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Socio-economic and health conditions of the elderly in Egypt. Public and private solidarity.

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PANEL SESSION 1

Introduction

Africa's demographic trends reveal together a growing aging population and unprecedented growth of the youth population (Apt, 2001; Maharaj, 2013). Even if the population is largely youthful, the proportion of older persons has increased extremely over the past few decades and will grow at an accelerated rate over the next few decades. In terms of regional differences across Africa, the sharpest increase in the relative share of older people will occur in Northern Africa and Western Africa, whose older populations are projected to increase by a factor of nearly five between 1980 and 2050.

Egypt, with other African middle-income countries (Tunisia, Morocco and Algeria in Northern Africa), is experiencing the greatest increase in the share of population aged 65 years and older. Improvements in life expectancy and the decline in fertility achieved in recent decades gave rise to the subsequent process of demographic ageing (Mubila, 2012; Tabutin and Schoumaker, 2005). Demographic ageing is thus a recent phenomenon that, together with socio-economic conditions and health disparities in later life, is still understudied in Egypt as in other African countries (Yount & Agree, 2005; Vignikin, 2007). In particular there is lack of knowledge on the living arrangements and socioeconomic conditions of aged people. Moreover Egypt, as the majority of the Northern Africa countries, does not appear to be ready to address the many implications of such changes (UNFPA, 2010).

Aim of the paper. Research questions

The aim of the paper is to evaluate the spread of vulnerability among old Egyptian people and the role of public and private solidarity towards the elderly. We analyze – in a gender and geographic

perspective – trends in demographic ageing and dynamics in late life living arrangements in Egypt during the period from 2006 to 2012. We intend to evaluate the situations of older people and the way public solidarity and family flows support their needs.

Our analysis focuses on: - socio-economic and health characteristics of the elderly; - characteristics and trends of late-life living arrangements, with attention on intergenerational co-residence; -public support and intergenerational transfers within families (including remittances from family members who emigrated and live abroad).

To better understand the role of intergenerational ties and solidarity within Egyptians families as care and economic protection sources, we will focus our attention on the elderly living alone or with the spouse only. We aim at examining the effect of some selected socio-demographic variables on the likelihood of receiving assistance from relatives, a proxy of intergenerational solidarity.

Data and methods

Individual data derive from the "Egypt Labor Market Panel Survey" of 2006 (ELMPS 06) and 2012 (ELMPS 12), directed by the *Economic Research Forum* (ERF) and *CAPMAS*¹. The surveys are nationally representative household samples (Assaad & Krafft, 2013a; Barsoum, 2007). The household is there defined as a constituted unit, that can be also composed of an individual habitually living alone. ELMP 06 includes 8,349 households. The final sample for 2012 round of the survey is 12,060 households. Surveys inform about demographic characteristics of all household members, household assets and housing conditions, non work-related sources of income, remittances sent home by migrants etc.

Ageing in Egypt

In recent decades the country has been characterized by a growth in the percentage of the elderly population² in the older groups (70 and over), while the proportion of the young elderly (60-69) decreases. Urban areas show a higher share of the elderly in their total population than their rural counterparts, but in the coming decades rural population will age faster. Main factors will be the rural-urban and international labor migration of young adults and adolescents and the return to the rural areas after retirement.

The number of Egyptians aged 65 years and older will increase from 4.6 million in 2010 to 7.8 million in 2030 (4.9 percent and 6.7 percent of the total population in 2010 and 2030, respectively).

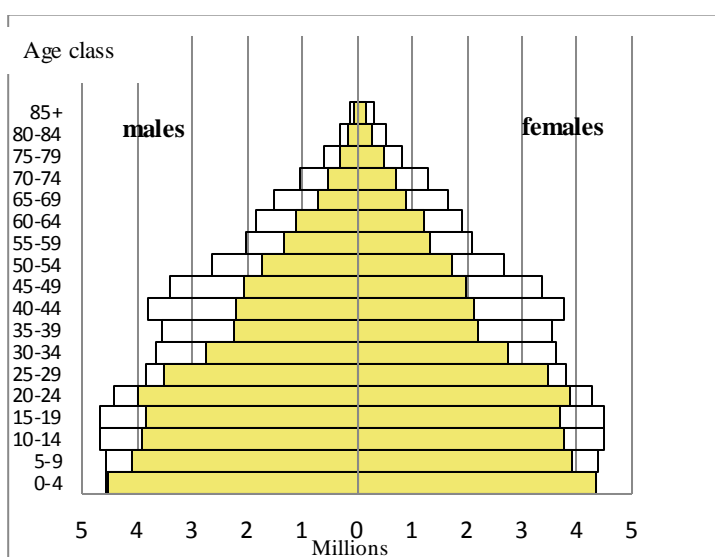
¹ Thanks to Economic Research Forum that allowed us to utilize individual data.

² In this paper older persons are considered to be those aged 65years or older.

In 2030, the population aged less than 15 years will amount to about 27 million (28.5 percent of the total population versus 32 percent in 2010). An important socio-economic aspect of ageing is the ageing of the older population itself. Between 2010 and 2050 the number of those aged 80 years and older will increase in Egypt from 0.6 million in 2010 to 1.2 million in 2030 and then 2.7 million in 2050 (United Nations, 2015).

Figure 1 and 2 clearly underline the progressive ageing process that will be more and more evident when the most numerous generations, those that came into the working age around 2010, will exceed 60–65 years.

Figure 1. *Population pyramid. Egypt 2010 and 2030.*



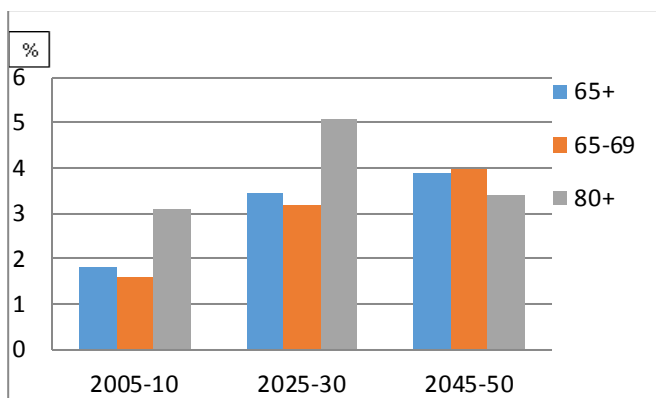
Source: our elaborations from United Nations, 2015.

Figure 2 highlights a “double ageing” by 2030 in Egypt, as the higher annual growth rate³ regards the highest age group (80 and older).

In the period 2005–2010, the average annual growth rate of the total aged population (aged 65 and older) in Egypt has been 1.8 percent. The average annual growth rate was 1.6 percent for the age-class 65–79. Estimation of the average annual growth rate for the oldest people aged 80 and older was 3.1 percent in 2005–2010. By 2025–2030, this rate is expected to rise to 5.1 percent. After 2030, the growth rate of the oldest old is expected to decline, dropping to 3.4 percent in the period 2045–2050.

³ The average annual growth rates for all the age-classes here considered are calculated on the assumption that growth is continuous.

Figure 2. Average annual growth rate (%) of population 65 and older by age classes. Egypt 2005–2050.



Source: our elaborations from United Nations 2015.

The rising number of older people is generally associated with an increase in age-related functional limitations, that is the ability to perform basic activities of daily living (Boggatz et al., 2010). For this reason socio-economic measures for the creation of networks for the later life assistance should be implemented by public and private Egyptian institutions.

Socio-economic and health conditions in late-life

The process of demographic ageing has deep consequences on society and entails many changes in the family life as well as in the social security system.

Trends in living arrangements

Despite the prominence of family as older persons' main source of support, studies of intergenerational co-residence and other exchanges of support are relatively rare in Egypt as in general in the MENA area (Yount and Agree, 2005; Yount and Khadr, 2008). Table 1 shows the distribution of the elderly aged 65 and older among different living arrangements in 2006 and 2012.

Table 1. Living arrangements of the elderly aged 65 and older by gender, 2006 and 2012

	2006 Survey			2012 Survey		
	Male	Male	Female	Total	Male	Male
Living alone	5.7	5.6	23.7	15.8	5.7	5.7
Living with spouse only	24.4	32.0	13.8	21.7	24.4	24.4
Living with child(ren), child-in-law, or grandchild	68.7	60.8	57.5	58.9	68.7	68.7
Living with other relatives+	0.9	1.5	4.8	3.4	0.9	0.9
Living with unrelated people only ^o	0.2	0.1	0.1	0.1	0.2	0.2
Total	100.0	100	100	100	100.0	100.0
Number of observations	854	1,153	1,408	2,561	854	854

+ Other than spouse, children (in-law), grand-children. Siblings are included. ^oThose living with a servant are included. Source: our elaborations from ELMPS2006 and 2012. Weighted data.

Egyptian households have undergone impressive changes over time in both size and structure. Data outline a widespread tendency toward the choice of independent living as well as strong gender differences. The analysis of Egyptian household features by gender shows that considerable differences in co-residential ties exist among men and women.

Modifications are relevant: among them we can underline the rise in female-headed households and a new trend toward independent living of the elderly. The percentage of the elderly (65 years or more) living alone rose from 13% in 2006 and to about 16% in 2012. For women aged 65 or more values are high: more than one in five lived alone in 2012. For men percentages of living alone remained at lower levels: around 5 percent in 2012, as in the previous surveys. Also living in couple with the spouse only shows a relevant increase.

The rise in the percentage of men living with the spouse only is a result of both gains in the survival model and in new choices about late-life living arrangements. Also living with a child and/or grandchild presents different percentages for men and women and changes in the period here considered.

Older women may have a wider network of co-residential support than older men, and more frequently tend to live with “other relatives” or with an unrelated person. Indeed, these conditions are frequently found in situations of poverty, especially in the urban context.

Egyptian households also present wide geographic differences in their internal structure and in the role the elderly play within the household. Great differences between urban and rural areas persist: nearly three in ten urban elderly women lived alone in 2012; in the rural areas about two in ten. Actually, changes in living arrangements in late-life can be influenced by political and economic conjuncture. As Assaad and Krafft (2013a; 2013b) state, the economic crisis accompanying the revolution of January 2011 severely affected labour market conditions in Egypt and possibly also induced new co-residential behaviours of Egyptian households, in which extended families live in the same building. Especially in rural areas and poorer urban areas, it can be difficult to clearly distinguish households when extended families live in the same building. Even if data from the 2012 ELMPS allow us to determine the structure of the households, this new behaviour could induce difficulties in the clear identification of co-residential ties.

Poverty and inequality

Changes has been realized in a context of economic fragility of the Egyptian elderly, as well as for households headed by an older person (Table 2). Data from 2012 ELMPS on the spread of poverty among the elderly clearly outline that among rural elderly the percentages of those in the poorest household wealth quintile are very high, especially among women. Moreover among rural

households headed by an older woman, almost five in ten are in the poorest quintile; the percentage is between three and four in ten if the head is an older man.

Table 2- Percentage distribution by the wealth quintile and residence o : a) all the elderly 65 years and older by sex; b) elderly headed households by sex of the head, 2012

Quintiles of household wealth	Males		Females	
	Urban	Rural	Urban	Rural
a) Older people 65 and older				
Poorest quintile	19.6	27.1	28.9	32.1
Richest quintile	21.4	10.3	18.5	11.7
b) Elderly headed households	Sex of household head			
	Males		Females	
	Urban	Rural	Urban	Rural
Poorest quintile	19.7	28.0	35.2	49.0
Richest quintile	21.1	10.1	13.8	8.7

Rural residence implies a more difficult economic situation for the Egyptian elderly than urban residence. Rural households headed by elderly people present higher percentages of those belonging in the first quintile of household wealth. Households with a household head aged 65 years or older are then over-represented among the poorest families, primarily in the rural areas.

A worse situation for females than for males in both rural and urban contexts, above all when the elderly do not live with descendants. For females, the poorer situations involve living alone in the rural context or with remote relatives.

Health status

Another main dimension of wellbeing is represented by health status. Gender differences in health status among the elderly provide information on one key dimension of safety. About one percent of elderly Egyptians, men and women, are indicated in the 2012 survey as “permanently disabled”. A set of questions in the survey asks people⁴ to assess their health status, allowing for analysis of how the elderly perceive their own health and the incidence of particular diseases. Very high percentages of the elderly declared a situation of disability, always exceeding 40–50 percent for both genders and for each type of living arrangement. Also among those living alone and those living in elderly couples, over 40 percent declared longstanding illness or limitations. ELMPS data also show that older women present higher average rates of disability than men, in agreement with the assumption in the international literature that women tend to live longer than men, but that elderly women are likely to experience higher levels of morbidity and health limitations. Many of the additional years of life women live may be spent in conditions of disability or illness (WHO, 2003). As expected,

⁴ Applied to all household members aged 15 years and over.

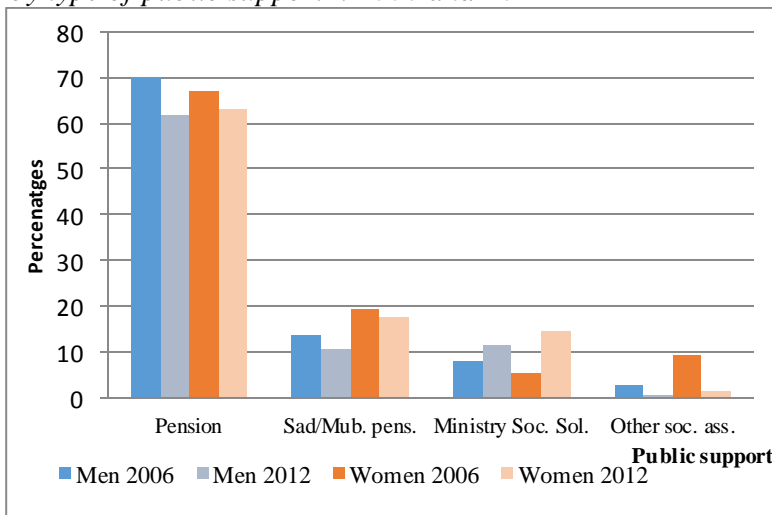
due to the typical age-gap between spouses, men living with the spouse declared worse health conditions than women.

Public support for elderly persons living alone

In a context characterized by economic fragility and inequality among the elderly it is important to analyze the nature of the support system on which the elderly can rely. The analysis has been carried out on older persons who live alone, who are more likely to be poor than older persons who live with their spouses and/or their descendants, and they have greater health care needs (Leuwen and O'Neill, 2007).

Figure 3 includes data on men and women living alone who received public transfers in 2006 and 2012.

Figure 3. Percentages of men and women receiving public support among those living alone by type of public support*. 2006 and 2012



* Individuals can receive more than one public transfer.

The percentage of older people receiving public transfers has been reduced among both genders, with the exception of social assistance from the Ministry of Social Solidarity. Women were more likely to be beneficiaries of social pensions (Sadat and Mubarak pensions) and support from the Ministry of Social Affairs, and women were more likely than men to receive help from religious and non-governmental organizations. Between 2006 and 2012, assistance from the Ministry of social affairs to elderly persons living alone increased, more so for women than for men. Significant percentages of women living alone were also receiving pensions in both Surveys.

Data outline that public support toward the elderly was dissimilar from a gender-based and geographic point of view. The gendered pattern of survival already introduced and the fairly low

rate of female labor force participation particularly in the formal sector induce that many of pensions to the elderly women are likely survivors' benefits.

Geographic differences and changes between 2006 and 2012 clearly emerge when taking into account information about the type of residence. Older individuals living alone in rural areas more frequently receive both social pensions and aids for the poor (Sadat's/Mubarak's pension, Ministry of social affairs support). Assistance from private associations—which was much less in 2012 than in 2006—does not differ between urban and rural setting.

Private solidarity towards the elderly

The engagement in multiple support schemes among family members is made possible by the fact that relations within families are not limited by their residential arrangements.

Many older parents who live separately can interact with children every day or at least several times a week; there can be 'intimacy at a distance'. If co-residence of elderly people with their younger relatives can be evaluated as a form of intergenerational solidarity, the elderly living in independent arrangements can rely on assistance from non-cohabiting family members.

Living in "complex-family households": main determinants

Our aim is to investigate the individual factors that determine the type of living arrangements the elderly have in 2012. We have performed a logistic model in which we estimated the influence of individual characteristics on the propensity of older persons to live in extended or multi-family households (complex households). Two composite categories were constructed. The first category includes the 'extended-family households' and 'multi-family households' in a group representing more composite and complex housing arrangements. The second category combines the other types of living arrangements. Living in complex households has been contrasted with each of the other co-residential arrangements (alone, couple-only, nuclear household, and other). The dependent variable has the value '1' if the elderly person lives in a complex household and '0' otherwise.

As explicative variables, we have introduced individual characteristics of the elderly: sex (female as the reference category), older age-class (65–79 years as the reference category vs. 80+), type of residence (urban as the reference category vs. rural), and the presence and severity of health limitations the elderly person claims to suffer from (not limited as the reference category vs. strongly limited, limited to some extent). Table 3 shows the odds ratios of the explicative variables.

The gender pattern for living in extended or multi-family households, as already observed in the bivariate analysis, was one of decreased likelihood for elderly men in comparison with elderly women.

Table 3. *Logistic regression analysis of the risk to be included in a “complex-family household”. People aged 65 years and older. Egypt 2012*

	Reference category	Odds Ratio	P-value
Sex	Female		
Male		0.361	0.000
Age-class	65-79		
80+		2.082	0.000
Type of residence	Urban		
Rural		3.110	0.000
Health limitations	NO limitation (Ref.)		
YES strongly limited		1.186	0.161
YES limited (to some extent)		0.843	0.046
Constant		0.215	0.000

Elderly persons aged 80 years or older (possibly affected by age-related health problems) presented a propensity to live in complex households twice as often as the elderly aged 65–79 years. In addition, living in a rural context significantly increased the probability of living in a complex household (o.r.= 3.1). The presence of (declared) health limitations had no fully significant effects on the likelihood of being included in co-residential arrangements.

Informal support towards elderly people living alone

Even if parents and adult children no longer live in the same household, they can help each other by providing financial support, care, and other forms of assistance.

Individual data included in the 2012 ELMPS allow us to analyse informal support from relatives and other non-cohabitants. The question q12201 asks: ‘During the past twelve months, has your household or any of its members received any money or goods from persons who are not members of your household or who are former members of your household?’

As for public support, the question is focused on the households. It is then possible to utilise the information to investigate private solidarity towards the elderly living alone or with spouse only.

In 2012, about 12 percent of households including at least one elderly individual (65 or older) received informal support from family members (living both in Egypt and abroad). A higher percentage of rural households received informal transfers (about 15 percent) than urban households (10 percent). The comparison between the 2012 and 2006 figures (Angeli and Donno, 2014) suggests that among older people living alone, women are more likely than men to receive support from relatives, even if intergenerational support has declined for both genders. In 2012, 14.1 percent of women declared receiving support from relatives versus 3.7 percent of men (the figures were 26.7 percent for women versus 10.7 percent for men in 2006).

The spread of private forms of support for the elderly provided by relatives significantly varies with individual, demographic, and socio-economic characteristics.

We specified two logistic regression models for the elderly living alone: the first referred to 2006 and the second to 2012. The dependent variable is the likelihood of receiving support from relatives during the 12 months before the survey. The variable has the value ‘1’ if the elderly person affirms having received private support and ‘0’ otherwise.

Covariates are represented by age (65–79 years as the reference category vs. 80 years or older), sex, residence (with rural as the reference category vs. urban), and the existence of public support for elderly people living alone (institutional support⁵ and social assistance from religious/non-governmental institutions). The logistic regression results are displayed in Table 4 with reference to 2006 and to 2012. The probability of receiving help was significantly determined by sex: older women were more likely than men to be assisted by family relations in both years. Results underline that the behaviour of informal support for elderly people living alone seems to have changed in the period between the two surveys with respect to other covariates. In 2006, elderly people living alone in the urban context were less likely to receive private support from family members than those living in rural areas (Angeli and Donno, 2014), whereas in 2012, the type of residence did not have a significant impact.

Table 4. *Logistic regression results. Odds-ratios of receiving support from relatives. Elderly living alone, 2006 and 2012*

Variable name	Reference category	Model 1 2006		Model 2 2012	
		Odds Ratio	P-value	Odds Ratio	P-value
Sex	Female				
Male		0.187	0.0019	0.181	0.024
Age-class	65-79				
80+		0.879	0.7756	0.655	0.380
Public support	NO				
Yes public support		0.894	0.7505	0.157	0.01
Residence	Rural				
Urban		0.344	0.000	0.785	0.471

Furthermore, in 2012, the existence of public or social transfers appears to have had a significant (negative) impact on the likelihood of receiving informal support for elderly people living alone. This result partially confirms the hypothesis that family is the most important source of care and protection for older people when the public welfare system is not able to meet their needs.

As already introduced, it is difficult to fully understand these changes, which could be explained both by new living arrangement behaviours and by new constraints induced by the economic crisis.

⁵ Normal pension, Sadat’s/Mubarak’s pension, Ministry of social affairs support. See Table A11.

Conclusion

As in most Arab countries, co-residence is one of the way by which Egyptian families traditionally have carried out the support to their older relatives. In spite of tradition influence, data from ELMPS confirm that the relevant changes that have occurred in the demographic structure of the Egyptian population in the last decades have had an effect on living arrangements and intergenerational relationships. Demographic changes in Egypt, together with socio-economic transformations, urbanization, and increasing migration, cause the weakening of the traditional multi-generational family structure. The number of elderly living in multi-generational arrangements declines, whereas the number of those living alone or in households with only elderly members increases. Thus, older persons living in nuclear households have to support themselves financially and are more likely to live in poor conditions. Their level of vulnerability increases. When the public funded social security schemes are not able to address the needs of the elderly, the family remains the main care provider and plays the most significant role in preventing many older people from living in poverty.

Rural residence implies difficult economic situation for the Egyptian elderly. Rural households headed by elderly people present higher percentages of those belonging in the first quintile of household wealth. A worse situation for females than for males in both rural and urban contexts, above all when the elderly do not live with descendants. Older women may have a wider network of co-residential support than older men, and more often than men tend to live with remote relatives or with an unrelated person. For females, the poorer situations involve living alone in the rural context or with remote relatives.

Policy implications

Information from Egyptian Labor Market Surveys evidence that two main domains ask for policy interventions towards the elderly: problems related to poverty and health.

The data fully confirm a need for policy interventions in rural areas of the country to protect the elderly from poverty, as many researchers have already pointed out (Adams and Richard, 2000; Fargues, 2002; Galal, 2003; Handoussa, 2010; Marotta and Yemtsov, 2010; World Bank, 2005).

A rising diffusion of chronic diseases among an ageing population, dealing with high proportion of poverty among the elderly is confirmed. Inadequate social health protection can itself exacerbate impoverishment, and contribute to more social exclusion. The effect of chronic diseases on health and on economic development must be well valued and addressed by social policy makers who propose poverty reduction policies and social safety nets. Results from previous research stress that

Egyptian households—poor households, in particular—suffer the consequences of health problems in late life and are vulnerable to catastrophic health expenditures.

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