

# Social and Health Profiles of Rural Elderly Malays

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## ABSTRACT

**Aim:** To evaluate the social and health functions of rural elderly Malays.

**Method:** A survey was carried out on 350 elderly Malays aged 60 and above using a set of socio and health questionnaires.

**Results:** The majority of elderly people in the study were married (64%), unemployed with no pension (76%), relied on children for their main economic resources (62%) and perceived that they have sufficient money to buy the food they require (61%). Most of the subjects felt healthy, contented and satisfied with their everyday life, were able to do most of the Activities of Daily Living (ADL) tasks and were actively involved in community activities. However, most of the subjects (60%) had either one or two diagnosed chronic diseases. Thus, only 15% of the subjects had not taken any type of medicines during the previous 12 months.

**Conclusion:** Although the majority of the elderly in this study were able to perform all the ADL tasks and perceived their health as good, physical impairments (eg. sight, hearing and chewing difficulties) are prevalent and the use of medicines is widespread. It is expected that in future a greater proportion of rural elderly Malays will live alone and will face economic and health problems because of the lack of sufficient and satisfactory programmes for this age group.

**Keywords:** social, health, elderly, rural, Malays

*Singapore Med J 2001 Vol 42(5):208-213*

## INTRODUCTION

As a result of the demographic transition which is taking place<sup>(1)</sup>, Malaysia will shortly face critical decisions concerning the impact of the increasing ageing population on state plans for economic development. There is a pressing need to assess future requirements to formulate appropriate programmes and policies, particularly with respect to health care and

social services. Although several attempts have been made to assess the social and health status of Malaysian elderly<sup>(2)</sup> and rural elderly females<sup>(3)</sup>, the problems facing this age group have not been addressed comprehensively. The results of the WHO study<sup>(2)</sup> indicated that Malaysian elderly residing in rural areas experienced greater financial hardship and expressed more need for health services than those in urban areas. The migration (from rural to urban, or to another rural area) of young adults has left elderly people to look after themselves in traditional rural villages<sup>(4)</sup>. The vulnerability of elderly people residing in rural areas has urged the study to focus on the social and health status of rural elderly of which predominantly are Malays, as part of a larger nutritional research project<sup>(5,6)</sup>.

## METHODS

### Sampling

This study was carried out in Mersing district on the East coast of Malaysia. The major occupations of the rural population are fishing, farming, rubber tapping and estate labourers. Eleven traditional villages were randomly selected from the 62 villages in the district. The population of interest were elderly aged 60 years or more who had been resident in the selected villages for at least 12 months, and who were apparently healthy with no known terminal or mental illnesses. Eligible respondents in the selected villages were invited to participate at their respective community centres. Household visits were carried out for those who were unable to attend. Individual consent was obtained. An identity card which indicates the age of the holder was used to establish the correct age.

### Data collection

A questionnaire consisting of multidimension questions on socio-health profiles and lifestyles was administered by six trained interviewers. Prior to the actual survey, the interviewers were adequately trained to ensure quality data collection. Questions on socio-demographic and economic profiles were standard

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Table I. Demographic and socio-economic profiles [expressed as number (%)] according to sex and age groups

| Characteristics                     | Men               |                |                  | Women             |                        |                         | All<br>n = 350 |
|-------------------------------------|-------------------|----------------|------------------|-------------------|------------------------|-------------------------|----------------|
|                                     | 60-74y<br>n = 120 | 75+y<br>n = 52 | Total<br>n = 172 | 60-74y<br>n = 151 | 75+y<br>n = 27         | Total<br>n = 178        |                |
| Married                             | 106 (88.3)        | 44 (84.6)      | 150 (87.2)       | 66 (43.7)         | 7 (3.7)                | 73 (41.0) <sup>a</sup>  | 223 (63.7)     |
| Widowed                             | 12 (10.0)         | 7 (13.5)       | 19 (11.0)        | 78 (51.7)         | 20 (74.1) <sup>b</sup> | 98 (55.1) <sup>a</sup>  | 117 (33.4)     |
| Living alone                        | 4 (3.3)           | 3 (5.8)        | 7 (4.1)          | 23 (15.2)         | 4 (14.8)               | 27 (15.2) <sup>a</sup>  | 34 (9.7)       |
| No schooling                        | 34 (28.3)         | 18 (34.6)      | 52 (30.2)        | 94 (62.3)         | 22 (81.5)              | 116 (65.2) <sup>a</sup> | 168 (48)       |
| <u>Employment status</u>            |                   |                |                  |                   |                        |                         |                |
| Unemployed with no pension          | 45 (37.5)         | 27 (51.9)      | 72 (41.9)        | 112 (74.2)        | 24 (88.9)              | 136 (76.4) <sup>a</sup> | 208 (59.4)     |
| Unemployed with pension             | 27 (22.5)         | 8 (15.4)       | 35 (20.3)        | 7 (4.6)           | 1 (3.7)                | 8 (4.5) <sup>a</sup>    | 43 (12.3)      |
| Working                             | 48 (40.0)         | 17 (32.7)      | 65 (37.8)        | 32 (21.2)         | 2 (7.4)                | 34 (19.1) <sup>a</sup>  | 99 (28.3)      |
| Perceived an inadequate income      | 37 (30.8)         | 24 (46.2)      | 61 (35.5)        | 61 (40.4)         | 13 (48.3)              | 135 (38.6)              | 135 (38.6)     |
| <u>Main economic resources</u>      |                   |                |                  |                   |                        |                         |                |
| Pension                             | 30 (25.0)         | 10 (19.2)      | 40 (23.3)        | 13 (8.6)          | 4 (14.8)               | 17 (9.6)                | 57 (16.3)      |
| Salary                              | 35 (29.2)         | 16 (30.8)      | 51 (29.7)        | 37 (24.5)         | 2 (7.4)                | 39 (21.9)               | 90 (25.7)      |
| Children                            | 42 (35.0)         | 21 (40.4)      | 63 (36.6)        | 90 (59.6)         | 20 (74.1)              | 110 (61.8)              | 173 (49.4)     |
| Other (savings, subsidised schemes) | 13 (10.8)         | 5 (9.6)        | 18 (10.5)        | 11 (7.3)          | 1 (3.7)                | 12 (6.7)                | 30 (8.6)       |

<sup>a</sup> p < 0.005, p < 0.0005, p < 0.00001, 2-tailed significance between sexes (see text) (Pearson Chi-squared test)

<sup>b</sup> p < 0.05, 2-tailed significance between age groups within sex (Pearson Chi-squared test)

health survey questions<sup>(2)</sup> about subjects' age, sex, marital status and living arrangements, education level, employment status, major economic resources, self-reported money sufficiency to buy food, monthly income and occupation of the head of household. Whereas, physical health functions were assessed by physical ability and mobility and self-reported chronic conditions. For the activity of daily living (ADL) index which reflects physical ability and mobility, this study used an abbreviated version of the CHULA ADL Index (CAI)<sup>(7)</sup>. Health behaviour investigated were smoking status, seeking health treatment, the use of medications, self-perceived health and weight loss and emotional well-being. Emotional well being was assessed by asking three questions, 'Are you happy and content with your everyday life?' (self-contentment), 'Do you feel well enough to do what do you want to do?' (self-satisfaction) and 'Do you take part in any community activities such as religious, political or charity events?'. Apart from that, the subjects were also asked whether they had experienced sleeping difficulties and participated in social or community activities over the past 12 months.

#### Statistical analysis

The Statistical Package for Social Sciences (SPSS) was used to analyse the data, which generated descriptive statistics and statistical tests such as the independent sample t-test and chi-square test for continuous and categorical data, respectively.

## RESULTS

A total of 350 from 498 eligible elderly people from all of the selected villages participated (response rate of 70%). The sex ratio of the sample was also similar to the national ratio of elderly people of 49% male and 51% female<sup>(2)</sup>. However, it was found that the women subjects [median age 66.0 (66.9 - 68.9) years] in the sample were significantly younger than the men [median age 69.5 (69.3 - 71.8) years] (p < 0.05). Malaysian population data indicates that the average life span for Malay women (72.3 years) is longer than men (69.0 years)<sup>(8)</sup> (Ministry of Health, 1991). It can be surmised that in this survey the oldest women were unable to participate due to health problems or less likely to participate because of being single or occupied with domestic work. Out of the non-respondents (n = 148), 6.0% were ill or hospitalised at the time of the survey, 2.7% refused to participate and 28.5% were not at home during the home visits. Another 93 did not turn up at the community centres, but could not be visited due to financial and time constraints.

#### Socio-demographic and economic profiles

Of the sample, 271 subjects (77%) were aged 60 to 74 years. The median age (95% CI) of the participants was 69.2 (68.4 - 70.0) years old, with a range of 60 to 118 years. The age distribution was skewed towards the lower values and thus transformed into a log(10) distribution prior to statistical analysis. Socio-demographic and economic profiles of the subjects are presented in Table I. Only

**Table II. The number and percentage of elderly who needed help or were unable to perform the Chula ADL (CAI) [expressed as number (%)] by sex and age group**

| Activity             | Men               |                         |                  | Women             |                        |                        | All<br>N = 350 |
|----------------------|-------------------|-------------------------|------------------|-------------------|------------------------|------------------------|----------------|
|                      | 60-74y<br>n = 120 | 75+ y<br>n = 52         | Total<br>n = 172 | 60-74y<br>n = 151 | 75+ y<br>n = 27        | Total<br>n = 178       |                |
| Walk out-doors       | 6 (5.0)           | 10 (19.2) <sup>d#</sup> | 16 (9.3)         | 16 (9.3)          | 13 (8.6)               | 18 (10.1)              | 34 (9.7)       |
| Use public transport | 7 (5.8)           | 12 (23.1) <sup>d</sup>  | 19 (11.0)        | 32 (21.2)         | 12 (44.4) <sup>d</sup> | 44 (24.7) <sup>b</sup> | 63 (18.0)      |
| Manage money         | 5 (4.2)           | 4 (7.7)                 | 9 (5.2)          | 18 (11.9)         | 9 (33.3) <sup>d#</sup> | 27 (15.2) <sup>b</sup> | 36 (10.3)      |
| Do housework         | 10 (8.3)          | 5 (9.6)                 | 15 (8.7)         | 8 (5.3)           | 3 (11.1)               | 11 (6.2)               | 26 (7.4)       |
| Cook                 | 17 (14.2)         | 14 (26.9) <sup>c</sup>  | 31 (18.0)        | 12 (7.9)          | 5 (18.5)               | 17 (9.6) <sup>a</sup>  | 48 (13.7)      |

<sup>a</sup> p<0.05, <sup>b</sup> p< 0.005, 2-tailed significance between sexes (Pearson Chi-squared test)

<sup>c</sup> p<0.05, <sup>d</sup> p<0.005, 2-tailed significance between age groups within sex (Pearson Chi-squared test)

<sup>#</sup> using Fisher Exact test, 2-tailed significance

**Table III - Chronic condition [expressed as number (%)] by sex and age group**

| Disease*                              | Men               |                |                  | Women             |                      |                        | All<br>n = 350 |
|---------------------------------------|-------------------|----------------|------------------|-------------------|----------------------|------------------------|----------------|
|                                       | 60-74y<br>n = 120 | 75+y<br>n = 52 | Total<br>n = 172 | 60-74y<br>n = 151 | 75+y<br>n = 27       | Total<br>n = 178       |                |
| Diabetes mellitus                     | 7 (5.8)           | 0 (0)          | 7 (4.1)          | 6 (4.0)           | 1 (3.7)              | 7 (3.9)                | 14 (4.0)       |
| Heart disease                         | 7 (5.8)           | 2 (3.8)        | 9 (5.2)          | 11 (7.3)          | 2 (7.4)              | 13 (7.3)               | 22 (6.3)       |
| Hypertension                          | 29 (24.2)         | 8 (15.4)       | 37 (21.5)        | 42 (27.8)         | 1 (3.7) <sup>b</sup> | 43 (24.2)              | 80 (22.9)      |
| Painful joint                         | 42 (35.0)         | 23 (44.2)      | 65 (37.8)        | 78 (51.7)         | 13 (48.1)            | 91 (51.1) <sup>a</sup> | 156 (44.6)     |
| Renal                                 | 1 (0.8)           | 3 (5.8)        | 4 (2.3)          | 3 (2.0)           | 1 (3.7)              | 4 (2.2)                | 8 (2.3)        |
| Respiratory problems                  | 21 (17.5)         | 12 (23.1)      | 33 (19.2)        | 15 (9.9)          | 5 (18.5)             | 20 (11.2) <sup>a</sup> | 53 (15.1)      |
| Anaemia                               | 0 (0)             | 3 (5.8)        | 3 (1.7)          | 5 (3.3)           | 0 (0)                | 5 (2.8) <sup>a</sup>   | 8 (2.3)        |
| Disease of the gastrointestinal tract | 13 (10.8)         | 6 (11.5)       | 19 (11.0)        | 7 (4.6)           | 0 (0)                | 7 (3.9)                | 26 (7.4)       |

\* Subjects could report more than one chronic disease

<sup>a</sup> p<0.05, 2-tailed significance between sexes (Pearson Chi-squared test)

<sup>b</sup> p<0.05, 2-tailed significance between age groups within sex (Pearson Chi-squared test)

10% of the subjects were living alone, with women more likely to live alone ( $p < 0.0005$ ). Nearly half of the subjects had received no education (formal or non-formal), the majority of whom were women. Children were the main providers for nearly half of the subjects (49%), particularly the older subjects. Most of the subjects (61%) perceived that they always had sufficient money to buy the food they required.

#### Physical health function

Table II presents the number and percentage of subjects who required assistance or were unable to perform the ADL. There was a trend of those at the older age group to be unable to undertake all the ADL tasks. Since the ability to use public transport (which requires the ability to manage money) and to manage own money (in other circumstances such as shopping) could be related to factors other than health such as educational levels, the associations between these tasks with educational level were examined. It was found that a significantly higher percentage of subjects who had received no education

(23.2%) were unable to or needed help to take public transport than subjects who had received education (13.2%) ( $p < 0.05$ ). A similar trend was observed for the ability to manage money.

In addition to the ADL, the roles of the subjects in the purchase and preparation of food were also examined. Approximately 38% and 53% of the subjects prepared their own meals and purchased their own food, respectively. Spouses or children prepared meals and purchased food for the remaining subjects. In both men and women, a significantly higher percentage of those aged 75 years and above did not purchase their own food, compared to those aged 60 to 74 years ( $p < 0.05$  for both sexes).

With respect to physiological and physical impairments, difficulties in seeing or hearing were most commonly reported (62%), followed by complaints of loss of appetite (49%), windy stomach (48%) and chewing problems (43%). Men were more likely to experience chewing difficulties ( $p < 0.05$ ). In women, significantly more of those in the older age group (59%)

Table IV. Self-perceived emotional and social well-being indices [expressed as number (%)] by sex and age group

| Indices*                         | Men               |                |                  | Women             |                |                         | All<br>n = 350 |
|----------------------------------|-------------------|----------------|------------------|-------------------|----------------|-------------------------|----------------|
|                                  | 60-74y<br>n = 120 | 75+y<br>n = 52 | Total<br>n = 172 | 60-74y<br>n = 151 | 75+y<br>n = 27 | Total<br>n = 178        |                |
| Self-contentment                 | 118 (98.3)        | 47 (90.4)      | 165 (95.9)       | 138 (91.4)        | 25 (92.6)      | 163 (91.6)              | 328 (93.7)     |
| Self-satisfaction                | 116 (96.7)        | 47 (90.4)      | 163 (94.8)       | 142 (94.0)        | 26 (96.3)      | 168 (94.4)              | 331 (94.6)     |
| Participation in social activity | 115 (95.8)        | 46 (88.5)      | 161 (93.6)       | 124 (82.1)        | 21 (77.8)      | 145 (81.5) <sup>b</sup> | 306 (87.4)     |
| Sleeping difficulties            | 51 (42.5)         | 30 (57.7)      | 81 (47.1)        | 89 (58.9)         | 18 (66.7)      | 107 (60.1) <sup>a</sup> | 188 (53.7)     |

\*always' (most of the times) or 'sometimes' reported the attribute

<sup>a</sup> p<0.05, <sup>b</sup> p< 0.005, 2 tailed significance between sexes (Pearson Chi-squared test)

experienced difficulties in chewing, than their younger counterparts (33%) (p<0.05).

#### Self-reported occurrence of chronic diseases

Only 32% of subjects had no diagnosed chronic conditions. Table III indicates that diseases of the joints such as arthritis and gout (45%) were the major chronic diseases reported, followed by hypertension (22.9%) and respiratory problems (15.1%). Only 23% of subjects were on a special diet such as low salt, low energy, low fat, low purine or a diabetic diet.

#### Health behaviour and emotional well-being

Approximately 40% and 20% of the subjects were smokers and ex-smokers, respectively. Men were almost four times as likely to be a smoker (p < 0.00001) and twice as likely to be an ex-smoker (p < 0.05). Approximately 30% of the subjects had regularly gone to the hospital, a health centre or a clinic for modern treatment, or just rested at home, when they had any illnesses or injuries in the previous year. Only 34 subjects (10%) had regularly seen traditional medicine men or 'bomoh'. It was found that in men, significantly more of those aged 75 years and above had regularly received modern treatment than their younger counterparts (p < 0.05). Prescribed medicine was the most commonly consumed type of medicine, with approximately half of the subjects reporting regular usage over the past 12 months. Approximately a third of the subjects had regularly taken over-the-counter (OTC) or traditional medicines. Traditional Malay medicines (usually herbs) were most likely to be taken for general health and fitness. Only 18% of the subjects, particularly men, had taken Chinese medicines (i.e. Chinese herbals remedies, ginseng) for treating ailments such as cough, constipation, asthma, windy stomach and backache.

#### Self-perceived health and emotional and social well-being

Approximately 30% and 17% of the subjects perceived that they had lost or gained weight, respectively. The majority of the subjects perceived their health as either

very good (35%), or good (36%). Only a small percentage of the subjects in this study reported discontentment and dissatisfaction with their everyday lives (Table IV). Significantly more men (94%) than women (82%) participated in social or community activities (p < 0.005). Sleeping difficulties were more prevalent in women (60%) than men (47%) (p < 0.05).

## DISCUSSION

### Socio-demographic and economic profiles

The observed higher percentage of widowhood and number of years of widowhood among women is due to the comparatively higher longevity among women who usually marry men older than themselves. Widowed elderly women are also less likely than men to remarry<sup>(9)</sup>. Widowhood will become more common in future, with the increasing number and proportion of elderly people and the lower mortality rate among women<sup>(10)</sup>.

As expected, a high proportion of elderly people live with their families. It has been well documented that elderly people in developing countries such as Malaysia are more likely to be living in multi-generation households, than their peers in the European countries<sup>(11)</sup>. This phenomenon suggests the necessity for countries such as Malaysia to direct social support systems to the family. In this study, it appears that elderly people live in a smaller household size (median of three persons per household) than the average in the district of Mersing of five persons per household<sup>(12)</sup>. This is probably explained by the migration of young adults to urban areas resulting in more elderly people living alone in the village<sup>(9)</sup>. In the future, community support groups may need to play a great role in the well-being of elderly people living in rural areas.

As expected nearly half of the subjects, the majority of whom were women, had received no education. This is explained by the probable lack of educational opportunities, particularly in rural areas, before Independence in 1957. Children were the main providers for nearly half of the subjects. This indicates the important role of the family in supporting elderly people in their daily living. Women were less likely to

be in employment or to be receiving a pension and, as a consequence were twice as likely as men to rely on their children for financial support. Several other studies in Malaysia<sup>(2)</sup> and Indonesia<sup>(13)</sup> also indicated that older women rely more on their family than do older men. This is probably explained by the differences in life expectancy, marital status<sup>(13)</sup> and educational level of the subjects, as previously discussed.

In this study, elderly men were very much involved in community activities such as religious or political events or with charities. The lower participation rates among women are probably due to their greater responsibility for domestic work such as cooking, doing housework and minding grandchildren. Their limited involvement in social activities does not necessarily imply that they are socially isolated as it is likely that, in general, the women had more contact with relatives, friends and neighbours. In this study, men and women were equally involved in food purchasing. Food was commonly obtained at local markets or grocery shops where elderly people are likely to meet friends as well as the sellers. It is interesting to note that even though approximately 65% of the subjects lived with their children, the children were involved in cooking or in food purchasing for only one-quarter of these subjects. This indicates that elderly parents play an important role in helping with domestic work while their children are working.

However, women in the older age group (75 years and above) were less likely to participate in cooking and food purchasing. Regardless of age, women were more likely to suffer from sleeping difficulties, which may be an indicator of depression<sup>(14)</sup>. It has been suggested that depression is the most common mental health problem in non-institutionalised elderly people<sup>(14)</sup>.

#### Physical health and health behaviour

The majority of the subjects were able to perform all of the ADL tasks which reflect their rather good physical function in terms of ability and mobility. Elderly women were more likely to be unable to use public transport or to manage money, or required help in performing these activities. Not being able to use public transport or manage money may be due to a low level of education, which is prevalent among women, rather than simply physical disability. The observed finding of no differences between sexes in self-perceived health status was also reported among Indonesian elderly aged 60 and above<sup>(13)</sup>. However, the WHO Western Pacific Countries study<sup>(11)</sup> reported that women were more likely to have negative perceptions about their health than men. In contrast, the European men<sup>(16)</sup> were more likely to perceive their health as being poorer than the women.

Although the majority (75%) perceived their health as excellent to good, the self-reported occurrences of chronic diseases and minor ailments, physiological difficulties which may be related to nutritional status, the frequency of which medical treatment was sought and the use of medications were not negligible. Difficulties in seeing or hearing can affect conversation, watching television or listening to the radio, reading, and recognising faces<sup>(15)</sup> and can therefore be very isolating. The high prevalence of subjects with chewing difficulties indicates the need for dental services, as poor dentition has been found to be an important determinant of both undernutrition and dietary inadequacy<sup>(16)</sup>. Even though disorders that affect hearing and vision and dental problems are among the most prevalent complaints in elderly people throughout the world, they are also the most neglected<sup>(17)</sup>.

The most prevalent chronic diseases reported were diseases of the joints or musculoskeletal system, particularly in women. An earlier study among elderly women residing in a rural site of Malaysia<sup>(3)</sup> reported similar findings, with arthritis affecting more than 60% of the subjects. In women, and to a lesser extent in men, hypertension was much more prevalent among those in the younger age group than their older counterparts. This is probably because those in the younger age group, particularly women were more likely to be overweight<sup>(6)</sup>, which has been associated with an increased risk of hypertension.

Respiratory diseases were more pronounced among men than women, probably because these diseases are associated with lifestyle factors such as smoking<sup>(18)</sup>, which was more common among men. Other chronic degenerative diseases such as heart diseases, diabetes, stroke and renal failure, that are frequently observed among elderly in developed countries<sup>(19)</sup> were rare.

The observed pattern of more of those in the older age group regularly seeking modern treatment, may indicate that they had more illnesses than their younger counterparts or that they are more health-conscious. Although 68% reported some form of chronic illness, only 30% of the subjects had regularly gone to the hospital, a health centre or a clinic for modern treatment, or just rested at home, when they had any illnesses or injuries in the previous year. Those that chose not to seek treatment are not necessarily free of diseases and illnesses. Nearly three-quarters of the subjects reported that they regularly take either one or two types of medicine (i.e. prescribed, over-the-counter, traditional Malay, or Chinese herbs). It should be borne in mind that the above reports on health seeking behavior and use of medications may not reflect the actual situation in terms of needs for health

care. Elderly Malaysians residing in rural areas are almost twice as likely as their urban counterparts to express a need for more health services<sup>(2)</sup>, probably because of difficulties in getting appropriate medical treatment due to limited access or high cost.

The high usage of prescribed and OTC medicines among elderly people raises the issue of drug-drug and drug-nutrient interactions which may contribute to poor nutritional status<sup>(20)</sup>. In contrast to elderly people in Western countries<sup>(20)</sup>, the usage of vitamin supplement among the subjects was rare. Instead, the subjects were more likely to take traditional Malay medicines for general health and fitness. However, the effects of Chinese or traditional Malay medicines on other drugs and on absorption and utilisation of specific nutrients are unknown.

In conclusion, although the majority of the elderly in this study were able to perform all the ADL tasks and perceived their health as good, physical impairments are prevalent and the use of medicines is widespread. It is expected that in the future, more of the rural elderly Malays will stay alone and will face economic problems because of the lack of sufficient and satisfactory programmes which benefit them. It is imperative that those involved in planning health and welfare programmes are aware of the situation. The group at risk and in most need of social and health services is probably those elderly who are widowed, living alone, at the older age group (75 years and above) and those who have poor sight or hearing or dentition, chronic diseases and practising polypharmacy.

#### ACKNOWLEDGEMENT

We are grateful to the elderly subjects, the fieldworkers, the Mersing District Office, District Hospital of Mersing and others involved during the data collection. This study has been funded by the Universiti Kebangsaan Malaysia (UKM N1/95) and the UK Nuffield Foundation.

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