



Full Length Research Paper

Living arrangements of the elderly in demographic and socioeconomic terms in Ghana

John Mubuntu Kelly

Association of African Universities (AAU), Airport Residential Area, Accra, Ghana.

Accepted 2 January, 2016

With the anticipated rapid increases in the population of the elderly in Ghana and the consequent greater potential need for comprehensive social welfare services, it is necessary and urgent to gain a firm understanding of the demographic, social, and economic characteristics of the elderly in Ghana who will be having special needs. Using data from the three ecological zones of Ghana collected in 2012, the study characterizes the living arrangements of the elderly in demographic and socioeconomic terms to portray the economic and social disadvantages experienced by the older population in Ghana. The age distribution of the older adults indicates that there are consistently more people at young and old age groups for each sex and for both sexes combined. As should be expected, there are more elderly women than men at the oldest old age group. Majority of the older population have no formal education (55% for both sexes, 22% for men and 33% for women). Overall, there are more elderly women than their male counterparts in Ghana. About 12% of older adults live alone, while women are more likely to live alone than men (14 versus 9%). Men are more likely to live with spouse than women (13 versus 6%). Although extended household living is still prevalent, there are great variations in living arrangements by sex. Women are much more likely than men to live in extended households (that is, living with spouse, children and others, as well as living with others). This is because taken together about 71% of elderly women live in these extended households as opposed to about 41% of older men. On the other hand, 37% of elderly men live in a nuclear household (consisting of spouse and children only), compared with 9% of older women. Logistic regression results showing the individual-level factors associated with two key living arrangements (living with children and grandchildren under age 15, and living with an adult child) by sex reveal that the background characteristics are significantly associated with the two types of living arrangements. As men age, they are more likely to live with children and grandchildren under age 15 but less likely to live with an adult child. Elderly women are more likely to live with an adult child. Additionally, elderly people are less likely to be living with children and grandchildren if they have some formal education. The result is in conformity with the modernization theory where one should expect the elderly living in less urbanized settlements and those with less education to be more likely to live with children and grandchildren. The government should continue to encourage more women to go beyond primary education and initiate moves toward providing universal old age security for women and men who attain a certain age (for example, 60 years for women and 65 years for men).

Keywords: Ageing, elderly, Ghana, older, men, population, women.

INTRODUCTION

It has been recognized by policy makers and social scientists that population ageing, a growth in the number and proportion of older persons within a population, is occurring in many parts of the world and creates a number of challenges (Government of Ghana, 2010; Mba, 2005; Cameroon, 2000; Casterline, 1999; Chan,

1997; Chen, 1996; Chevan and Korson, 1975; Goode, 1963).

Both United Nations estimates and projections and census results suggest that the pace of ageing in Ghana is among the highest in sub-Saharan Africa (United Nations, 2011; 2001a; Ghana Statistical Service, 2002a).

The proportion of persons aged 60 years and older in Ghana rose from 4.9% in 1960 to 7.2% in 2000 and is expected to reach 13.7% by 2050, while the number of these elderly people increased from 329,614 in 1960 to 1,361,670 in 2000, representing an increase of 313% over the period.

Central to the support system and well-being of the older population in Ghana is their living arrangements (Mba, 2010, 2004a, 2004b). It has been argued that urbanization is leading to the weakening of family organizations and kinship networks (United Nations, 1991). It is further believed that there is an inverse relationship between urbanization and family support for the elderly, resulting in a growing incidence of low levels of well-being among the elderly persons. Unfortunately, there is no empirical evidence to test this hypothesis in the Ghanaian context.

Because of lack of universal social security system in Ghana, the welfare and support of the elderly persons are generally provided within the context of the extended family network. As their adult children, who are expected by tradition to take care of them, migrate to cities and outside the country in search of better economic conditions, many of these elderly people are left alone to fend for themselves. Moreover, in response to changing social and economic environment that is characteristic of our modern age, the nuclear familial living is becoming increasingly popular, particularly in the towns and cities, thereby heightening the precarious situation of older family members.

Although people with modest means have to reconcile their value system with the contingencies of life, such as following a nuclear family pattern (Douglass, 1988), yet very little is known about what that means in terms of household structure in the Ghanaian context. This issue is worthy of empirical investigation because the family is the central social institution within which decisions are made concerning the distribution of a family's resources between generations. Moreover, intergenerational transfers from productive middle-aged family members to the dependent old and young facilitate the consumption of all members over the life cycle in Ghana.

As the country experiences a transformation from young to old age structure, precipitated by declines in fertility and increases in life expectancy, it will be faced with a multitude of health care problems and related policy issues (Government of Ghana 2010; Apt, 1996). Clearly, older adults are more likely than younger people to use health services and to require assistance in conducting everyday necessary tasks. As the absolute and relative numbers of the elderly persons in Ghana continue to grow, there is an increasing need to know their health condition. For example, determining functional status and the prevalence of limitation of physical functioning is essential for forecasting the long-term needs of Ghana's elderly population.

Both governments and international donor agencies

had previously concentrated efforts at rural development and agriculturally based strategies without paying attention to the rapid rates of urbanization (United Nations, 1991; Chan and Lee, 1995). Today, urbanization has been added to the long list of potentially devastating development problems that must be addressed (United Nations, 2001b). Census results indicate that the proportion of Ghana's urban population rose from 23% in 1960 to 44% in 2000, while other estimates show that the proportion urban was 52% in 2010 and is projected to peak at 76% by 2050 (United Nations, 2011). The fundamental problem is that the urban population is growing very fast while economic growth and the development transformations necessary to support it and enhance the quality of urban life are not occurring rapidly. As a result of urbanization and modernization, the prestige, authority and influence the older family members have traditionally enjoyed may be waning. This condition warrants investigation as it may affect the attitude, health and perceived quality of life of the elderly people.

Consequently, this paper seeks to address the following pertinent questions: What is the tendency for extended kin, including adult children, to live with the elderly persons? Has urbanization resulted in the prevalence of single living among the older population or living with their grandchildren? Do the elderly still receive financial support from their kin? Has urbanization and modernization eroded the traditional roles of the elderly? Against this background, this study seeks to investigate the living arrangements of persons aged 60 years and over in urban localities in three regions in accordance with the three ecological zones of Ghana, as well as their socio-economic characteristics and quality of life for possible policy interventions.

DATAS AND METHODS

The study adopted a nationally representative sampling procedure. The country was stratified into three according to Ghana's ecological zones, namely: coastal, forest, and savannah (Ghana Statistical Service, 2000).

Because of the significant disparities in the levels of urbanization in the coastal and forest zones in Ghana (Ghana Statistical Service, 2002b), the most urbanized regions were selected from these two zones, while one of the three northern regions was selected to represent the savannah zone since the three regions have similar levels of urbanization (around 20%).

Next, the district containing the regional capital was purposively selected. This was done to ensure that some of the most urbanized settlements in each region are included in the study. There are 99 towns in the Accra Metropolitan Assembly (AMA) with four broad categories of residential areas (first class, second class, third class, and fourth class residential areas), according to current evidence (Accra Metropolitan Assembly, 2012).

One residential area was randomly chosen from each of the four categories. As a result, Aborfu, Kokomlemle, Bukom, and Tesano, were selected for interview in Greater Accra region.

In the Kumasi Metropolitan Assembly (KMA), there are 53 towns, but are not categorized into residential areas like those of the AMA (Kumasi Metropolitan Assembly, 2012). Therefore, four towns were randomly selected from the list. The exercise yielded the selection of Atonsu-Agogo, Asawasi, Oforikrom, and Old Tafo. The Tamale Metropolitan Assembly (TMA) contains 19 towns (Ghana Districts.Com 2012). The following four districts were randomly selected from that list: Kapayili, Shishegu, Kanvilli, and Gurugu.

In this study, the unit of analysis will be elderly persons aged 60+ years. In order to provide robust national estimates of the parameters of interest, a sample size of 980 respondents aged 60+ years is suggested for the study (it is proposed that the study population drawn from among the selected regions will be allocated in accordance with the size of the elderly population in each region). On average, an EA contains approximately 750 persons, 7.2% of whom are aged 60 years and over (Ghana Statistical Service, 2002a). A complete census of the 4 EAs in a particular town in each district of each zone will yield 216 respondents in the specified age group. However, taking cognizance of the required sample size and the incidence of non-response, it is plausible to round the figure to 240 respondents. Consequently, since empirical evidence suggests that there are more elderly people in the most urbanized regions in Ghana (Ghana Statistical Service, 2002b), 240 elderly persons were expected to be interviewed from the TMA district of the Northern region of Ghana selected, while 370 respondents each would be selected for interview from AMA and KMA districts, yielding the total of 980 respondents. Interviews would then be conducted from one household to the other until the required number of 240 elderly persons is attained in TMA, and 370 is reached in each of the two most urbanized regions. However, due to non-response, a total of 944 interviews (238 from Northern region, 354 from Greater Accra and 352 from Ashanti region) were successfully conducted in June to August 2012, yielding a response rate of 96.3%.

At the bivariate level, simple descriptive methods of analysis are used in this study, with emphasis on computation of percentages. At the multivariate level, the multinomial logistic regression models are employed to predict the characteristics of the older men and women in different living arrangements.

RESULTS

The characteristics of the elderly population are presented in Table 1. The age distribution of the older adults indicates that there are consistently more people

at the young and old age groups for each sex and for both sexes combined. As should be expected, there are more elderly women than men at the oldest old age group. This is because in most populations of the world women live longer than men (United Nations, 2011). Furthermore, in Ghana and in many parts of Africa men generally marry women much younger than themselves (Mba, 2006, 2003a, 2003b). The implication of this is that, *ceteris paribus*, husbands will die earlier than their wives.

Majority of the older population have no formal education (55% for both sexes, 22% for men and 33% for women). Men are more likely to have higher education than women, a finding that has been buttressed by other studies in Ghana and elsewhere (Mba et al., 2007a; Mba, 2006, 2004; Ofstedal et al., 1999; Knodel and Debavalya, 1997). The two dominant religions among the aged are Christianity (54%) and Islam (42%).

The characteristics of the respondents further reveal the prominence of Ghana's major ethnic groups (*Akan*, spoken by most Ghanaians; *Ga/Adangbe* which is popular among residents in Ghana's administrative headquarters, Greater Accra region; *Mole-Dagbani*, which is widely spoken in the northern part of Ghana). Overall, there are more female elderly persons than their male counterparts in Ghana.

Table 2 presents differentials in living arrangements of the older population in the study population by sex. About 12% of older adults live alone, while women are more likely to live alone than men (14 versus 9%). This figure is close to what has been reported in other studies (Mba, 2009, 2005; Albert and Cattell, 1994). Men are more likely to live with spouse than women (13 versus 6%). This may be partly due to the fact that old-age mortality affects more men than women. Additionally, men often marry younger women, and the tradition of polygyny which is particularly pronounced in the northern part of the country.

Although extended household living is still prevalent, there are great variations in living arrangements by sex. Women are much more likely than men to live in extended households (that is, living with spouse, children and others, as well as living with others). This is because taken together, about 71% of elderly women live in these extended households as opposed to about 41% of older men. On the other hand, 37% of elderly men live in a nuclear household (consisting of spouse and children only), compared with 9% of older women. One plausible reason for this marked variation by sex is that women tend to live longer than men in most populations, as noted previously, and may therefore have more grandchildren and children-in-law with whom to live. Another possibility is that when the husband dies, a woman may need to move in with extended family for support, which is a cultural norm particularly in the north. Also, grandmothers, rather than grandfathers, are generally the natural choice of individuals to assist in caring for grandchildren.

Table 1. Percentage distribution of elderly persons by characteristics in Ghana, 2012.

Characteristic	Sex		Total	Number
	Male	Female		
Age Group				
60-64	13.1	19.0	32.1	303
65-69	8.5	12.0	20.5	194
70-74	9.6	10.2	19.8	187
75-79	5.0	5.7	10.7	101
80-84	3.5	4.2	7.7	73
85-89	1.6	2.6	4.2	40
90-94	0.8	1.9	2.7	25
95+	0.9	1.4	2.3	21
Education				
No Education	21.8	33.0	54.8	517
Primary	5.0	3.2	8.2	77
Middle/JSS	13.0	8.2	21.2	200
Secondary+	8.5	7.3	15.8	150
Religion				
No religion	1.1	0.5	1.6	15
Christianity	22.4	31.6	54.0	510
Islam	23.5	18.1	41.6	393
Traditional	1.0	0.5	1.5	14
Other	0.3	1.0	1.3	12
Ethnicity				
Akan	16.3	17.9	34.2	323
Ewe	2.5	3.4	5.9	56
Ga/Adangbe	6.2	13.6	19.8	187
Mole-Dagbani	13.2	11.4	24.6	232
Others	7.4	8.1	15.5	146
Region				
Greater Accra	18.3	19.2	37.5	354
Ashanti	17.3	19.9	37.2	352
Northern	12.7	12.6	25.3	238
Overall	48.3	51.7	100.0	944

Source: 2012 Urbanization and Population Aging Survey.

Table 2. Living arrangements of the elderly persons in Ghana, 2012.

Living arrangement	Male	Female	Both sexes
Living alone	9.4	13.9	11.9
Living with spouse only	12.9	6.2	8.6
Living with spouse and children	37.2	8.6	29.1
Living with spouse, children and others	19.4	39.9	27.9
Living with others	21.1	31.4	22.5
Total	100.0	100.0	100.0
Number	456	488	944

Source: 2012 Urbanization and Population Aging Survey. In this variable, "others" includes grandchildren, sons-in-law, daughters-in-law. In this variable, "others" includes distant relatives and non-relatives.

Table 3. Logistic regression coefficients and odds ratios of determining living arrangements of elderly persons.

Characteristic	Elderly Men				Elderly Women			
	Living with children under 15		Living with an adult child		Living with children under 15		Living with an adult child	
Age Group	Coefficient	Odds Ratio	Coefficient	Odds Ratio	Coefficient	Odds Ratio	Coefficient	Odds Ratio
60-64 (RC)		1.000		1.000		1.000		1.000
65-69	0.394	1.484*	-0.251	0.778	0.223	1.250*	-0.222	0.801*
70-74	0.586	1.796*	-0.649	0.523*	0.067	1.069	-0.419	0.658*
75-79	0.254	1.289	-0.828	0.437*	-0.123	0.884	-0.694	0.500
80+	0.155	1.167	-1.073	0.342*	-0.200	0.818	-1.888	0.151
Living with spouse								
No (RC)		1.000		1.000		1.000		1.000
Yes	-0.152	0.859*	1.967	7.150*	0.366	1.441	1.445	4.242*
Region of residence								
Greater Accra (RC)		1.000		1.000		1.000		1.000
Ashanti	0.444	1.559*	0.231	1.259	0.084	1.087*	0.478	1.613
Northern	-0.063	0.939*			-0.207	1.230*	0.023	1.023
Has formal education								
No (RC)		1.000		1.000		1.000		1.000
Yes	-0.407	1.502*	-0.123	0.884*	0.204	1.227	-0.401	0.670
-2 log likelihood	1759.90		1517.24		1501.41		1801.99	
Model χ^2	289.36		313.54		158.77		379.55	
Nagelkerke R^2	0.218		0.282		0.265		0.319	

Source: 2012 Urbanization and Population Aging Survey. Note: * $p < 0.05$; p-value is based on the Wald statistic; RC = reference category. Exponentiating these log odds produces the odds ratios for a particular outcome. For example, the elderly men aged 70-74 years would be two times more likely than those aged 60-64 to live with children under 15 (odds ratio of 1.8, since $e^{0.586} = 1.8$).

Logistic regression results showing the individual-level factors associated with two key living arrangements (living with children and grandchildren under age 15, and living with an adult child) by sex are depicted in Table 3. The results are presented separately for men and women because of the very different patterns of living arrangements highlighted in Table 4. In case of the elderly men, the findings show that the background characteristics are significantly associated with the two types of living arrangements. As men age, they are more likely to live with children and grandchildren under age 15 but less likely to live with an adult child. As men become older, it is more likely that their adult children move away and form their own independent households, but they are more likely to take custody of their younger children and grandchildren. Men are less likely to be living with children and grandchildren if they are resident in Greater Accra region or Ashanti region than if they live in the Northern region. Additionally, elderly people are less likely to be living with children and grandchildren if they have some formal education. The result is in conformity

with the modernization theory where one should expect the elderly living in less urbanized settlements and those with less education to be more likely to live with children and grandchildren (United Nations, 1991; Chan, 1997; DaVanzo and Chan, 1994; Cowgill, 1986; Goode, 1963). These findings reinforce cultural norms where extended family members are required by tradition to support other family members, including co-residency (Apt, 1996). As should be expected, elderly men from Northern region are more likely to live with children and grandchildren under age 15 because the region is less urbanized than the remaining two and is more conducive to the traditional practice of extended family living.

The positive effect of Northern region place of residence for both men and women in connection with living with children and grandchildren under age 15 may reflect substantial migration of adult children from the more urbanized places of residence in Greater Accra and Ashanti regions, where nuclear family relationships are more prevalent.

A notable difference in effects by sex is that, for men,

living with children and grandchildren appears to be tied with living with a spouse, but for women there is a significant relationship between the elderly women and living with adult children. Clearly, older women without a spouse are more dependent and may need to rely on extended family members for support, thus they tend to live with adult children and others more often. Additionally, women may be more helpful in the household, whereas men rely on their spouses for domestic care. Furthermore, men are more likely to control resources and thus able to demand co-residence as a form of support.

DISCUSSION AND POLICY ISSUES

Ghana and many countries in Africa have accorded relatively low priority in their national policies to the ageing of their populations. Yet, empirical evidence suggests that both the proportion and number of the older adults are increasing rapidly (Mba, 2010, 2001).

The fact that the elderly population in Ghana mainly live with their spouses and their children is suggesting that the responsibility for their care is increasingly devolving upon the nuclear family. It is common knowledge that children care for their elderly parents by providing food and money, running errands, occasionally paying medical bills and house rents, supplying clothing and providing emotional satisfaction.

As some demographic indicators, such as fertility and mortality, vary by place of residence and level of education, so do living arrangements of the elderly. The findings of this analysis are consistent with the commonly held perception from studies in other parts of the developing world that there exists an inverse relationship between higher educational attainment and living with children (United Nations, 1991; Natividad and Cruz, 1997; DaVanzo and Chan, 1994). In Ghana, living alone among women is largely a function of widowhood as they marry men who are much older than themselves (Mba, 2009, 2004; Mba et al., 2007), but is not a reflection of an economic demand for privacy or autonomy as is the case in the developed countries (United Nations, 1991). Because a substantial majority of these women did not work in the formal employment to warrant enjoyment of some pension or social security scheme, their means of livelihood should be a source of concern. Their only means of livelihood is peasant farming for those who are strong enough to do so, and support from the dwindling number of adult relatives. In fact, it can be plausibly argued that it is because of the need for financial and welfare support from the adult children to parents and grandparents that explain the observed findings in patterns of living arrangements of the elderly females in the three regions of Ghana, as is also the case in parts of Africa and other developing regions (Chan, 1997; Chan and DaVanzo, 1996).

Generally, the marital status of elderly persons strongly

affects their living arrangements, support systems and individual well-being. Intact husband-wife families constitute a multiple support system for spouses in terms of emotional, financial and social exchanges. Research elsewhere has shown that married elderly persons tend to enjoy higher levels of survival, mental health, use of the health services, social participation and life satisfaction than their counterparts who are not married (Mba, 2005, 2003a; Hullen, 2000; Albert et al., 1986).

The benefits of education are well known. Since the analysis has revealed that the fraction of the women who attended secondary school or higher is very small, the government should encourage more women to go beyond primary education. This is because schooling provides literacy skills, stimulates cognitive development, promotes change in values and opens up economic opportunities. These cognitive, attitudinal and socio-economic assets have a pervasive influence on women's lives, shaping both their productive and their reproductive roles. When women are thus educated, during their old age and retirement from formal employment, they can be assured of a comfortable pension scheme that will adequately meet their needs with or without extended family support. In particular, to offset the tendency of women to lag behind men in their response to employment opportunities in more modern sectors of the developing economy is educational uptake beyond secondary level. Unarguably, an educated woman is more likely to be gainfully employed than the illiterate in a setting like Ghana.

That women need education is perhaps a long-term strategy to ensure that women in old age are not destitute, given that urbanization threatens the disintegration of the extended family and the fact that their children are the only social security for the elderly in Ghana as in most African countries. Given that the proportion of the elderly is expected to grow, what are the measures that need to be taken to ensure the social security of the elderly? In particular, because women are able to earn some income during their productive years especially through petty trading and small-scale farming, since many of them do not engage in formal employment due to little or no education, what can be done to ensure that they are less vulnerable in old age? What role should the state play to ensure that women, who contribute in no small ways to household income and national economic development, do not sink into destitution in their old age? One answer to the three foregoing questions is that the government should initiate moves toward providing universal old age security for women and men who attain a certain age (for example, 60 years for women and 65 years for men). This old age allowance, provided at the end of every month, will go a long way in alleviating the financial predicament of the elderly in their old age. Those that are strong and healthy should be recruited into government-sponsored ventures such as street cleaning, handicraft, etc., which will fetch them additional

income.

In most families in Ghana as buttressed by the present study, three generations co-reside. The typical home consists of the man with the spouse and children, as well as their parents.

One of the most important attributes of the traditional extended family is its potential for caring for the elderly population as a result of the social relations and interactions among kin groups, as well as roles and responsibilities different age groups assume. In this traditional set-up, the elderly is respected and honoured in household and community decisions because they also often serve as reliable custodians of tradition and custom. However, the present study has shown that less than 50% of the elderly have a say in community decisions. One explanation for this is that urbanization is causing the loss of roles for older persons as heads of families, and thus a loss of their decision-making functions and financial security.

As more than 1 in 10 elderly people live alone, it highlights decline in the extended family system, which is due, in part, to the movement of the labour force out of agriculture into industry. Because farm household members, including the elderly, tend to produce and consume collectively, it is convenient for all family members to live in the same household. However, in an urban setting as mentioned above, the two generations of parents and their children have separate incomes and often distinct lifestyles, thus making it more convenient for the generations to live apart.

In conclusion, it can be argued that demographic changes might be contributing to the plight of the elderly people. Given that some of the elderly live alone and many of them state that they receive no financial assistance from their adult children, the continuing decline in fertility as reported in the literature will challenge the traditional solidarity between generations (United Nations, 2011; Ghana Statistical Service, 2002a, b, 2000; Mba et al., 2011; Mba and Kwankye, 2007b). This is because on the one hand, there will be fewer children to care for the elderly parents, while on the other hand, the cohesion of the familial group will be weakened by urbanization and the accompanying new systems of values and norms that will centre more on the nuclear family with strong husband/wife ties. This development will likely worsen the plight and accentuate the vulnerability of the elderly people of Ghana.

ACKNOWLEDGEMENTS

This study benefitted from the financial support of the Africa Initiative Research Program of the Centre for International Governance Innovation, Canada, for which the author is grateful. However, the views expressed herein are those of the author and they do not reflect the official position of the Association of African Universities or the Centre for International Governance Innovation.

REFERENCES

- Adeokun LA (1981). Demographic Determinants of Intra Family Support for the Aged in Nigeria. Paper presented at Experts Meeting of the International Centre for Social Gerontology, Versailles, May 4-6.
- Apt NA (1996). *Coping with Old Age in a Changing Africa: Social Change and the Elderly Ghanaian*. Averbury Aldeshot, Brookfield.
- Asis M, Domingo D, Knodel J, Mehta K (1995). Living Arrangements in Four Asian Countries: A Comparative Perspective. *J. Cross-Cult. Gerontol.*, 10: 145-162.
- Cameroon L (2000). The Residency Decision of Elderly Indonesians: A Nested Logit Analysis. *Demography*, 37: 17-27.
- Casterline JB (1999). The Onset and Pace of Fertility Transition: National Patterns in the second half of the Twentieth Century. Population Council Working Papers No. 128. New York.
- Chan A (1997). An Overview of the Living Arrangements and Social Support Exchanges of Older Singaporeans. *Asia-Pacific Population Journal* vol.12, No. 4, pp.35-50.
- Chan H, Lee RP (1995). Hong Kong Families: At the Crossroads of Modernism and Traditionalism. *J. Comparative Fam. Stud.*, 24(1): 83-99.
- Chen C (1996). Living Arrangements and Economic Support for the Elderly in Taiwan. *J. Population Stud.*, 17: 59-81.
- Chevan A, Korson JH (1975). Living Arrangements of Widows in the United States and Israel, 1960 and 1961. *Demography*, 12(3): 505-518.
- De Vos SM (1995). Household Composition in Latin America. The Plenum Series on Demographic Methods and Population Analysis. New York: Plenum Press.
- Douglass WA (1988). Iberian Family History. *J. Fam. Hist.*, 13(1): 1-12.
- Ghana Statistical Service (GSS) (2000). Ghana Living Standards Survey: Report of the Fourth Round (GLSS 4), GSS, Accra October.
- Ghana Statistical Service (GSS) (2002a). 2000 Population and Housing Census: Summary Report of Final Results. The GSS, Accra.
- Ghana Statistical Service (GSS) (2002b). 2000 Population and Housing Census: Special Report on 20 Largest Localities. The GSS, Accra.
- Goode WJ (1963). *World Revolution and Family Patterns*. Free Press of Glencoe. New York.
- Government of Ghana (2010). National Ageing Policy: Ageing with Security and Dignity. Ministry of Employment and Social Welfare, Accra.
- Khasiani SA (1987). The Role of the Family in Meeting the Social and Economic Needs of the Aging Population in Kenya. *GENUS*, 43: 103-120.
- Knodel J, Chayovan N (1997). Family Support and Living Arrangements of Thai Elderly: An Overview. *Asia-Pacific Population Journal* vol.12, No. 4, pp.51-68.
- Lynch S (1998). Who Supports Whom? How Age and

- Gender Affect the Perceived Quality of Support from Family and Friends. *The Gerontologist*, 38(2): 231-238.
- Martin LG (1989). Living Arrangements of the Elderly in Fiji, Korea, Malaysia, and the Philippines. *Demography*, 26: 627-643.
- Mba CJ (2010). "Population Ageing in Ghana: Research Gaps and the Way Forward". *J. Aging Res.*, Volume 2010, p. 8.
- Mba CJ (2001). Nigeria's ageing population: A Call for Attention. *BOLD Quarterly J. Int. Inst. Ageing*, 12(1): 15-24.
- Mba CJ (2004a). "Population Ageing and Survival Challenges in Rural Ghana" in *J. Soc. Dev, Afr.*, 19(2): 90-112.
- Mba CJ (2004b). "Older Persons of Ghana", in *BOLD Quarterly J. Aging Res.*, 15(1): 14-18.
- Mba CJ (2005). "Racial Differences in Marital Status and Living Arrangements of Older Persons in South Africa" in *Generations Review. J. Br. Soc. Gerontol.*, 15(2) 23-31.
- Mba CJ, Kwaknye SO, Badasu DM, Ahiadeke C, Anarfi JK (2011). *Global Study on Child Poverty and Disparities: National Report Ghana*. UNICEF. Online at: <http://www.devinfolive.info/childdisparities/>
- Mba JC, Kwankye SO (2007b). *Population, Health and Development in Ghana: Attaining the Millennium Development Goals*. Sub-Saharan Publishers, Legon.
- Mbamaonyekwu CJ (2001). Africa's ageing populations. *BOLD Quarterly J. Aging Res.*, 11(4): 2-7.
- Michael RT, Fuchs VR, Scott SR (1980). Changes in the Propensity to Live Alone: 1950-1976. *Demography*, 17(1): 39-56. Online at: <http://www.sage-hindawi.com/journals/jar/contents.html>
- Palloni A, De Vos S, Palaez M (1999). *Aging in Latin America and the Caribbean*. Working Paper No. 99-02. Center for Demography and Ecology, University of Wisconsin-Madison.
- SPSS Inc. (1999). *SPSS Regression Models 10.0*, Chicago, USA.
- Sweet JA (1972). The Living Arrangements of Separated, Widowed, and Divorced Mothers. *Demography*, 9(1): 143-157.
- United Nations (1991). *Ageing and Urbanization*. Department of International Economic and Social Affairs, ST/ESA/SER.R/109. New York.
- United Nations (2001a). *World Population Prospects, The 2000 Revision: Highlights*. Population Division, Department of Economic and Social Affairs, ESA/P/WP.165, New York.
- United Nations (2001b). *World Urbanization Prospects, The 1999 Revision*. Department of Economic and Social Affairs, Population Division, ST/ESA/SER.A/194. New York.
- United Nations (2011). *World Population Prospects, The 2004 Revision Vol. I: Comprehensive Tables*. Department of Economic and Social Affairs, Population Division, ST/ESA/SER.A/294. New York.