

STATUS OF ELDERLY PEOPLE OF BANGLADESH: HEALTH PERSPECTIVE

M.Taj Uddin*, M.A.I. Chowdhury**, M. Nazrul Islam* and G. Uddin Baher*

*Department of Statistics, Department of Statistics, Shahjalal and ** Department of Civil and Environmental Engineering, Shahjalal University of Science and Technology, Sylhet, Bangladesh

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Abstract: The study is an attempt to assess the health profiles of the elderly people in Bangladesh based on primary data purposively collected from three greater districts of the country. Simple statistical tools were used to analyze the data. The sample profile showed that most of the elderly (55.7 percent) were average state of health and only 20.3 percent were not in good health. The analysis also showed that respondents' present state of health is significantly allied with their age, level of education, monthly income, proper sanitation facilities and number of son or daughter, dwelling place and type of the family. So, this piece of work may be helpful for the policymakers to deal with the health problems of the elderly.

Keywords: state of health, age, level of education, monthly income, sanitation, place and type of family

Introduction

According to UN the total number of elderly people in the world will reach at 1200 million by the year 2025, which indicates that by this time 15% of the total populations will reach 60 years or more [1]. UN also stated that the world is experiencing an age-quake. Every month, one million people reach 60 years of age. By the year 2030, several industrial countries will have one third of their population over 60 years of age [2]. The number of elderly people is increasing rapidly in the developed countries but it is also increasing in the developing countries by leaps and bounds. More than half of the world's older population lives in developing countries [3]. Thus the number of elderly people is increasing day by day at a very alarming rate. Now-a-days medical scientists are expecting that a person can live up to 200 years, even up to 300 years [4]. To increase life expectancy every person has to practice physical work regularly, walk regularly and has to take meals on time with sufficient nutrition.

In the USA there are a lot of care services for their elderly people. There are old person homes, day-care centers and elderly societies for elderly people. "Honor the past, imagine the future". By this declaration the American society started to give more emphasis on health care and economic security for its elderly people [5]. Rush [6] found that the incidence of lifestyle diseases increases among the elderly people over the whole world which is not a sudden onset phenomenon but an accumulation of changes in the expression of genes in response to nutrition and environment from conception. In Japan, the number of elderly people is increasing faster than in other industrialized countries where the number of elderly people is more than 11.65% of the total population. To ensure more emphasis on care and service issue for the elderly people, the Japanese Government has been observing a national aged day [7].

In Bangladesh, there has been a significant decline in infant and child mortality rate over the past decade [8]. Control and prevention of diseases, such as measles, poliomyelitis, and diphtheria along with extensive use of oral saline for diarrheal diseases have greatly reduced childhood mortality; Bangladesh is on

Corresponding author
M. Taj Uddin, Email: mtajstat@yahoo.com

the margin of polio eradication, and has already achieved the elimination goal for leprosy at the national level [8]. People are living longer; the average life expectancy at birth in Bangladesh has increased to over 60 years [8]. It is found that in poor families, both in rural and urban areas, older people are often unable to meet the demand due to extreme poverty where food is the top priority [9,10]. It has traditionally been the responsibility of the family to provide food and shelter to its elderly members in Bangladesh [11]. Most of the elderly people of Bangladesh aren't in a good socio-economic condition due to various problems such as poverty, wage discrimination, want of essential goods and commodities, shelter and compulsory retirement from job when age limit is attained [12]. A small proportion (around 6%) of the total population of Bangladesh constitutes the elderly population, but the absolute number of them is quite significant (about 7.2 million) and the rate of their increase is fairly high [13]. The majority are male in the urban area while most are women in the rural area. About 90% of the urban elderly males live alone and are married, whereas 89 percent of the rural elderly women living alone are widowed [14]. An extensive study on the importance of health education for improving the health quality of the rural elderly of Bangladesh was conducted by Rana *et. al.* [15]. They concluded that provision of community-based health education intervention might be a potential public health initiative to enhance the health status of the elderly. The work of Mansur *et al.* [16] revealed that marital status, work status, monthly income, habit of intoxication significantly effect the health status of female elderly of rural Bangladesh. The government of Bangladesh has initiated some programs like pension, gratuity, welfare fund, aged persons fund, group insurance and provident fund for the retired government officials and employees. Health care issue of

the elderly people in Bangladesh has not yet received any importance, though it is increasing alarmingly. The following Table 1 of population projection in Bangladesh would convince us to take proper steps for the health care issues of around 7-10% elderly people of Bangladesh.

Table 1: Projected elderly (60 years or more) people (in thousand) of Bangladesh: 2010-2025.

Year	Male	Female	Total	Percentage
2010	4901	5232	10133	6.87
2015	5839	6212	12051	7.66
2020	6998	7452	14450	8.67
2025	8562	9059	17621	10.09

Source: Population projection in Bangladesh (BBS, 1981, [17]).

The present study was undertaken to gather overall information on health profiles of the elderly people in Bangladesh motivated by the recognition that the best approach to enhance the aged people's welfare in Bangladesh is to increase their self-reliance and to provide them proper health care facilities so that they can contribute to the welfare of their family as well as their society. Specifically, the attempt in this study was to investigate the determinants that influence the health status of the elderly people in Bangladesh. Finally, one objective was to suggest and develop appropriate policies and programs to ensure better facilities for the elderly people.

Materials and Methods

The conducted study is based on data collection from three selected districts (Sylhet, Mymensingh and Noakhali) of Bangladesh during October and November in 2007. A questionnaire survey was adopted. A pilot survey was taken to make reliable and concise questionnaires. Personal interview approach was followed for data collection from the field. Since it is almost impossible to gather all the elderly people in a single place, the study

districts and areas were selected and random samples were drawn from the selected areas of each district. Finally, a sample of 300 elderly people (100 from each district) was selected for interview. The data were analyzed by SPSS. Frequency distribution table, and Chi-square tests were used to analyze the data.

Results

Bio-demographic Characteristics of the Respondents

Table-A1 (Appendix) shows 48.7% respondents were in the age group 64-65 years while 29% and 22.3% were in the age group 65-69 years and 70 years or more, respectively. In Sylhet, there were 20%t elderly people of 70 years or more, of which 73.3% were male while 26.3% were female, respectively. The sample showed that more elderly female were in Mymensingh (40%) compared to Noakhali (21%) and Sylhet (19%). Among the three hundred respondents, 88.3% were Muslims, 10% were Hindu and the remaining 1.7% were of other religion. About 85% respondents were married, whereas only 1% of them were divorced. More remarried persons were in Mymensingh (5.3%) than in the districts as Noakhali (2%) and Sylhet (1%). Among the 300 elderly people in the study sites, 53.7%, 33.3% and 13% were living in joint, unitary and extended family, respectively. Most of the families (43.3%) had between three and five members, and only 16.7 % had up to two members. Of the respondents of three study sites in respect of care of the family, 44 percent could still supervise their family, and 45.3% of the elderly people could be looked after by their sons. Only in 2.3% cases, the daughters took care of their family. About 80% respondents had no more than three sons, whereas only 4% of the respondents six or more sons. About 86% respondents had not more than three daughters, whereas only 1% had six or more daughters.

Health Characteristics of Respondents

The present condition of health, habit of physical exercise, habit of smoking showed that among the respondents of the three study sites more than 24% had good health, whereas 55.7 % and 20.35% had average health (Table-A2, Appendix). In Sylhet, 40% of elderly people had better health than at Noakhali (18%), Mymensingh (9%). The sample revealed that most of respondents suffered from diabetes followed by eyesight problem. The elderly people also suffered from blood pressure, digestive problems, heart disease and sleeping disorder (Fig. 1).

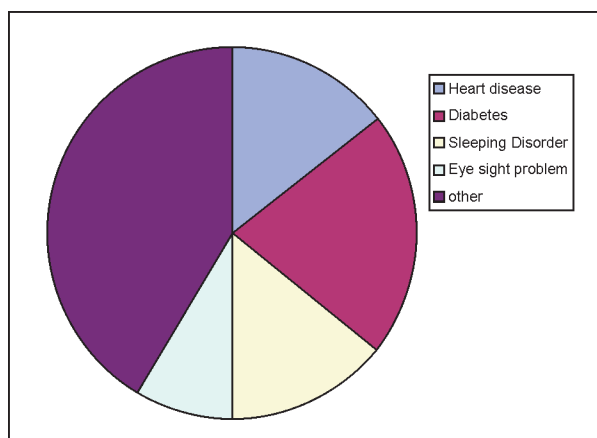


Figure 1: Prevalence of different diseases among the elderly people.

More than 85% of the respondents could independently move from one place to another, whereas 14% could not. About 81% of the respondents could independently change dress but slightly more than 1% could not. About 69.3% percent of the respondents had memory problem. The feeling of anxiety or loneliness was lacking in 63.7% of the respondents. Majority of the elderly (64%) feel anxiety or loneliness. Again, the elderly of Mymensingh feel more lonely (84%) than those of sylhet (65%) and Noakhali (42%). Among the respondents, 51.7% could not make important decisions, whereas 48.3%

could do so. At the three study sites, 68% of the respondents felt the need to set up an old person's home in every district, whereas 30% did not and only 2 percent had nothing to say about it. About 75% of the respondents had the privilege of proper sanitation while 25% lacked it. About 61% elderly people avoided visits to a physician, while 39% made visits. About 70.75% respondents considered that cost of medicines in Bangladesh is high, whereas 26.3% felt satisfied. Nearly 49% thought that the quality of health care in Bangladesh is good, whereas only 2 percent thought it to be excellent. About 35.3% of the respondents were able to walk five minutes outdoors with some difficulty and only 9 percent could not walk five minutes without resting. Approximately 53% elderly people at the study sites lacked the habit of taking physical exercise; 45% engaged in it. Only 2% elderly people did swimming as a physical exercise. More than 81% of the respondents received care from their sons or daughters, whereas slightly more than 18 percent did not. Of the three hundred respondents, 96% expected help of the Bangladesh government, whereas 45% did not. Among the respondents expecting government help, 76% expected to receive medical allowance and 24% aspired for financial allowance. About 64% elderly people did not smoke, whereas 36% were nonsmokers (in Sylhet, 40 percent of the people smoked). Some of the elderly people who still smoked felt drowsiness, languish, fatigue, coughing, less energy and tastelessness. At the study sites 84.3% elderly people expressed that the distance of the nearest hospital from their residence is more than two Kilometers, whereas only 2.7% resided about one Kilometer away from the nearest hospital. How do elderly people pass their leisure time? Nearly 64.7% percent elderly people passed their time gossiping, whereas 35.3% read newspapers and religious books.

Bio-demographic Determinants of Present Health Status

The determinants of health status of elderly people in Bangladesh were investigated for bio-demographic characteristics according to respondent's age, sex, type of family, size of family (Table-A3, appendix). Among the 146 respondents of the age of 60-64 years, 32% had good health and 56% had average health. With increase in age, the number of healthy persons decreased (Fig. 2). Again, the health condition of the females was more severe than that of the males (Fig. 3). It is a comprehensible indication that sex is an eminent factor that can affect health status of the elderly people for large study areas. In Bangladesh, the family size plays a vital role in health of elderly people. Approximately 66% of the 161 elderly persons living in a joint family had average health, whereas 16 percent did not. Among the 39 elderly persons living in an extended family, 46% had average health, whereas 33% did not. Moreover, out of the 50 respondents who lived in family of not more than two, 26% had good health, whereas among the 130 respondents living in a family of more than five members only 23% were in not in good state of health. Again, from the Chi-square test it is found that health status of the elderly is significantly associated with the age, sex, type and size of the family.

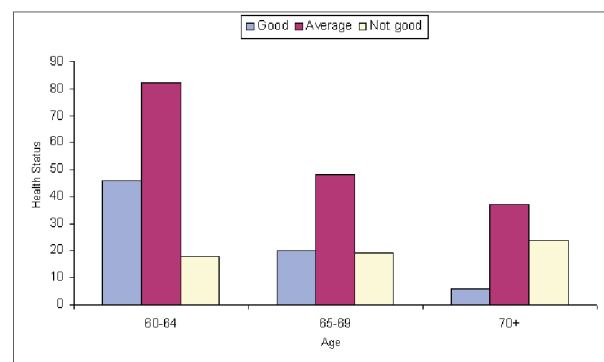


Figure 2: Health status of the elderly and age.

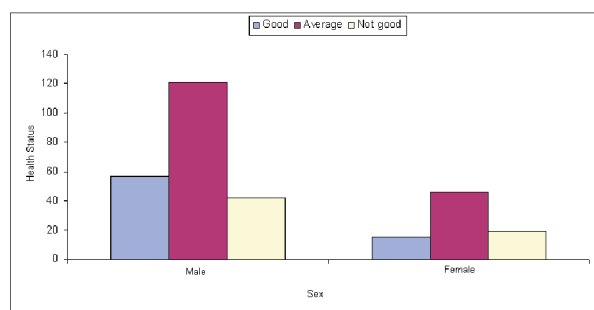


Figure 3: Health status of the Elderly with respect to Sex.

Socio-Economic Determinants of Present Health Status

The present state of health according to socio-economic variables is shown in the Table-A4 (Appendix). A significant association exists between income, occupation and education. Among the 137 respondents who were not educated, about 195 had good health, whereas among the 89 respondents who were educated up to S.S.C, 30% were in good state of health. Among the 100 respondents who were engaged in agricultural works, 16% and 63% had good and average health, respectively. Among the 46 respondents who were engaged in service, 24% and 53% were in good and average state of health, respectively. Current occupation is also an important determinant of sound health. In this study it is found that among the 188 respondents who were jobless, about 25% were not in good health and 45 respondents who were doing agricultural work only 15.6 percent were in not good health. Among the 34 respondents whose monthly income (any source) exceeded 10,000 taka, 33% and 53% had good and average state of health, respectively, whereas 15% of them were in bad state of health. In contrast, among the 30 respondents persons with monthly income of more than 1000 taka 17% and 36% of them were found good and bad state of health, respectively. It is a comprehensible indication that monthly income (any source) of the respondent is an eminent

factor that can affect the present health status of the elderly people which is significant for large study areas. Among the 60 respondents whose family members have been residing in Middle East, 27% and 55% were with good and average state of health, respectively, with 18% of them had bad health. Among the 159 respondents whose family members were not residing in a foreign country, 24% and 25% were in good and not good state of health, respectively. Majority (64%) of the elderly taking supply water feel in good state of health compared to those taking tube well and pond water. Thus, the result of this study give a clear indication that source of drinking water has a very significant effect on the health of elderly people. Obviously, this area requires larger data to determine its validity.

Discussion

A study conducted by Samad and Abedin [18] found that majority of older people are in Bangladesh belong to the age group 60-69 years which has a similarity with the findings of this study. Among the 300 elderly people at the study sites 53.7%, 33.3% and only 135 were living in joint, unitary and extended family, respectively. From the percentages of persons living in a joint family having good or average state of health it is evident that the elderly people enjoy relatively healthy life with earnest care. In fact, our findings are in accordance with the findings of Rahman [12] who found that elderly people enjoy healthy life with the slightest touch of hearty care and affection and they thus have a natural weakness to live with the family. The health status of elderly people is poor where they lack access to health care facilities as well as sanitation facilities [18]. This has a solid similarity with the health status findings of the present study. There is also correlation of health status and age. In this study, it is evident that when age increases then the number of persons in good health decreases. Hossain *et al.* [19]

has found in his study that elderly people suffer from various complicated physical diseases and the number is increasing day by day. Their findings are similar to the findings of the present study. The older people feel that decision-making authority within a household is based on the level of economic contribution, rather than the traditional norm of respect for old age which correlates well.

Conclusion

This study shows that respondent's age, sex, family size, family type were statistically significant with the present state of health of the elderly. About (55.7%) of the elderly population were in average state of health and only 20.3 percent were not in good health. To improve the health status of the elderly people, the following points should be considered. To ensure the financial solvency of the elderly people, proper regulations should be developed to encourage their children to help their aged parents. Further, social engagement should be made for the elderly people in accordance with their physical and mental fitness, educational qualification, needs and preferences. To ensure medical care services separate ward or unit in a hospital should be established for elderly people. Elderly persons should be involved in the development and implementation of programs and policies according to their minimum needs. The national health system should allocate adequate resources and adopt design strategies to prevent disease. Since the data is not a representative of the whole Bangladesh, generalization of the findings is risky. To know the overall socio-economic conditions of the elderly people of Bangladesh studies are necessary to cover other parts of the country.

References

1. **United Nations.** 1997. *International and regional mandates on ageing*. New York: ST/ SCAP/ 1807.
2. **United Nations.** 1999. *Department of public*

- information and coalition*, 1999.
3. **UNFPA.** 2000. Retrieved from <http://www.unifa.org.html>
4. **UNICEF.** 2000. Retrieved from <http://www.unicef.org.html>
5. **Time Capsule, 2000.** <http://clinton4.nara.gov/initiatives/mille/nnium/capsule/index.html>.
6. **Rush, E.** 2006. Healthy ageing: Genes Environ. *Ind J. Geron.* 20:93-98.
7. **Ahmed, F.** 1999. Aged people in the world and government--social thoughts for them (Bengali) *J. Geriatrics* 36:15-16
8. **WHO.** 2004. Retrieved from <http://www.who.org.html>
9. **Kabir, M.** 1987. Aged people in Bangladesh: Facts and prospects. *Rural Demog.* 14:53-59.
10. **Kabir, M.** 1994. *Local level policy development to deal with the consequences of population ageing in Bangladesh*. United Nations, pp 33.
11. **Jefferys, M.** 1996. Cultural aspects of ageing : Gender and inter-generational issue. *Soc. Sci. Med.* 43: 681-687.
12. **Rhaman, A.S.M.** 2000. The characteristics of old age in Bangladesh (Bengali): *Bangladesh J. Geriatrics* 37:14-15.
13. **Banglapedia.** 2007. Retrieved from <http://www.banglapedia.com.html>
14. **Kabir, Z.N., Szebehely, M., Tishelman, C., Chowdhury, A.M.R., Hojer, B. and Winbland, B.** 1998. Aging trends--Making an invisible population visible: The Elderly in Bangladesh. *J. Cross Cult. Gerontology* 13:361-378.
15. **Rana, A.K.M.M., Wahlin, A., Lundborg, C.S. and Kabir, Z.N.** 2009. Impact of health education on health-related quality of life among elderly persons: Result from a Community Based Intervention Study in Rural Bangladesh. *Health Promotion International* 24:36-45.
16. **Monsur, A.M., Tareque, M. I. and Rahman, K.M.M.** 2010. Determinants of living arrangements, health status, and abuse among elderly women: A study of rural Naogaon District, Bangladesh. *J. Int. Women's Studies* 11:162-176.
17. **Bangladesh Bureau of Statistics,** 1981. *Analytic report, population census, Ministry of Planning, Dhaka.*
18. **Samad, A. and Abedin S.** 1998. Implications of Asia's population future and the elderly: The case of Bangladesh, ESCAP.
19. **Hossain M.I., Akhtar T. and Uddin, M.T.** 2006. The Elderly care services and their current situation in Bangladesh: An understanding from theoretical perspective. *J. Med Sci.* 6:131-138

Appendix

Table-A1: Percentage distribution of bio-demographic characteristics of the respondents .

Characteristics	Study Area						Total	
	Noakhali		Mymensingh		Sylhet			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Age								
60-64	56	56.0	46	46.0	44	44.0	146	48.7
65-69	33	33.0	18	18.0	36	36.0	87	29.0
70+	11	11.0	36	36.0	20	20.0	67	22.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Sex of the respondent								
Male	79	79.0	60	60.0	81	81.0	220	73.3
Female	21	21.0	40	40.0	19	19.0	80	26.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Religion								
Islam	86	86.0	95	95.0	84	84.0	265	88.3
Hindu	14	14.0	0	0.0	16	16.0	30	10.0
Others	0	0.0	5	5.0	0	0.0	5	1.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Marital status								
Married	85	85.0	76	76.0	95	95.0	256	85.3
Widowed	13	13.0	8	8.0	4	4.0	25	8.3
Divorce	0	0.0	3	3.0	0	0.0	3	1.0
Remarriage	2	2.0	13	13.0	1	1.0	16	5.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Type of family								
Joint	80	80.0	25	25.0	56	56.0	161	53.7
Unitary	3	3.0	63	63.0	34	34.0	100	33.3
Extended	17	17.0	12	12.0	10	10.0	39	13.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Size of family								
Up to 2members	4	4.0	39	39.0	7	7.0	50	16.7
3-5 members	42	42.0	34	34.0	44	44.0	120	40.0
More	54	54.0	27	27.0	49	49.0	130	43.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Looking after family								
Yourself	37	37.0	58	58.0	38	38.0	133	44.3
Your wife	6	6.0	0	0.0	2	2.0	8	2.7
Son	54	54.0	29	29.0	53	53.0	136	45.3
Daughter	2	2.0	3	3.0	2	2.0	7	2.3
Husband	1	1.0	10	10.0	5	5.0	16	5.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Number of son								
0-3	84	84.0	74	74.0	81	81.0	239	79.7
4-5	15	15.0	22	22.0	13	13.0	50	16.7
6 or more	1	1.0	4	4.0	6	6.0	11	3.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Number of daughter								
0-3	96	96.0	74	74.0	86	86.0	256	85.3
4-5	4	4.0	23	23.0	13	13.0	40	13.3
6 or more	0	0.0	3	3.0	1	1.0	4	1.3
Total	100	100.0	100	100.0	100	100.0	300	100.0

Table-A2: Percentage distribution of health characteristics of the respondent

Characteristics	Study Area						Total	
	Noakhali		Mymensingh		Sylhet			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Present state of Health								
Good	18	18.0	9	9.0	40	40.0	72	24.0
Average	58	58.0	64	64.0	49	49.0	167	55.7
Not good	24	24.0	27	27.0	11	11.0	61	20.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Physical problem								
Heart disease	14	14.0	13	13.0	13	13.0	40	13.3
Diabetes	28	28.0	5	5.0	26	26.0	59	19.7
Sleeping disorder	23	23.0	8	8.0	8	8.0	39	13.0
Eyesight troubles	7	7.0	11	11.0	6	6.0	24	8.0
Short in ear	5	5.0	9	9.0	9	9.0	23	7.7
Others	22	22.0	54	54.0	38	38.0	114	38.0
No problem	1	1.0	0	0.0	0	0.0	1	0.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Move one place to another place								
No	25	25.0	14	14.0	4	4.0	43	14.3
Yes	75	75.0	86	86.0	96	96.0	257	85.7
Total	100	100.0	100	100.0	100	100.0	300	100.0

Habit of taking physical exercise								
No	74	74.0	16	16.0	51	51.0	141	47.0
Yes	26	26.0	84	84.0	49	49.0	159	53.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Type of physical exercise								
Swimming	2	2.0	0	0.0	4	4.0	6	2.0
Walking	21	21.0	75	75.0	39	39.0	135	45.0
Cycling	1	1.0	3	3.0	2	2.0	6	2.0
Others	2	2.0	6	6.0	4	4.0	12	4.0
Total	26	26.0	84	84.0	49	49.0	159	53.0
Dress and undress								
Yes	74	74.0	84	84.0	85	85.0	243	81.0
With help	24	24.0	14	14.0	15	15.0	53	17.7
Not at all	2	2.0	2	2.0	0	0.0	4	1.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Ability to walk for five minute without resting								
Not at all	5	5.0	16	16.0	6	6.0	27	9.0
With help	37	37.0	44	44.0	18	18.0	99	33.0
With difficulties	56	56.0	28	28.0	22	22.0	106	35.3
With no difficulties	2	2.0	12	12.0	54	54.0	68	22.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Habit of smoking								
No	70	70.0	62	62.0	60	60.0	192	64.0
Yes	30	30.0	38	38.0	40	40.0	108	36.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Problem from smoking								
Drowsy	6	6.0	6	6.0	10	10.0	22	7.3
Languishes	0	0.0	12	12.0	5	5.0	17	5.7
Tastelessness	6	6.0	8	8.0	18	18.0	32	10.7
Others	18	18.0	12	12.0	7	7.0	37	12.3
Total	30	30.0	38	38.0	40	40.0	108	36.0
Hospital distance								
≤1 Kilometer	7	7.0	0	0.0	1	1.0	8	2.7
≤ 2 Kilometers	1	1.0	1	1.0	37	37.0	39	13.0
≥ Kilometers	92	92.0	99	99.0	62	62.0	253	84.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Expectation of government help								
No	3	3.0	2	2.0	7	7.0	12	4.0
Yes	97	97.0	98	98.0	93	93.0	288	96.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Type of government help								
Medical	49	49.0	74	74.0	64	64.0	228	76.0
Allowance	48	48.0	24	24.0	29	29.0	72	24.0
Total	97	97.0	98	98.0	93	93.0	300	100.0
Quality of health care in Bangladesh								
Excellent	0	0.0	5	5.0	1	1.0	6	2.0
Good	29	29.0	48	48.0	71	71.0	148	49.3
Poor	27	27.0	39	39.0	18	18.0	84	28.0
No comments	44	44.0	8	8.0	10	10.0	62	20.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Cost of medicine in Bangladesh								
Reliable	32	32.0	9	9.0	38	38.0	79	26.3
Very high	66	66.0	91	91.0	55	55.0	212	70.7
No comments	2	2.0	0	0.0	7	7.0	9	3.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Habit of go to doctor								
No	69	69.0	7	7.0	41	41.0	117	39.0
Yes	31	31.0	93	93.0	59	59.0	183	61.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Proper sanitation facilities								
No	30	30.0	39	39.0	6	6.0	75	25.0
Yes	70	70.0	61	61.0	94	94.0	225	75.0
Total	100	100.0	100	100.0	100	100.0	300	100.0
Passing leisure								
Reading	46	46.0	23	23.0	37	37.0	106	35.3
Gossiping	54	54.0	77	77.0	63	63.0	194	64.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Able to make any decision								
No	63	63.0	39	39.0	53	53.0	155	51.7
Yes	37	37.0	61	61.0	47	47.0	145	48.3
Total	100	100.0	100	100.0	100	100.0	300	100.0
Feeling anxiety								
No	58	58.0	16	16.0	35	35.0	109	36.3
Yes	42	42.0	84	84.0	65	65.0	191	63.7

Total	100	100.0	100	100.0	100	100.0	300	100.0
Able to remember any child hood event								
No	83	83.0	69	69.0	56	56.0	208	69.3
Yes	17	17.0	31	31.0	44	44.0	92	30.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Son or daughter are taking care								
No	17	17.0	21	21.0	17	17.0	55	18.3
Yes	83	83.0	79	79.0	83	83.0	245	81.7
Total	100	100.0	100	100.0	100	100.0	300	100.0
Necessity of old home								
No	19	19.0	40	40.0	31	31.0	90	30.0
Yes	77	77.0	60	60.0	66	66.0	203	67.7
No comments	4	4.0	0	0.0	3	3.0	7	2.3
Total	100	100.0	100	100.0	100	100.0	300	100.0

Table –A3: Distribution of the health state according to bio-demographic determinants

Determinants	Present state of health			Total	Chi-square χ^2
	Good	Average	Not good		
Age					
60-64	46 (31.5)	82 (56.2)	18 (29.5)	146	22.40*
65-69	20 (23.0)	48 (55.2)	19 (31.1)	87	
70+	6(9.0)	37 (55.2)	24 (35.8)	67	
Sex of the respondent					
Male	57 (25.9)	121 (55.0)	42 (19.1)	220	1.945*
Female	15 (18.8)	46 (57.5)	19 (23.8)	80	
Type of the family					
Joint	36 (22.4)	99 (61.5)	26 (16.1)	161	8.001*
Unitary	28 (28.0)	50 (50.0)	22 (22.0)	100	
Extended	8 (20.5)	18 (46.2)	13 (33.3)	39	
Size of the family					
Up to 2 members	9 (18.0)	28 (56.09)	13 (26.096)	50	6.284*
3-5 members	35 (29.2)	68 (56.7)	17 (14.2)	120	
More	28 (21.5)	71 (54.6)	31 (23.8)	130	

Figures within the afterthought indicate percent of the column

*Significant at 5% level

Table-A4: Distribution of health status according to socio- economic determinants

Determinants	Present state of health			Total	Chi-square χ^2
	Good	Average	Not good		
Education level of the respondent					
No education	25 (18.2)	81 (59.1)	31 (22.6)	137	10.203*
Up to S.S.C	30 (33.7)	42 (47.2)	17 (19.1)	89	
Up to H.S.C	6 (25.0)	15 (62.5)	3 (12.5)	24	
Up to graduation	8 (29.6)	14 (51.9)	5 (18.5)	27	
Others	3 (13.096)	15 (65.296)	5 (21.796)	23	
Previous occupation of the respondent					
Agriculture	16 (16.0)	63 (63.0)	21 (21.0)	100	17.485*
Business	27 (40.9)	31 (47.0)	8 (12.1)	66	
Fishing	1 (25.0)	3 (75.0)	0 (0.0)	4	
Services	11 (23.996)	24 (52.296)	11 (23.996)	46	
Others	17 (20.2)	46 (54.8)	21 (25.0)	84	
Current occupation of the respondent					
Agriculture	12 (26.7)	26 (57.8)	7 (15.6)	45	16.47*
Business	17 (40.59)	22 (52.49)	3 (7.196)	42	
Services	1 (33.33)	1 (33.33)	1 (33.33)	3	
Others	7(31.8)	13 (59.1)	2 (9.1)	22	
No job	35 (18.6)	105 (55.9)	48 (25.5)	188	
Monthly income (any source)					
0-5000tk	34(20%)	98(55%)	44(25%)	177	7.567*
Above	37(30%)	69(56%)	17(14%)	123	
Source of drinking water					
Tub well	40 (17.396)	138 (59.79)	53 (22.99)	231	26.288*
Supply	31 (47.7)	27 (41.5)	7 (10.8)	65	
Pond	1 (25.0)	2 (50.0)	1 (25.0)	4	

Figures within the afterthought indicate percent of the column

*Significant at 5% level, **Significant at 10% level