

# Self-reported health problems, health care seeking behaviour and cost coping mechanism of older people: Implication for primary health care delivery in rural Bangladesh

Sheikh Jamal Hossain<sup>1</sup>, Mt. Jannatul Ferdousi<sup>2</sup>, Md. Abu Bakkar Siddique<sup>1</sup>,  
S. M. Mulk Uddin Tipu<sup>1</sup>, Mohammad Abdul Qayyum<sup>3</sup>,  
Mohammad Shawkatuzzaman Laskar<sup>4</sup>

<sup>1</sup>Maternal and Child Health Division, International Centre for Diarrhoeal Disease Research, <sup>2</sup>Department of Economics, Government Mohammadpur College, Ministry of Education, <sup>3</sup>Directorate General of Family Planning, Ministry of Health and Family Welfare, Dhaka, <sup>4</sup>Department of Community Medicine, Gazi Medical College, Khulna, Bangladesh

## ABSTRACT

**Background:** Optimum utilization of primary health care system by older people is a challenge for every low and middle income country. Little is known about self reported health problems, health care seeking behaviour and cost coping mechanism of older people in developing countries. **Objectives:** This study aimed to measure self-reported health problems, health care seeking behaviour and expenditure coping mechanism of older people, and to describe its implication for primary health care delivery in rural Bangladesh. **Methodology:** It was a cross sectional study. In total, 362 older people were enrolled who sought health care preceding the last month of the interview. Descriptive and bivariate data analysis along with proportion test (z test) was carried out. **Results:** The most frequent self-reported health problems were fever (43.8%) followed by physical pain (15.2%). More than half of the respondents (57.5%) had a second health problem. Only one third (33.8%) visited qualified health providers having minimum western health or medical training from government approved authority. More than half (54%) of the older people spent for health care out of pocket from their own. Only 2% older people sold their assets or took loans to meet their health care. 36% older people thought that they could afford to pay for health care in future. **Conclusions:** The findings of this study will help in developing primary health care policy for older people in rural Bangladesh and similar settings in South Asia.

**Keywords:** Bangladesh health system, health care expenditure coping mechanism, health care seeking behaviour, older people

## Introduction

Older people are the world's fastest growing age group.<sup>[1]</sup> It is expected the number of population aged 60 and over is estimated to shift from 12 percent in 2017 to 24 percent in 2050.<sup>[2]</sup> In

Bangladesh the latest census in 2011 estimated that the number of people aged older or equal to 65 years in Bangladesh was 7.7%.<sup>[3]</sup> This number is projected to be around 38.82 million, which is 18.5% of the total population, by 2061.<sup>[4]</sup> Health care of this growing older population is a concern for the country.<sup>[5,6]</sup> Presently, Bangladesh is facing epidemiological changes in the state of health, and witnessing a shifting disease burden from communicable to non communicable diseases and injury.<sup>[7-9]</sup>

**Address for correspondence:** Sheikh Jamal Hossain,

Maternal and Child Health Division, International Centre for Diarrhoeal Disease Research, 68 Shaheed Tajuddin Ahmed Sarani Road, Mohakhali, Dhaka-1212, Bangladesh.

E-mail: sheikh.jamal@icddr.org, Jamal\_jeweldu@yahoo.com

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

**How to cite this article:** Hossain SJ, Ferdousi MJ, Siddique MB, Tipu SM, Qayyum MA, Laskar MS. Self-reported health problems, health care seeking behaviour and cost coping mechanism of older people: Implication for primary health care delivery in rural Bangladesh. J Family Med Prim Care 2019;8:1209-15.

### Access this article online

#### Quick Response Code:



**Website:**  
www.jfmpc.com

**DOI:**  
10.4103/jfmpc.jfmpc\_162\_18

Bangladesh's health system is pluralistic and mainly focused on maternal and child health care.<sup>[10]</sup> The primary health care services are underutilized, even for maternal and child health (MCH) services.<sup>[11]</sup> Out of pocket expenditure for health care is the dominant means of health care financing in Bangladesh.<sup>[12,13]</sup> Studies reported that detrimental coping strategies and lack of health care expenditure protection for health care often negatively affect future income and can magnify people's vulnerability and hardship.<sup>[14,15]</sup> The older people often fail to maintain treatment follow up schedules and as a result they come with more serious medical complications later on.<sup>[16]</sup>

Appropriate understanding of health seeking behaviour can maximize value for money and minimize costs in order to ultimately make a more efficient health system. Information on health care expenditure coping mechanisms could help design a feasible health care financing strategy in the country. The aims of the present study were to understand self-reported health problems, health seeking behavior and expenditure coping mechanisms of people aged  $\geq 65$  years and their implications for primary health care delivery in rural Bangladesh.

## Methodology

### Study area and primary health care delivery

This cross sectional study was conducted in Raigonj, a sub district, 180 km north to Dhaka, the capital of Bangladesh. The average house hold size of Raigonj was 4 and the literacy rate was 38.1%. The government primary health care system in the sub district is as elsewhere in the country.<sup>[17]</sup> Indoors and outdoors medical services are served with limited laboratory support for the patients from an Upazilla Health Complex (UHC). The UHC situated in the present study area is also supported by three Union Sub Centers (USCs) and five Union Health and Family Welfare Centers (UHFWCs) and 28 Community Clinics (CCs). A network of regular community health workers were working in support of the activities from the UHC. Tentatively, each CC was designed to serve outdoor primary health care to a population of about 6000 patients by a Community Health Care Provider (CHCP).<sup>[17]</sup> The health providers of USCs and UHFWCs at the Union level, the lowest tier of the local government, were also serving outdoor medical care for the patients. All the USCs and UHFWCs were staffed by para-professionals during the study period. Usually most of the providers of UHCs, USCs and UHFWCs practice privately after office hours.<sup>[18]</sup> Private clinics, non government organizations and traditional healers and medicine shopkeepers were also serving health care in the area.

### Sampling and sample size

A multistage sampling method was followed. The total sample size was 362. Out of nine Unions in *Raigonj* (a sub district), two *unions* (lowest tier of local government unit) were selected following a simple random technique. Then three villages from each union were also selected randomly. All households in the villages were surveyed. The present study located 777 older

people in the study area. Of them, 585 (75.29%) older people reported that they had health problems and 362 (62%) sought health care in the one month preceding the interview [Figure 1].

### Tools and data collection and analysis

The initial questionnaire was developed based on investigators' experiences and input from colleagues who are experienced in field research survey and morbidity surveillance. The questionnaire was pretested to make it user friendly. The respondents were asked to about the problem that leads him/her to visit health care providers first and then another question was asked if he/she were suffering from another illness. Providers were categorized as qualified those having government affiliated any western medical training. Physical damages were only considered as injury. The data were collected following the previous thirty days of the interview through household survey.

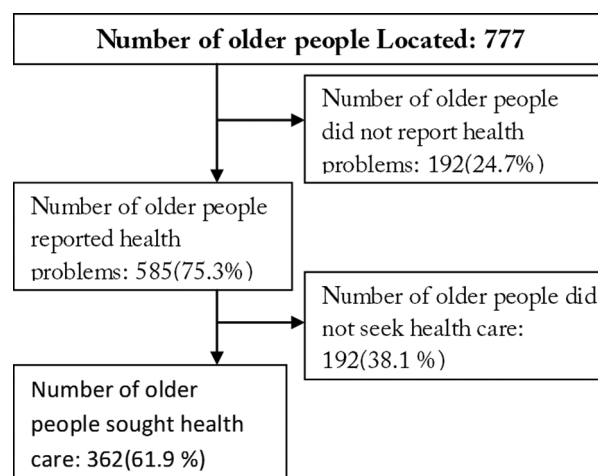
Data were collected from older people seeking medical care, aged 65 years and above, through face-to-face interviews using a structured questionnaire in Bengali from June to September, 2012.

Data analysis was done using statistical software STATA, version 13, special edition. Older peoples' education and age were categorized for ease of analysis. Descriptive statistics were applied for describing socio-demographic characteristics of the respondents. Bivariate data analysis was conducted to analyze the types of self-reported illness by age and sex. A proportion test (z-test) was used to see significant gender differences in illness, health seeking behaviour (trained vs untrained providers) and cost coping mechanism.

## Results

### Socioeconomic characteristics

Analysis revealed that the mean age of the respondents was 72.50 years (SD = 7.19) and almost half (48%) of them were



**Figure 1:** The flow chart summarizing the enrollment of the study population

between 65-70 years. Among the respondents 53% were male. House hold size of the family was 5.40 (SD = 3.24). Of the respondents, 32% were widows. More than three-fourth (76.5%) were illiterate and 59% were not taking part in regular income generating activities. More than half (54%) of the respondents were household heads who play important roles in family decision making [Table 1].

### Self-reported health problems

Almost 43% respondents had fever as the main ailment during their visit to health care providers. Around 7% older people were suffering from abdominal pain. This was significantly higher in females (12% vs 2%,  $P < .001$ ). Nine percent of the participants visited health care providers due to general body pain and 13% of them were among the oldest patients in the sample (80 years above). More than half (58%) of the respondents had a second health problem and females suffered from significantly more co-health problems than males (63% vs 53%,  $P < .05$ ) [Table 2].

**Table 1: Sociodemographic characteristics of the study sample (n=362)**

| Sociodemographic characters      | n=362 (100%), n (%) |
|----------------------------------|---------------------|
| Age of the respondents           |                     |
| 65-70                            | 174 (48.1)          |
| 71-75                            | 90 (24.9)           |
| 76-80                            | 52 (14.4)           |
| 80+                              | 46 (12.7)           |
| Sex of the respondents           |                     |
| Male                             | 190 (52.5)          |
| Female                           | 172 (47.5)          |
| Marital status                   |                     |
| Married/living with wife         | 234 (64.6)          |
| Widow                            | 116 (32.0)          |
| Others                           | 12 (3.3)            |
| Educational attainment           |                     |
| No formal education              | 277 (76.5)          |
| Primary (1-5)                    | 60 (16.6)           |
| Secondary incomplete (class 6-9) | 13 (3.6)            |
| Class 10+                        | 12 (3.3)            |
| Occupation                       |                     |
| Agriculture                      | 88 (24.3)           |
| Business                         | 21 (5.8)            |
| Retired/no work                  | 214 (59.1)          |
| Service                          | 3 (0.8)             |
| Others                           | 35 (9.7)            |
| Missing                          | 1 (0.3)             |
| Is the respondents HH head       |                     |
| No                               | 166 (45.9)          |
| Yes                              | 195 (53.9)          |
| Caretaker of the elderly         |                     |
| Self                             | 141 (39.0)          |
| Partner (wife/husband)           | 117 (32.3)          |
| Daughter/son                     | 26 (7.2)            |
| Daughter in law                  | 53 (14.6)           |
| Missing                          | 25 (6.9)            |

HH: Household head

### Health seeking behaviour

Only 34% of the respondents visited trained providers. Of those who visited trained providers, only 6% visited CCs. Most older people (66%) sought health care from untrained health care providers. 40% of respondents visited village doctors while 22% visited medicine sellers. There were no gender differences in health care seeking behavior in our study population [Table 3].

### Health care expenditure coping mechanism (last month)

More than half (54%) of the older people studied met their health care expenses on their own. 35% of respondents had children who provided money for their health care expenses. Only 2% sold their assets or took loans to meet their health care [Table 4].

### Health care expenditure coping mechanism (perceived for future)

36% of the respondents thought that they would manage money from their own pocket to meet expenses for future health care. On the other hand, 46% of older people said that they might need to depend on their children or other relatives for health-care cost. Around 14% reported that they might require borrowing or selling their asset to cope with health care expenditure in future [Table 4].

## Discussion

The most frequent self-reported health problems were fever (43.8%) followed by all types of physical pain (15.2%). More than half of the respondents (57.5%) had a second health problem. Only one third (33.8%) visited qualified health providers. Qualified health providers were defined as those who had minimum level of public health or western medical training approved by Bangladesh government. More than half (54%) of the older people studied spent for health care out of pocket. Only 36% older people thought that they could afford to pay for health care in future.

### Self-reported health problems

The present study reported that around 75.3% older people had perceived illness who visited health providers, the findings is very similar to the results of the study conducted in Shimla Hills, North India.<sup>[19]</sup> But it differs from the study conducted in Haryana state, India revealed that 88.9% older people felt they were ill.<sup>[20]</sup> The perceived illness of Haryana study seems to be high as the study included 'feelings of sadness' as perceived illness.

Fever (42.8%) and generalized body pain (15.6%) were two common symptoms that drove older people to seek health care. Seasonal effect could be a predisposing factor for fever among the older people during data collection which we did not considered for this study. However, a study conducted in Azam Basti slum of Karachi, Pakistan found that fever (61.2%) and generalized body aches (43.4%) were the common symptoms.<sup>[21]</sup> One possible cause of higher number of fever and body aches

**Table 2: Self-reported health problems in the previous month by age and sex (n=362)**

| Illness in last month                          | Total (%) | Age (years)*  |              |              |            | Sex          |                | P     |
|--|-----------|---------------|--------------|--------------|------------|--------------|----------------|-------|
|  |           | 65-70 (n=174) | 71-75 (n=90) | 76-80 (n=52) | 80+ (n=46) | Male (n=190) | Female (n=172) |       |
| Fever  | 42.8      | 44.3          | 42.2         | 48.1         | 32.6       | 41.6         | 44.2           | 0.618 |
| Cough  | 2.8       | 2.3           | 3.3          | 3.9          | 2.2        | 3.7          | 1.7            | 0.245 |
| Diarrhea                                       | 6.1       | 5.8           | 6.7          | 5.8          | 6.5        | 6.8          | 5.2            | 0.523 |
| Pain in body (joint/chest/muscles/others)      | 8.6       | 10.3          | 5.6          | 3.9          | 13.0       | 8.4          | 8.7            | 0.919 |
| Abdominal pain                                 | 6.6       | 6.9           | 6.7          | 5.8          | 6.5        | 2.1          | 11.6           | 0.000 |
| Headache                                       | 3.6       | 2.3           | 5.6          | 0.0          | 8.7        | 3.2          | 4.1            | 0.647 |
| Injury   | 2.5       | 2.9           | 0.0          | 1.9          | 6.5        | 3.7          | 1.2            | 0.129 |
| Physical weakness                              | 8.3       | 6.9           | 13.3         | 7.7          | 4.4        | 6.8          | 9.9            | 0.285 |
| Eye problem                                    | 3.9       | 5.2           | 2.2          | 3.9          | 2.2        | 3.2          | 4.7            | 0.462 |
| Breathing difficulty                           | 5.8       | 5.2           | 3.3          | 9.6          | 8.7        | 9.0          | 2.3            | 0.007 |
| Frequent urination/diabetes                    | 4.1       | 4.0           | 3.3          | 3.9          | 6.5        | 5.8          | 2.3            | 0.095 |
| Others   | 5.0       | 4.0           | 7.8          | 5.8          | 2.2        | 5.8          | 4.1            | 0.458 |
| Is there any second illness in the last months | 57.7      | 57.5          | 62.2         | 65.4         | 41.3       | 52.6         | 63.4           | 0.038 |

\*P value for age differences was not calculated due to small sample size in groups

**Table 3: Percentage of older people health seeking behaviour by type of providers (n=362)**

| Type of providers                          | n=362 (100%), n (%) |
|--|---------------------|
| Registered physicians (≥medical graduates) | 42 (11.6)           |
| Medical assistants/nurses                  | 10 (2.8)            |
| Government health facilities               | 20 (5.5)            |
| NGO health facilities                      | 9 (2.5)             |
| Private clinics                            | 19 (5.2)            |
| Community clinics                          | 23 (6.4)            |
| Total trained providers                    | 123 (34.0)          |
| Village doctors                            | 144 (39.8)          |
| Medicine sellers                           | 79 (21.8)           |
| Homeopaths/traditional healers (Kabiraj)   | 12 (3.3)            |
| Others (relatives)                         | 4 (1.1)             |
| Total untrained providers                  | 239 (66.0)          |

NGO: Nongovernmental organization

of the older people compared to the present study were that the Azam Basti study measured multiple symptoms but our study did not consider second health problems for the self-reported health problems. We collected data on second health problems to know only if the respondents were suffering from any second health problem in the form of “Yes” or “No”. The present study revealed that 57.5% of older people had a second health problem which is similar to the study conducted in Matlab, Bangladesh in 2003-2004<sup>[22]</sup> and reported that 53.7% had multiple medical conditions. But our findings is higher than that (25.5%) of the study conducted Shimla Hills, North India.<sup>[19]</sup>

### Health seeking behaviour

The study showed that only 34% of the respondents sought health care from qualified providers, this may be due to demand side barriers e.g., low knowledge of available services in the government primary health care system, unwillingness to pay any type of cost to receive the services etc., and other supply side typical barriers e.g., provider’s behavior, distance of government health facilities, insufficient one health services at facilities etc.,

Moreover, the results is comparable with the findings of the study done in Savar, Dhaka<sup>[23]</sup> and Haryana, India.<sup>[24]</sup> Only one exception was found that 16% elderly patients visited a 100 bed NGO run hospital in Savar, Dhaka in addition to other similar health care system in Bangladesh. Another study done in Muzaffarnagar, India found 28% severely ill older patients visited qualified providers for health care from government health facilities.<sup>[24]</sup>

One study conducted in Matlab, Bangladesh found that only one-fourth (25%) older people visited medical doctors.<sup>[25]</sup> The Matlab study also reported that a majority of older people (59%) preferred village doctors (unqualified) and the findings are nearly aligned with our present findings where 66% of respondents visited unqualified health providers.

### Health care expenditure coping mechanism

The study also aimed to find coping mechanisms for health care expenditure in the form of direct cost only. If we added indirect costs, the total cost for health care would become higher. We report that the opportunity cost of treatment makes the payment for treatment unaffordable by the family as other basic needs are sacrificed during the treatment period.<sup>[26]</sup> Our present study reported that 65.8% older people visited unqualified providers. But it is difficult to determine which cost, direct or indirect, or any other factors that promoted older people to seek health care from unqualified providers. It should be an area for further investigation. A study conducted in Karachi, Pakistan found that 33% of older people were unable to take medication for NCDs, especially hypertension, because of economic hardship.<sup>[27]</sup> Another study done in Dharan, Nepal reported that 35.5% elderly denied seeking health care due to lack of finance.<sup>[28]</sup>

The researchers of this study are not aware of any study that measured the future perceived plan for health care expenditure of the elderly in case of facing health problems. The present study reported that 28.3% and 10% of the elderly thought that

**Table 4: Percentage of older people by sources of money for health care by previous month and perceived future plan**

| Source of money        | Last month |            |           |       | Perceived future plan |            |           |       |
|------------------------|------------|------------|-----------|-------|-----------------------|------------|-----------|-------|
|                        | Male (%)   | Female (%) | Total (%) | P     | Male (%)              | Female (%) | Total (%) | P     |
| Self                   | 65.3       | 40.7       | 53.6      | 0.000 | 45.8                  | 25.6       | 36.2      | 0.000 |
| Son/daughter/relatives | 23.7       | 47.1       | 34.8      | 0.000 | 33.7                  | 59.3       | 45.9      | 0.000 |
| Loan/selling valuables | 3.2        | 0.6        | 1.9       | 0.075 | 15.8                  | 11.6       | 13.8      | 0.247 |
| Others/did not know    | 7.9        | 11.6       | 9.7       | 0.234 | 4.7                   | 3.5        | 4.1       | 0.567 |

they themselves would be able to pay and would borrow or sell assets respectively for health care expenses in future, meaning increasing low self esteem and serious financial consequences for the households. Perceived plans for health care cost coping mechanism also indicate that the traditional support system (support by son/daughter/relative) for older people is decreasing.

### Implication for primary health care in Bangladesh

Available studies in developing countries reported that elderly people do not seek health care due to financial barriers.<sup>[27]</sup> Findings of qualitative study also support that older people did not seek care from qualified physicians due to higher costs in rural Bangladesh.<sup>[29]</sup> The present study reports that 60% older people did not have any work and 27.1% older people were more than 70 years old, even though they had paid the prices out of pocket for health care. It would be interesting if a qualitative study is conducted in future to explore what necessities older people compromise to pay for health care. The findings of a qualitative study may help in integration of other safety net services with primary health care in rural Bangladesh. Policy makers need to be aware that health care cost for older people of a family may be catastrophic. The cost may be a cause of poverty for those families. So health care policies or programs for older people should be focused on prevention of diseases and promotion of health along with curative care at primary health care centre. It is illustrated that frontier health workers played an important role in implementing many health interventions which eventually helped in achieving Bangladesh's health related Millennium Development Goals (MDGs) by 2015.<sup>[30]</sup> Low cost health workers (known as *behnarazes*) were also one of the play makers in achieving Iran's health related MDG by 2015.<sup>[31]</sup> So the first line health workers can play crucial role for elderly health care in addition to regular maternal and child health care services in the country if they are trained properly.

Family physicians are centre of primary health care system.<sup>[32]</sup> Study conducted in many developed countries reported that the family physicians required proper training to manage multiple medical conditions of older people.<sup>[33,34]</sup> In Bangladesh, Community Clinics are the first primary care centre where Community Health Care Providers (CHCPs) with maximum three month basic medical training were deployed to treat patients in village level for six thousand population.<sup>[17]</sup> In addition, although the CHCPs are trained on jobs for many specific diseases and conditions, it seems that the training is not sufficient to treat older people primarily and refer them properly

to expert physician. One Bachelor Physician is deployed at Union level for about fifty thousand population in a Union.<sup>[17]</sup> First, strategy needs to develop by government of Bangladesh for a comprehensive training for family physicians to treat older people at Union or its higher tier Upazilla level. These family physicians along with their regular clinical duties can train and supervise CHCPs with minimum cost at Union or Upazilla. The CHCPs require updated training for many specific medical treatments.<sup>[35]</sup> If the CHCPs are well trained, the initiative for universal health coverage of government of Bangladesh would be also more meaningful and the older people could be benefited properly with treatment and referral from CCs. Our present findings reported that only six percent older people visited the CCs for health care. If the CHCPs are trained properly for treatment and referral of geriatric problem, the utilization of CCs may increase. Indeed, the supply and demand barriers information of the services is limited to develop primary health care system in Bangladesh. So, large scale survey is required in this regards.

Moreover, social protection policy for health care of the older people is imperatives. Although the Government of Bangladesh (GOB) has introduced monthly allowances for older persons, widows and veterans, the amount and coverage are not sufficient to ensure the cost for their daily necessity goods and health care. Conducive conditional cash transfer and social insurance can help the elderly in seeking primary health care from qualified health care providers.

Nevertheless, health care services offered by the GOB from rural primary health infrastructures are free but the services are underutilized like other developing countries.<sup>[36]</sup> The present study reported that only 34% older people visited qualified providers. Both supply side and demand side improvement is indispensable to maximize health care utilization by older people in rural Bangladesh. So, supply side forces like amicable provider's behavior, enhancing of provider's skill and their timely presence at facilities, ensuring one health services and efficient referral system from all primary care centres to secondary and tertiary or specialized hospitals could all be part of a solution to ensure optimum utilization of primary health care in Bangladesh.

Utilization of primary health care was increased through promoting the education of older people in Hong Kong.<sup>[37]</sup> Our present study reported that 77% older people were illiterate. It is likely that their knowledge on geriatric health problems and care is limited. So, older people's knowledge on geriatric diseases and primary care needs are to be enhanced to create increased demand

for primary health care. One study conducted in Australia found that formation of friendship was a principal reason for continuing and restarting physical activity at community in Australia.<sup>[38]</sup> That Australian model for community based physical exercise could be applied not only to promote regular physical exercise but to also increase knowledge about healthcare through peer sharing in Bangladesh. A front line health worker e.g., Community Health Care Provider (CHCP) or Health Assistants can help them through community training on geriatric health. As the country is in double burden for both infectious and non communicable diseases (NCDs), it is the time to train frontiers health workers on NCDs and geriatric health care. A study conducted in rural Korea reported that 51% elderly people took part in events at a senior citizen association.<sup>[39]</sup> Another study also documented that social relation is one of the important factors of healthy ageing irrespective of age.<sup>[40]</sup> In Bangladesh we require to introduce a number of associations focusing health, social protection and welfare of the elderly people. Community Clinics, each for six thousand population, could be a set up for the elderly people as health club. This health club would be a place for augmenting social relation of elderly people. The CHCP who is recruited from the community can play role conveying geriatric health related messages. So, this primary health care centre can serve as a point of health messages and centre of social relation.

The GOB is implementing the 4<sup>th</sup> Health, Population and Nutrition Sector Programme (HPNSP), a sector plan from 2017 to 2022 in line with 'Bangladesh Health Policy 2011'. But little has been detailed to provide health care the geriatric group. Programs are required in the OPs in future for older's people health and nutrition. GOB has drawn a national policy for overall improvement of older people's health and wellbeing in the country in 2013.<sup>[41]</sup> Now, immediate pragmatic action of 'National Policy on Elder Person 2013' can play an important role in utilization of primary health care for older people in Bangladesh. Coordinated efforts of relevant ministries are required to get the result from this policy.

### Limitations of the study

The study described perceived self-reported health problems. Morbidities diagnosed through medical investigations can help to understand more about health problems in the community. It was a cross sectional study. So, the result of the study can not be generalized. However, this study tried to find out perceived health problems, health seeking behavior and cost coping mechanisms that are important information for South Asian contexts. A longitudinal study can offer a more detailed picture morbidities and health care behaviour and expenditure coping mechanism of the older people in the community.

### Conclusions

Primary health care for growing older people is a challenge for the health system of Bangladesh. Supply side interventions: limited curative, preventive and promotional activities focus on older people's health need to be introduced into the primary health

care system. Initiatives also need to be taken to boost demand for health care by older people.

### Acknowledgement

The researchers of this study would like to thank all respondents for taking part in the survey.

### Financial support and sponsorship

Nil.

### Conflicts of interest

There are no conflicts of interest.

### References

1. United Nations. Department of Economic and Social Affairs; Population Division A Concise Report on Changing Population Age Structures and Sustainable Development. New York: United Nations; 2017.
2. United Nations. Department of Economic and Social Affairs, Population Division: World Population Ageing Report 2017. New York: United Nations; 2017.
3. Bangladesh Bureau of Statistics, M.o.P., Government of Bangladesh. Elderly Population in Bangladesh: Current Feature and Future Perspective. Bangladesh Bureau of Statistics; 2015.
4. Bangladesh Bureau of Statistics, Ministry of Planning, Government of Bangladesh. Population Projection of Bangladesh; Denamics and Trends 2011-2061. Bangladesh Bureau of Statistics; 2015.
5. Hamiduzzaman M, de Bellis A, Abigail W, Kalaitzidis E. Elderly women in rural Bangladesh: Healthcare access and ageing trends. *South Asia Research* 2018;38:113-29.
6. Kabir R, Khan HT, Kabir M, Rahman MT. Population ageing in Bangladesh and its implication on health care. *Eur Sci J* 2013;9(33).
7. Khan JA, Trujillo AJ, Ahmed S, Siddiquee AT, Alam N, Mirelman AJ, *et al.* Distribution of chronic disease mortality and deterioration in household socioeconomic status in rural Bangladesh: An analysis over a 24-year period. *Int J Epidemiol* 2015;44:1917-26.
8. Hanifi SM, Mahmood SS, Bhuiya A. Cause-specific mortality and socioeconomic status in Chakaria, Bangladesh. *Glob Health Action* 2014;7:25473.
9. Ahsan Karar Z, Alam N, Kim Streatfield P. Epidemiological transition in rural Bangladesh, 1986-2006. *Global Health Action* 2009;2:1904.
10. Chowdhury AM, Bhuiya A, Chowdhury ME, Rasheed S, Hussain Z, Chen LC. The Bangladesh paradox: Exceptional health achievement despite economic poverty. *The Lancet* 2013;382:1734-45.
11. Chakraborty N, Islam MA, Chowdhury RI, Bari W, Akhter HH. Determinants of the use of maternal health services in rural Bangladesh. *Health Promot Int* 2003;18:327-37.
12. Rahman MS, Rahman MM, Gilmour S, Swe KT, Krull Abe S, Shibuya K, *et al.* Trends in, and projections of, indicators of universal health coverage in Bangladesh, 1995-2030: A Bayesian analysis of population-based household data. *Lancet Glob Health* 2018;6:e84-94.
13. Saksena P, Xu K, Elovainio R, Perrot J. Health services

- utilization and out-of-pocket expenditure at public and private facilities in low-income countries. World Health Report 2010;20:20.
14. McIntyre D, Thiede M, Dahlgren G, Whitehead M. What are the economic consequences for households of illness and of paying for health care in low- and middle-income country contexts? *Soc Sci Med* 2006;62:858-65.
  15. Russell S. The economic burden of illness for households in developing countries: A review of studies focusing on malaria, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome. *Am J Trop Med Hyg* 2004;71:147-55.
  16. Kahhar MA. Geriatric medicine: Bangladesh perspective. *J Bangladesh Coll Phys Surg* 2016;33:63-4.
  17. Directorate General of Health Services, Bangladesh Ministry of Health and Family Welfare. Health Bulletin 2017. Dhaka; 2017.
  18. Gruen R, Anwar R, Begum T, Killingsworth JR, Normand C. Dual job holding practitioners in Bangladesh: An exploration. *Soc Sci Med* 2002;54:267-79.
  19. Sharma D, Mazta SR, Parashar A. Morbidity pattern and health-seeking behavior of aged population residing in Shimla Hills of North India: A cross-sectional study. *J Family Med Prim Care* 2013;2:188-93.
  20. Joshi K, Kumar R, Avasthi A. Morbidity profile and its relationship with disability and psychological distress among elderly people in Northern India. *Int J Epidemiol* 2003;32:978-87.
  21. Ladha A, Khan RS, Malik AA, Khan SF, Khan B, Khan IN, *et al.* The health seeking behaviour of elderly population in a poor-urban community of Karachi, Pakistan. *J Pak Med Assoc* 2009;59:89-92.
  22. Khanam MA, Streatfield PK, Kabir ZN, Qiu C, Cornelius C, Wahlin Å, *et al.* Prevalence and patterns of multimorbidity among elderly people in rural Bangladesh: A cross-sectional study. *J Health Popul Nutr* 2011;29:406-14.
  23. Monawar Hosain G, Begum A. Health Needs and Health Status of the Elderly in Rural Bangladesh. Thousand Oaks, CA: Sage Publications Sage CA; 2003.
  24. Goel PK, Muzammil K, Singh J. Illness response of rural elderly. *Afr J Med Health Sci* 2014;13:95.
  25. Alam N, Chowdhury HR, Bhuiyan MA, Streatfield PK. Causes of death of adults and elderly and healthcare-seeking before death in rural Bangladesh. *J Health Popul Nutr* 2010;28:520-8.
  26. Russell S. Ability to pay for health care: Concepts and evidence. *Health Policy Plan* 1996;11:219-37.
  27. Baig LA, Hasan Z, Ilyas M. Are the elderly in Pakistan getting their due share in health services? Results from a survey done in the peri-urban communities of Karachi. *J Pak Med Assoc* 2000;50:192-6.
  28. Adhikari D, Rijal DP. Factors affecting health seeking behavior of senior citizens of Dharan. *J Nobel Med Coll* 2014;3:50-7.
  29. Biswas P, Kabir ZN, Nilsson J, Zaman S. Dynamics of health care seeking behaviour of elderly people in rural Bangladesh. *International Journal of Ageing and Later Life* 2006;1:69-89.
  30. El Arifeen S, Christou A, Reichenbach L, Osman FA, Azad K, Islam KS, *et al.* Community-based approaches and partnerships: Innovations in health-service delivery in Bangladesh. *Lancet* 2013;382:2012-26.
  31. Mohammadi Y, Parsaeian M, Mehdipour P, Khosravi A, Larijani B, Sheidaei A, *et al.* Measuring Iran's success in achieving millennium development goal 4: A systematic analysis of under-5 mortality at national and subnational levels from 1990 to 2015. *Lancet Glob Health* 2017;5:e537-e544.
  32. Van Lerberghe W. The World Health Report 2008: Primary health care: Now more than ever. World Health Organization; 2008.
  33. Karakolias S, Kastanioti C, Theodorou M, Polyzos N. Primary Care Doctors' Assessment of and Preferences on Their Remuneration: Evidence From Greek Public Sector. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing* 2017;54:0046958017692274.
  34. Du Plessis D, Kapp PA, Jenkins LS, Giddy L. Postgraduate training for family medicine in a rural district hospital in South Africa: Appropriateness and sufficiency of theatre procedures as a sentinel indicator. *Afr J Prim Health Care Fam Med* 2016;8:e1-7.
  35. van Weel C, Kassai R, Qidwai W, Kumar R, Bala K, Prasad Gupta P, *et al.* Primary healthcare policy implementation in South Asia. *BMJ Glob Health* 2016;1:e000057.
  36. Shaikh BT, Hatcher J. Health seeking behaviour and health service utilization in Pakistan: Challenging the policy makers. *J Public Health (Oxf)* 2005;27:49-54.
  37. Liu S, Yam CH, Huang OH, Griffiths SM. Willingness to pay for private primary care services in Hong Kong: Are elderly ready to move from the public sector? *Health Policy Plan* 2013;28:717-29.
  38. Donaldson C, Lloyd P, Lupton D. Primary health care consumerism amongst elderly Australians. *Age Ageing* 1991;20:280-6.
  39. Youm Y, Sung K. Self-rated health and global network position: Results from the older adult population of a Korean rural village. *Ann Geriatr Med Res* 2016;20:149-59.
  40. Song Y, Won C, Lee J, Choi S, Oh S. Needs for health care services for active aging of home-dwellers with age. *Journal of the Korean Geriatrics Society* 2016;20:49-55.
  41. Government of Bangladesh, Ministry of Social Welfare. National Policy on Older Persons 2013. Government of Bangladesh, Ministry of Social Welfare; 2014.