MEASURING POVERTY AMONG ELDERLY MALAYSIANS

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ABSTRACT

Poverty among the elderly should be measured using different methodology as to differentiate them based on the different dimensions of poverty and to reflect the true differences in needs and resource insufficiency among elderly. How poverty is measured will influence coverage of programs for older persons and to date no specific measurement is available to determine poverty among older persons. This paper is focus on poverty measurement among elderly in Malaysia. Household income data 2009/10 obtained from the Department of Statistic Malaysia were utilized to examine the incidence of poverty among older persons in Malaysia. Incidence of poverty among older persons was measured using two measurements; absolute poverty (Yearly Poverty line income (PLI) of RM8640) and relative poverty (Half Median income of Malaysia of RM21756). Two income measurements were compared; individual elderly income and income of households headed by older persons. Measuring poverty using individual income will support the philosophy of economic empowerment of older persons. Income of household headed by older persons will reflect the economic situation of household headed by older persons, the proportion expected to increase in the future. Data of the study comprised of 184,447 individual member records of which 16325 were those age 60 and older (8.85%). There was also information on 43026 households, 7892 of which are headed by those ages 60 and older (18.3%). The incidence of absolute and relative poverty using the two measurements will be calculated and the implications of such measurement will be discussed.

Key words: *income, absolute poverty, relative poverty, older persons*

INTRODUCTION

Malaysia is striving hard to achieve high income country status by 2020 through her Vision 2020. All efforts are being under taken toward realizing this goal. In the process of developing the economics sector, Malaysia is experiencing a demographic shift towards an ageing population, albeit at a slower rate than say Singapore, and it is this that gives Malaysia a window of opportunity to address income protection in old age before any sort of crisis point is reached (Caharer, 2003). Increased educational attainment, migration as well as better living condition resulted in increased life expectancy and lower fertility. Malaysia is projected to become an aged nation with 15% of her population age 65 and older in 2035. Using the cut off point of 60 years old, Malaysia will become an aged nation the same time as achieving the high income status. Despite the achievement of high income status, the issue of poverty remain a challenge to Malaysia especially poverty among elderly. Poverty among elderly have been well researched in developed country and evidences from household survey data from a range of developing countries indicates that old age poverty is a significant issue (Barrientos *et al*., 2003). Poverty and income inequality at older ages is a reflection of previous life experience -he choices and opportunities, successes and failures, best laid plans and lucky (or unlucky) surprises that combine to form the content of our lives (Hardy, 2009). Incidence of poverty also depends on how poverty was measured.

The most common measurement of poverty is using money income. The definition of "income" matters, such as whether we consider an individual based only on his or her own earnings, or based on his or her share of household earnings. Though much has been discussed about poverty among households, poverty among older persons remain

scarcely available especially in developing country like Malaysia. This paper will utilize income as measure of poverty to examine the incidence of poverty among elderly in Malaysia. Individual income data reflect the individual purchasing power while household income data reflect the household well being of the older persons. Deaton and Paxson (1998) investigated how living arrangements affect poverty measurement among the elderly in the United States and highlighted the importance of living arrangements. Employment of correct measurement is essential in identifying certain target group, which would enable the researchers to suggest appropriate policies in addressing the issue of poverty among older persons (Rasool *et al.*, 2011). This paper will examine the incidence of poverty using poverty line income as well as relative poverty (half-median income of the country).

Measurement of poverty

Vulnerability to poverty in old age may be due to a specific threat (the sudden loss of personal income upon retirement), but may also result from gradual processes (Schroder-Butterfill and Marianti, 2006). There are numerous definitions of poverty and almost all definitions could be put into three main categories: (1) poverty means having less than what is objectively defined; (2) poverty is having less than others in the society; (3) poverty is a feeling of not having enough to get along (Rasool *et al.*, 2011). This study used income data to determine the incidence of poverty among elderly. The income method determines whether people's incomes fall below the poverty line—the income level at which some specified basic needs can be satisfied (Alkire and Santos, 2014).

The absolute concept views poverty as one's inability to obtain minimum necessities to maintain physical efficiency or to fulfil basic human needs (Jamilah, 1994). Therefore, according to Chamhuri (1988) as reported by Jamilah (1994), poverty is a syndrome affecting people in situations characterized by malnutrition and poor health standard, low income, unemployment, unsafe housing, lack of education, inability to acquire modern necessities, insecure jobs, and a very negative outlook on life. In short, poverty means poor wellbeing. In the case of older persons this problem may be exaggerated with poor or declining health conditions.

Lack of available data makes it difficult to compare poverty among older people compared to other age groups as well as understanding the magnitude of poverty among elderly themselves. Reduced capacity for income generation and a growing risk of serious illness are likely to increase the vulnerability of elders to fall into poverty, regardless of their original economic status, unless comprehensive and effective social policies are in place (Lloyd-Sherlock, 2000). Absolute poverty using poverty line income (PLI) and relative poverty (income disparity and Gini ratio) have been two main measures of poverty used in Malaysia. With the success of eradication absolute poverty, Malaysia has embarked into addressing the relative poverty which was measured by using income quintile. Those in the lowest 40% quintile are considered relatively poor. Malaysia's Poverty Line Income (PLI) is based on the minimum requirements of a household for three major components: food, clothing, and footwear, and other non-food items such as rent, fuel, and power; furniture and household equipment; medical care and health expenses; transport and communications; and recreation, education, and cultural services. The use of relative poverty measure of half median income of the country will reflect the position of the elderly relative to the population at large. This measurement adopted the distributive justice perspective.

Poverty and the elderly

Elderly was identified as one of the poverty-prone groups besides women and children (HelpAge International, 1999). Alecxih and Kennel (1994) reported that even in the prosperous country such as the United States, over one in three elderly person lives in poor and near poor family (i.e. having income less than 150 percent of the poverty level). Many frail older persons belong to the most impoverished segment of the society and depend on the care of their family or state welfare. HelpAge International (1999) also reported that in most developing countries, old people are constantly among the poorest population groups. There are many sections of Malaysian society who find themselves in danger of poverty in old age particularly the self employed and the non formal sector such as those whose occupation has been poorly remunerated during their working years in both rural and urban settings. Hawkers, trishaw pullers, labourers and petty traders as well as those already suffering the effects of poverty in old age, are at risk from poverty due to non-existent EPF savings (Litwin and Meir, 2013). Rowland and Lyons (1996), identified being women, minorities and

oldest elderly group as the most at-risk elderly to poverty. In their study, Rowland et al. found that poverty rates increase with age and nearly one-fourth of elderly women were poor or near poor, reflecting their lower wage levels during working years, their increased of financial stress from widowhood and longevity that exceed savings. In addition, poor elderly are less likely to have family or companions living with them who can assist with their medical and financial needs. Similarly, Alecxih and Kennel (1994) and Miller (1998) suggested that the most at risk of significant poverty include those over the age of 80, women, those living alone and disabled elderly persons.

The elderly is also vulnerable to poverty because income in old age is the result of a life long series of event and decisions made in earlier life (Ozawa, 1995), that unequal opportunity and access to education, employment and so on impacted their economic status in later life (DeVaney, 1995). Opportunities and consequences of decisions made earlier in life also influenced by socio-demographic factors such as gender. For example, due to their relatively lower education than men, and that majority were not in formal employment which neither give consistent flow of income nor pay any pension in old age, elderly female were economically worse off than elderly male (Micheal and Eleanor, 2003).Their economic vulnerability is compounded by their physical, mental and health vulnerability (Gupta and Sankar, 2002). Compared to other types of support (emotional and practical assistance), financial aid from adult children were less common (Millward, 1998). However, perhaps due to cultural difference, the flow of financial aid from adult children to the elderly in Malaysia is still widely practiced though the trend is declining. Shahar *et al.*(2001) found that 62% of rural elderly in his sample relied on children for financial support. Meanwhile Ofstedal *et al.* (2003) found that while older man and women are equally likely to receive financial assistance from children in Philippines and Thailand, but, older women are more likely than older man to receive such support in Taiwan and Singapore.

Elderly may co-residing with their adult child(ren) on voluntary basis or due to necessity. According to Millward (1998) co-residence generally enhances financial exchange and that the elderly can benefit from the financial status of the household in which they live in. Thus, extended living was found to have a poverty reducing effect to elderly and in some cases to the children and been used as a hedge against poverty among elderly. Unfortunately, as children of the poor are more likely to be poor themselves, thus, they may less able to support their needy parents (Flippen and Tienda, 1998). Migration of educated young generation to urban areas seeking better employment tended to leave older parents in the rural areas leaving older parents to head the household. Meanwhile, the proportion of older people remain in paid work is projected to increase, especially in low-income developing countries. Their earnings make an important contribution to their households, and to avoiding poverty (Barrientos *et al.*, 2003). For older households in particular, wealth can be an important source of income, an economic reserve to pay for catastrophic health shocks and a factor in deciding when to retire (Hardy, 2009). After discussing background and brief literature review, the paper discusses description of the methodology used in the analysis, research findings and conclusions.

RESEARCH METHOD

Household Income Survey 2009/2010 data were used in the analysis. Data of the study comprised of 184,447 individual member records of which 16325 were those age 60 and older (8.85%) and 8431 were elderly who co-residing in 6270 households. There was also information on 43,026 households, 7892 of which were headed by those ages 60 and older (18.3%). This paper will compare incidence of poverty among elderly who co-reside with their children (Elderly co-reside) and elderly head of household. Two measures of income were used to determine the incidence of poverty among elderly; individual income and household income. For individual income of the elderly, the net income was used to determine the incidence of poverty. All net income reported by each member of the households were computed to obtain total household income headed by elderly. Two measurement were used to determine poverty among elderly, absolute poverty using poverty line (total and per capita) income for respective region and relative poverty measured using half of the median income of Malaysia for the year 2009 (RM17046) (Department of Statistics, n.d). The poverty line income for different region and strata used is shown in Table 1. Since the available income data in an annual income, the poverty line was converted to yearly poverty line. Descriptive analysis was used to present the result of the study.

Table 1. Poverty line incomes (Household and Per Capita) by Region, 2012

Region	Monthly poverty line income		Yearly poverty line ncome	
	Household	Per Capita	Household	Per-capita
P/Malaysia	830	210	9960	2250
Sabah & Labuan	1090	240	13080	2880
Sarawak	920	230	11040	2760

Source: Interagency Coordinating unit, Prime Minister Department,
(http://www.moe.gov.my/my/kwapm)

Profile of elderly and household

A total of 16,325 older persons (age 60 and older) out of 184,447 individuals household members (10.5%) were extracted from the Household Income Survey 2009/2010. There were 8,431 elderly co-reside with their children and data on these elderly 8431 will be used in the analysis for individual elderly poverty. In addition, there were 7,894 out of 43,026 households (18.3%) headed by older persons.

The profile of the individual elderly (8,431) and the elderly head of household are shown in Table 2. There were higher percentage of individual elderly residing in the urban area compared to rural area but the proportion of rural households headed by elderly was much higher (54.3% compared to 45.7%). As such that the data revealed that higher proportion of urban elderly co-reside with their children compared to rural areas. The migration of younger educated children to urban areas looking for better job opportunities left the older parents stay put in the rural areas. Looking at the gender composition, the data show that there was slightly higher percentage of older women as compared to older men co- residing. Since life expectancy of men is much shorter than of women, more women are in the older age group as compared to men. This also may explain why higher proportion of older women co-residing with their children. In contrast the proportion of men as head of household is much higher as compared to women. It is culturally acceptable that when there are men in the household, they are automatically accepted as the head of household. Women will only be acknowledged as head of household when the husband has passed away or she is divorced. This is clearly reflected in the marital status of the elderly and the elderly head of household. Majority of older persons in the study were married followed by widowed.

Elderly in this study were the group born prior to Malaysia gained independent from the British. They had limited opportunity to go to school due to lack of facilities as well as lack of awareness on the importance of education. This is reflected in the educational attainment of the elderly individuals as well as the elderly head of household. There were 42% individual elderly and 47% elderly head of households had primary education. In addition there were 38% individual elderly had no formal education as compared to

Table 2. Profile of the elderly and elderly head of households

		Elderly co-reside		Elderly head of household	
		Frequency	Percent	Frequency	Percent
Strata	Urban	4551	54.0	3609	45.7
	Rural	3880	46.0	4285	54.3
Gender	Male	1779	21.1	6042	76.5
	Female	6652	78.9	1852	23.5
Marital Status	Never married	283	3.4	142	1.8
	Currently Married	5112	60.6	5519	69.9
	Widowed	2986	35.4	2131	27.0
	Divorce	31	0.4	74	0.9
	Separated	13	0.2	28	0.4
Education	No formal education	4058	48.1	2208	28.0
	Primary	3120	37.0	3724	47.2
	Secondary	1059	12.6	1542	19.5
	Tertiary	194	2.3	420	5.3

28% among elderly head of household. Further analysis of the data revealed that higher proportion of those with no formal education were women. With lower level of educational attainment older persons in Malaysia have limited economic opportunities and this eventually affect their ability to continue work, earned incomes and to some degree, savings and wealth (Jariah and Sharifah, 2008)

Table 3 shows the economic activity and occupation of elderly and elderly headed household. Majority of elderly in this study had no or low level of education especially among women. As such they had limited employment opportunities to generate income during younger years. One third of the individual elderly in this study were housewife followed by retirees. With mandatory retirement age of 58 years in 2009, the respondents have passed the mandatory retirement age which forced those in the formal employment sector to stop work. Seventeen percent elderly in the study involved in self-employment while very small percentage remain employed in private or public sector.

As for elderly who head a household, the percentage of retirees was almost similar to the individual elderly but the percentage of elderly head of household who were self-employed was much higher compared to individual elderly. Since majority elderly head of household were men, those categorized as housewife was much lower compared to individual elderly. In general it was observed that higher percentage of elderly head households were still involved in productive activities as compared to individual elderly who co reside. Previous research have shown that majority elderly who remain economically active due to need to generate income to support family. Study conducted by Masud *et al*. (2006) showed that a higher percentage of elderly men in Malaysia reported to receive employment-related income than elderly women. The absence of social security in old age many elderly have to continue working to earn a living.

Table 3 shows the occupation of Malaysian elderly. Almost all individual elderly in the study were not involved in any occupation and among those involved majority involved in agriculture related occupation. With mandatory retirement in force, few elderly have the opportunity to work on the formal sector after reaching retirement age. As for elderly head of households, more than half were not involved in any formal occupation and majority who continue working do so in the agriculture sector. Though there was no

Table 3. Economic activities of elderly and elderly head of households

		Elderly co-reside		Elderly head of household	
		Frequency	Percent	Frequency	Percent
Activity status	Employer	8	0.1	134	1.7
	Government Employee	8	0.1	90	1.1
	Private sector employee	163	1.9	1031	13.1
	Self employed	238	2.8	2476	31.4
	Unpaid family worker	149	1.8	5	0.1
	Housewife	4575	54.3	1128	14.3
	Others (retirees)	19	0.2	3030	38.4
Occupation	Homemakers etc	7865	93.3	4158	52.7
	Senior Officials & Managers	25	0.3	302	3.8
	Professionals	10	0.1	63	0.8
	Technicians & Associate Professionals	23	0.3	161	2.0
	Clerical Workers	18	0.2	49	0.6
	Service, Shop & Market Sales Workers	118	1.4	535	6.8
	Skilled Agriculture & Fishery Workers	231	2.7	1758	22.3
	Craft & Related Trades Workers	55	0.7	242	3.1
	Plant & Machine-Operators & Assemblers	17	0.2	203	2.6
	Elementary Occupations	69	0.8	423	5.4
All		8,431	100.0	7,894	100.0

information on the occupation when they were young, with the level of educational attainment among the elderly, we can assume that majority were involved in lower ranking job or self-employed. As such the nature of work they did when they were young will affect their income as well as economic situation in old age.

Income of elderly

Table 4 shows the mean income of elderly co-reside and elderly head of household. The income used in the analysis is the net income available in the data set. The data revealed that there were 6,910 (82%) elderly who co-reside received no income. From the perspective of financial independence, the elderly with no income are not financially independent and they have to rely on others to meet their needs. Among 18% elderly with income, the mean yearly income was RM9046.41 with median much lower (RM5890) (Exchange rate RM3.43=US1).

In contrast the elderly head of household reported much higher mean income (RM17,000.60) and median of RM12,829.00. The median income elderly head of household were more than twice the median income of elderly who co-reside. Table 4 also shows the income classification of the two groups of elderly. The cut off value of the lowest 40% income quintile was RM4,308.00 compared to RM10,967.99 among elderly head of household. In general the data shows that the income of elderly head of household was much higher compared to elderly co-reside. The table also shows the mean income by gender and strata. Mean income received by elderly who co-reside was much lower compared to elderly head of households. Urban elderly also reporting much higher income compared to rural elderly.

Table 4. Income of elderly and elderly head households

Profile	Elderly co-reside	Elderly head of household
N	1521	7894
Mean income	9046.41	17000.60
Median income	5890.00	12829.00
Lowest 40% quintile	<4308.80	<10967.99
Middle 40% quintile	4308.81-12780.20	10968.00- 21942.99
Top 20% quintile	12780.21>	21943.00>
Male	8899.85 (n=422)	19942.28 (n= 6402)
Female	9102.68 (n=1099)	11618.08 (n=1852)
Urban	11621.93 (n=796)	23078.58 (n=3609)
Rural	6218.66 (n=725)	13703.00 (n= 4285)

Table 5 shows mean and median income as well as income classification of the households. All the 8431 elderly co-reside were residing with 6270 households. Some household had more than one elderly co-residing. Two thirds of the household had one elderly co-residing and 24% had two elderly and 2% had three or four elderly co-residing. Mean and median income of household elderly co-residing was much higher compared to household headed by elderly. Since head of household of elderly co-reside was younger, they had better educational attainment compared to elderly head households. Only 18% had primary education and 22% had tertiary education. As such the non elderly household heads had better earning compared to the elderly head of household. Cut off income classification for households elderly co-reside was also higher compared to elderly headed household. In general the elderly living with non elderly head had higher mean income compared to household headed by elderly. Similar trend was also observed when mean income by gender and strata was compared.

Table 5. Mean and median of household income and income classification of household

Household income	Elderly co-reside	Elderly head of household
N	6270	7892
Mean Y	41001.27	28972.50
Median Y	32682.50	21754.00
Lowest 40%	<26669.40	<17415.00
Middle 40%	26669.41 - 57846.00	17415.00 - 42378.00
Top 20%	57846.01>	42378.00>
Male	40169.41(n=6416)	30600.11 (n= 6402)
Female	32602.99 (n=1239)	23662.54 (n=1852)
Urban	44205.75 (n=4655)	34479.02 (n=3609)
Rural	30780.82 (n=2999)	24334.68 (n= 4285)

Table 6 shows incidence of absolute and relative poverty among elderly who co-reside and elderly head of household. This measurement reflects the purchasing power of elderly individual and their financial independent. There were 82% elderly who co-reside reported no income. Those elderly with no income, these (82%) have to depend on others for their daily needs. All households headed by elderly received lower income. Taking into account the number of those without income, the percentage of poor elderly co-reside who received income below PLI was very high. Though the household income of elderly who co-reside was much higher, the percentage of elderly with no income was much higher. This reflects that the well being of majority of these elderly depended on their children.

Table 6: Absolute and relative poverty status of elderly and households

	Elderly co-reside		Elderly head of household	
	Poor	Non poor	Poor	Non poor
Elderly				
Poverty line income	246 (2.9%)	1267* (15.0%)	101 (1.3%)	7793 (81.3%)
Half median income (17046)	1338 (15.9%)	183* (2.2%)	5352 (67.8%)	2542 (32.2%)
Household				
Poverty line income	310 (4.9%)	5960 (95.1%)	1447 (18.7%)	6417 (81.3%)
Per-capita income	264** (4.2%)	5615** (89.6%)	1045 (13.2%)	6849 (86.8%)
Half median income (17046)	1204 (19.2%)	5066 (80.8%)	3074 (38.9%)	4020 (61.1%)

*6918 (82.0%) elderly had no income
**315 missing data

The incidence of poverty among households with elderly and household headed by elderly was measured using three measurements; household poverty line income (absolute poverty), per-capita poverty and relative poverty (half median income). The result is shown in Table 6. The incidence of poverty using poverty line income was much higher among household headed by elderly (18.7%) compared to household headed by non elderly (4.9%). When the family size is taken into account the rate of poverty declined slightly. The per capita income poverty for household headed by non elderly declined to 4.7% and per capita poverty incidence of elderly headed households declined to 13.2%. When half median income for Malaysia was used to measure poverty, the incidence of relative poverty is much higher regardless of types of households and the percentage of household headed by elderly had higher incidence of relative poverty. Household poverty among elderly co-reside was much lower compared to elderly headed households though the rate is still higher compared 3.8% the incidence of poverty at national level. Household headed by non elderly tended to be more economically stable compared to elderly headed household.

CONCLUSION

Two sets of data were used to explore the incidences of poverty among elderly. One data set representing elderly co residing with their children and one dataset is on elderly headed household. Three measurements were used to measure poverty (poverty line income, per capita poverty and half median income). Though more than three quarters elderly who co reside did not have income, incidence of household poverty among elderly co-reside with income was much lower compared to elderly head of household. Nevertheless if we take into account those without income, the incidence of poverty was 85% and only 2% elderly who co reside had income above half of median income for Malaysia. Living arrangement seems to have made a difference in the elderly and household income which eventually effect poverty status. The data shows that majority elderly co reside reported no income and they are financially dependence on others for their livelihood. Looking from the perspective of empowerment, we can safely say that they are not financially independent. In contrast, all of the elderly head of household reported some income though their income was much lower compared to elderly who co reside.

The study provided evidence on the magnitude of poverty among elderly. Since the elderly are heterogeneous groups, efforts to address poverty among elderly have to take into account many other factors and this study provide insight into the difference in incidence of poverty between elderly who co reside and elderly head of household. Since the information available in the dataset is limited, not much further elaboration can be done to identify other factors explaining poverty among elderly. Further analysis and additional data on aspects such as assets own, savings as well as debts owned by the elderly or household members need to be gathered to enable us determine the poverty status among elderly. Addressing poverty among elderly in Malaysia will helps maintain the lower level of poverty rate of the country as well as ensuring the wellbeing of elderly in Malaysia.

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