9
	Child/adult Nutrition	Any child (0-59 months) is stunted (height for age < -2) **or** any adult is malnourished (BMI < 18.5).	Any child (0-59 months) is stunted (height for age < -2) **or** any child is wasted (weight for height < -2) **or** any adult is malnourished (BMI < 18.5).	1/9
	FGM/Early Pregnancy	A woman less than 28 years old got her first pregnancy before 18 years old **and** has undergone a female genital mutilation (FGM)[6].	A woman less than 28 years old either got her first pregnancy before being 18 years old **or** has undergone a female genital mutilation (FGM).	1/9
Living Conditions	Electricity	Household has no electricity.	Same as acute poverty	1/21
	Sanitation	Household sanitation is not improved, according to MDG guidelines, **or** it is improved but shared with other household.	Same as acute poverty	1/21
	Water	Household does not have access to safe drinking water, according to MDG guidelines, **or** safe drinking water is 30-minutes roundtrip walk or more away from home.	Household does not have piped water into dwelling or yard.	1/21
	Floor/Roof	Floor is earth, sand, dung or roof is not available **or** made of thatch, palm leaf or sod	Floor is earth, sand, dung, rudimentary (woodplanks/bamboo/reeds/grass/canes), cement floor (not slab or tiles/asphalt strips) **or** roof is not available **or** made of thatch, palm leaf, sod, rustic mat, palm, bamboo, wood plank, cardboard.	1/21
	Cooking Fuel	Household cooks with solid fuels: wood, charcoal, crop residues **or** dung **or** no food is cooked in the household.	Household cooks with solid fuels: wood, charcoal, crop residues or dung **or** no food is cooked in the household[7] **or** does not have a separate room for cooking.	1/21

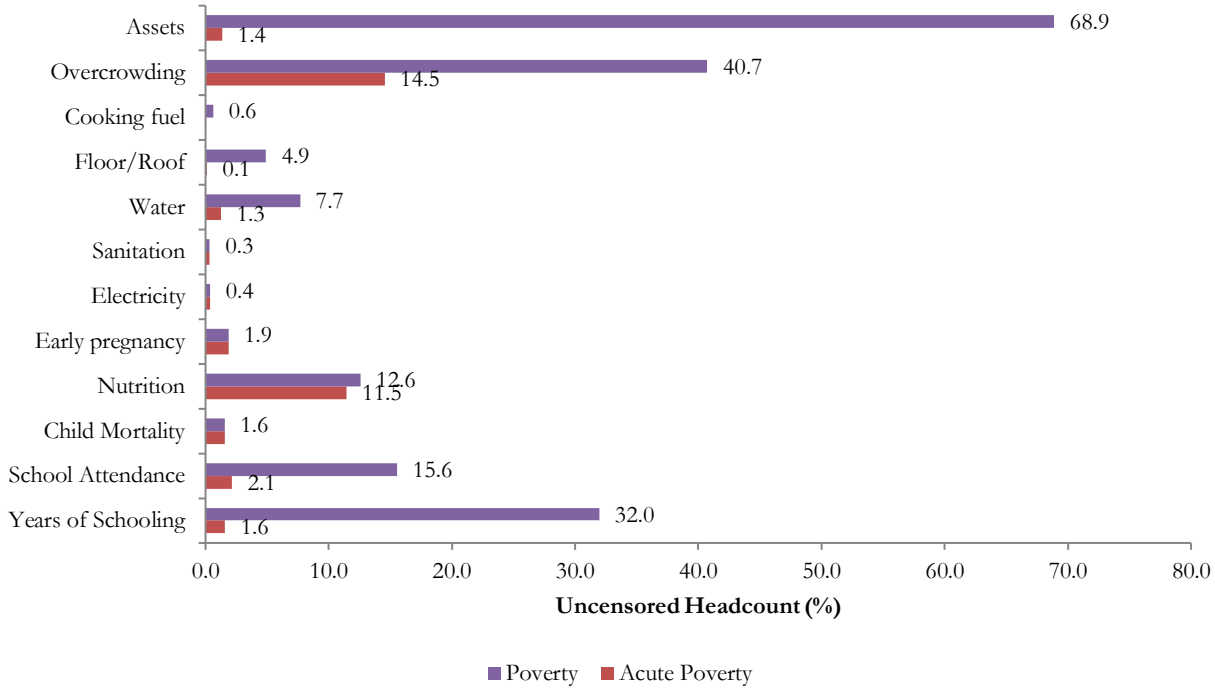
	Overcrowding	Household has 4 or more people per sleeping room.	Household has 3 or more people per sleeping room.	1/21
	Assets	Household has either not access to information **or** has access to information **but** no access to easy mobility **and** no access to livelihood assets[8].	Household has either less than two assets for accessing information, **or** has more than one information asset **but** less than two mobility assets **and** less than two livelihood assets.	1/21

III. POVERTY ANALYSIS

3.1 Incidence of Deprivation in the indicators of the Arab MPI

3.1.1 First, we examine the prevalence of deprivation among the Jordanian population in each of the Arab MPI indicators using the poverty and acute poverty respective cut-off points as shown in Figure 2. This percentage share is also called the uncensored headcount ratio, as it considers the deprivations of the total population before identifying the poor.

Figure 2: Incidence of Deprivation in the Arab MPI indicator (% of population)



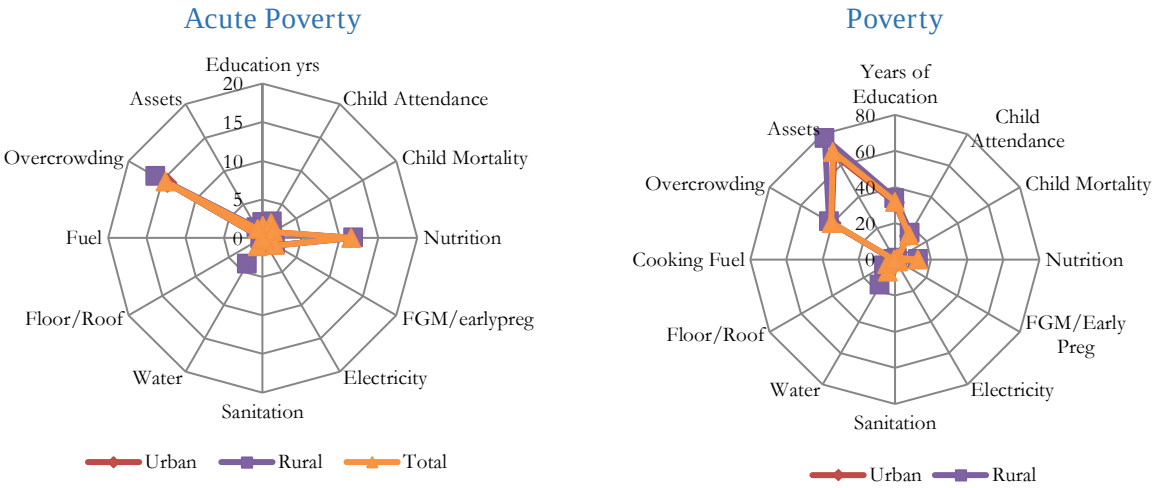
3.1.2 At acute poverty, Jordanians are particularly deprived in overcrowding and nutrition. The remaining indicators show a very low headcount ratio which is not surprising given that the thresholds of the acute poverty measure are meant to capture severe deprivations that are prevalent in developing countries.

3.1.3 For poverty, the indicator with the highest headcount ratio is assets. This indicator also shows the greatest increase when moving from acute poverty to poverty. It must be noted, however, that this gap and the high deprivation is also caused by the definition of the indicator at the poverty level[9]. The second and third highest deprivation is in the indicator overcrowding and years of schooling. The indicators school attendance, nutrition, water, and floor/roof also show significant deprivation rates.

3.1.4 The indicators of the education dimension also show a much higher headcount ratio when moving from acute poverty to poverty. The deprivation in school attendance jumps from 2.1% to 15.6% when not only the attendance of children in primary school age (6-12 years) is considered, but the attendance of all children in school age (from 6-18) and controlling whether they are enrolled in the age-proper school grade. The high jump in the headcount rates is caused by the drop in the attendance rates after the age of 12 (which is also confirmed by the DHS report, see DOS and IFC, 2013) and children lagging two grades or more behind the age-appropriate school grade. The years of schooling indicator also jumps from 1.6% to 32%, which points to a gap in secondary schooling in Jordan for persons aged 18 and older.

3.1.5 Figure 3 shows the deprivation in the indicators by rural and urban population for acute poverty and poverty. At acute poverty, there is no major difference between the urban and rural population. At poverty, the rural population shows slightly higher deprivation rates than the urban population, but the difference is minor except for in the assets indicator.

Figure 3: Deprivation by indicator (% of population) at Acute Poverty and Poverty for urban and rural areas



3.2 Incidence of censored Deprivation in each of the 12 indicators

3.2.1 The prevalence of deprivation in Table 3 compares the incidence of uncensored and censored deprivations. The censored deprivation rates give the percentage of population who is deprived in an indicator and has also been identified as poor according to the poverty cut-off (in this case k=33.3%). The censored headcount ratio highlights the deprivations of the multidimensionally poor people in each indicator and give more accurate information on the magnitude of deprivation in a particular indicator when this indicator is associated with multidimensional poverty.

Table 3: Uncensored and Censored Headcount Ratio

Indicator	Acute Poverty		Poverty	
	% of total population deprived in…	% of poor people deprived in…	% of total population deprived in…	% of poor people deprived in…
Years of Education	1.6	0.2	32.0	10.5
Child attendance	2.1	0.2	15.6	8.8
Child Mortality	1.6	0.0	1.6	0.6
Nutrition	11.5	0.1	12.6	4.5
FGM/Early Pregnancy	1.9	0.0	1.9	1.0
Electricity	0.4	0.0	0.4	0.1

Sanitation	0.3	0.0	0.3	0.1
Water	1.3	0.1	7.7	1.2
Floor/Roof	0.1	0.0	4.9	1.6
Cooking Fuel	0.0	0.0	0.6	0.2
Overcrowding	14.5	0.2	40.7	7.6
Assets	1.4	0.2	68.9	10.2

3.2.2 Table 3 shows that at acute poverty, the incidence of deprivation in the censored headcount is below 1% for all indicators. Again, this is not surprising considering that first that by definition the censored headcount ratio for any given indicator is less than or equal to the multidimensional poverty headcount and for Jordan the multidimensional poverty headcount at acute poverty, as shown below, is very low. And second, the Acute MPI is designed to capture deprivations in developing countries. As Jordan is considered a country of high human development, the strict deprivation thresholds of the Acute Poverty measure do not capture the more moderate forms of poverty prevalent in Jordan.

3.2.3 Moving to poverty, the censored headcount ratios remain below 2% for the indicators of child mortality, early pregnancy, electricity, sanitation, water, floor/roof and cooking fuel. The indicators years of schooling and overcrowding have the highest censored headcount ratios at 10.5% and 10.2%, respectively. This means that 10.5% of the population are poor and deprived in the indicator years of schooling. However, the gap between the censored and the uncensored headcount ratios remains large for most of the indicators. This means that not only the multidimensionally poor population is affected by deprivations in these indicators, but also the non-poor population. The biggest gaps between the headcount ratios is found in the assets, overcrowding, and child nutrition indicator.

3.3 Poverty Headcount, Intensity and MPI

3.3.1 In Jordan, a very low percentage (0.3%) of the total population suffers from acute poverty, while a larger share of the population (11.7%) suffers from poverty (Table 4). These rates are lower than the corresponding ones for a country in the same income bracket, such as Algeria for example.

3.3.2 The intensity of poverty – the average proportion of indicators in which poor people are deprived in– is 38.6% for acute poverty and 42.1% for poverty. This means that the poor suffer from a relatively high level of deprivation. Headcount poverty is significantly higher in rural[10] than in urban areas at acute poverty, but not at poverty. Also, the intensity of deprivation varies only slightly between rural and urban areas, and more significantly in acute poverty than in poverty. This shows that, at a first glance, Jordan seems to have lower differences in the distribution of poverty between rural and urban areas than the other Arab countries examined by our profiles.

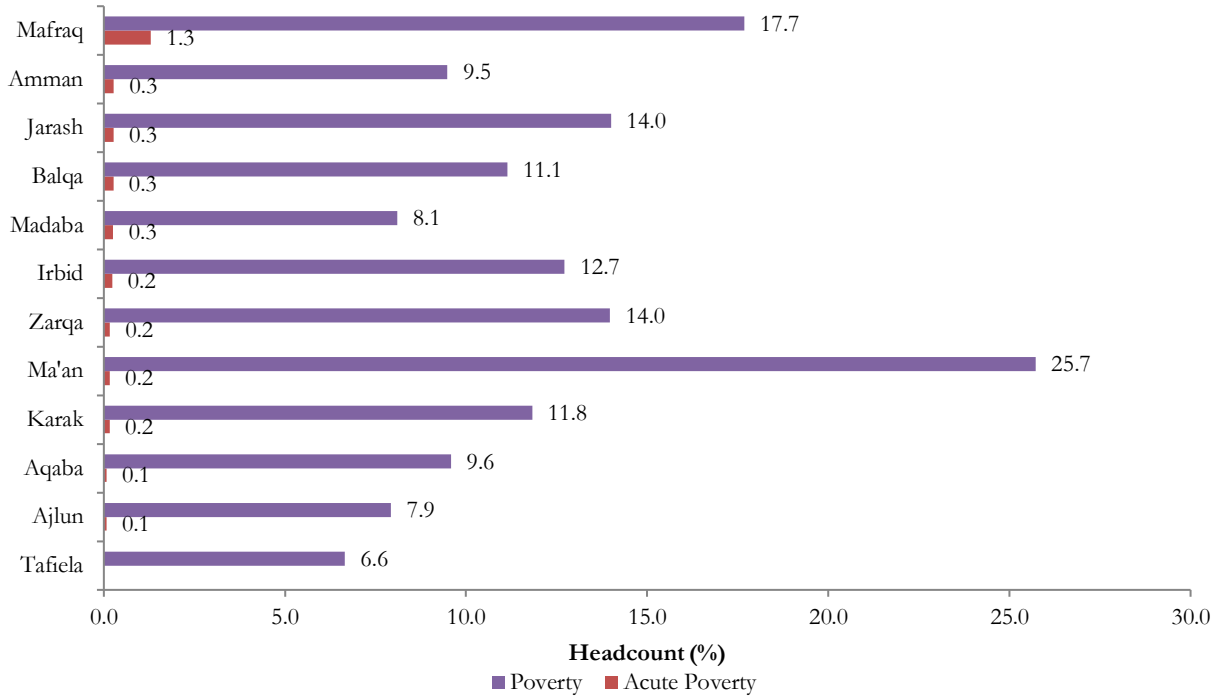
Table 4: Headcount poverty, intensity and poverty value at national level and in urban and rural areas

Acute poverty			
	Headcount (%)	Intensity (%)	Multidimensional Poverty Index (MPI) (H*A)
Total	0.3	38.6	0.001
Urban	0.2	36.4	0.001
Rural	0.5	43.3	0.002
Poverty			
Total	11.7	42.1	0.049
Urban	11.5	42.0	0.048
Rural	12.7	42.3	0.054

3.3.3 As shown in Table 5[11], when ranking by acute poverty the levels are very low across the different governorates with Mafraq showing the highest prevalence of 1.3%.

3.3.4 The ranking of regions changes when areas are ranked by poverty instead of acute poverty. At poverty the Governorate of Ma'an has the highest incidence of poverty, followed by the governorates in the northern and eastern region, Mafraq and Jarash, and the governorate of Zarqa in the central region. The capital Amman has a prevalence rate lower than the national average.

Figure 4: Headcount Poverty (%) in Jordan Governorates at Acute Poverty and Poverty



3.3.5 Table 5 shows the distribution of the national population and of poor people across Jordan. The last two columns of the table calculate the ratio of poor over the share of national population for each area of Jordan. Governorates with a ratio above 1, such as Ma'an and Mafraq, are particularly affected by poverty. At the other hand of the scale, accounting for the size of the population the governorates of Tafiela and Ajlun have the lowest ratios (i.e. contribution to the overall population poverty).

Table 5: Population and headcount poverty shares by area

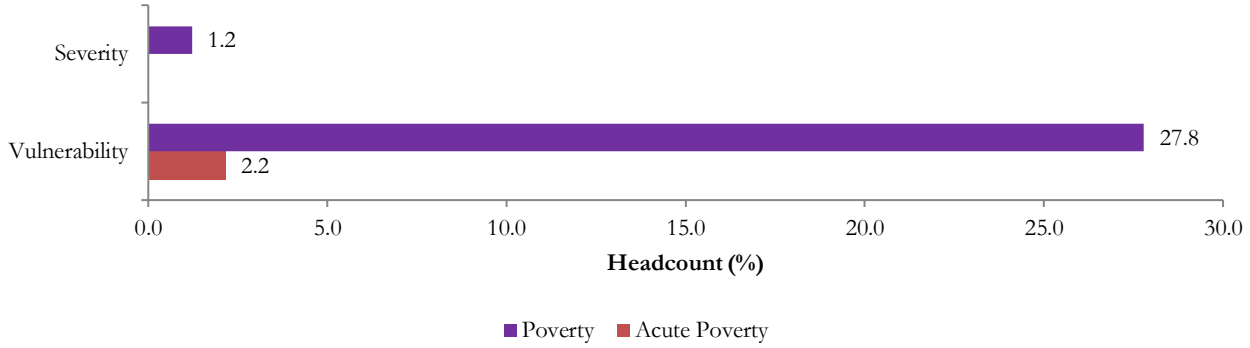
	Share of survey population (%) (1)	Share of acutely poor population (%) (2)	Share of poor population (%) (3)	(2)/(1)	(3)/(1)
Tafiela	1.53	-	0.87	-	0.57
Ajlun	2.34	0.58	1.59	0.25	0.68
Madaba	2.82	2.57	1.95	0.91	0.69
Amman	37.02	36.02	30.08	0.97	0.81
Aqaba	2.27	0.64	1.86	0.28	0.82
Balqa	7.06	6.57	6.74	0.93	0.95
Karak	4.23	2.34	4.28	0.55	1.01

Irbid	18.35	14.93	19.99	0.81	1.09
Zarqa	14.27	8.20	17.08	0.57	1.20
Jarash	3.03	2.87	3.63	0.95	1.20
Mafraq	5.26	24.26	7.96	4.61	1.51
Ma'an	1.80	1.02	3.96	0.56	2.20

3.3.6 While, someone is defined as poor if he or she is deprived in at least one third of the weighted indicators, following OPHI's definition we can analyse individuals who are 'vulnerable to poverty' identified as being deprived in 20% – 33.33% of weighted indicators. On the other extreme, individuals are defined as in 'Severe Poverty' when they are deprived in 50% or more of the indicators.

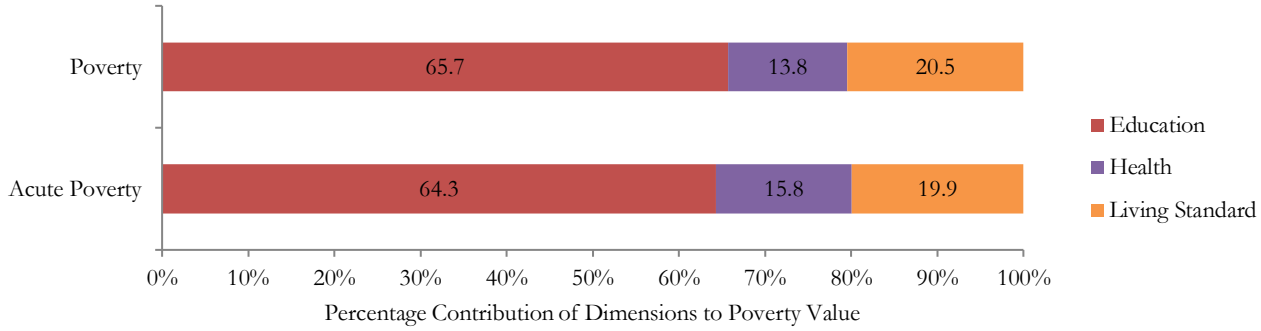
3.3.7 As shown in Figure 5, virtually no Jordanians are severely poor at acute poverty. At poverty, only a small share of the population, 1.2%, are severely poor. Moving to vulnerability to poverty, only 2.2% of the population are vulnerable to falling into acute poverty, a large share, 27.8% of the Jordanian population, are vulnerable to falling into poverty.

Figure 5: Vulnerable and severely poor population at acute poverty and poverty definitions (%)



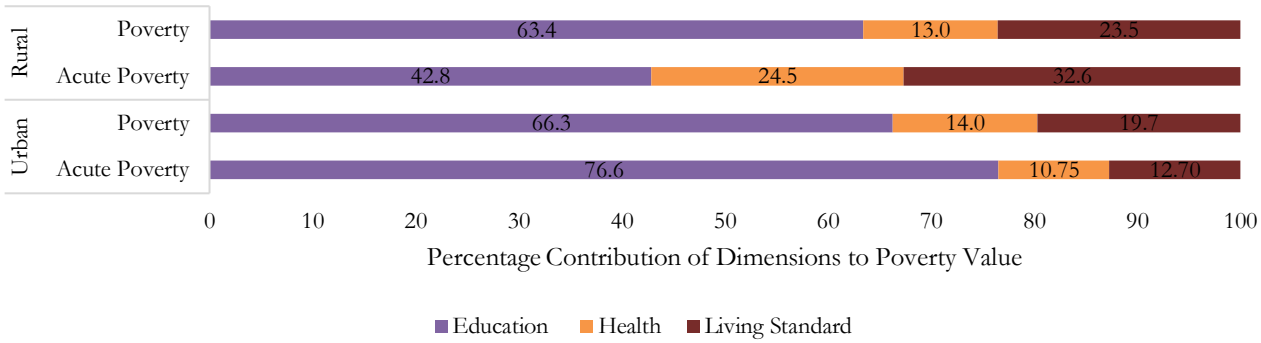
3.3.8 The percentage contribution of each of the three dimensions to the overall poverty value (taking into consideration both headcount and intensity)[12] is a useful summary indicator. As shown in Figure 6, in Jordan education contributes to almost 2/3 of total deprivation at both levels of poverty. At acute poverty, the contribution of health is higher than at poverty, while the reverse is true for living standards.

Figure 6: Contribution of dimensions to acute poverty and poverty value (%)



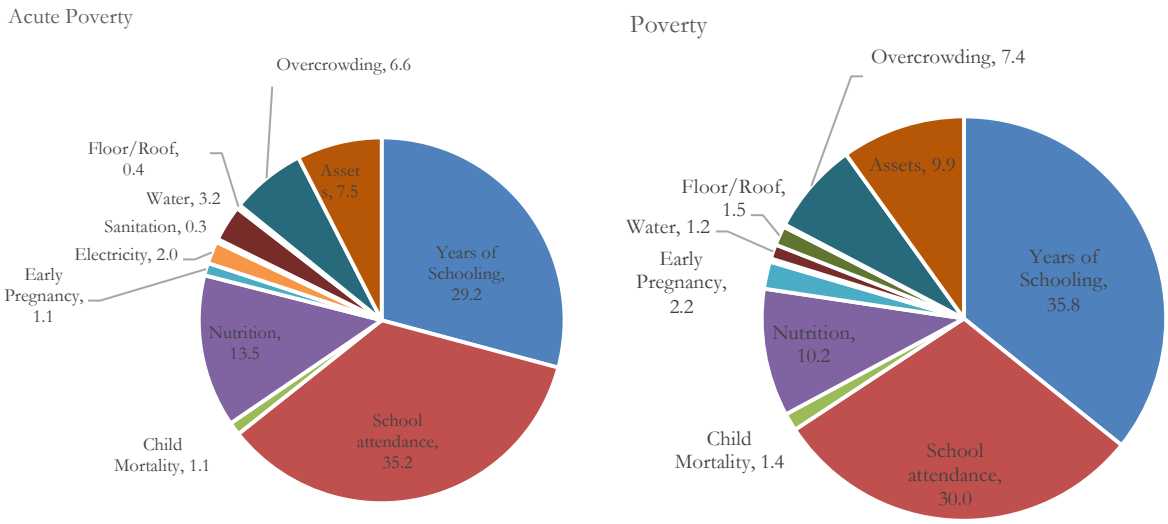
3.3.9 Looking at the contribution of dimensions by rural and urban areas in Figure 7, we observe that, at both levels, the contribution of education to poverty is higher in urban areas, while that of living standards is higher in rural areas. Rural areas also have a very high contribution of health at acute poverty.

Figure 7: Contribution of dimensions to acute poverty and poverty by rural and urban areas (%)



3.3.10 Figure 8 shows the percentage contribution of each indicator to acute poverty and poverty. Child attendance shows the highest percentage contribution to poverty in Jordan at acute poverty, followed by years of schooling. While the education indicators make the largest contributions to poverty in all countries examined by our profiles, Jordan is one of the few where child attendance makes a larger contribution than years of education at acute poverty. At poverty, the years of schooling indicator shows a higher contribution than the school attendance indicator. These results show that education should be a priority area for poverty-reducing interventions in the country. At both acute poverty and poverty, nutrition is the indicator that makes the third largest contribution to poverty. These results show that education and nutrition should be a priority area for poverty-reducing interventions in the country.

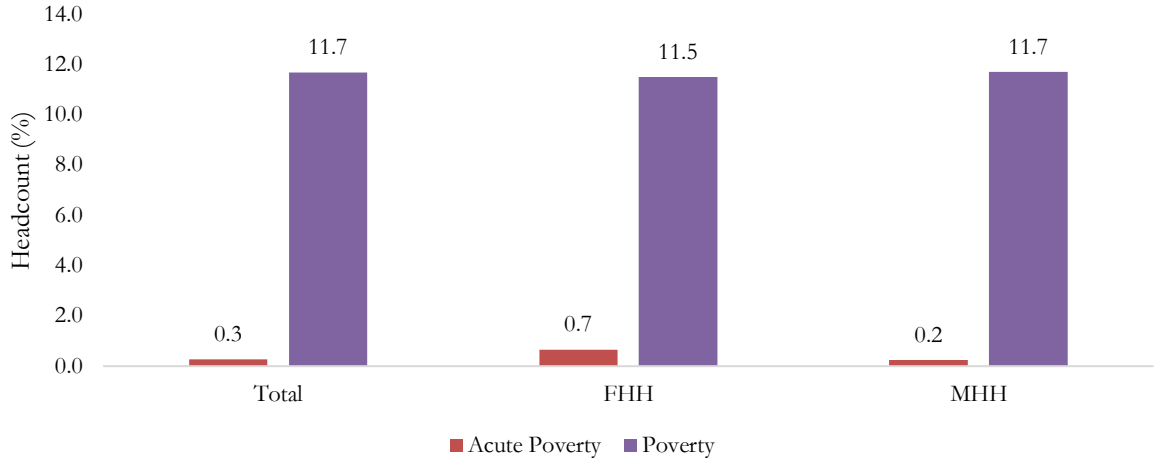
Figure 8: percentage contribution of indicators to acute poverty and poverty[13]



IV. INEQUALITY IN DEPRIVATION

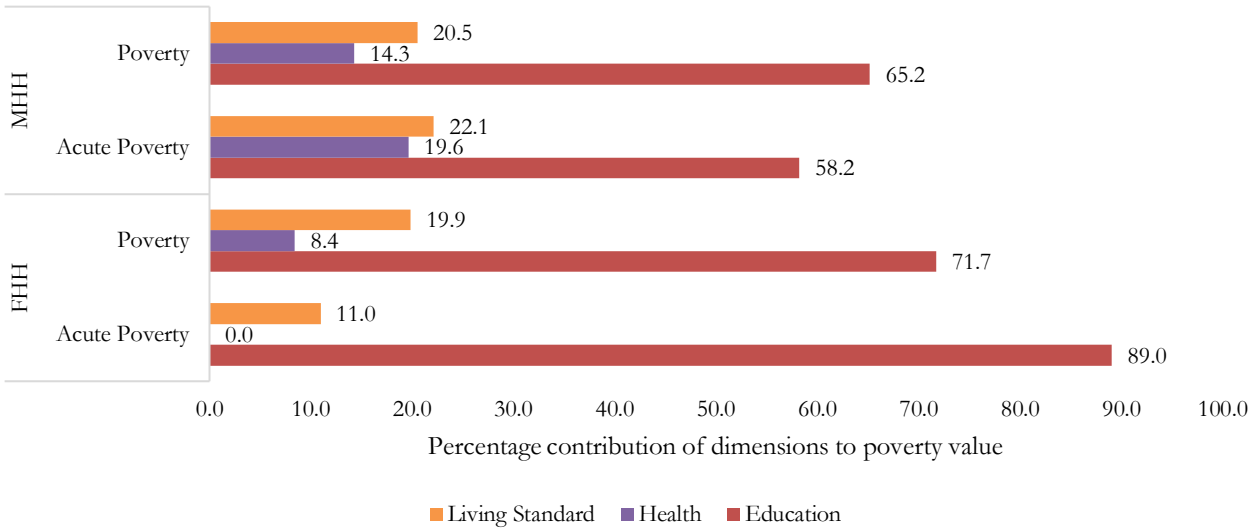
4.1 Figure 9 shows the difference in incidence of poverty between male-headed households (MHH) and female-headed households (FHH). In Jordan, FHH have a slightly higher headcount ratio at acute poverty, while the opposite is the case at poverty. However, in both cases the difference is minor and statistically not significant.

Figure 9: Poverty headcount by gender of household head (%)



4.2 Figure 10 shows the distribution of households by education of the head of household. In 6% of HHs in Jordan, the head of household has no or less than elementary education. Overall, 60.3% of population live in a household whose head has more than primary education. This is a higher share than most of the other countries examined by our profiles.

Figure 10: Contribution of each dimension to poverty value by gender of the household head (%)



4.3 As shown in Figure 12, multidimensional poverty decreases as the education of the head of household increases, in particular when education reaches more than preparatory. Acute poverty basically affects only heads of households with no education or elementary education. However, looking at poverty shows that while 19.2% of people in a household whose head has less than elementary education are poor, only 9% of people are poor that live in a household whose head has secondary education. The incidence of poverty is higher for heads with elementary and preparatory education than for heads without any formal education. The poverty headcount only drops significantly if the head of the household has received secondary or higher education.

Figure 11: Education level of household head across overall population

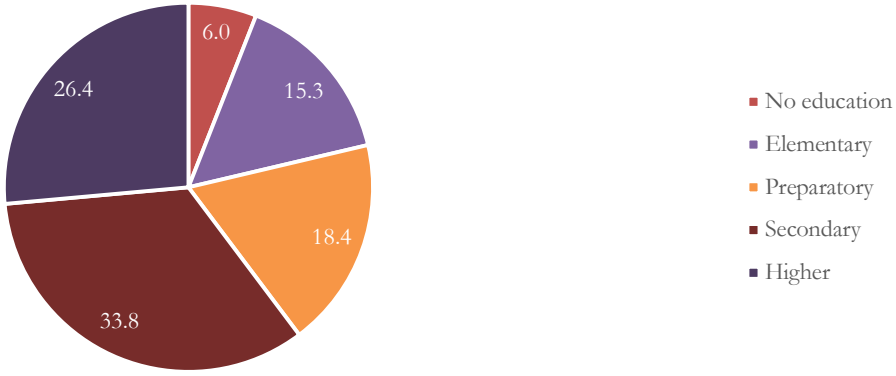
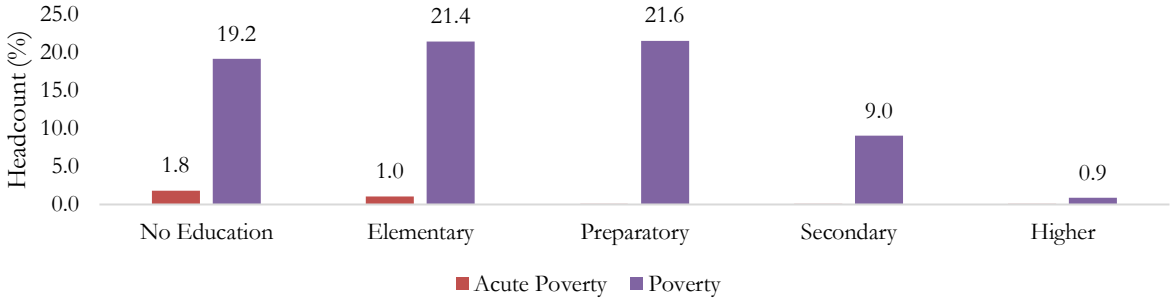


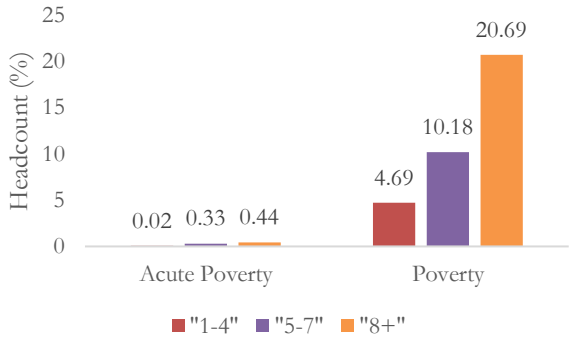
Figure 12: Headcount poverty at acute poverty and poverty by education of household head (%)



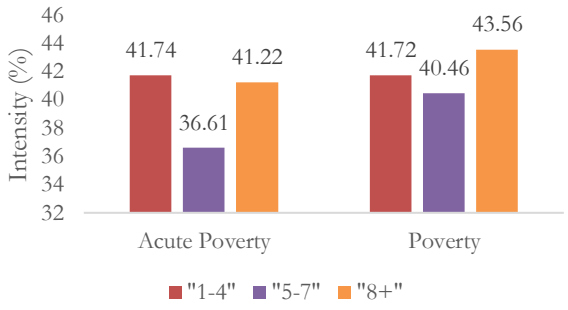
4.5 As shown in Figure 13, larger households (with more members) are only slightly more likely to be poor at acute poverty, but significantly more likely to be poor at poverty. At poverty, for example, households with more than 8 members are 4.4 times more likely to be poor than households with 1-4 members. The intensity of poverty shows no clear trend. At acute poverty, households 5-7 members show lower intensity. At poverty, larger households are more likely to experience more deprivations (especially for households with more than 8 members), but the trend is not linear. Medium –sized households experience less deprivations than smaller or larger households.

Figure 13: Headcount poverty (A) and intensity (B) for acute poverty and poverty by household size (%)

(A)



(B)

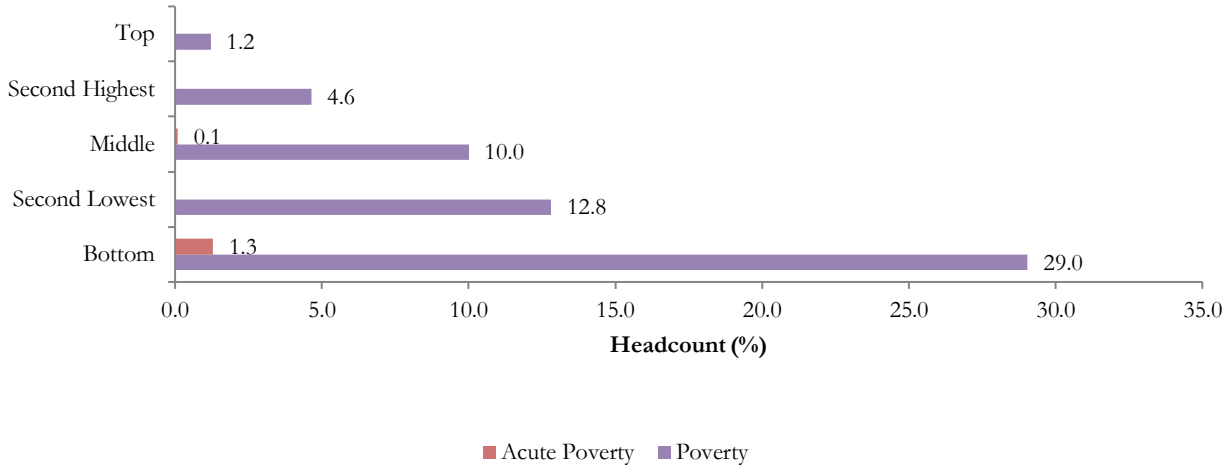


4.6 The survey also provides information about the Wealth Index (WI) of each household, which is an indicator of the economic situation of a household. The WI measures the household's ownership of assets and the quality of some of the assets. As shown in Figure 14, this information allows us to map the incidence of poverty across the different wealth quintiles. While it is expected for poverty to have a different incidence across different wealth quintiles due to the overlap between the MPI and the WI, the ratio is extremely high: households in the bottom quintile are 23.9 times more likely to be poor than those in the top quintile.

4.7 There are virtually no households in acute poverty in the top and second highest quintiles of the population in Jordan. The middle and second lowest quintile show a very low share of multidimensionally poor people, and 1.3% of the population is in the bottom quintile are multidimensionally poor.

4.8 At poverty, multidimensionally poor people are found across all wealth quintiles. However, people in the bottom quintile are 24 times more likely to be poor than people living in the top wealth quintile.

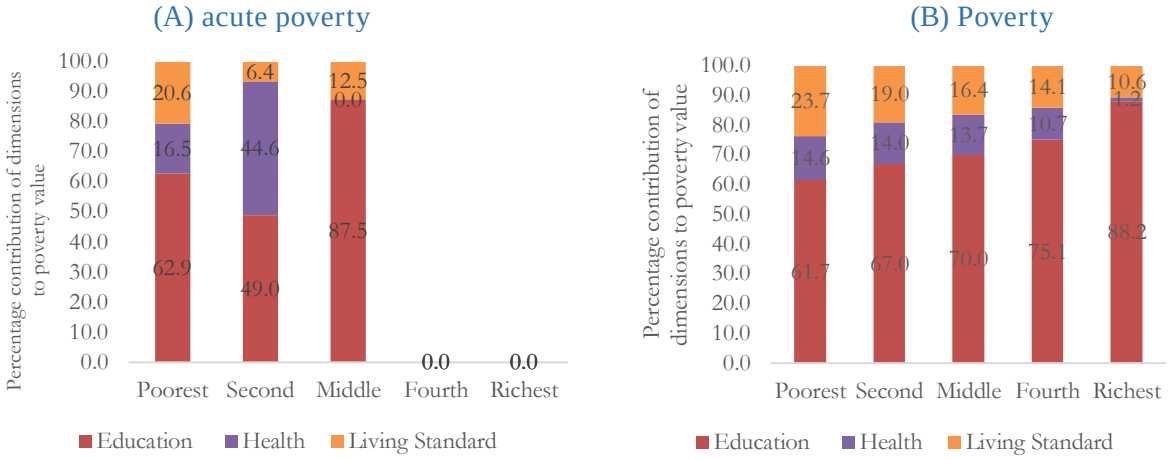
Figure 14: Headcount poverty (%) by wealth quintiles



4.9 As shown in Figure 15, the contribution of living standards to overall multidimensional poverty index declines as the wealth of the household increases, although the trend is not linear at acute poverty (but it is important to remember that the number of households in acute poverty in Jordan is extremely low). This is expected as the WI is positively correlated with the living standards dimension (for example through ownership of assets). As the contribution of living standards goes down with wealth, it is interesting to look at which dimension, education or health, fills the gap more. At poverty, the education dimension is the one that increases its contribution the most when going from the bottom to the second highest quintile, while the contribution of health drops in the top quintile.

4.10 As previously noted, there are virtually no households in Jordan that are acutely poor in the top and second highest quintiles given the sample size. At acute poverty, the contribution of health is considerably higher in the second lowest quintile than in the bottom one, while the contribution of health virtually disappears in the middle quintile.

Figure 15: Contribution of dimensions to multi-dimensional poverty by wealth quintiles



V. POLICY CONSIDERATIONS

5.1 In Jordan, a very low percentage (0.3%) of the total population suffers from acute poverty, while a larger share of the population (11.7%) suffers from poverty. The poverty intensity – the average proportion of indicators in which poor people are deprived is 38.6% for acute poverty and 42.1% for poverty. This means that the poor suffer from a relatively high level of simultaneous deprivation, which implies that poverty-reduction strategies in Jordan should tackle a variety of challenges at the same time.

5.2 While only 2.2% of the population are vulnerable to falling into acute poverty, 27.8% of Jordanians are vulnerable to falling into poverty. This highlights the need for policies to target the vulnerable share of the population to prevent people from falling into poverty.

5.3At acute poverty, Jordanians are particularly deprived in overcrowding and nutrition. Although Jordan is considered a country of high human development, pockets of food insecurity remain which is also emphasized by our findings. Thus, efforts to eliminate food insecurity and improve the nutrition situation should be continued.

5.4 For poverty, most of the population is deprived in the assets, overcrowding, years of schooling, school attendance, and nutrition indicators. This means that poverty-reduction strategies should consider prioritising education and nutrition. This is also confirmed by looking at the percentage contribution to poverty: the education indicators make the highest contribution at both levels, whereas child attendance contributes most at acute poverty and years of schooling at poverty. The indicator that contributes most besides the education indicators is the nutrition indicator. This means that education and nutrition should be a priority area for poverty-reducing interventions in the country.

5.5 There are literally no households in acute poverty when the head of household has received preparatory education or higher. At poverty, households where the head has not received secondary education or higher, are more likely to be poor than if the head of the household is educated. This points again to the need to improve access to secondary education.

5.6 Inequality in multidimensional poverty between the highest and lowest wealth quintiles in Jordan is sharp, suggesting a considerable gap in access to resources and capabilities between rich and poor households. Households in the bottom quintile are 24 times more likely to be poor than those in the top quintile. This suggests that policies should aim to reduce inequality among different strata of society in Jordan.

Table 1: Acute Poverty: Standard Errors and Confidence Intervals

		Mean	Standard error	95% confidence interval	
Headcount	Total	0.3	0.0356	0.2121	0.3516
Intensity	Total	38.6	0.5884	37.4709	39.7955
MPI	Total	0.001	0.0001	0.0008	0.0014
Headcount	Urban	0.2	0.0398	0.1549	0.3109
Intensity	Urban	36.4	0.4278	35.5714	37.2613
MPI	Urban	0.001	0.0001	0.0006	0.0011
Headcount	Rural	0.5	0.0788	0.3473	0.6563
Intensity	Rural	43.3	0.6181	42.0380	44.4799
MPI	Rural	0.002	0.0004	0.0015	0.0029

Table 2: Poverty: Standard Errors and Confidence Intervals

		Mean	Standard error	95% confidence interval	
Headcount	Total	11.7	0.2196	11.2498	12.1106
Intensity	Total	42.1	0.1166	41.8315	42.2886
MPI	Total	0.049	0.0009	0.0473	0.0510
Headcount	Urban	11.5	0.2575	10.9548	11.9642
Intensity	Urban	42.0	0.1372	41.7349	42.2728
MPI	Urban	0.048	0.0011	0.0460	0.0503
Headcount	Rural	12.7	0.3394	12.0072	13.3375
Intensity	Rural	42.3	0.1945	41.9073	42.6697
MPI	Rural	0.054	0.0015	0.0507	0.0564

Table 3: Acute Poverty Headcount: Standard Errors and Confidence Intervals for different characteristics

		Mean	Standard error	95% confidence interval	
Gender of the Head of Household	Female	0.7	0.2325	0.2004	1.1117
	Male	0.2	0.0319	0.1832	0.3082
Education of the Head of Household	None	1.8	0.3624	1.1092	2.5300
	Primary	1.0	0.1811	0.6690	1.3789
	Preparatory	0.0	0.0156	0.0135	0.0745
	Secondary	0.0	0.0069	0.0060	0.0330
	Higher	0.0	0.0031	0.0001	0.0122
	DK	0.0	(omitted)	0.0000	0.0000
Household Size	"1-3"	0.0	0.0073	0.0054	0.0338
	"4-7"	0.3	0.0654	0.1969	0.4534
	"8+"	0.4	0.0578	0.3260	0.5527
Wealth Quintile	Poorest	1.3	0.1745	0.9540	1.6382
	Second	0.0	0.0053	0.0061	0.0268

	Middle	0.1	0.0240	0.0427	0.1368
	Fourth	0.0	(omitted)	0.0000	0.0000
	Richest	0.0	(omitted)	0.0000	0.0000

Table 4: Poverty Headcount: Standard Errors and Confidence Intervals for different characteristics

		Mean	Standard error	95% confidence interval	
Gender of the Head of Household	Female	11.5	0.7677	9.9891	12.9984
	Male	11.7	0.2291	11.2491	12.1473
Education of the Head of Household	None	19.2	0.8838	17.4328	20.8972
	Primary	21.4	0.7088	20.0411	22.8197
	Preparatory	21.6	0.6996	20.2053	22.9477
	Secondary	9.0	0.3319	8.3743	9.6754
	Diploma / University	0.9	0.1388	0.5810	1.1252
	Non Standard	0.0	(omitted)	0.0000	0.0000
Household Size	"1-3"	4.7	0.2679	4.1626	5.2125
	"4-7"	10.2	0.3145	9.5639	10.7967
	"8+"	20.7	0.5157	19.6794	21.7010
Wealth Quintile	Poorest	29.0	0.6290	27.8043	30.2698
	Second	12.8	0.4794	11.8705	13.7497
	Middle	10.0	0.4792	9.0646	10.9429
	Fourth	4.6	0.4216	3.8125	5.4651
	Richest	1.2	0.1984	0.8235	1.6014

Table 5: Acute Poverty: Population deprived by indicator (%), Standard Errors and Confidence Interval

	Mean	Standard error	95% confidence interval	
Years of Education	1.6	0.0557	1.4796	1.6978
Child attendance	2.1	0.0646	2.0222	2.2753
Child Mortality	1.6	0.0552	1.4515	1.6678
Child Nutrition	11.5	0.1418	11.1786	11.7345
FGM/Early Pregnancy	1.9	0.0602	1.7430	1.9788
Electricity	0.4	0.0271	0.3194	0.4258
Sanitation	0.3	0.0261	0.2928	0.3949
Water	1.3	0.0498	1.1697	1.3649
Floor/Roof	0.1	0.0152	0.0865	0.1459
Cooking Fuel	0.0	0.0077	0.0151	0.0454
Overcrowding	14.5	0.1569	14.2317	14.8469
Assets	1.4	0.0514	1.2510	1.4526

Table 6: Poverty: Population deprived by indicator (%), Standard Errors and Confidence Interval

	Mean	Standard error	95% confidence interval	
Years of Education	32.0	0.2551	57.9690	58.9689
Child attendance	15.6	0.2014	18.1975	18.9870
Child Mortality	1.6	0.0413	0.5600	0.7219
Child Nutrition	12.6	0.0992	3.6227	4.0115
FGM/Early Pregnancy	1.9	0.0267	0.2149	0.3197
Electricity	0.4	0.0411	0.5540	0.7151
Sanitation	0.3	0.1309	6.6090	7.1221
Water	7.7	0.2154	21.8671	22.7116
Floor/Roof	4.9	0.2346	28.4280	29.3477
Cooking Fuel	0.6	0.0360	0.4164	0.5577
Overcrowding	40.7	0.2232	24.2557	25.1308
Assets	68.9	0.2414	31.4960	32.4423

Table 7: Acute Poverty: Poverty Headcount (%) by State

	Mean	Standard error	95% confidence interval
Amman	0.3	0.0831	0.1113
Balqa	0.3	0.0701	0.1250
Zarqa	0.2	0.0467	0.0703
Madaba	0.3	0.0811	0.0973
Irbid	0.2	0.0691	0.0939
Mafraq	1.3	0.1581	0.9897
Jarash	0.3	0.0943	0.0823
Ajlun	0.1	0.0348	0.0014
Karak	0.2	0.0550	0.0478
Tafiela	0.0	(omitted)	0.0000
Ma'an	0.2	0.0649	0.0318
Aqaba	0.1	0.0324	0.0158

Table 8: Poverty: Poverty Headcount (%) by State

	Mean	Standard error	95% confidence interval
Amman	9.5	0.4662	8.5729
Balqa	11.1	0.4805	10.1994
Zarqa	14.0	0.5466	12.9016
Madaba	8.1	0.4280	7.2548
Irbid	12.7	0.4824	11.7772
Mafraq	17.7	0.5889	16.5280
Jarash	14.0	0.5588	12.9004

Ajlun	7.9	0.4254	7.0977
Karak	11.8	0.5587	10.7276
Tafiela	6.6	0.4180	5.8295
Ma'an	25.7	1.1623	23.4394
Aqaba	9.6	0.6417	8.3221

Bibliography

Alkire, S. and Foster, J. (2011). 'Counting and Multidimensional Poverty Measurement'. Journal of Public Economics 95(7-8) 2011, 476-487

Alkire, S., Jindra, C., Robles, G., and A., Vaz, (2016). Multidimensional Poverty Index : Summer 2016. Brief Methodological Note and Results. OPHI Briefing 42. University of Oxford. http://www.ophi.org.uk/wp-content/uploads/OPHIBrief_42_MPI_meth_note_2016.pdf

Department of Statistics [Jordan] and ICF International. (2013). Jordan Population and Family Health Survey 2012. Calverton, Maryland, USA: Department of Statistics and ICF International.

ESCWA, LAS, UNICEF, OPHI (2017). Arab Multidimensional Poverty Report

Sen, Amartya K. (1985). Commodities and Capabilities, Oxford: Elsevier Science Publishers.

Sen, Amartya K. (1999). Development As Freedom, Oxford: Oxford University Press.

World Bank 2016 a. Hashemite Kingdom of Jordan - Promoting Poverty Reduction and Shared Prosperity - Systematic Country Diagnostic. Report No. 103433-JO

World Bank 2016 b. Country Partnership Framework for Hashemite Kingdom of Jordan for the Period FY17-22. Report No. 102746-JO.

World Food Program (WFP) 2014. The State of Food Security in Jordan (2013-2014) Analytical Report.

[1] Country classification corresponds to the Word Bank standards for the fiscal year 2017 as follows: lower middle-income economies are those with a GNI per capita between $1,026 and $4,035; upper middle-income economies are those with a GNI per capita between $4,036 and $12,475; high-income economies are those with a GNI per capita of $12,476 or more (World Bank). GNI per capita is also used to in the Human Development Index (HDI) to measure the dimension decent standard of living.

[2] The HDI is a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. A long and healthy life is measured by life expectancy. Knowledge level is measured by mean years of education among the adult population, which is the average number of years of education received in a life-time by people aged 25 years and older; and access to learning and knowledge by expected years of schooling for children of school-entry age. http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf

[3] Arab Multidimensional Poverty Report was launched in September 2017 as a joint publication of the League of Arab States' Council of Arab Ministers for Social Affairs, the Economic and Social Commission for Western Asia (ESCWA), the United Nations Children's Fund (UNICEF), and Oxford Poverty and Human Development Initiative (OPHI).

[4] For more information see https://dhsprogram.com/

[5] According to UNESCO guidelines, the definition of primary schooling and secondary schooling is country-specific, as different countries have different durations of primary and secondary schooling. Therefore, our thresholds change according to the definitions of primary and secondary schooling of each country found on the UNESCO website.

[6] No data on FGM were collected in Jordan. Accordingly, early pregnancy/FGM indicator depends only on the age of first birth. For that reason, the two levels of this indicator are identical.

[7] No information on separate rooms used for cooking is available. Thus, the indicator remains the same at the two levels of analysis.

[8] The assets of Information are: phone (mobile or fixed), radio, TV, internet, computer. The assets of Mobility are only the car. The assets of Livelihood are: refrigerator, AC, and water heater.

[9] As the car is the only asset of mobility available from the DHS survey, the definition of the asset indicator at the poverty level considers any person with less than two mobility assets as deprived, the indicator is adjusted to consider a household without a car as deprived in this indicator. In Jordan, only 52% of the have a car/truck (See DOS and IFC, 2013, p. 15). Around half of the population is by default deprived in the assets indicator at the poverty level because they do not own a car/truck

[10] The definition of rural and urban areas follows the national definitions used in the survey and therefore changes from country to country.

[11] The results of the DHS survey 2012 are representative for the country as a whole, for the urban and rural areas separately, and for each of the 12 governorates of the country (DOS and IFC, 2013).

[12] Refer to the technical note of the Human Development Report 2014 for a complete explanation of how the percentage contribution of each dimension is calculated.

[13] Indicators with contributions of less than 0.3 % are not represented in the graph