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Country Background Paper

Multidimensional Poverty in Egypt



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Acknowledgments

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1. Introduction

- 1.1. Egypt is a lower-middle income country¹ in North Africa. **Error! Reference source not found.** shows some of the main socio-economic indicators for Egypt. The Human Development Index (HDI) – a measure of basic human development achievements in a country – for Egypt stood at 0.691 in 2015, which puts the country in the medium human development category, positioning it 111th out of 188 countries and territories. Money metric poverty is high in Egypt, with 27.8% of the population below the national poverty line in 2015 (the most recent year for which data is available).
- 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 Egypt. It is one of several country profiles prepared by ESCWA as background papers for the Arab Multidimensional Poverty Report² making use of the new Multidimensional Poverty Index proposed for the Arab States (Arab MPI).

Table 1: Main socio-economic indicators for Egypt

Indicators	Value (2015 if not indicated otherwise)
Population	93,778.17
GDP (current US\$)	US\$ 332.7 billion
GNI per capita, Atlas method (current US\$)	US\$ 3,360
Human Development Index (HDI ³)	0.691
Life expectancy at birth	71.3 years
Expected years of schooling	13.1 years
Mean years of schooling	7.1 years
GNI per capita (2011 PPP\$)	US\$ 10,064
Human Development 2014 rank	111 (over 188 countries)
Gender Development Index	0.884
Inequality adjusted HDI	0.491
GINI Index	31.8
Poverty headcount ratio at national poverty lines (% of population)	27.8%
Gross enrolment ratio (primary)	103.9% (2014)

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

- 1.3. As shown in **Error! Reference source not found.** below, Egypt's GDP growth has faced several crises and volatility over the past decade. GDP grew between 2003-2008 and declined in 2009 as a

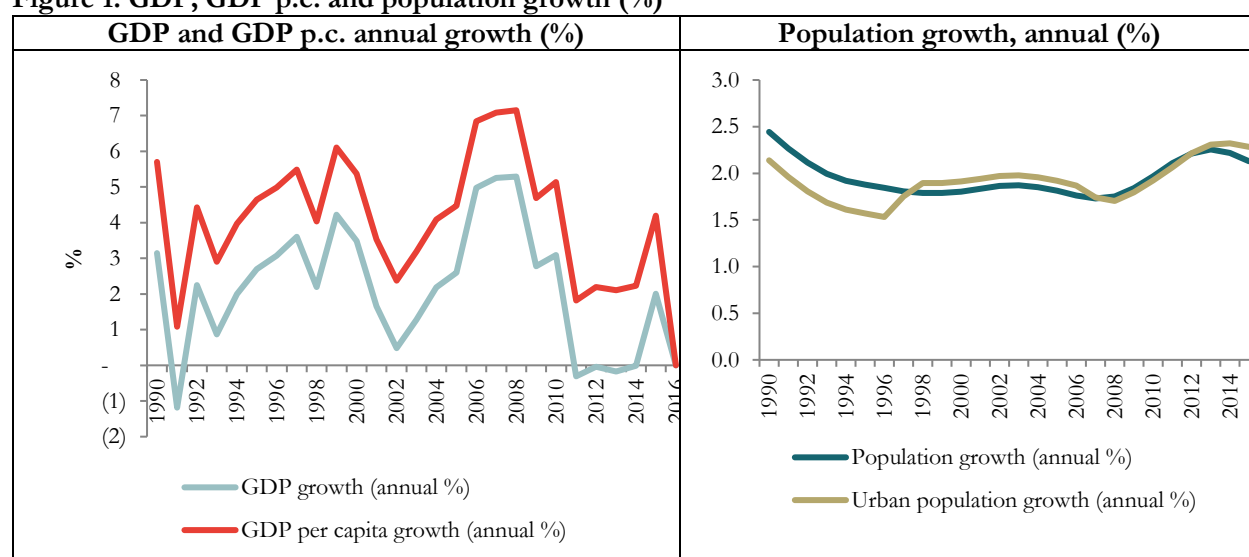
¹ Country classification corresponds to the World Bank standards for the fiscal year 2017 as follows: lower middle-income economies are those with a GNI per capita, calculated using the World Bank Atlas method, between \$1,026 and \$4,035; upper middle-income economies are those with a GNI per capita 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 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 United Nation's Economic and Social Commission for Western Asia (ESCWA), the United Nations Children's Fund (UNICEF), and Oxford Poverty and Human Development Initiative (OPHI).

³ 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/all/themes/hdr_theme/country-notes/EGY.pdf

consequence of the global economic crisis and took another hit in 2011 in the aftermath of the revolution that ousted Housni Mubarak. After the revolution, GDP growth shows signs of recovery starting from 2015. The growth of GDP p.c. has been lower than that of GDP in Egypt over the past two decades (World bank, 2015). According to data from the Central Agency for Public Mobilisation and Statistics of Egypt (CAPMAS), despite strong economic growth in the 2000s, the poverty rate in Egypt increased from 16.7% in 1999-2000 to 26.3% in 2012-13 and 27.8% in 2014-15 (see CAPMAS, 2015). Over the past five years, millions of middle-class and low-income Egyptians have seen their living standards deteriorate due to, among other factors, rising inflation, high unemployment rates and stagnant household incomes. For evidence on the increase in poverty in Egypt over the past decade see for example Marotta and Yemtsov (2010). These results are consistent with large inequality in Egypt, as confirmed by our analysis: we find that households in the bottom wealth quintile are 26 times more likely to be acutely poor and almost 8 times more likely to be poor than those in the top quintile.

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



Source: World Bank (2017).

- 1.4. According to the WFP (2015), an estimated 13.7 million Egyptians or 17% of the population suffered from food insecurity in 2011, compared to 14% in 2009. These situation is mirrored in our results, which shows that nutrition as the indicator with the highest deprivation headcount at acute poverty. According to WFP, the negative change in food security is due to rising poverty rates and a succession of crises from 2005 - including the avian influenza epidemic in 2006, the food, fuel and financial crises of 2007–09 and a challenging macroeconomic context in more recent years.
- 1.5. With over 90 million inhabitants - two-thirds of which are below 29 years – Egypt has the largest population in the Arab world. Due to its extremely high birth rate (around 2.5 million are born every year), Egypt also has a very youthful population: one-third of Egyptians is between 15 and 29 years old. These youths suffer from high unemployment: according to CAPMAS, 70% of the 3.7 million persons unemployed in 2014 were between 15 and 29 years old,. Thus, youth unemployment is a main challenge for stability and economic inclusion. (World Bank, 2015).
- 1.6. As our results show, FGMs and early pregnancies are disproportionately high in Egypt given its level of economic development. FGM alone (isolated from early pregnancy) affects 87% of women aged 15-29 (as captured in the survey used here), and this percentage is confirmed by UNICEF data. This is the fifth highest incidence of FGM in the world, placing Egypt after Somalia, Guinea, Djibouti,

Sierra Leone and Mali (UNICEF, 2016). Gender parity is an area of concern for Egypt: in the Gender Gap Report 2016 of the World Economic Forum (WEF), Egypt ranks particularly low given its level of income, 132nd out of 144 countries. In particular, within the WEF index, Egypt ranks low in the Economic Participation and Opportunity pillar, which includes indicators such as labour force participation of women and wage equality (World Economic Forum, 2016). As an example of these disparities, only 23% of women participate in the labour market compared to 74% for men (UNDP, 2015). In 2015, a survey commissioned by CAPMAS, the United Nations Fund for Population Agency (UNFPA) and the National Council for Women (NCW) found that gender-based violence cost Egyptian women and their families an estimated EGP 2.17 billion and could be as high as EGP 6.15 billion (around US\$ 340 million). Unlocking the potential of Egyptian women, and eradicating FGM and early pregnancies appear to be priorities for the future economic competitiveness of the country (CAPMAS, UNFPA, and NCW, 2015).

2. Data and Methodology

- 2.1. Multi-dimensional poverty measures multiple deprivations in basic services and capabilities, such as poor health, lack of education or illiteracy, and lacking access to safe drinking water. The multi-dimensional 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 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 aggregate 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 intensity of poverty. 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 intensity of poverty can be calculated. The intensity of poverty (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 intensity of poverty 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 Egypt, conducted in 2014, covers 117, 561 individuals. It provides data on education, health and working status for all members of the household; 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.).

⁴ For more information see <https://dhsprogram.com/>

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
	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).	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 ⁶	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. ⁷	Household cooks with solid fuels: wood, charcoal, crop residues or dung or no food is cooked in the household	1/21

⁵ According to UNESCO guidelines, the definition of primary schooling and secondary schooling is country-specific. In Egypt, primary education consists of 6 years of education and preparatory and secondary education of 3 years each (12 years in total). The entry age for primary education is 6 years, which means that a child of primary school age is between 6-12 years and a child of school-age is between 6-18 years

⁶ Data of Egypt DHS 2014 does not include any information about the roof of the house; accordingly, this indicator depends only on the floor material for the two levels of MPI

⁷ Data of Egypt DHS 2014 does not include any information about the cooking fuel. Accordingly, the weights of indicators of living standard dimension are re-weighted, where each indicator will take 1/18 and not 1/21 because only 6 variables were included in standard of living dimension (not 7 indicators).

			or does not have a separate room for cooking.	
	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

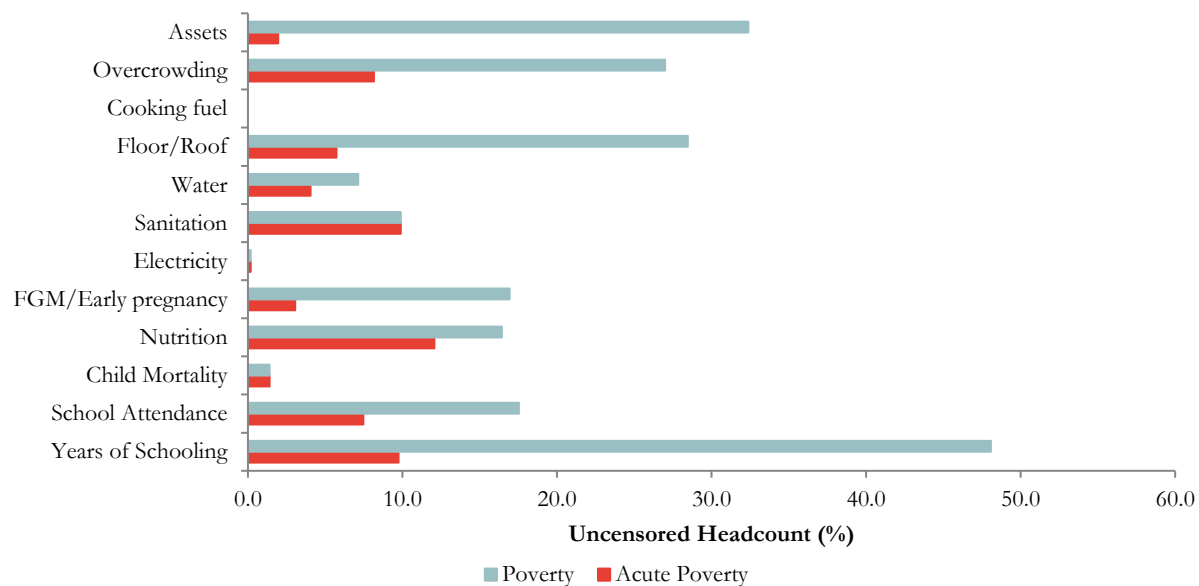
⁸ Data of Egypt does not include any information about the availability of internet connection. Accordingly, the information indicator includes only 4 variables, namely; phone, radio, TV and computer. Additionally, the data does not include any information about the motorboat, thus the mobility variable will only include the bicycle, motorbike, animal cart and car.

3. 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 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 (or raw) headcount ratio, as it considers the deprivations of the total population before identifying the poor.

Figure 2: Incidence of Deprivation for each indicator for the total population



3.1.2. At acute poverty, 12.1% of Egyptians are deprived in the nutrition indicator, followed by sanitation (9.9%) and years of schooling (9.7%). The primacy of the nutrition indicator is unusual for a lower middle-income country: as discussed in the first part of this paper, in recent years Egyptians are facing decreasing food security and increasing food prices. As this data is from 2014, it is likely to underestimate the contribution of nutrition to poverty in Egypt. The impact of the economic reforms linked to the IMF loan, in particular the revision of the subsidies reforms, are likely to impact on food security and nutrition of the poor and most vulnerable population (UNHCR, 2016). However, these steps are part of a strategy to move away from inefficient and generalized subsidies to more efficient and better poverty targeted social safety nets, and the government of Egypt has adopted a package of social protection/social safety net mitigating measures to reduce negative impacts on the poor (IMF, 2017).

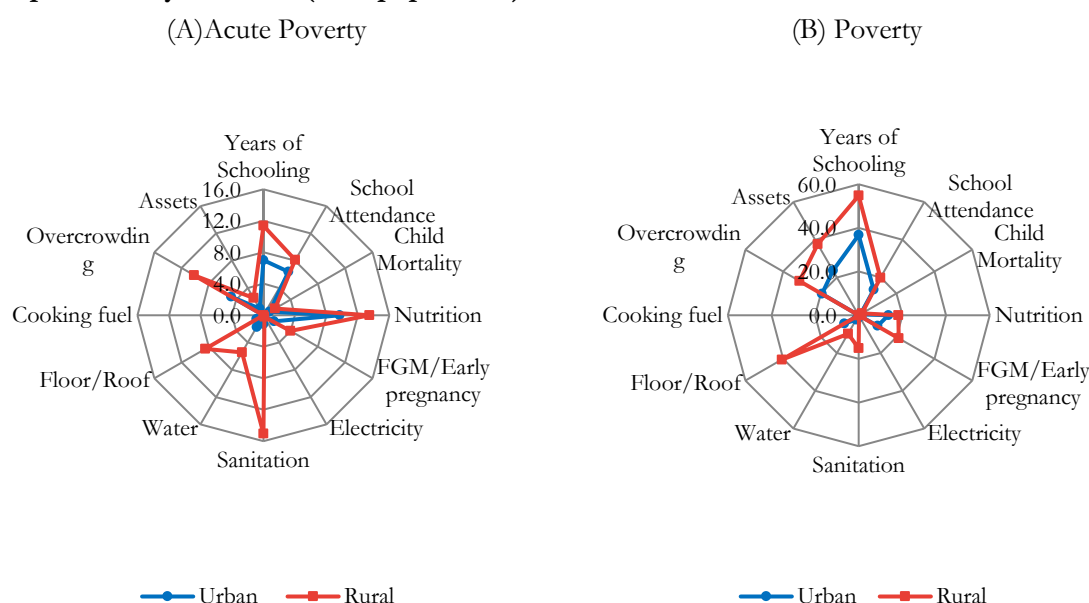
3.1.3. At poverty, most of the population is deprived in years of schooling (48.1% headcount), followed by assets (32.4%) and floor/roof (28.5%). Note that no data has been collected for the cooking fuel indicator in Egypt

3.1.4. The indicators that show a particularly large jump in headcount when looking at poverty relative to acute poverty are years of schooling, assets and floor/roof. While acute poverty defines deprivation in years of schooling as when no household member has completed primary education, poverty defines

it as when no household member has completed secondary education. This difference drives a large jump in the indicator between the two levels, implying that Egypt has a significant gap in secondary education.

- 3.1.5. **Error! Reference source not found.** shows headcount deprivation on each indicator for acute poverty (A) and poverty (B) for urban and rural areas. The biggest differences in headcount between urban and rural population (with the rural population being significantly more deprived than the urban one) at acute poverty can be observed in sanitation, floor/roof and overcrowding. At poverty, the biggest differences in headcount between urban and rural population (with the rural population being significantly more deprived than the urban one) are in floor/roof, years of schooling and sanitation. These differences point to the urgency of addressing deprivations in housing conditions and services in rural areas of Egypt.

Figure 3: Deprivation by indicator (% of population)



3.2. Incidence of Censored Deprivation in the Arab MPI indicators

- 3.2.1. Table 3**Error! Reference source not found.** compares the incidence of uncensored and censored deprivations. As we saw above, the uncensored headcount ratios give the percentage of population who is deprived in an indicator regardless of their multidimensional poverty status. The censored headcount ratio measures the proportion of the population who is identified as multidimensionally poor, according to the selected poverty (and acute poverty) cut-off point (set here at $k=33.3\%$), and who is deprived of each of the indicators. By definition, the censored headcount ratio for any indicator is less than or equal to the poverty (or acute poverty) headcount ratio. Assessing the difference between censored and uncensored headcount ratios allows the assessment of the extent of overlap between deprivation and multidimensional poverty.

Table 3: Uncensored and Censored Headcount Ratio

<i>Indicator</i>	Acute Poverty		Poverty	
	% of total population deprived in...	% of multidimensional poor people and deprived in...	% of total population deprived in...	% of multidimensional poor people and deprived in...
<i>Years of Schooling</i>	9.7	2.1	48.1	24.8
<i>School attendance</i>	7.5	2.0	17.5	12.7
<i>Child Mortality</i>	1.4	0.3	1.4	1.0
<i>Child Nutrition</i>	12.1	1.5	16.4	10.2
<i>FGM/Early Pregnancy</i>	3.1	0.8	16.9	10.9
<i>Electricity</i>	0.2	0.0	0.2	0.1
<i>Sanitation</i>	9.9	0.8	9.9	5.1
<i>Water</i>	4.1	0.3	7.1	3.5
<i>Floor/Roof</i>	5.7	0.7	28.5	13.9
<i>Cooking Fuel</i>	-	-	-	-
<i>Overcrowding</i>	8.2	1.2	27.0	13.6
<i>Assets</i>	2.0	0.4	32.4	15.5

3.3. Multidimensional poverty headcount, Intensity, and MPI

3.3.1. In Egypt, a very small percentage (3.0%) of the population suffers from acute poverty, while a larger share of the population (27.2%) suffers from poverty (Table 4). The intensity of poverty – the average proportion of indicators in which poor people are deprived – is high at both levels: 38.6% for acute poverty and 42.6% for poverty. This means that the poor suffer from a relatively high level of deprivation. Furthermore, the multidimensional poverty headcount is significantly higher by over 2.2 times in rural⁹ than in urban areas for both poverty and acute poverty. Poverty intensity varies only slightly between rural and urban areas, and the variations are more significant at poverty than at acute poverty. This means that while people in rural areas are significantly more likely to be poor, poor people in rural areas are not likely to experience a much higher degree of deprivation than poor people in urban areas.

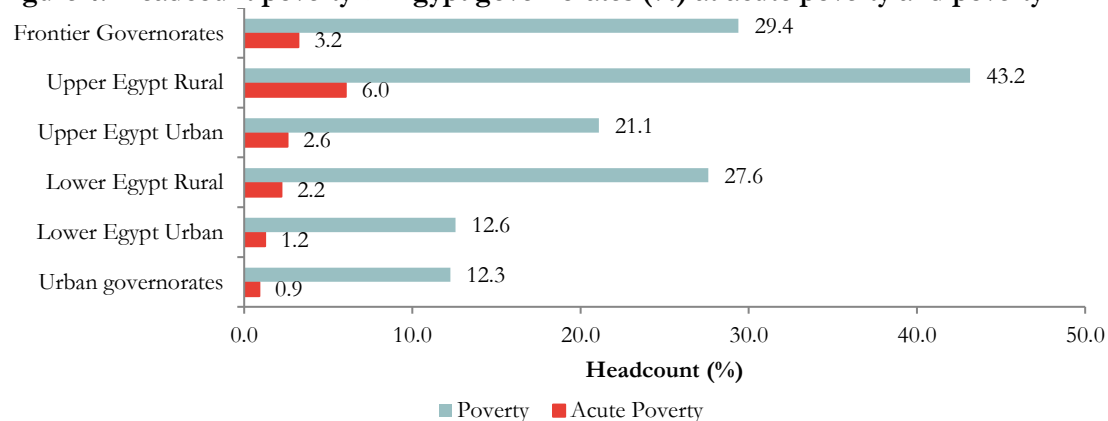
Table 4: Headcount poverty, intensity and poverty value at national level and in urban and rural areas

Acute poverty			
	Headcount (H) (%)	Intensity (A) (%)	Multidimensional Poverty Index (MPI) (HxA) (%)
Total	3.0	38.6	0.012
Urban	1.6	38.8	0.006
Rural	3.8	38.6	0.015
Poverty			
	Headcount (%)	Intensity (%)	Multidimensional Poverty Index (MPI) (HxA) (%)
Total	27.2	42.6	0.116
Urban	15.3	40.7	0.621
Rural	34.3	43.1	0.147

⁹ The definition of rural and urban areas follows the national definitions used in the survey and therefore changes from country to country.

3.3.2. Figure 4 shows multidimensional poverty headcount across the country's regions¹⁰. The Urban governorates are the least affected by poverty, while regions such as Rural Upper Egypt and the Frontier governorates have the highest pockets of poverty. In Rural Upper Egypt, 43.2% of the population is poor and 6.0% is acutely poor. The regions less affected by poverty have nonetheless a high poverty headcount (the minimum is 12.3% in the Urban governorates). These findings are in line with those of recent research: for example, in 2013 analysis CAPMAS and UNICEF (2015) shows that monetary poverty rate was highest in Upper Egypt and specifically in rural Upper Egypt (51.2%), followed by Urban Upper Egypt (29.2 %), while it was lowest in Lower Egypt (Rural Lower Egypt with 17.4% and Urban Lower Egypt with 11.4%) and Urban (17.9%).

Figure 4: Headcount poverty in Egypt governorates (%) at acute poverty and poverty



3.3.3. Table 5 shows the distribution of the national population and of poor and acutely poor people across the country's regions. The last two columns of the table calculate the ratio of poor and acutely poor over the share of national population for each region. Regions with a ratio above 1 are particularly affected by poverty. At both levels, the Frontier governorates have the highest ratio of poor over share of population. At the other hand of the scale, the Urban governorates have the lowest ratios have a less disproportionate share of the poor relative to their share of national population.

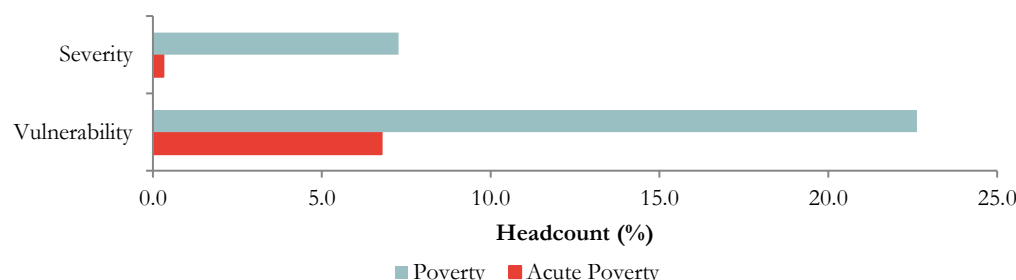
Table 5: Population shares and poverty headcount by region

	Share of survey population (%) (1)	Share of acutely poor population (%) (2)	Share of poor population (%) (3)	2/1	3/1
Urban governorates	14.0	4.2	6.3	0.30	0.45
Lower Egypt urban	10.8	4.5	5.0	0.41	0.46
Lower Egypt rural	35.8	26.4	36.3	0.74	1.01
Upper Egypt urban	12.0	10.3	9.3	0.86	0.78
Frontier governorates	26.6	53.6	42.2	2.02	1.59
Upper Egypt rural	0.9	0.9	0.9	1.08	1.08

¹⁰ The DHS 2014 Survey was designed to provide statistically representative estimates for the country as a whole and for six major subdivisions used in the paper (Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt, and the Frontier Governorates).

- 3.4. Someone is defined as poor if he or she is deprived in at least one third of the weighted indicators. Following OPHI's definition, individuals are 'vulnerable to poverty' when they are deprived in 20% – 33.3% of weighted indicators. Individuals are defined as in 'Severe Poverty' when they are deprived in 50% or more of the indicators.¹¹ As shown in Figure 5, only 0.3% are severely poor at acute poverty and only 6.8% of the population are vulnerable to falling into acute poverty. At poverty, however, the share of severely poor increases to 7.3% and a large share (22.6%) are vulnerable to falling into poverty.

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



- 3.5. The percentage contribution of each of the three dimensions to the Multidimensional Poverty Index¹² is a useful summary indicator¹³. As shown in Figure 6, in Egypt education contributes to more than

¹¹ Alkire et al., 2016

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 Refer to Egypt is a lower-middle income country in North Africa. **Error! Reference source not found.** shows some of the main socio-economic indicators for Egypt. The Human Development Index (HDI) – a measure of basic human development achievements in a country – for Egypt stood at 0.691 in 2015, which puts the country in the medium human development category, positioning it 111th out of 188 countries and territories. Money metric poverty is high in Egypt, with 27.8% of the population below the national poverty line in 2015 (the most recent year for which data is available).

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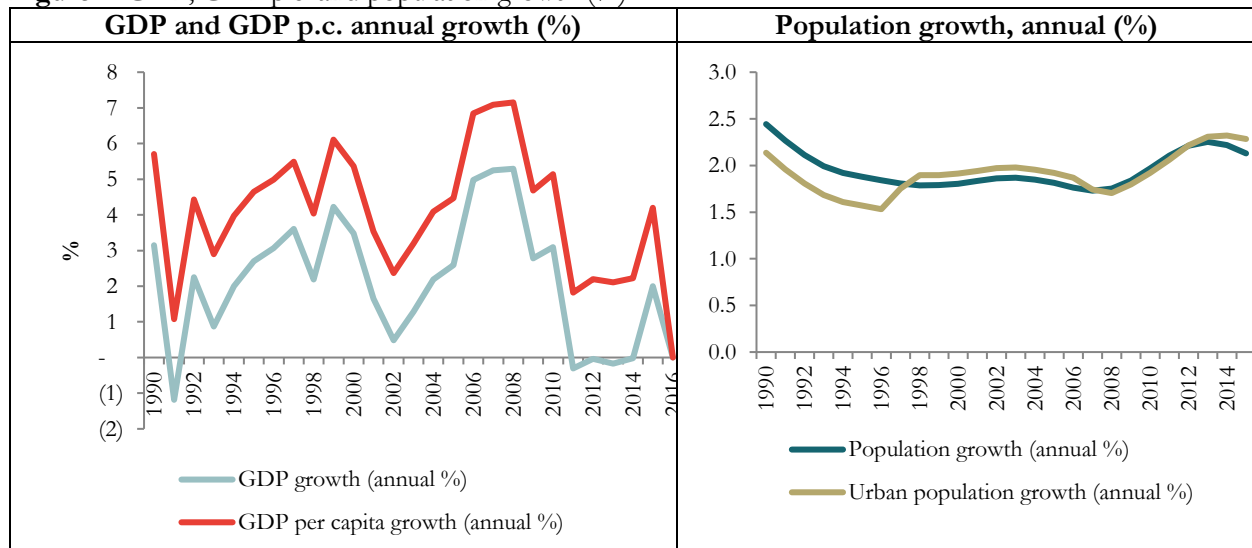
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Poverty headcount ratio at national poverty lines (% of population)	27.8%
Gross enrolment ratio (primary)	103.9% (2014)

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

- 1.2. As shown in **Error! Reference source not found.** below, Egypt's GDP growth has faced several crises and volatility over the past decade. GDP grew between 2003-2008 and declined in 2009 as a consequence of the global economic crisis and took another hit in 2011 in the aftermath of the revolution that ousted Housni Mubarak. After the revolution, GDP growth shows signs of recovery starting from 2015. The growth of GDP p.c. has been lower than that of GDP in Egypt over the past two decades (World bank, 2015). According to data from the Central Agency for Public Mobilisation and Statistics of Egypt (CAPMAS), despite strong economic growth in the 2000s, the poverty rate in Egypt increased from 16.7% in 1999-2000 to 26.3% in 2012-13 and 27.8% in 2014-15 (see CAPMAS, 2015). Over the past five years, millions of middle-class and low-income Egyptians have seen their living standards deteriorate due to, among other factors, rising inflation, high unemployment rates and stagnant household incomes. For evidence on the increase in poverty in Egypt over the past decade see for example Marotta and Yemtsov (2010). These results are consistent with large inequality in Egypt, as confirmed by our analysis: we find that households in the bottom wealth quintile are 26 times more likely to be acutely poor and almost 8 times more likely to be poor than those in the top quintile.

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



Source: World Bank (2017).

- 1.3. According to the WFP (2015), an estimated 13.7 million Egyptians or 17% of the population suffered from food insecurity in 2011, compared to 14% in 2009. These situation is mirrored in our results, which shows that nutrition as the indicator with the highest deprivation headcount at acute poverty. According to WFP, the negative change in food security is due to rising poverty rates and a

succession of crises from 2005 - including the avian influenza epidemic in 2006, the food, fuel and financial crises of 2007–09 and a challenging macroeconomic context in more recent years.

- 1.4. With over 90 million inhabitants - two-thirds of which are below 29 years – Egypt has the largest population in the Arab world. Due to its extremely high birth rate (around 2.5 million are born every year), Egypt also has a very youthful population: one-third of Egyptians is between 15 and 29 years old. These youths suffer from high unemployment: according to CAPMAS, 70% of the 3.7 million persons unemployed in 2014 were between 15 and 29 years old. Thus, youth unemployment is a main challenge for stability and economic inclusion. (World Bank, 2015).
- 1.5. As our results show, FGMs and early pregnancies are disproportionately high in Egypt given its level of economic development. FGM alone (isolated from early pregnancy) affects 87% of women aged 15-29 (as captured in the survey used here), and this percentage is confirmed by UNICEF data. This is the fifth highest incidence of FGM in the world, placing Egypt after Somalia, Guinea, Djibouti, Sierra Leone and Mali (UNICEF, 2016). Gender parity is an area of concern for Egypt: in the Gender Gap Report 2016 of the World Economic Forum (WEF), Egypt ranks particularly low given its level of income, 132nd out of 144 countries. In particular, within the WEF index, Egypt ranks low in the Economic Participation and Opportunity pillar, which includes indicators such as labour force participation of women and wage equality (World Economic Forum, 2016). As an example of these disparities, only 23% of women participate in the labour market compared to 74% for men (UNDP, 2015). In 2015, a survey commissioned by CAPMAS, the United Nations Fund for Population Agency (UNFPA) and the National Council for Women (NCW) found that gender-based violence cost Egyptian women and their families an estimated EGP 2.17 billion and could be as high as EGP 6.15 billion (around US\$ 340 million). Unlocking the potential of Egyptian women, and eradicating FGM and early pregnancies appear to be priorities for the future economic competitiveness of the country (CAPMAS, UNFPA, and NCW, 2015).

2. Data and Methodology

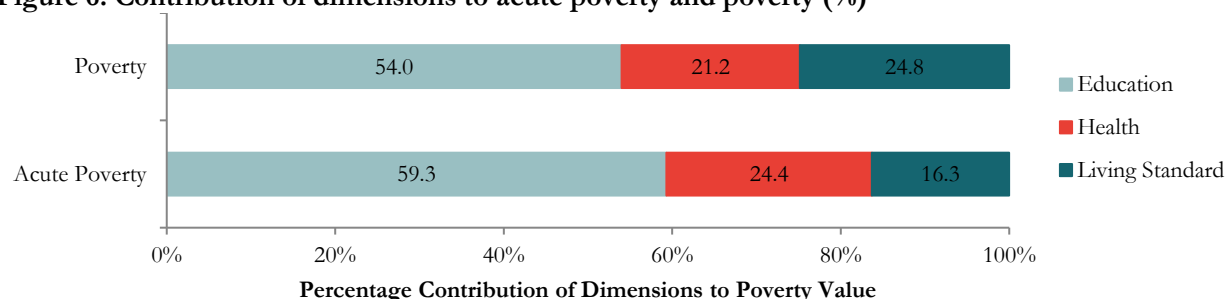
- 2.1. Multi-dimensional poverty measures multiple deprivations in basic services and capabilities, such as poor health, lack of education or illiteracy, and lacking access to safe drinking water. The multi-dimensional poverty approach complements monetary measures of poverty by considering these multiple 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 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 aggregate 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 intensity of poverty. 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 intensity of poverty can be calculated. The intensity of poverty (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 intensity of poverty 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.

half of total deprivation at both levels of poverty. At poverty, the contribution of living standards is significantly higher than at acute poverty.

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



- 3.6. 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 health is higher in rural areas. Education contributes more to acute poverty than it does to poverty.

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 (USAID). The survey for Egypt, conducted in 2014, covers 117, 561 individuals. It provides data on education, health and working status for all members of the household; 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.).

for more details on the composition of the dimensions.

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

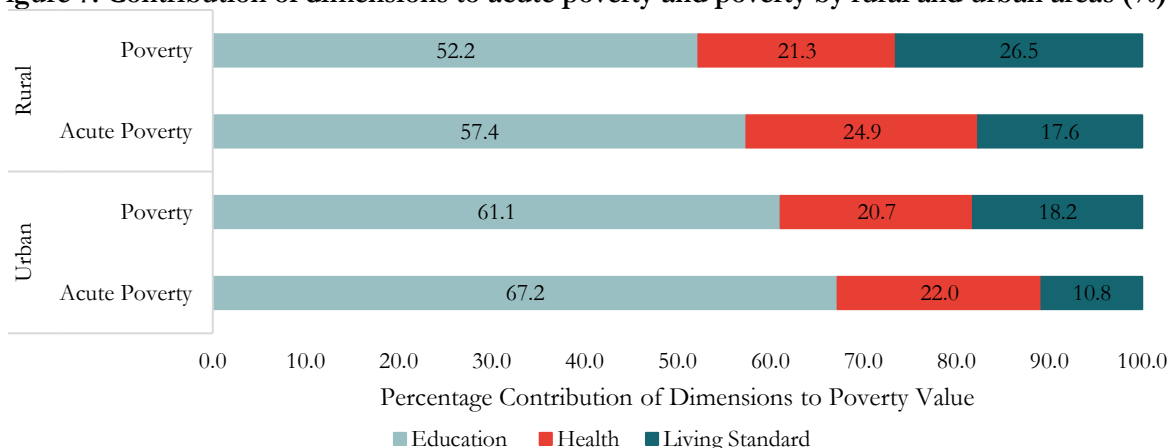
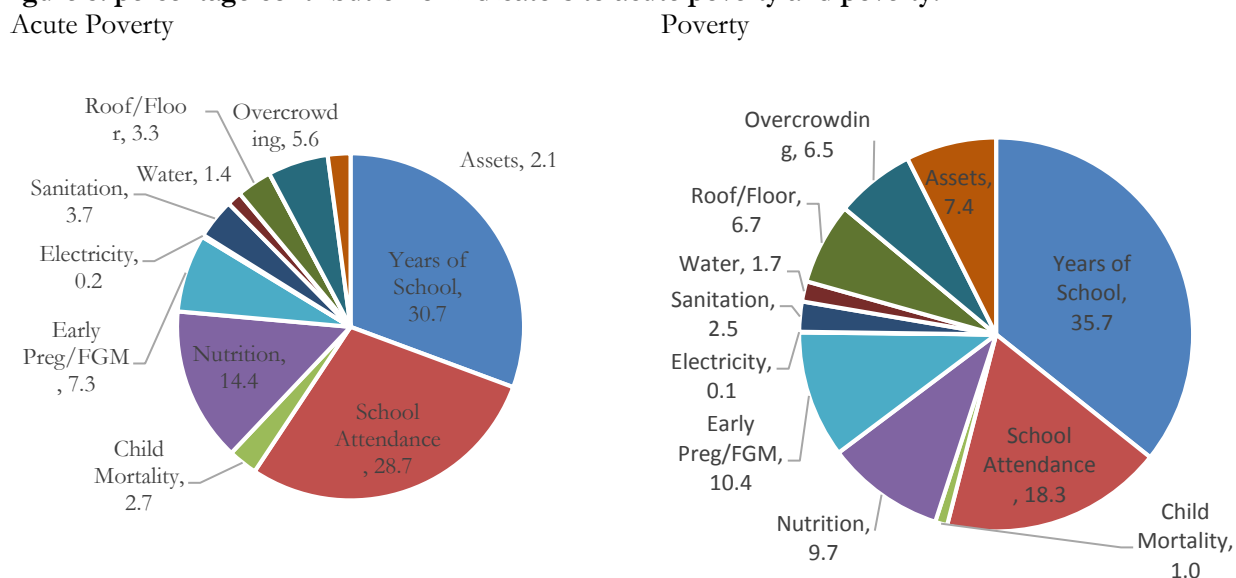


Figure 8 shows the percentage contribution of each indicator to acute poverty and poverty. Years of schooling makes the highest percentage contribution to poverty in Egypt at both levels of the MPI, followed by school attendance. This means that education should be a priority area for poverty-reducing interventions in the country. Egypt is no exception in this respect, as years of schooling and school attendance are the indicators that make the highest contributions to poverty in most of the Arab countries examined by our country profiles. When looking at acute poverty, nutrition is the indicator that makes the third largest contribution. However, when looking at poverty, FGM/Early pregnancy is. When looking at the poverty definition of the indicator (an individual living in a household where at least one woman less than 28 years old either got her first pregnancy before being 18 years old *or* has undergone FGM) the deprivation uncensored headcount is 16.9% (woman less than 28 years old either got her first pregnancy before being 18 years old or has undergone a female genital mutilation). This is the largest headcount for FGM *or* early pregnancy among the non-LDC Arab countries covered by our research. Egypt appears to have a more significant problem in FGM/early pregnancy than some LDC countries such as Yemen (14.4%) and Comoros (8.3%). Only Sudan and Mauritania have a higher incidence among the countries examined by our profiles. This result highlights how important it is for Egypt to tackle FGM and early pregnancies.

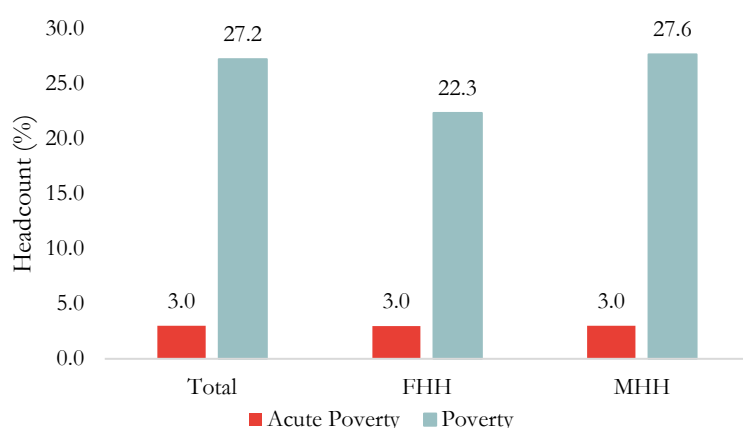
Figure 8: percentage contribution of indicators to acute poverty and poverty.



4. Inequality in Deprivation

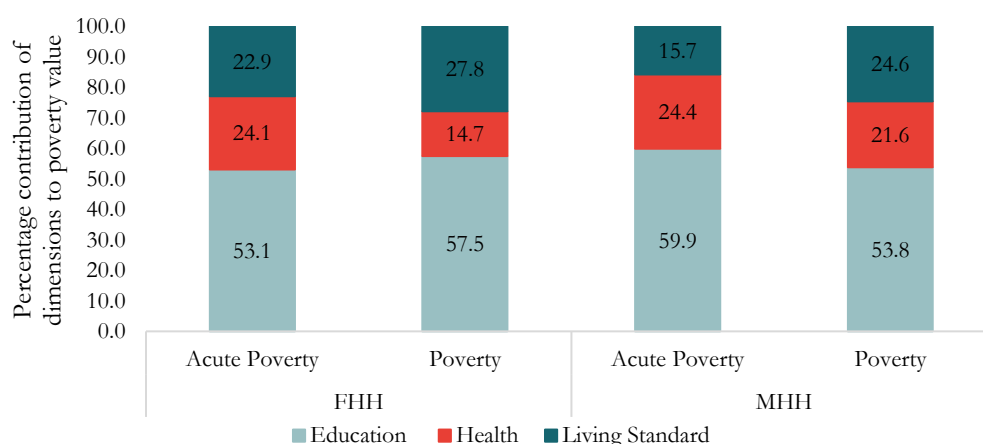
- 4.1. Figure 9 shows the difference in incidence of poverty between male-headed households (MHH) and female-headed households (FHH). While the poverty headcount at acute poverty is similar, at poverty FHH have a lower poverty headcount. This is in line with the findings from recent literature on poverty in FHHs and MHHs in Africa. For example, Milazzo and van de Valle (2015) find that the share of FHHs has been growing in Africa (due to changes in marriage behaviour, family formation, health and education) and that this has happened alongside a decrease in aggregate poverty incidence. In most countries in their data, poverty has declined faster for FHHs. The reasons behind this pattern are varied (better education of women, support received from male migrant worker members of the family, the fact that females tend to allocate a higher share of their income to family needs) and differ across countries.

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



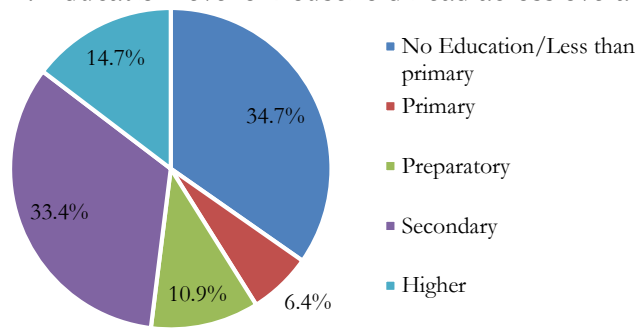
- 4.2. Figure 10 shows the contribution of each dimension to the overall poverty value by the gender of the household head. While at acute poverty education makes a larger contribution in MHHs, the opposite is true at poverty.

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



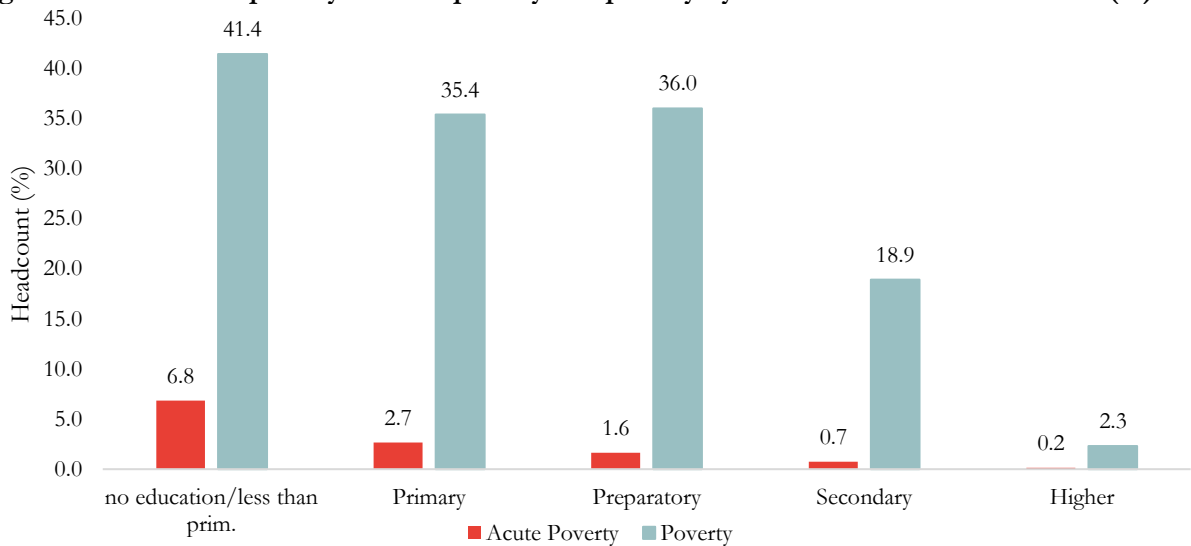
- 4.3. Figure 11 shows the distribution of households (HHs) by the education of the household head. In 34.7% of households in Egypt, the head of household has less than primary education. Overall, 59% of households in which the head has more than primary education.

Figure 11: Education level of household head across overall population



4.4. As shown in Figure 12, multidimensional poverty decreases as the education of the head of household increases, in particular at poverty and most significantly when reaching secondary education. While 41.4% of people in a household whose head has less than primary education are poor, only 18.9% of people in a household whose head has secondary education are, and only 2.3% in a household where the head has higher than secondary education. The trend is the same at acute poverty: households with a head with less than primary education, for example, are 2.57 times more likely to be poor than households with a head with primary education. The same trend (poverty dropping as education increases) applies to the intensity of poverty.

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

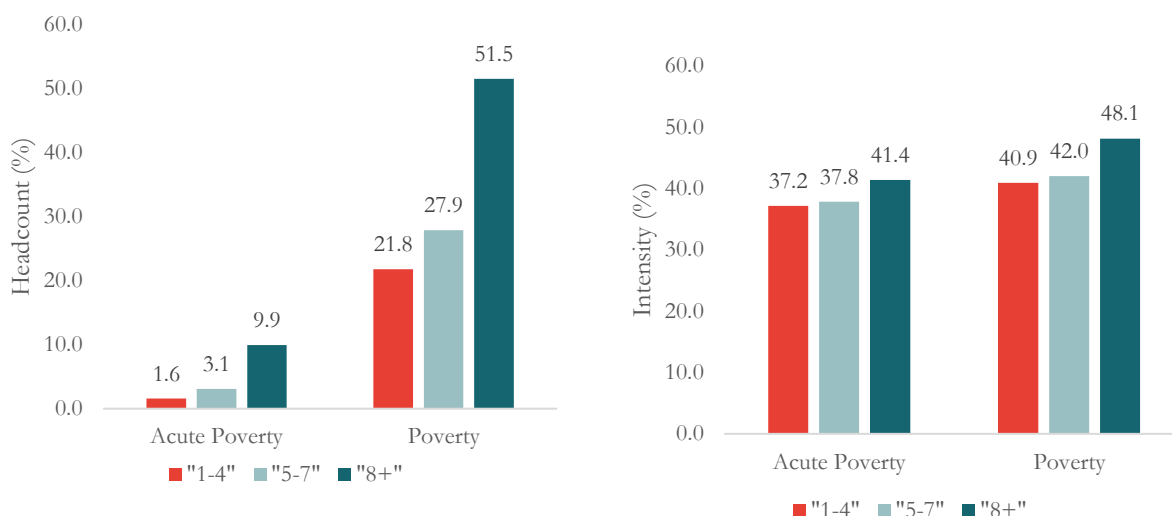


4.5. As shown in Figure 13**Error! Reference source not found.**, larger households (with more members) are significantly more likely to be poor at both levels of poverty, and the intensity of their poverty is likely to be higher (especially for households with more than 8 members).

Figure 13: Multidimensional poverty headcount and intensity for acute poverty and poverty by household size (%)

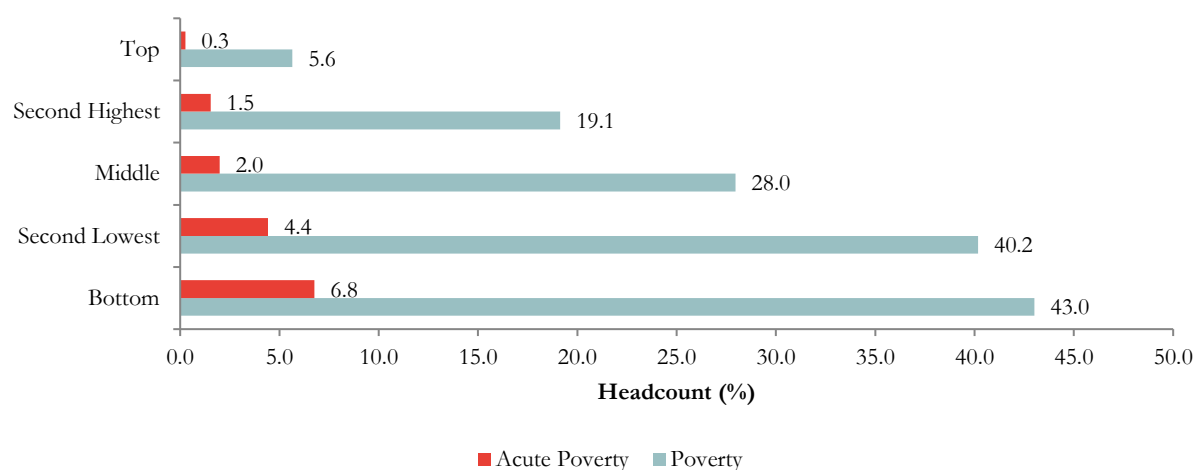
Headcount poverty

Intensity



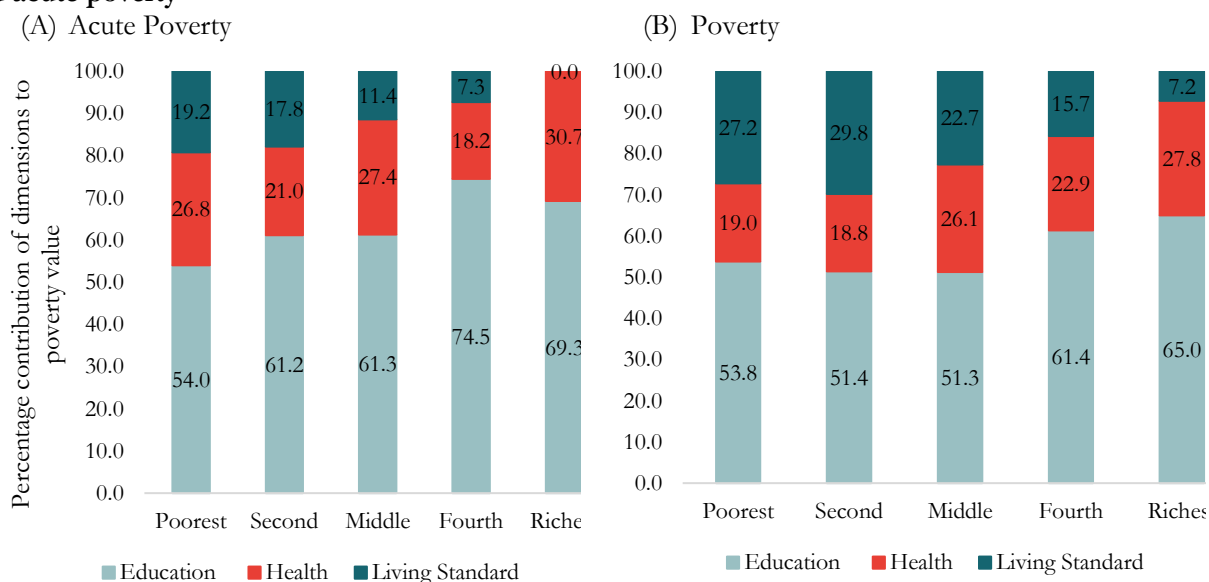
- 4.6. The survey also provides information about the Wealth Index (WI) of each household, which is an indicator of the economic wellbeing and living standards of a household. The WI measures the household's ownership of assets and the housing characteristics. As shown in Figure 14, this information allows us to map the incidence of poverty across the different wealth quintiles. It is expected for poverty to have a different incidence across the different wealth quintiles due to the overlap between the MPI and the WI. However, the ratio in Egypt is high: households in the bottom quintile are 22.6 times more likely to be acutely poor and 7.7 times more likely to be poor than those in the top quintile. The difference in the ratios for the two levels of poverty shows how acute poverty captures extreme poverty while poverty captures moderate poverty and beyond, and this latter has reduced differences across the WI quintiles.
- 4.7. These findings on the high inequality across wealth quintiles in Egypt are in line with those of recent research on monetary poverty. For example, a recent CAPMAS survey highlighted the disparity in spending power between the poor and the wealthy in Egypt. Spending by the top 10% of earners amounted to 25% of the national total, while the poorest decile's share of spending amounted to just 4.2% of total consumption. Abu-Ismail and Sarangi (2015) also find that economic inequality in Egypt has been rising even before the 2011 revolution. Their paper finds that, over 2000-2011, the inequality ratio in average expenditure increased from 13.7 to 16.2 between the rich and poor; from 9.2 to 11.3 between the rich and vulnerable; and from 5.7 to 7.4 between the rich and middle class. In other words, that the growth process was concentrated in very few sectors and benefited very few households, whose expenditure lay beyond the grasp of official surveys.

Figure 14: Multidimensional poverty headcount (%) by wealth quintiles at poverty and acute poverty



- 4.8. As shown in Figure 15 A and B, the contribution of living standards to overall deprivation declines as the wealth of the household increases. This is expected as the WI overlaps with the some of the indicators of the living standards dimension (for example assets ownership). As the contribution of living standards goes down with wealth, it is interesting to look at which dimension, education or health, fills the gap the most. While the contribution of both the health and education increase, at poverty the increase is higher in the health dimension, and at acute poverty the higher increase is found in the contribution of education.

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



5. Policy considerations

- 5.1. In Egypt, a very small percentage (3.0%) of the population suffers from acute poverty, while a relatively large share of the population (27.2%) suffers from poverty. The intensity of poverty is high at both levels: 38.6% for acute poverty and 42.6% for poverty. This means that the poor suffer from a relatively

high level of deprivation (i.e. they are deprived on many indicators) at both levels. This implies that poverty-reduction strategies in Egypt should include an integrated response.

- 5.2. While only 6.8% of the population are vulnerable to falling into acute poverty, 22.6% of Egyptians are vulnerable to falling into poverty. This highlights the need for policies to prevent Egyptians from falling into poverty, especially in the wake of the reform package linked to the recent IMF loan to Egypt and the flotation of the Egyptian pound, which are likely to hit the most vulnerable.
- 5.3. The large percentages of population deprived in nutrition at acute poverty and in years of schooling at poverty in Egypt suggests that poverty reduction strategies should focus on reducing deprivation in these domains. When looking at the percentage contribution to poverty, years of schooling makes the highest contribution at both levels, followed by school attendance. This means that education should be a priority area for poverty-reduction interventions in the country.
- 5.4. Egypt has an unusual high incidence of FGM/early pregnancies given its level of development: policies in Egypt should devote more attention to women's health and take measures to halt FGM and early pregnancies.
- 5.5. Geographic disparities are sharp in Egypt, with some areas, in particular Rural Upper Egypt region, exhibiting strikingly higher levels of poverty. This calls for targeted poverty-reduction interventions to reduce disparities within the country. Furthermore, differences in the incidence of poverty between the rural and urban population in Egypt are high, in particular in floor/roof, sanitation, years of schooling and overcrowding. This calls for policies targeting rural development and inclusion.
- 5.6. Inequality in multidimensional poverty between the highest and lowest wealth quintiles in Egypt is sharp, suggesting an enormous gap in access to resources and capabilities between rich and poor households. Households in the bottom quintile are 22.6 times more likely to be acutely poor and 7.7 times more likely to be poor than those in the top quintile. Policies should aim to reduce inequality among different strata of society in Egypt.

Appendix

Table 1: Standard Errors and Confidence Intervals for multidimensional poverty indices using acute poverty definition by urban and rural areas

		Value	Standard error	95% confidence interval	
Headcount	Total	3.0	0.0589	2.8791	3.1101
Intensity	Total	38.6	0.1306	38.3729	38.8851
MPI	Total	0.012	0.0002	0.0111	0.0120
Headcount	Urban	1.6	0.0676	1.4249	1.6899
Intensity	Urban	38.8	0.3051	38.2114	39.4078
MPI	Urban	0.006	0.0003	0.0055	0.0066
Headcount	Rural	3.8	0.0846	3.6782	4.0100
Intensity	Rural	38.6	0.1444	38.3027	38.8688
MPI	Rural	0.015	0.0003	0.0142	0.0155

Table 2: Standard Errors and Confidence Intervals for multidimensional poverty indices using poverty definition by urban and rural areas

		Value	Standard error	95% confidence interval	
Headcount	Total	27.2	0.1547	26.9050	27.5112
Intensity	Total	42.5	0.0596	42.4325	42.6660
MPI	Total	0.116	0.0007	0.1144	0.1171
Headcount	Urban	15.3	0.1964	14.8980	15.6679
Intensity	Urban	40.7	0.1106	40.4459	40.8794
MPI	Urban	0.062	0.0008	0.0605	0.0637
Headcount	Rural	34.3	0.2118	33.8420	34.6722
Intensity	Rural	43.0	0.0690	42.9116	43.1820
MPI	Rural	0.147	0.0009	0.1456	0.1493

Table 3: Standard Errors and Confidence Intervals for poverty headcount using acute poverty definition by different household characteristics

		Value	Standard error	95% confidence interval	
Gender of the Head of Household	Female	3.0	0.1995	2.5682	3.3501
	Male				
		3.0	0.0617	2.8769	3.1187
Education of the Head of Household	Less Than Primary	6.8	0.1482	6.5542	7.1351
	Primary	2.7	0.2070	2.2525	3.0638
	Preparatory	1.6	0.1349	1.3638	1.8926
	Secondary	0.7	0.0519	0.6363	0.8398
	Higher	0.2	0.0378	0.0790	0.2270
Household Size	"1-3"	1.6	0.0680	1.4385	1.7050
	"4-7"	3.1	0.0856	2.9142	3.2497
	"8+"	9.9	0.3490	9.2627	10.6307
	Poorest	43.0	0.3714	42.2854	43.7413

Wealth Quintile	Second	40.2	0.3818	39.4223	40.9188
	Middle	28.0	0.3687	27.2398	28.6851
	Fourth	19.1	0.3067	18.5376	19.7400
	Richest	5.6	0.1774	5.3012	5.9967

Table 4: Standard Errors and Confidence Intervals for poverty headcount using poverty definition by different household characteristics

		Value	Standard error	95% confidence interval	
Gender of the Head of Household	Female	22.3	0.4961	21.3585	23.3031
	Male	27.6	0.1625	27.3290	27.9658
Education of the Head of Household	Less Than Primary	41.4	0.2890	40.8546	41.9876
	Primary	35.4	0.6561	34.0804	36.6522
	Preparatory	36.0	0.5155	34.9678	36.9887
	Secondary	18.9	0.2355	18.4504	19.3737
	Higher	2.3	0.1399	2.0432	2.5916
Household Size	"1-3"	21.8	0.2236	21.3409	22.2174
	"4-7"	27.9	0.2223	27.4647	28.3360
	"8+"	51.5	0.5788	50.3760	52.6449
Wealth Quintile	Poorest	43.0	0.3714	42.2854	43.7413
	Second	40.2	0.3818	39.4223	40.9188
	Middle	28.0	0.3687	27.2398	28.6851
	Fourth	19.1	0.3067	18.5376	19.7400
	Richest	5.6	0.1774	5.3012	5.9967

Table 5: Standard Errors and Confidence Interval for uncensored deprivation headcount of MPI indicators using the acute poverty definition

	Value	Standard error	95% confidence interval	
Years of Schooling	9.7	0.0869	9.5693	9.9100
School attendance	7.5	0.0771	7.3185	7.6206
Child Mortality	1.4	0.0344	1.3299	1.4648
Child Nutrition	12.1	0.0955	11.8817	12.2561
FGM/Early Pregnancy	3.1	0.0505	2.9630	3.1610
Electricity	0.2	0.0122	0.1491	0.1968
Sanitation	9.9	0.0875	9.7115	10.0544
Water	4.1	0.0578	3.9460	4.1727
Floor/Roof	5.7	0.0682	5.6056	5.8729
Cooking Fuel	0.0	0.0000	0.0000	0.0000
Overcrowding	8.2	0.0802	7.9991	8.3136
Assets	2.0	0.0406	1.8795	2.0388

Table 6: Standard Errors and Confidence Interval for uncensored deprivation headcount of MPI indicators using the poverty definition

	Value	Standard error	95% confidence interval	
Years of Schooling	48.1	0.1465	47.7844	48.3585
School attendance	17.5	0.1115	17.3162	17.7532
Child Mortality	1.4	0.0344	1.3300	1.4649
Child Nutrition	16.4	0.1086	16.2162	16.6420
FGM/Early Pregnancy	16.9	0.1100	16.7220	17.1530
Electricity	0.2	0.0123	0.1519	0.2001
Sanitation	9.9	0.0875	9.7119	10.0548
Water	7.1	0.0754	6.9800	7.2756
Floor/Roof	28.5	0.1323	28.2023	28.7208
Cooking Fuel	0.0	0.0000	0.0000	0.0000
Overcrowding	27.0	0.1301	26.7366	27.2468
Assets	32.4	0.1372	32.1068	32.6445

Table 7: Standard Errors and Confidence Intervals for poverty headcount using acute poverty definition by Region

	Value	Standard error	95% confidence interval	
Urban governorates	0.9	0.0872	0.7267	1.0685
Lower Egypt Urban	1.2	0.1147	1.0146	1.4643
Lower Egypt Rural	2.2	0.0959	2.0232	2.3991
Upper Egypt Urban	2.6	0.1506	2.2864	2.8768
Upper Egypt Rural	6.0	0.1513	5.7443	6.3375
Frontier Governorates	3.2	0.2271	2.7769	3.6672

Table 8: Standard Errors and Confidence Intervals for poverty headcount using poverty definition by Region

	Value	Standard error	95% confidence interval	
Urban governorates	12.3	0.3023	11.6653	12.8503
Lower Egypt Urban	12.6	0.3383	11.9036	13.2297
Lower Egypt Rural	27.6	0.2846	27.0320	28.1477
Upper Egypt Urban	21.1	0.3862	20.3260	21.8397
Upper Egypt Rural	43.2	0.3111	42.5431	43.7626
Frontier Governorates	29.4	0.6110	28.1862	30.5811

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