THE HEALTH OF THE AGING MALAYSIAN: POLICY IMPLICATIONS

PAUL C. Y. CHEN

SUMMARY

In Malaysia, the elderly are still a relatively neglected group of people in that little priority is given to the important health issues associated with an aging population. This paper examines some of the relevant findings obtained during a survey which was carried out in 1984/1985. These findings have serious policy implications concerning family support, work, income, retirement, community involvement, social network, transport. and housing as pertaining to the elderly. There is an urgent need, as the population ages and social changes occur in society, for health planners, politicians and policy-makers to scrutinise the existing policies and develop new policies so as to retain those traditional practices that support, improve and maintain the psychological and social well-being of the elderly; and to develop new policies and programmes thus promoting a better lease of life for this small but important group to whom we owe so much.

KEY WORDS: elderly, health, policy, programmes

INTRODUCTION

Aging is a normal and inevitable process of growth, yet there is so little awareness of the issues and problems relating to the aged especially in developing countries. Over the years, gerontology and research into the problems concerning the elderly have gradually been established in the developed countries but have yet to be established in the developing world. The relative proportion of the elderly at present is still small when

Paul C. Y. Chen, MD, MPH, FFCM Professor of Social and Preventive Medicine Faculty of Medicine University of Malaya 59100 Kuala Lumpur, Malaysia compared to that in the developed countries, but in the coming decades, the elderly will increase in absolute and proportionate terms consequent to the rapid decline in mortality rates and a drop in birth rates.

A 1987 census estimated that 900,000 Malaysians, out of a population of 16 million, were aged 60 years and over. Concurrent with this rapidly increasing number of elderly persons, a country such as Malaysia that has always depended upon the extended family for the care of the elderly will need to develop policies in support of care for the aged as social changes rapidly erode old values and practices. Obviously, some policies will be needed to retain traditionally honoured support systems whilst it is imperative that others are promulgated to enable new facilities to be created to meet the needs of the rapidly expanding population of the aged. It is clear that such policies cannot be based upon mere guess work but need to be based on the analysis of solid data.

In response to the scarcity of data on the elderly in developing countries, the World Health Organization undertook a four-country study into the problems faced by the aged: these countries being the Republic of Korea, Fiji, the Philippines and Malaysia.¹ The study delved into several aspects of the problem including demographic morbidity, mortality, sociocharacteristics. economic factors and social needs. Also included were factors such as access to health care and social facilities; the ability of the aged to meet their needs pertaining to nutrition; physical health; mental health; activities to daily living, and the attitudes of the aged to the process of aging, youth, death and life as a whole. A detailed report publiched by Chen et. al., will form the basis of the discussion that follows.2

METHODOLOGY

Due to financial constraints the study was limited to Peninsular Malaysia where 56% of the population are Malays, 33% Chinese and 10% are Indians. There is a tendency for the people of the same ethnicity to stay in clusters. Most villages in rural areas are almost exclusively Malay, Chinese or Indian, the only exception being the occasional one Chinese shop-house at the junction of a crossroads. Similarly, in urban areas, ethnic clusters exist within the town limits. Purposive sampling of 1001 persons was used to obtain a representative sample of the ethnic groups in Malaysia, being that ethnic groups were not spread evenly across Malaysia.

Peninsular Malaysia was divided into five subregions on the basis of ethnic distribution, infrastructure and geography. One state in each of the five subregions was randomly selected to be included in the sample, namely Kedah, Perak, Kuala Lumpur-Selangor, Melaka, and Pahang. Urban and rural districts were selected within each subregion, the urban district always being the state capital (Fig. 1). Data were collected by several interviewers who were trained to use the pre-tested standard questionnaire and conduct a survey. These interviewers reported to experienced supervisors who edited and checked all questionnaires for completeness. The response rate was high with only 2.6% refusals. All those who refused were replaced with additional individuals to make up the sample of 1001 elderly persons.

RESULTS

Demographic characteristics

The majority of the study population was married (65%), 34% were widowed. The likelihood of women who were married and with a spouse decreased from 61% for women aged 60–64 years to 26% for those over 80 years of age. This was due to the fact that women tended to marry men who were older than themselves and women generally outlived men. In contrast, the proportion of married men did not fall before they reached 75 years of age. Most of the elderly (64%) were

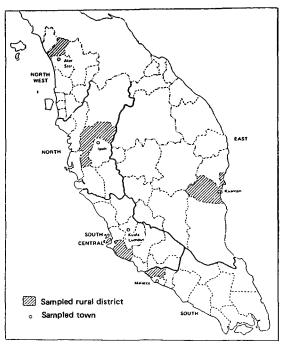


Fig. 1 Map of Peninsular Malaysia showing division into five regions and the districts and towns included in the study.

unskilled workers (including farmers), with the rural elderly making up the bulk of those under this category.

Nearly all professionals, proprietors, white-collar workers, and skilled workers were urban male residents, but this made up only 13% of the total study population. The level of the education of the elderly was relatively low; 56% have never attended school, 33% of them being females. More rural elderly (64%) have had no education when compared with the urban elderly (47%). Only 3% of the study population have had over nine years of education.

Health status and functional ability

The study revealed that the majority of the elderly felt healthy (77% of the elderly from urban areas and 68% from rural areas). There is a shift toward poorer health with increase in age so that only 53% of the elderly aged 80 and over believed themselves healthy. Similar trends were observed in America.³ Among the elderly who have had

TABLE I

NUMBER AND PERCENTAGE OF ELDERLY WHO HAVE SPECIFIC HEALTH PROBLEMS, BY AGE AND SEX

Number and percentage in each age group									
	MALE		FEMALE						
Type of problem	60–74 N (%)	75+ N (%)	Total male N (%)	60-74 N (%)	75+ N (%)	Total female N (%)	Total male & female N (%)		
Foot problem restricting activity	15 (4)	8 (9)	23 (5)	36 (9)	18 (18)	54 (11)	77 (8)		
Hearing problems	59 (15)	29 (31)	88 (18)	32 (8)	15 (15)	47 (9)	135 (13)		
Sight problems	245 (62)	75 (81)	320 (65)	274 (67)	74 (73)	348 (68)	668 (67)		
Evidence of cataracts	228 (58)	62 (87)	290 (59)	219 (53)	57 (56)	276 (54)	566 (57)		
Dental prosthesis	115 (29)	30 (32)	145 (30)	186 (45)	39 (39)	225 (44)	370 (37)		
Difficulty chewing	192 (48)	51 (44)	243 (50)	175 (43)	62 (61)	237 (46)	480 (48)		
Difficulty walking 300m	31 (8)	28 (30)	59 (12)	53 (35)	88 (17)	88 (17)	147 (15)		
Sample size	396	93	489	411	101	512	1001		

some accident, injury, chronic illness or health problem, 26% indicated that it interfered with activities of everyday life, the proportion being about equal for both urban and rural residents.

From Table I, it can be seen that there is a sustained degree of disability especially of the visual and dental integrities: 67% reported sight problems, while 57% of the elderly Malaysians were found to have some evidence of cataract. The prevalence of sight problems increased with age from 62% for men and 67% for women aged between 60–74 years to 81% for men and 73% for women aged 75 years and over. Some 48% found difficulty in chewing food and the frequency increased with age. About 37% reported to having a dental prosthesis. Hearing disorders affected 13% of the elderly, 15% found difficulty in walking 300m, while only 8% had foot problems which restricted activity.

The findings suggest that a large majority of the elderly can perform all activities of daily living (Table II). The most problematic activity of daily living seems to be that of going shopping (6%). This area of activity of daily living disfavoured the advanced elderly where about 18% of those 75 years and over, found difficulty in going shopping. Getting to the toilet on time was more of a problem (4%) than the other activities of daily living while getting in and out of bed created the least problem (0.4%).

Mental Health

A simple series of cognitive tests comprising 15 items was administered to 972 of the elderly in the study population (some were physically unable to participate). The elderly aged 75 years and over performed quite badly with a poor cognitive score. Only 59% of the advanced elderly

TABLE II

NUMBER AND PERCENTAGE OF ELDERLY WHO ARE UNABLE TO PERFORM ACTIVITIES OF DAILY LIVING,

BY AGE AND SEX

	Number and percentage in each age group								
	•	MALE			FEMALE				
Type of activity	60 – 74 N (%)	75+ N (%)	Total male N (%)	60–74 N (%)	75+ N (%)	Total female N (%)	Total male & female N (%)		
Travel beyond walking distance	5 (1)	5 (5)	10 (2)	4 (1)	7 (7)	11 (2)	21 (2)		
Go shopping	11 (3)	15 (16)	26 (5)	14 (3)	19 (19)	33 (6)	59 (6)		
Handle own money	8 (2)	5 (5)	13 (3)	7 (2)	11 (11)	18 (4)	31 (3)		
Eat ·	1 (0.3)	1 (1)	2 (0.4)	1 (0)	2 (2)	3 (0.6)	5 (0.5		
Dress self	1 (0.3)	5 (5)	6 (1)	0 (0)	2 (2)	2 (0.4)	8.0) 8		
Take care of appearance	1 (0.3)	3 (3)	4 (1)	0 (0)	2 (2)	2 (0.4) 5 (1)	6 (0.6 8 (0.8		
Walk	2 (1)	1 (1)	3 (0.6)	1 (0.2)	4 (4)	• •	4 (0.4		
Get in/out of bed Take bath	0 (0) 1 (0.3)	1 (1) 4 (4)	1 (0,2) 5 (1)	0 (0) 0 (0)	3 (3) 3 (3)	3 (0.6) 3 (0.6)	8 (0.8		
Get to toilet on time	12 (3)	8 (9)	20 (4)	9 (2)	9 (9)	18 (4)	38 (4)		
Sample size	396	93	489	411	101	512	1001		

TABLE III
COGNITIVE SCORE ON FIFTEEN ITEMS BY AGE AND SEX

		Number an	Number and percentage in each age group						
Number of	MALE FEMALE								
correct responses	60 — 74 N (%)	75+ N (%)	Total Maie N (%)	60 – 74 N (%)	75+ N (%)	Total Female N (%)	Total Male & Female N (%)		
0 – 3	2 (0.5)	6(7)	8 (2)	2 (0.5)	7 (7)	9 (2)	17 (2)		
4 – 7	6 (1.6)	9 (10)	15 (3)	14 (3.5)	12 (13)	26 (5)	41 (4)		
8 – 11	43 (11)	22 (24)	65 (14)	123 (31)	36 (38)	159 (32)	224 (23)		
12 – 15	331 (87)	54 (59)	385 (81)	264 (66)	41 (43)	305 (61)	690 (71)		
Total	382 (100)	91 (100)	473 (100)	403 (100)	96 (100)	499 (100)	972 (100)		

men and 43% of the advanced elderly women had 12–15 items correct. However, the early elderly of both sexes performed quite well in the cognitive tests, with 87% of the males and 66% of the females in this age group obtaining a correct score of between 12–15 items (Table III). There was a positive correlation between ability to carry out the cognitive test with the ability to perform activities of daily living. Generally, cognitive scores for elderly men were higher than that of women (81% and 61% respectively). There were significant differences between the urban and rural cognitive scores, with the urban elderly women scoring 78% while their rural counterparts scored 51%.

About 58% of the elderly were forgetful while 34% had sleep difficulties (Table IV). As expected, these were more severe among the advanced elderly. In general, there were more females than males experiencing mental problems. For instance, in the early elderly age group, more females than

males reported experiencing sleep difficulties, tenseness, disinterest, tiredness, paranoi, and memory failure.

The frequency in the reporting of sleep difficulties, anxiety, loss of interest in life, tiredness and forgetfulness increased with the advancement of age for both males and females. Questions related to hearing and seeing were invariably culture-specific. Hence, the percentage reporting this indicator of mental health was negligible.

Some socioeconomic variables were highly related to the prevalence of mental problems. Those who had inadequate income were more likely to succumb to mental problems than those who were economically stable and comfortable. The ability to perform well in the cognitive tests also diminished for those with low income.

Family Structure

More than half of the elderly (56%) lived in

TABLE IV

NUMBER AND PERCENTAGE OF ELDERLY WHO HAVE MENTAL PROBLEMS, BY AGE AND SEX

		MALE		FEMA	FEMALE			
Type of problem	60-74 N (%)	75+ N (%)	Total Male N (%)	6074 N (%)	75+ N (%)	Total Female N (%)	Male & Female N (%)	
Sleep difficulties	110 (28)	36 (39)	146 (30)	150 (36)	40 (40)	190 (37)	336 (34)	
Worried- tense	59 (15)	18 (19)	77 (16)	115 (28)	32 (32)	147 (29)	224 (22)	
Lost interest	108 (27)	39 (42)	147 (30)	119 (29)	41 (41)	160 (31)	307 (31)	
Depressed Feels Feels	13 (3)	5 (5)	18 (4)	8 (2)	1 (1)	9 (2)	27 (3)	
tired	163 (41)	47 (51)	210 (43)	209 (51)	56 (55)	265 (52)	475 (47)	
Forgetful	205 (52)	53 (57)	258 (53)	249 (61)	69 (68)	318 (62)	576 (58)	
Hears things	6 (2)	3 (3)	9 (2)	6 (1)	5 (5)	11 (2)	20 (2)	
Sees								
things	8 (2)	2 (2)	10 (2)	6 (1)	5 (5)	11 (2)	21 (2)	
Paranoid	7 (2)	3 (3)	10 (2)	11 (3)	1 (1)	12 (2)	22 (2)	
Sample size	396	93	489	411	101	512	1001	

TABLE V

NUMBER AND PERCENTAGE OF ELDERLY LIVING WITH OTHERS BY SEX AND URBAN-RURAL
DISTRIBUTION

No. of people living with	Urban reside	nts			Rural residents		
			Total			Total Rural N (%)	Total Urban & Rural N (%)
	Male N (%)		Urban	Male N (%)	Female N (%)		
			N (%)				
0	4 (2)	5 (2)	9 (2)	11 (4)	33 911)	44 (7)	53 (5)
1-3	61 (23)	62 (30)	123 (31)	141 (48)	117 (38)	258 (43)	381 (38)
4 or more	124 (66)	137 (67)	261 (66)	144 (49)	157 (51)	301 (50)	562 (56)
Total	189 (100)	204 (100)	393 (100)	296 (100)	307 (100)	603 (100)	996 (100)

household units of five or more people, unlike the situation in developed countries such as Australia4 and most industralised areas in Europe⁵ where different generations tended to live separately. The tendency to live alone increased with age and occurred more frequently among the women (Table V). Women over the age of 60 were more likely to have no one with whom to share accommodation after the death of their more elderly spouses. For the males, a steady drop in the proportion living with spouses occurred only after the age of 75. Widows and widowers were just 5% more likely to live with their children than married couples. The more children the elderly had the more likely it was for them to live with their children.⁶ Some 90% of the elderly with large families lived with their children, compared to only 67% with three children or less. There was a significant urban-rural difference where the urban elderly with four children and more were likely to live with their children (81%) than their rural counterparts (67%).

Facilities

The kinds of fittings and amenities available in the house decided whether the elderly could manage at home. It was revealed that basic amenities such as water, toilet, cooking and bathing facilities are available to most of the elderly. Only less than 7% of the elderly were deprived of such facilities.

Living habits

Findings showed that the elderly men smoked more than the elderly women (44% and 19% respectively); 20% of the men smoked more than 15 cigarettes a day compared with only 3% of the women. Half of the elderly smoked regularly at some time during their lives but only one-third still smoked regularly. Many of these were light smokers. Alcoholism was twice as common in males (15%) than females (7%) but only 4% of the elderly men and 2% of the elderly women indicated that their families complained about the amount of alcohol they drank.

Social activities

Membership of associations was not a common feature among the elderly Malaysians. Of the 26% who were members of social organisations, 89% were not active members. Another 4% belonged to some group, meeting or society for the elderly or retired people. The most popular form of activity was the participation of the elderly in family gatherings; 40% had attended at least one family function every three months. Attendance of such a function declined with age, with the decline being more pronounced for women.

Sixty-five percent of the elderly helped to make family decisions, with the men playing a greater

role (75%) than the women (56%). About 18% of the elderly had no one to confide in while 10% felt lonely. Two-fifths of the elderly received visits from relatives at least once a month but 17% complained that they did not see friends and relatives often enough. There were no age trends among the female population but older men more than younger men were less likely to see relatives. If they fell ill, 41%, 27% and 23% were cared for by a spouse, daughter and son respectively. only 1% will have to be totally independent when they are ill.

More than half (54%) of the elderly helped to take care of their grandchildren. Younger women were more likely to assist in this area than younger men but older men (over 75 years of age) were slightly more willing to help than older women. Female involvement in child-care decreased consistently with age from 72% in the youngest age group to 27% in the oldest. This age trend was the reverse among men in which assistance with child-care increased until 79 years of age, and fell only after 80 years.

Of the urban and rural elderly 90% and 82% respectively left their homes at least once a week.

Only 7% did not know anyone well enough to visit them in their homes. It must be borne in mind that 'leaving home' was not a good indicator of social interaction as the elderly may have left home to do some shopping or merely watch activities or goings-on as spectators. In general, males and urban residents were more likely to venture out of their homes. Overall, the elderly were content with the extent of social contact with family and friends. However, dissatisfaction increased with age in both sexes.

Economic resources

The main source of income of elderly Malaysians was from the family where 80% of the women and 43% of the men relied on them for income. The rest of the income comes from work (20%), pensions and superannuation (12%), welfare (2%) and 4% from other sources (Table VI). The males mainly depend on their savings and pensions for income. Many believe that they are capable enough and should be allowed to remain in the work force. Nevertheless, only 8% feel that they have a very tight budget with the rural residents (11%) apparently encountering greater hardship than the urban residents (5%).

TABLE VI

NUMBER AND PERCENTAGE OF ELDERLY WHOSE MAIN SOURCE OF INCOME IS WORK, FAMILY PENSION

OR OTHER, BY AGE AND SEX

Main Source of Income	MALE				FEMALE		Total
	60 — 74 N (%)	75+ N (%)	Total Male N (%)	60 – 74 N (%)	75+ N (%)	Total female N (%)	Male & Female N (%)
Work	134 (34)	11 (12)	145 (30)	46 (11)	6 (6)	52 (10)	197 (20)
Family	146 (37)	62 (67)	208 (43)	324 (78)	85 (85)	409 (80)	617 (62)
Pension*	96 (24)	14 (15)	110 (23)	27 (7)	5 (5)	32 (6)	142 (14)
Other**	19 (5)	6 (6)	25 (5)	16 (4)	4 (4)	20 (4)	45 (4)
Total	395 (100)	93 (100)	488 (100)	413 (100)	100 (100)	513 (100)	1001 (100

^{*} includes superannuation and welfare

^{**} includes savings, rentals from properties

POLICY AND PROGRAMME IMPLI-CATIONS

Health and functional ability

The Malaysian study revealed that 67% of the elderly had eyesight problems, 37% needed dental prosthesis while 13% had hearing problems. As the population continues to age, the emergence of a more elderly society with chronic disease and disability is likely. In view of the relatively high rates of problems encountered by the elderly, it is crucial that policies are initiated to promote good quality, preventive and therapeutic health care required by the elderly, and also to facilitate early diagnosis and rehabilitation to minimise the consequent handicaps. In addition, those providing primary health care and referral services for the elderly should have a better knowledge and toward encouraging the elderly to maintain their well-being.7 The ability to retain relatively well-functioning eye-sight, hearing, ability to chew and mobility has profound impact on the quality of life and independence of the elderly.

As the elderly advance in age, their mental health usually declines with the consequences that forgetfulness, fatique and sleep difficulties create. The advanced elderly perform quite poorly in cognitive functioning. Some 34% of the elderly experience difficulty in sleeping while a substantial number have a failing memory. Mental status is also correlated to economic well-being and the individual's ability to perform activities of daily living. Hence, the social support of the family is vital in the maintenance of mental health. At the age where boredom, neglect and life changes (eg. loss of spouse or employment) are likely to ensue, there is a tendency for the loss of self-esteem and self-worth. They regard themselves no longer as the active participant but as a passive spectator in the game of life. Thus, there is a need to review the mental health programmes in Malaysia in order to modify the training and retraining of health workers to cope effectively with these aspects of aging. Hitherto, the training of health workers has been almost solely aimed at dealing with psychological disorders only. Curricular changes should be made in primary and secondary schools to project a positive image of the elderly so that the elderly can be better integrated into society rather than being alienated and neglected by society as a whole.

Life-style is closely linked to the health of the elderly. One-fifth of elderly males smoke 15 or more cigarettes a day, while 44% of all elderly males are light smokers. Whilst only 3% of females smoke 15 or more cigarettes a day, it is likely that this percentage will increase with social changes. Cigarettes smoking is perhaps one of the most important causes of premature mortality. More widespread dissemination of information concerning the harmful effects of smoking should be accelerated.

Family support

As noted earlier the family is undoubtedly the most valuable and significant source of support for the elderly. This is a tradition for most countries in Asia. The majority of the elderly stay with their children and also hold an important role in the family hierarchy. Only 5% live alone. In contrast, a relatively high proportion of the elderly in developed countries live alone. A US national health interview survey, conducted over the first six months in 1984 showed that onethird of the Americans aged 65 and over (an estimated eight million people) were living alone. It has been recognised that even under this circumstance, family support plays an important role in the wellbeing of the elderly. If this form of support is present, the elderly can be helped to maintain themselves in community, and the rates of insstitutionalisation can be decreased.8 Bearing these in mind, measures should be initiated to institutionalise social support systems directed towards the family so as to encourage families to care for and cherish the elderly without denying them their independence. One such measure could be to pro vide income tax relief for those who live with, and care for, parents aged 60 years and over and a greater income tax relief for those living with and caring for parents over 80 years of age. The problem of child-minding that career mothers face can be resolved by the inclusion of the elderly

into the family circle which also instills in the child the norms and values of loving, caring for and respecting the elderly.

Work, income and retirement

The national retirement age in Malaysia stands at 55 years. Enforcing this will deprive the nation of a large pool of valuable experience and wisdom which have been accumulated by the elderly who at this age still enjoyed good mental and physical health. Retirement frequently results in loss of income, status and companionship with negative psychological and social consequences. It is worth emphasising that 58% of the elderly expressed that they be allowed to continue working, and 77% of the males aged 60 - 64 and 43% of the males aged 80 years and over wished to remain active at work. In recognition of this fact, steps should be taken to mobilise and enable the skilled elderly who are still economically productive to remain in the work force. This could include a raising of the compulsory retirement age from 55 to 60 with optional employment beyond 60. In America, for example, there is a more equitaable distribution of services to all age groups. Hiring or employment discrimination on the grounds of age is firmly discouraged. The mandatory retirement age is seventy years and is unrestricted for government workers. This serves to remove chronological age as the sole criterion for retirement whilst allowing for a flexible proggramme of early retirement for those who so desire. Continuation at work is conducive to good health, promotes independence and reduces the need for community and family support.9

Community involvement and social networks

Community involvement and social interactions have an uplifting psychological effect on the aged in that they result in motivation to maintain an active, healthy interest in life in addition to leading a meaningful life. It is timely to initiate measures to involve the elderly in the community. At present only the Young Men's Christian Association caters to the needs of the elderly via the Senior Citizens' Club. The elderly should be encouraged to volunteer their services to the

community which contributes to a healthy sense of self-worth and will maintain the interest of the elderly in life.

Community-based services such as day centres have increasingly become part and parcel of the lives of many of the elderly in developed countries but in Malaysia, although not unheard of, are quite uncommon. There is need to look into this aspect of community services in view of the rising numbers of the elderly in society and the limited social activities which at the moment mostly revolves around the family. Community day centres will create a greater opportunity for social interaction among the elderly. It has been shown by Palmore that greater social activity promotes longer life among the aged.

Transport

The study reveals that the major problem confronted by the elderly in the area of activities of daily living is going shopping. The rural elderly are more affected than their urban counterparts. Reduction of agility restricts movement, and together with the expenses and inconvenience of travelling by public transport further aggravates the situation. It is clear that more public transport should be provided in the rural areas and concessions be made to senior citizens for more affordable transportation. Currently, only the public who are aged 55 and above are allowed a reduced rate on the Malaysian Airline System and the Malayan Railways. At the second White House Conference on Aging in Washington in 1971, the excerpt from the preamble which may be taken as statement of public policy concerning transportation is as follows: "The elderly, like everyone else in society must depend upon the ability of travel for acquiring the basic necessities of food, clothing, and shelter as well as employment and medical care. The ability to travel is also necessary for the participation in spiritual, cultural, and other social activities. To the extent the aged are denied transportation services, they are denied full participation in meaningful community life."

Housing

Although 62% of the elderly are satisfied with

their residence, the housing should be of adequate standards which is vital to the well-being of the elderly. The housing policies need immediate attention. The policies should be reviewed and revised to suit the needs of the elderly. Designs of houses and flats should take into consideration the structural suitability for elderly people eg. high rise flats should have lifts. Basic amenities such as water, electricity and indoor toilets are essential in view of the fact that 6% do not have toilet facilities, 4% cannot get to the toilet on time and 7% do not have access to fresh water. Since guite a substantial number of the elderly help to take care of their grandchildren, building programmes should take into account the need to include the elderly within the family system, Planners have to ensure that housing units which are ideal for the extended family are the models in housing schemes, thus avoiding the problems seen in Japan and Singapore where the bulk of housing units are only able to accommodate two-generation nuclear families thus forcing a break-up of the extended family.

The need for these policies and programme changes to be effected in Malaysia and other developing countries is urgent in view of the rapid social changes taking places.

ACKNOWLEDGEMENTS

The financial support of the World Health Organisation is gratefully acknowledged. The standard questionnaire was developed under the guidance of Professor Gary R. Andrews, a WHO Consultant. I am also most grateful for the assistance of Miss Tan Yan Mei and the many project staff who assisted in the various aspects of this study.

REFERENCES

Andrews G R, Esterman A J, Braunack-Mayer A J, Rungie C M. Aging in the Western Pacific, Manila: WHO Regional Office for the Western Pacific, 1986.

- ² Chen P C Y, Andrews G R, Josef R, Chan K E, Arokia-samy J T. Health and Aging in Malaysia: a study spon-scored by the World Health Organisation Kuała Lumpur, Malaysia: Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya: 1986.
- ³ Kovar M G. Aging into the Eighties: Preliminary data from the Supplement on Aging to the National Health Interview Survey, United States, Jan-Jun 1984. National Center for Health Statistics, US Department of Health and Human Services, Advance data 1 May, 1986, No. 115.
- ⁴ Rowland D T. Family structure. In: Kendin Gibson... Rowland, and Hemer, (eds). *Health, Welfare and Family in Later Life. Aging and the Family Project.* Research School of Social Sciences, Australian National University, 1983: 19 – 40.
- ⁵ Heikkinen E, Waters W E, Brzezinski Z J (eds). The Elderly in Eleven Countries a sociomedical survey, Copenhagen: WHO Regional Office for Europe, 1983.
- ⁶ Chen P C Y. Health Care of the Elderly in Malaysia. In: Proceeding of Seminar on Socio-economic Consequen ces of the Aging of Population in Malaysia. National Population and Family Development Board, Malaysia, 19-85: 74 — 192.
- Macfadyen D M. Clinical and Public Health Consequences of Population aging. Ann Acad Med Singapore, 1987, 16: 11 14.
- Kovar M. G. Aging into the Eighties, Age 65 Years and Over and Living Alone, Contact with Family, Friends and Neighbours — preliminary data from the supplement on aging to the National Health Interview Survey, United States, Jan — Jun 1984. National Center for Health Statistics, US Department of Health and Human Services, Advance data 9 May 1986, No. 116.
- 9 Chen P C Y. The Elderly Malaysian. *Med J Malaysia* 1984: 39: 254 – 256.
- Andrew G R. Aging in the Developing Countries of Asia and the Pacific – Implications for Health Care. An Ann Acad Med Singapre, 1987; 16: 3 – 10.
- Palmore E. Predictors of Longevity. In: Hayes S G, Feinleib Med. Proceedings of the Second Conference on the Epidemiology of Aging Washington DC: Department of Health and Human Services, 1980. (DHHS: 80-969).