

## Original Research Article

# Poverty among households living in slum area of Hlaing Tharyar Township, Yangon City, Myanmar

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## ABSTRACT

**Background:** Slums can be regarded as physical manifestations of urban poverty. Although the world has made dramatic improvement in reducing poverty since 1990, poverty still persists at an unacceptable level. Although current situations highlights the importance of slum areas to be given priority in poverty alleviation, there are limited data on poverty level among people living in urban slums of Myanmar.

**Methods:** A cross-sectional study was conducted among households living in slum areas of Hlaing Tharyar Township, Yangon City, Myanmar during 2016. Multi-staged systematic random sampling and face-to-face interview were applied in selecting the samples and collecting the data, respectively. The new global poverty line (1.9 USD per person per day) was used as a threshold in determining the poverty. Chi-squared test and multivariate logistic regression analysis were utilized in data analysis.

**Results:** Altogether 254 participants were recruited after getting informed consent. The occurrence of poverty among households was 54.3% (95% CI: 48.2%, 60.5%). Head counts of poverty among study population was 58.8%. The education status of household's head, size of household and the presence of less than 15 years old children in the household were detected as significant determinants of being poor household.

**Conclusions:** Poverty among households living in slum area of Hlaing Tharyar Township, Yangon City was high. Measures to alleviate poverty in urban slums should be intensified. Education level of household's heads should be improved. Family planning or birth spacing programme should also be strengthened, especially in urban slums.

**Keywords:** Myanmar, Poverty, Slum, Yangon

## INTRODUCTION

Poverty still persists at an unacceptable level although the world has made dramatic improvement in reducing poverty since 1990. During 2015, an estimated number of 700 million people lived in extreme poverty, globally.<sup>1</sup> Poverty is multi-dimensional in nature and equivalent to poor quality of life, deprivation etc.<sup>2</sup>

Myanmar is at the stage of political as well as economic reforms. Among South-East Asian countries, Myanmar

has the highest poverty rate and the lowest life expectancy.<sup>3,4</sup> About 30% of Myanmar population are living in poverty that is more prevalent in rural areas where 70% of its population lives. Therefore, people from rural area has migrated to urban area to find out a job and a better life now-a-days.<sup>3-8</sup> This, in turn, causes rapid and unplanned urbanization leading towards expansion of urban slum areas. A slum household is defined by un-habitat as "a group of individuals living under the same roof in an urban area, lacking in one or more of the following": a) Durable housing (i.e. a

permanent structure providing protection from extreme climatic conditions); b) Sufficient living area (i.e. no more than three people sharing a room); c) Access to improved water (i.e. water that is sufficient, affordable, and can be obtained without extreme effort); d) Access to improved sanitation facilities (i.e. a private toilet, or a public one shared with a reasonable number of people); and e) Secure tenure (i.e. secure tenure status and protection against forced eviction).<sup>9</sup> Slums can be regarded as “physical manifestation of urban poverty”. Globally, number of slum dwellers are estimated to be increasing; 924 million in 2001 to 2 billion in 2030.<sup>10</sup> Although current situations highlights the importance of slum areas to be given priority in poverty alleviation, there are limited data on poverty level among people living in urban slums of Myanmar. Therefore, the present study was conducted to determine the extent and determinants of poverty among households living in slum area of Hlaing Tharyar Township, Yangon City during 2016.

**METHODS**

A cross-sectional study was carried out among households living in slum areas of Hlaing Tharyar Township, Yangon City during September to December 2016. Sample size was calculated using Epi-info version 7.0 statistical software. Prevalence of poverty among households, confidence level and precision (i.e. confidence limits) were set at 30%, 95% and 6%, respectively.<sup>3,5,6,8</sup> Sample size requirement was increased by 10% to compensate failure to response among participants. A total of 254 households were selected by means of multi-staged systematic random sampling procedure. At the first stage, 7 out of 20 wards in the township were selected randomly. Then a slum area containing more than 100 households from a selected ward was randomly chosen at the second stage. Finally, required numbers of households were selected using systematic random sampling. Number of households to be chosen from a slum area was allocated proportionately, based on total number of households it had. Therefore, number of households selected from each slum area ranged from 29 to 48 in this study. The household’s head (or housewife if the household’s head was not available at the time of data collection) was recruited into the study after getting written informed consent. Face to face interview method was applied in data collection. STATA version 11 statistical package was used in data entry and analysis. Multivariate logistic regression analysis with backward deletion strategy was applied in assessing the determinants of poverty among households. Chi-squared test was also utilized.

The new global poverty line (1.9 USD per person per day) was utilized as a threshold in determining the poverty.<sup>1</sup> The socio-demographic characteristics of the household’s head (such as age, sex and education status) and household’s characteristics (such as size of household, presence of less than 15 years old children,

presence of equal or older than 65 years old person, history of illness among household’s members during last year, number of ill person and history of hospitalization during preceding year) were considered as potential determinants of poverty in the present study. The education status of household’s heads was categorized into three groups; low (i.e. no formal education and primary school level), intermediate (i.e. middle and high school level) and high (i.e. university level and graduates).

**RESULTS**

Most of the household’s heads were male (86.2%) and the highest education status of majority of them were intermediate level (67.3%). Socio-demographic characteristics of household’s heads and the characteristics of households including income are shown in Tables 1 and 2.

**Table 1: Socio-demographic characteristics of household’s heads and the characteristics of households.**

Variables	Frequency (n=254)	Percent
<b>Sex</b>		
Male	219	86.2
Female	35	13.8
<b>Education status</b>		
Low	46	18.1
Intermediate	171	67.3
High	37	14.6
<b>Size of household</b>		
≤5 members	170	66.9
>5 members	84	33.1
<b>Under 15 years old children</b>		
Present	201	79.1
Absent	53	20.9
<b>Elder persons (≥65 years old)</b>		
Present	32	12.6
Absent	222	87.4
<b>History of illness among household’s members</b>		
Present	244	96.1
Absent	10	3.9
<b>History of hospitalization among household’s members</b>		
Present	55	21.7
Absent	199	78.3

If an old threshold (1.25 USD) was used, the occurrence of poverty among households (i.e. percentage of poor households) was 27.6% (70/254). However, the present study used the new global poverty line (1.9 USD) in determining the poverty. Based on the new threshold, 54.3% (95% CI: 48.2%, 60.5%) of households (138/254) were below poverty line. This was significantly related to the education status of household’s head, size of household and the presence of children who are less than

15 years of age in the household (Table 3). Head counts of poverty (% of population) was 58.8% (727/1236).

**Table 2: Age of household’s head, income, household’s size, and the number of under 15 years old children, elder persons and ill members in each household.**

Variables	Mean (sd)	Median	Minimum	Maximum
Age (years)	41.6 (12.7)	40.0	18	73
Monthly household’s income (MMK)	338,678.3 (194,162.3)	290,000	55,000	1,160,000
Monthly per capita income (MMK)	75,987.7 (49257.8)	66,666.7	11,833.3	450,000
Daily per capita income (MMK)	2,532.9 (1641.9)	2,222.2	394.4	15,000
Size of household	4.9 (1.9)	4.5	1	13
No. of <15 years old children	1.5 (1.3)	1.0	0	10
No. of elder persons	0.2 (0.4)	0	0	2
No. of ill persons	2.1 (1.0)	2.0	0	5

MMK = Myanmar Kyats; Exchange rate at the time of study was 1 USD = 1282 MMK.

**Table 3: Association of poverty with sex and education status of household's head, the characteristics of household, and history of illness and hospitalization among members.**

Variables	Poverty		Chi-squared test (p-value)
	Present (%)	Absent (%)	
<b>Sex</b>			
Male	118 (53.9%)	101 (46.1%)	0.129 (0.719)
Female	20 (57.1%)	15 (42.9%)	
<b>Education status</b>			
Low (n=46)	28 (60.9%)	18 (39.1%)	4.030 (0.045)*
Intermediate (n=171)	96 (56.1%)	75 (43.9%)	
High (n=37)	14 (37.8%)	23 (62.2%)	
<b>Size of household</b>			
≤5 members (n=170)	82 (48.2%)	88 (51.8%)	7.697 (0.006)
>5 members (n=84)	56 (66.7%)	28 (33.3%)	
<b>Under 15 years old children</b>			
Present (n=201)	118 (58.7%)	83 (41.3%)	7.434 (0.006)
Absent (n=53)	20 (37.7%)	33 (62.3%)	
<b>Elder persons (≥65 years old)</b>			
Present (n=32)	17 (53.1%)	15 (46.9%)	0.022 (0.884)
Absent (n=222)	121 (54.5%)	101 (45.5%)	
<b>History of illness among household’s members</b>			
Present	133 (54.5%)	111 (45.5%)	0.079 (0.779)
Absent	5 (50.0%)	5 (50.0%)	
<b>History of hospitalization among household’s members</b>			
Present	30 (54.5%)	25 (45.5%)	0.001 (0.971)
Absent	108 (54.3%)	91 (45.7%)	

\* Chi-squared test for trend.

Table 4 shows the results of both univariate and multivariate logistic regression analyses. Based on multivariate logistic regression analysis, the present study identified the education status of household’s head, size of household and the presence of children who are less than 15 years of age in the household as significant determinants of being poor household. The higher the education status of household’s head, the lesser the

chance of being poor household. Similarly, a household that has more than 5 members or children of less than 15 years old are about two times more likely to be poor compared to its counterparts. However, age and sex of household’s head and other variables such as number of ill persons in the household, history of illness and hospitalization among household’s members were not significantly related to poverty ( $p > 0.05$ ).

**Table 4: Results of univariate and multivariate logistic regression analyses.**

Variables	Univariate analysis		Multivariate analysis	
	OR <sub>crude</sub> (95% CI)	p-value	OR <sub>adjusted</sub> (95% CI)	p-value
Age	1.00 (0.99, 1.02)	0.629		
<b>Sex</b>				
Male	Reference			
Female	1.14 (0.56, 2.35)	0.719		
<b>Education</b>				
Low	Reference		Reference	
Intermediate	0.82 (0.42, 1.60)	0.565	0.75 (0.37, 1.50)	0.414
High	0.39 (0.16, 0.95)	0.039	0.36 (0.14, 0.90)	0.030
<b>Size of family</b>				
≤5	Reference		Reference	
>5	2.15 (1.25, 3.70)	0.007	1.78 (1.00, 3.14)	0.048
<b>&lt;15 children</b>				
Absent	Reference		Reference	
Present	2.35 (1.26, 4.37)	0.007	2.14 (1.11, 4.14)	0.024
<b>Elder persons</b>				
Absent	Reference			
Present	0.95 (0.45, 1.99)	0.884		
<b>History of illness among household members</b>				
Absent	Reference			
Present	1.20 (0.34, 4.25)	0.779		
No. of ill persons	0.92 (0.72, 1.18)	0.529		
<b>Hospitalization</b>				
Absent	Reference			
Present	0.84 (0.50, 1.43)	0.529		

## DISCUSSION

Poverty incidence was high in the study area (58.8%). It is higher than the Union figure which ranged from 25.6% to 37.5% in various reports.<sup>3,5,6,8</sup> This means that the study result may not be representative of the whole nation (or) the difference in study period might explain this finding. Some reports based on situation in 2010 and 2012 and others relied on fiscal year 2013-2014.<sup>3,5,6,8</sup> The present study was conducted in 2016. Possibility of utilization of different thresholds should also be taken into account for these differences. Poverty among households in the study area was also high (54.3%). This may be due to the fact that study area is slums. A similar study done in Delhi slums reported that 48% of households and 57% of population were poor.<sup>2</sup> Separate studies carried out in India and in Nairobi, Kenya also revealed that poverty incidence among slum dwellers was more than 50% and 73%, respectively.<sup>11-13</sup> Education status of household's head, size of household and the presence of under 15 years old children in the household were identified as significant determinants of being poor household in this study. This finding is supported by those of similar studies conducted in Vietnam and Nigeria.<sup>14,15</sup> Besides, size of household and education level were denoted as main determinants of poverty in the poverty manual published by World Bank.<sup>16</sup>

## CONCLUSION

Poverty among households living in slum area of Hlaing Tharyar Township, Yangon City was high. Measures to alleviate poverty in urban slums should be intensified. Education level of household's heads should be improved. Provision of social support to the households that have children of less than 15 years old should be considered by Government or local authorities. Family planning or birth spacing programme should also be strengthened, especially in urban slums. Similar study with increased sample size and wider geographic coverage should be implemented.

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