HEALTH CARE SERVICES FOR THE ELDERLY - A SINGAPORE PERSPECTIVE

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ABSTRACT

Singapore is greying at a phenomenal pace as well as in a markedly disproportionate manner. By the year 2030, the elderly will comprise around 25% of the total population; at the same time the numbers of younger and economically active persons will decline. The reasons for this process are varied and its implications disturbing. An important consequence is the urgent need for careful and comprehensive planning to meet the elderly's needs. The needs are best addressed when the elderly are looked at as either being well or frail. A guiding principle is that most of them prefer and should remain within community (and not be institutionalised). Efficient and appropriate community services must be developed so as to support the elderly's stay in the community.

Keywords: Ageing, Well-elderly, Frail-elderly, Community living, Institutionalisation

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INTRODUCTION

Lately, a growing concern about the plight of the elderly in Singapore has emerged. Media coverage highlighting their financial difficulties, their isolation and the problems faced by their carers seem to be coming up more frequently. Even within the political circle, several studies and steps have taken place over the last few years with the focus being the care of the aged.

If the present scenario about the elderly is disconcerting, then the future appears to be even more startling. The central fact here is the phenomenal increase in numbers of the aged over the next 3 to 4 decades and the difficulties and challenges associated with this rapid rise.

In this article, some of the current demographic, social and health perspectives of the elderly are highlighted as well as the changes expected in the near future. Given the facts and trends, the current services for the elderly are then looked at and suggestions for future changes are also made.

CURRENT FEATURES AND FUTURE TRENDS

Demographic

As Table I shows, currently those above 60 years of age (239,000) constitute about 8.8% of this country's population. This becomes 15.0% (474,700) in 2010 and 26.0% (853,300) by 2030. Even more importantly, those who are the very aged (75 years and above) increase in numbers from 55,800 (2.1%) to 242,800 (7.5%) over the same period[1]. The change in the dependency ratio (number of people between 15 to 64 years of age/number of people below 15 years plus number of people 65 years and above) is even more stark : from 12.3 : 1 in 1990 to 3.1 : 1 in 2030[2].

Table I
Projected Population 1990 - 2030
(Number in 000s)

Age	Year				
	1990	2000	2010	2020	2030
0 - 14	625.9 23.0%	671.1 22.4%	591.6 18.8%	571.9 17.7%	574.4 17.9%
15 - 59	1851.0 68.2%	1991.6 66.5%	2084.9 66.2%	1941.9 60.1%	1804.3 56.1%
60 and above	239.0 8.8%	332.4 11.1%	474.7 15.0%	718.8 22.2%	835.3 26.0%
Total	2715.9	2995.1	3151.2	3232.6	3214.0
65 and above	157.1 5.8%	220.7 7.4%	296.8 9.4%	471.1 14.6%	639.1 19.9%
75 and above	55.8 2.1%	79.1 2.6%	111.7 3.5%	149.2 4.6%	242.8 7.5%
Old Age Dependency Ratio	12.3 : 1	9.5 : 1	7.6 : 1	4.6 : 1	3.1 : 1

NB: Dependency Ratio = $\frac{\text{Person aged below 15 plus Person aged 65 and above}}{\text{Person aged 15 - 64}}$

Source: Population Projections for Singapore 1980 - 2030, SFPPB 1983.

To get a clearer perspective of the rapidity with which we are undergoing these changes, it is useful to know that the U.S. Bureau of Census in its analysis of percentage increase of elderly population of 21 major countries between 1985 and 2025 placed Singapore to have the second highest figure with its 348% increase in the elderly population (Table II). Alternatively, as Table III shows, what took France 115 years to see her elderly population increase from 7% of the population to 14% is only going to take 20 years for Singapore[4].

What are the reasons for such a rapid rise in the local demographic pattern of the elderly? To begin with, the population base in this country is small. As a result, any increase in percentage form becomes of a higher magnitude than when the population base is large. The dramatic improvement in basic services ie sanitation service, education and the strengthening of the economy has led to improved health with a marked reduction in the infant and childhood mortality rates. This has enabled a far greater portion of the cohort at birth to survive to old age. Life expectancy itself has increased due to improved health care. The increase in life expectancy at birth is about 3

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Table II
Percentage Increase in Elderly Population 1985 to 2025

Country	Percentage Increased
Guatemala	357
Singapore	348
Indonesia	301
China	236
Japan	121
United States	105
United Kingdom	23

Source: Handbook of International Geriatric Medicine A Merriman. PG Publishing 1989.

Table III
Rate of Ageing between Singapore, France and Japan

Country	Year Population 7% above age 65	Year Population 14% above age 65	Duration in years
France	1865	1985	115
Japan	1971	1996	25
Singapore	2000	2020	20

Source: Singapore – An Ageing Society SMJ Vol 31, No 5, 1990, 468-88

years over the past decade, from 71.4 years in 1980 to 74.2 years in 1989[5]. The increase in life expectancy at age 60 is about 2 years, from 17.1 years in 1980 to 18.6 years in 1989[5] (Table IV). And at the same time when this occurred, the fertility rate in this country declined steeply, and to below replacement levels. Many factors are responsible for this reduced fertility rate including the strong family planning campaign drive of the 1970's, the increased level of education of the younger population and the greater emancipation of women from their traditional role as housewives. All these influences have combined to produce a rapid and increasingly disproportionate rise of the aged in Singapore over the next 3 to 4 decades accompanied at the same time by smaller rise in the 15-64 year age group.

Table IV
Increase in Life Expectancy

Year	1980	1989
At birth	71.4 years	74.2 years
At age 60 years	17.1 years	18.6 years

Source: Population Planning Unit, MOH 1989

Social

A survey in 1983[6] (National Survey in Senior Citizens) showed that 97-98% of the elderly (aged 60 years and above) were staying in the community (that is, only 2-3% were institutionalised), of which 4.9% were staying with spouses and 81.4% were staying with their children and grandchildren. In a 1986[7] survey on the Aged Living in the Community which was based on 1,013 persons aged 60 years and above who were living in private households, about 40% of the elderly owned the homes they lived in while another 40% lived in homes owned by their relatives; 21% however, were staying in rented homes. (Table V).

Table V
Types of Accommodation in the Elderly

Type of Accommodation	Percentage (%)
Owned Homes	39
Relatives	40
Rental	21

Source: Report on Aged Living In The Community MOH, 1986

A 1987 labour force survey[8] showed that in the elderly (aged 60 years and above) there were greater numbers of females who were not working.

In percentage terms, the proportion of elderly who were not working were 92.3% for females and 68.9% for males. The 1983 National Survey on Senior Citizens (aged 60 years and above) showed that 73.4% of the females had no income while 31.1% of the males were in the same category. And expectedly, the higher the age group, the lower the proportion (in either sex) with income. The same Survey (1983) also noted that 84% of the elderly were receiving cash contributions from relatives.

When the elderly were questioned about who they preferred to stay with, 67.0% expressed a desire to stay with relatives, 0.8% with non-relatives, while 21.0% had no preference; 9.2% wanted to be alone and 1.6% preferred institutional care (Table VI).

Table VI
Preferred Accommodation in the Elderly

Preferred Accommodation	Percentage (%)
Relatives	67.0
Non-relatives	0.8
Alone	9.2
No Preference	21.4
Institutional Care	1.6

Source: Report on the National Survey of Senior Citizen Ministry of Social Affairs, 1983

Health

A 1986 survey on the Aged Living in the Community (aged 60 years and above) conducted by the Ministry of Health found 91.2% of the elderly to be ambulant while 8.3% and 0.5% were semi-ambulant and non-ambulant respectively. But when looked from the point of functional disabilities (including mental incapacity, incontinence, needing assistance in activities of daily living), the group constituted 10% of the elderly (Table VII). As the population ages the proportion of those semi-ambulant and non-ambulant will also increase[9]. The means that the number of elderly who will be more dependent will increase. Analysis[10] of hospital admission rates in 1987 showed the elderly to be the significantly major group requiring hospitalisation (Table VIII)[10].

Table VII
Health Status of the Elderly in the Community

Health Status	Percentage (%)
Ambulant	91.2
Semi-Ambulant	8.3
Non-Ambulant	0.5
Total	100
With Functional Disabilities	10

Source: Report on Aged Living in the Community MOH, 1986

Table VIII
Admission Rate to Hospitals by Age and Sex in 1987
(Rate per 1000 population)

Age	Male	Female	Total
0 - 4	158.3	126.1	142.9
5 - 9	59.0	40.6	50.2
10 - 14	37.4	23.9	30.9
15 - 19	74.5	45.9	60.6
20 - 24	80.3	114.8	97.1
25 - 29	60.0	152.4	104.8
30 - 34	59.1	126.5	92.0
35 - 39	68.8	92.3	76.8
40 - 44	64.7	78.4	71.4
45 - 49	79.8	84.3	82.1
50 - 54	108.1	96.8	102.5
55 - 59	144.1	102.2	123.4
60 - 64	173.8	134.9	154.4
65 - 69	217.6	164.1	190.1
70+	331.9	256.6	288.5
Average	89.5	102.9	96.0

Source: MOH Annual Report 1987-88

A Society in Transition[4]

The above facts must also be seen in the light of other changing characteristics of our society. For example, the household cohort size has been gradually declining - projections from the population planning unit show that the average household size will fall from 4.7 in 1980 to 3.1 in 2030. Additionally, the trend towards nuclearization of the family (as opposed to the extended family concept) has resulted in a greater proportion of the elderly per household. Thus a smaller household with a greater proportion of aged people is what is being predicted. This has serious implications in the quality and level of care that can be given to the elderly by their relatives.

Typically the major carers for the aged in our society have been females. This may not remain so in the future. With greater educational attainments as well as changing expectations, very many more females have now started to work, and the numbers are expected to increase even more in the near future. This will definitely affect the care - quantitatively and qualitatively - given to the elderly at home.

Another current observation of the younger females is that more and more are remaining single. This will also mean that in the years to come there will be increasing numbers of single, elderly women.

With an improved educational level, very soon the elderly themselves will perceive the inadequacies and limitations of whatever service that is being offered to them. At the same time, some of the abovementioned difficulties faced by the carers will also prompt them to demand more and more for reliable and reasonable services for the aged.

It should also be borne in mind that the present elderly are to a large extent members of the 'elite survival' cohort. They went through an era when the living conditions and medical services were relatively poorer. Thus those who managed to survive into the present elderly group can be deemed to be the more healthy and capable ones of that cohort. But this may not be the pattern for the future. The advances in medical treatment and the improved living conditions can result in more frail people surviving into the geriatric age group. The essential message here is that in the future, there will be increasing numbers of more frail elderly people. The implications of this for the geriatric health services are rather obvious.

Having sketched briefly the current and future scenarios about the elderly, let us now focus onto the services that are and that can be offered to them.

GERIATRIC SERVICES - THE PRESENT AND FUTURE

Policies and Implications

Provision of geriatric services are influenced by two fundamental and somewhat obvious principles : (i) most elderly would like to live in the community and should be encouraged to do so and (ii) those that need institutional care should be provided for. If, in a rather simplistic way, the elderly as a group can be subdivided into the well elderly and the sick/frail elderly, then from the above two principles, the following policies emerge: (i) to maintain the well elderly; (ii) to provide early treatment for the sick elderly; (iii) to have appropriate support services which can help maintain the frail elderly in the community and (iv) to have also the facilities to provide institutional care for the very frail elderly. The overall plan is shown in Fig 1.

The practical implications of such policies are (i) centralised planning would be needed to effect a well-coordinated and efficient system of geriatric care; (ii) adequate allocation of funds and resources would have to be committed for the running of the system and (iii) a spectrum of community-based and institutional services would have to be provided for.

What are the consequences if any of these policies and implications are neglected? Essentially it would mean that greater financial costs would be inevitably involved. If a good maintenance scheme for the well elderly is not provided for, a greater incidence of illnesses occurs in the group leading to a larger number of hospitalisations (and greater costs). If in the hospital the patient is discharged too early (as a result of bed shortages) or if the community-based services are inadequate or inappropriate, care for the elderly will suffer, leading inexorably to re-admissions or to larger demands for institutional care (which are also very costly). And if insufficient long term care facilities exist, again re-admissions to hospitals inevitably result and in turn, there will also occur greater difficulties with subsequent discharges of these patients. Thus as it becomes evident, the provision of a well-thought geriatric service is not just a necessity on humanitarian grounds but also for strictly economical reasons.

Well Elderly

To ensure a 'successful' elderly life several factors will have to be looked into, eg. financial security, appropriate housing, health, social supports.

Financial security is pegged mainly to employment status and as Table IX shows, amongst the elderly the number having a job decreases progressively with age and in all age groups, less females are employed[11].

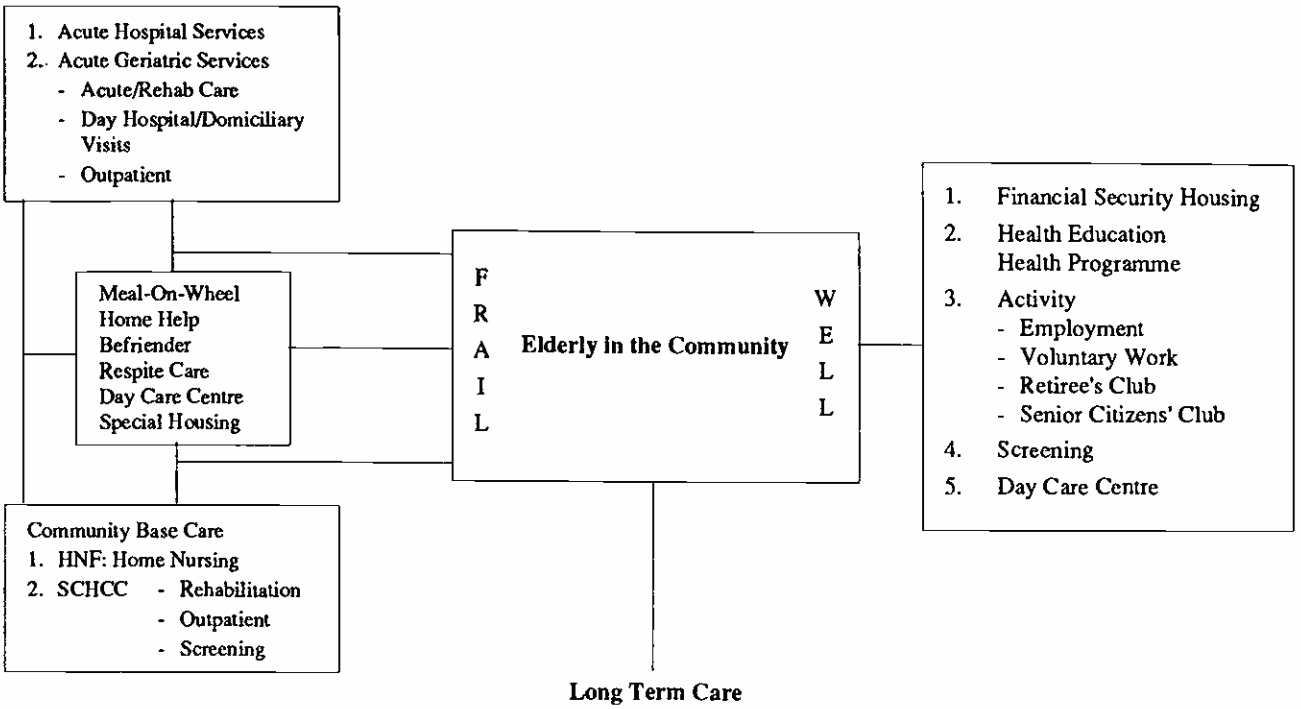
Table IX
Labour Force Participation Rates 1986

Age Group	Percent		
	Male	Female	Total
60 - 64	47.3	10.3	28.7
65 - 69	32.1	9.0	20.0
70 - 74	21.4	6.5	13.3
75 - 79	15.4	3.0	8.3
80 and above	9.3	1.4	4.2
Average	32.1	7.3	18.8

Source: Report on the Labour Force Survey of Singapore, 1986

Given the demographic trends of the elderly as well as their need for financial security, it is recommended that the retirement age in this country be initially increased to 60 years and eventually 65 years. There are many other allied

Fig 1 – An Overview of Health Services for the Elderly



considerations that come along with such a decision. For example, a flexible wage system linked to productivity rather than seniority would have to be thought of and facilities for re-education and retraining of older workers would have to be provided.

Appropriate housing is another important aspect of stable, community life. Essentially the aim here is not to create or aggravate any functional disabilities. For example, a home on the same floor as where the lift stops, bright lightings, financial subsidies to the needy for maintenance of the homes etc would have to be considered.

Provision of good health care address both preventive and treatment aspects. Thus dissemination of health education information, regular health screenings, the keeping of a 'at risk' register with close monitoring of those on the list are important facets of preventive health services. The organisation of a comprehensive outpatient service can bring about early treatment for those who become ill. The primary health care level should also be in close touch with the secondary and tertiary levels of geriatric care so as to facilitate rapid and appropriate management.

For those who are unable to find employment, there must also exist organisations to which the elderly can belong. Such organisations can be involved with voluntary work or they can provide recreational facilities, conduct various courses, or simply serve as places where the elderly can meet and mingle with each other. The important underlying principle of such services is not to allow social isolation of the elderly which can very easily occur in a society such as ours which always emphasizes on meritocracy and productivity. Examples of such organisations include the Peoples' Association's Senior Citizens' Club, Resident's Committee, and Citizen's Consultative Committee.

Frail Elderly

As one would expect, keeping the frail elderly in the community is overall a more intense effort requiring the coordination of a variety of services[12]. Nevertheless it is also the cheaper alternative as otherwise there would be widespread use of nursing homes as well as 'blockages' of hospital beds.

Treatment of acute illnesses in this group often requires hospitalisation. In Singapore at the moment there is only a single geriatric department in Tan Tock Seng Hospital comprising 75 beds. As a result, most of the sick and frail elderly are admitted to the acute general medical departments. For those who are admitted to the acute Geriatric Department, the average length of hospitalisation is around 22 to 26 days. It has been our experience that a prematurely early discharge of an elderly patient (at a point when he has medically improved but is still physically incapacitated) would inevitably make the patient dependent on the carers for help in the activities of daily living. This in turn has the potential to create strain amongst the carers and the end result often is re-directing the elderly patient to a nursing home or re-hospitalisation after a very short interval from the last discharge. Thus, the importance of minimising functional disability of the elderly patient - via the invaluable aid of the various therapists - at the time of discharge and instructing the carers about the ways and means of coping with the patient at home becomes obvious.

The above is also the reason why it is important to have a critical bed ratio in the Geriatric Department. In the United Kingdom it is recommended that 10 beds per 1000 of population above 65 years or 40 beds per 1000 of population above 75 years be provided[13]. However another report had shown that the most efficient use of services can result from the provision 8.3 beds and 22 beds respectively[14].

There is currently also a woeful shortage of physiotherapists, occupational therapists and speech therapists. Serious consideration may have to be given to starting a local training school so as to effectively meet this strong need.

Needless to say, care does not end with hospital discharge especially amongst the frail elderly. Continuity of management can be effected through a combination of social and medical support schemes. From the medical point of view, one of the most important aspects of care is provided via the Home Nursing Foundation (HNF). In 1989, a total of 28,449 home visits were made and close to 60% of the clients were above 75 years old[15]. The nurses are trained in providing basic rehabilitative as well as nursing care. Apart from the HNF, re-

cently four Senior Citizens Health Care Centres have been developed to provide rehabilitative and treatment care on an outpatient basis. Several of these centres also have transport facilities which bring the patients back and forth from the homes to the Centres. Other groups which support home-bound and especially isolated geriatric patients include Befriender's Service, Home Help Service and meals-on-wheels. More of such services are badly needed.

The underlying concept of respite care is that after a predetermined duration of care given by the relatives, the patient may be brought to an institution for an agreed period of time which will ease the strain and difficulties experienced by the relatives. Often this is coordinated by the geriatrician-in-charge. Thus respite care allows more families to look after their elderly relatives.

It should also be mentioned that there are frail elderly persons who, because they are alone, need to stay in special community homes where the residents can help each other. In such special housing arrangements, physical adaptations should also be thought of anticipating the various infirmities and disabilities of the aged. And especially also in this group financial assistance may be necessary.

Finally we address the issue of those who require institutionalised, long-term care. The basic principles here are that it should only be for the frail elderly requiring extensive nursing care or for those with mental incapacity requiring constant supervision. Presently about 2-3% of the elderly in Singapore are in institutionalized care and they are usually placed in Residential Homes, Nursing Homes or in the Chronic Sick Unit of Woodbridge Hospital.

There will have to be sufficient long term stay placements providing an acceptable level of care for those requiring them. An inadequate number of placements will only result in unacceptable stress for the elderly concerned and their families. It will also place severe strain on community support services, with an increase in the inappropriate usage of the more acute and expensive hospital beds. This situation is to be avoided at all costs.

In summary, Singapore's population is ageing at a very rapid pace. It will require planning and the allocation of vast resources to enable us to have a smooth transition. It is hoped that our elderly will age in a graceful and humane manner. Singapore can learn from other countries which have extensively planned for their greying population[13,16].

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