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Old age, poverty and community participation in Buenos Aires, Argentina

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This paper examines the capacity of poor elderly people in the city of Buenos Aires to develop and sustain local organizations and the ways in which such activities may be of potential economic benefit to them. The paper begins with a brief discussion of key theoretical issues and constructs a framework for the analysis of such organizations. It goes on to compare the experiences of three poor neighbourhoods in the early 1990s, paying particular attention to factors that may influence the success of local organizations and the actual benefits which elderly people derived from them.

Theoretical framework

A number of studies have stressed the potential advantages that can be offered by well-organized local initiatives (*1, 2*). They can perform a range of functions, including the provision of informal credit, direct assistance, the promotion of self-help strategies and generally raising awareness of elderly peoples' concerns at community level. They may also serve to reduce the social isolation and loss of prestige of the aged that is associated with modernization. As such, community-level initiatives may help bridge the gap between household survival strategies and macro-level public policy. Research in Latin America has observed the flourishing of informal grassroots organizations in the region since the 1970s (*3*). However, very little research considers the importance of community initiatives for elderly people. This is surprising, given the prominent role played by the aged in new social movements in countries such as Argentina.

The organization of the poor and underprivileged is the subject of a number of unresolved debates. On the one hand, it has been argued that the necessities of poverty and a common set of experiences and interests may promote solidarity. On the other hand, poverty and exclusion may reduce the capacity of social groups to develop grassroots organizations. In Buenos Aires the exclusion suffered by slum-dwellers (known as *villeros*) was clearly seen in many ways, including much higher levels of illiteracy than the national average (*4*).

Furthermore, there are indications that the elderly residents of slums (or *villas*) were marginalized vis-a-vis these neighbourhoods as a whole. Older people accounted for a smaller proportion of the population of shanty-towns than of other districts. The fact that old age was a very recent phenomenon in most shanty-towns meant that, as a group, elderly *villeros* had a lower profile than elsewhere. According to a local worker of a nongovernmental organization:

> *Old age is a modern phenomenon for which these groups of people were unprepared – they almost don't notice it themselves. Old age surprises them. They didn't see their parents grow old...The old person remains hidden inside the home. They scarcely consider themselves as old. One may ask, "Are there many old people around here?"*

and they tell you "No, not very many." and their ability to occupy a social position so that people recognize their needs...doesn't occur spontaneously (Silvia Simone, CEPEV, May 1993).

Moreover, educational levels were particularly poor among elderly *villeros*. In 1980 it was roughly three times as likely that *villeros* residents aged over 50 had not attended school compared to those aged between 25 and 49 years (*4*). Hence, elderly *villeros* suffered from two distinct forms of marginalization: of the slum and of old age. This paper examines the extent to which this occurred by assessing the capacity of elderly *villeros* to organize themselves spontaneously, as well as ways in which local initiatives may serve to reduce their doubly marginal status.

Many studies of the organization of poor urban groups stress the importance of outside actors (*5, 6*). We must consider the particular objectives of these external agents and the extent to which they facilitate autonomous action by the elderly *villeros* themselves. Some controversy exists regarding the desirability of external actors participating in the establishment of local organizations. It has been argued that this involvement constitutes external political control, which subverts the real interests of the poor to the dominant outside order (*6,7*). Conversely, it has also been claimed that the passivity and lack of associative experience of those suffering extreme poverty renders them incapable of organizing without external support (*8*).

In considering the potential economic impact such organizations may have on poor elderly people, it is useful to distinguish between different activities which may be undertaken. The first of these, direct economic assistance, includes monetary hand-outs and a wide variety of goods, such as food aid (parcels, vouchers, feeding centres), medicines, accommodation or clothing. Some organizations provided advice on obtaining welfare benefits. Although Argentina had a relatively embracing social security system in the early 1990s, around one-third of the population over the retirement age lacked a formal contributory pension. In *villas* only a minority of older people had pensions. Several state agencies offered limited assistance benefits for this group, but little was done to publicize their availability. Legal entitlements, eligibility criteria and modes of application were complex and tortuous for both contributory and assistance pensions. Organizations provided strength through numbers. This does not simply refer to direct lobbying, through demonstrations, petitions and so forth. In Argentina some state services were not granted directly to individuals but were managed through officially recognized local associations. Consequently, the absence of such organizations in a neighbourhood automatically excluded residents from these state services. Finally, local initiatives offered a range of social activities, such as subsidized holidays or literacy classes. Their contribution to the economic well-being of the aged is less obvious than that of other activities. Reducing an individual's sense of isolation and increasing his or her confidence may, however, empower them to seek solutions to their own economic problems.

Old age and local organization in three neighbourhoods

The study looked at local organizations in three shanty-towns. It is based on questionnaires conducted with elderly residents and key community figures between 1992 and 1993 as well as general observation, some of which was participatory.

Founded in the late 1940s, Villa Jardín is one the oldest *villas* in Buenos Aires. It has a long history of community organization and its population was very politically active during the 1960s and 1970s. Villa Jardín contains a degree of socioeconomic diversity ranging from relatively prosperous working class families to the highly marginal. Villa Azul is located on the fringes of Buenos Aires and most of its population migrated from the rural north during the 1960s and 1970s. It had the most youthful population structure of the three sites, with the over-60s accounting for only 3.6% of the total in 1990 (Table 1). A range of local organizations had operated in Villa Azul since the 1970s, but these were not as well developed as in Villa Jardín and were based on the dominance of community "strongmen" more than on political militancy. Villa Zavaleta contained a higher proportion of older people than the two other study sites (Table 1), but conditions for local organization were far from propitious. It was founded in 1968 as a temporary camp for people forcibly ejected from slums elsewhere in Buenos Aires. By the 1990s Villa Zavaleta's barrack-like buildings had fallen into disrepair and the neighbourhood had become a focus for criminal activities, including drug trafficking and violent robbery. There was no tradition of community activity in Villa Zavaleta and most of its residents lived in fear of their neighbours.

Table 1. Proportion of elderly people in villa population, circa 1990

	% aged 60 or over	% aged 65 or over
Villa Jardín	7.2	4.4
Villa Azul	3.6	2.2
Villa Zavaleta	Na	8.5

Tables 2 and 3 give a brief summary of relevant community organizations identified at the three sites in 1992-1993. A much more detailed account is available in Lloyd-Sherlock (*9*). Each table provides information about the involvement and nature of key external actors and whether the organizations were fully active at the time of the survey. The tables also assess the relative importance of each organization in providing the services identified in the previous section. These are rated on a scale of zero (no service) to five (a very significant impact for a substantial proportion of elderly people in the area). The scale reflects the author's subjective judgement and serves as a quick summary of the findings presented in Lloyd-Sherlock (*9*).

Table 2 looks at organizations that were primarily concerned with older people. An example of such an organization was found at each site, although only one was fully active: the Centro "Los Jóvenes del '90" (the *Centro*). This provided a broad range of services for the aged and enjoyed strong local support. However, the *Centro* had been established only in 1990 and so it was difficult to assess how sustainable it would be. The *Grupo* and *Virgen de Luján* had offered a similar range of services but had been less effective and had foundered when key external actors lost interest.

Table 2. Local organizations primarily concerned with elderly people*

	Name	External link	Active	Direct support	Advice	Strength in numbers	Social activities
Villa Jardín	Centro Jóvenes del '90	Local NGO	Yes	4	5	4	5
Villa Azul	Grupo de la 3ra Edad	Local govern-ment	No	2	2	1	1
Villa Zavaleta	Centro La Virgen de Luján	Local Catholic church	No	1	1	1	2

Table 3 gives information for organizations that were not primarily concerned with the welfare of the aged but offered some services of relevance to them. All of these were linked to religious groups, principally the Catholic Church. Again, Villa Jardín fared best, with the local Catholic Church group providing a range of services such as food parcels and literacy classes. In every other case, the impact of such organizations was largely insignificant. Several other local organizations, including development associations and grassroots political groups, are not included in Table 3 since they did not provide any services of particular relevance to older people.

Table 3. Other local organizations of importance to elderly people*

	Name	External link	Active	Direct Support	Advice	Strength in numbers	Social activities
Villa Jardín	Caritas	Catholic church	Yes	4	3	1	3
	CUNP	Evangelical church	Yes	0	1	1	1
Villa Azul	Caritas	Catholic church	Yes	1	0	0	0
Villa Zavaleta	Caritas	Catholic church	Yes	2	1	0	2

Comparisons between neighbourhoods

Despite the fact that they were all shanty-towns located in the same city, the experiences of the three case study locations were extremely varied. By 1993, Villa Jardín contained several initiatives that addressed the needs of elderly residents. Villa Azul had failed to establish an organization comparable to Villa Jardín's *Centro* and its local initiatives provided far less support for the aged. This could largely be attributed to the decision of the

local nongovernmental organization to become involved in one area and not the other. By contrast, local government had taken more interest in the plight of Villa Azul's elderly people than it had in Villa Jardín, sending social workers and providing assistance benefits. A change in local government undermined the *Grupo* and cut off an important source of outside assistance for the elderly. In Villa Azul, participation by elderly *villeros* was much lower than Villa Jardín and there was little indication that it had reduced their marginal status.

Potentially, local initiatives could have been of more benefit to local elderly people living in Villa Zavaleta than in the other *villas* studied. The high number of aged could have increased the bargaining power of organizations vis-a-vis official agencies. Sadly there were few signs that this could be achieved until a degree of order was established in the *villa*.

Requisites for success

None of the three *villas* contained examples of elderly residents organizing themselves spontaneously without outside help. In every case, outside actors were integral both in initiating activities and in their day-to-day management. When this external support was interrupted many initiatives foundered. Whilst outside actors were ubiquitous, their roles varied considerably. This partly reflected the type of actor involved (religious, political, state or nongovernmental organization) and their reasons for becoming involved in the *villa*. The local nongovernmental organization operating with the *Centro* planned to make groups fully independent of outside help after a few years, so that its resources could be directed elsewhere. Conversely, religious or political actors had an interest in maintaining permanent links with local initiatives.

The presence of outside actors gave local initiatives a series of opportunities and constraints. They provided *villeros* with organizational skills, information about available resources and, often, direct access to resources through personal or institutional contacts. Personal contacts were particularly important: access to resources was frequently a question of "who you know, rather than what you know". Permanent dependence on such actors tended, however, to stifle initiative and participation within the groups, making them more vulnerable to changes in external support.

Local initiatives for the aged were unable to maintain high levels of participation and could not justify monthly dues unless they could provide clear benefits for their members. This might be food aid or facilitating access to cash benefits. While parties, vaccinations and day trips increased the solidarity and confidence of local residents, they were not enough to ensure participation. A problem confronted by most groups was that it was sometimes impossible to obtain benefits without having already achieved a high level of participation, yet local residents were unwilling to join until they saw clear evidence of economic aid. It was often difficult to break out of this unfortunate cycle.

Access to suitable premises was another key requisite for the success of local initiatives. This reflected both the concrete utility and the symbolic value of the building. Premises could have been offered to or shared with other organizations, increasing cooperation between them. Space may also have been rented out, providing organizations an additional source of income.

All of the organizations studied were dominated by a small number of key participants. In some cases these were outside actors, in others they also included local residents. While this was probably inevitable, maximizing the number of active members from the locality was important for the long-term success of initiatives. Several organizations quickly foundered because key members became inactive. Clearly, the risk of death or illness was higher if initiatives were run by a small number of elderly people.

In most of the initiatives studied, notions of democratic participation were somewhat limited. Again, in both the *Virgen de Luján* and the *Grupo's* elections for committee members, only one person had been nominated per post. Few votes were taken on day-to-day decisions and, when this was done, they generally consisted of an informal show of hands. This lack of democracy served as a disincentive to participation.

Women participated in local initiatives for the elderly to a much greater degree than did men, dominating both the general membership of the *Centro* and the committee of the *Grupo*. This may have reflected the importance of elderly women in the national human rights movements of the late 1970s (*10*). However, the importance of this experience should not be overestimated, since there are no indications that *villeros* were directly involved. Various studies draw attention to the importance of women in maintaining contacts with friends and neighbours through informal networks (*11, 12*). This was partly due to the fact that for men the workplace represented the principle focus of social life and organization, while for women these functions were more usually located in and around the home. Consequently, elderly men who were no longer working were less able to maintain social contacts than were women in the same situation. The disproportionate number of elderly women in local associations may also have reflected greater levels of material need or more formidable obstacles to state assistance.

The impact of local initiatives

The impact of the local initiatives described here varied much among the neighbourhoods studied. Nevertheless, some general comments can be made. The provision of direct economic aid and advice were usually the principal functions of such organizations. Their capacity to do this was limited by a number of factors, including a lack of information about benefits and their unfamiliarity with complex bureaucratic procedures. While in each neighbourhood roughly a quarter of elderly residents possessed an assistance pension, different state agencies were involved. In Villa Azul all such pensions had been granted by the local government before the demise of the *Grupo*. In Villa Jardín pensions came from a national programme with which the *Centro* had succeeded in developing close ties. In Villa Zavaleta the pattern was more complex, with a range of welfare agencies dealing with residents on a more individualized basis.

While a number of local organizations sometimes resorted to pressuring government agencies for additional resources, this was usually on an *ad hoc* basis rather than as a systematic strategy. Thus, they could not be considered to be pressure groups in the same sense as other pensioner protest organizations. Rather than this, many local organizations actively strove to formalize and develop relations with government agencies along clientelistic or apolitical lines.

The reluctance of elderly *villero* organizations to protest against or confront the state could be interpreted as a rational strategy, averting the risk of alienating agencies that might be able to provide short-term material relief. It is unlikely that overtly political organizations would obtain formal recognition from local government, thus excluding them from official assistance. However, the political passivity of such organizations may also have been a reflection of the marginality of their membership. Many elderly people may simply not have been able to afford the bus fare to take them to demonstrations in the city centre or may have been too frail or unwell to make the journey. There were also psychological barriers to participation in such activities. Past repression would have discouraged future political activity and increased fears of official violence. Local organizations were more successful in providing elderly people with a social forum, including parties, classes, outings and other activities. Although these were not of a political nature they may have served to increase the confidence and collective identification of members and thus lay the foundations for future mobilization. There were, however, few signs that this had occurred as yet in the *villas* studied.

Thus, whilst local initiatives often met with some success, they were never able to resolve all the shortcomings of the broader institutional structure of economic support and political exclusion of the aged.

It was apparent that the aged were generally given little attention by their fellow *villeros*. Partly because of this, many local initiatives emphasized the needs of other groups – young children, single mothers or unemployed men – rather than elderly people. This bias was also reflected in local government social assistance programmes, so that often resources simply were unavailable for local organizations dealing with elderly people. The marginal status of the elderly within the *villas* was compounded by the negative attitudes of outsiders towards *villeros* in general. This discouraged some neighbouring organizations from getting involved in the *villas* and deprived elderly *villeros* of the opportunity of mixing with and learning from residents of other neighbourhoods. Local organizations seldom had good information about the range of benefits available to their members. This mainly reflected the failure of the agencies concerned to publicize their services, which was largely due to budget constraints and the way funds were allocated.

Since the rising number of aged in shanty-towns had been a relatively recent phenomenon, many external agencies had yet to adapt to the changing circumstances. This was well illustrated in government advocacy for model pensioner centres which were geared to the needs of those who already had contributory benefits. These were clearly inappropriate to the needs of the sites studied here. In some cases outside actors proved to be inconsistent. In the case of Caritas, assistance for the aged varied very much by parish, reflecting the preferences and concerns of the local priest. Outside aid from political agencies was extremely erratic and this was sometimes also the case for benefits provided by the state.

Local organizations in each of the three neighbourhoods often exhibited a lack of coordination and collaboration. This sometimes resulted in overlapping service provision. This lack of coordination could lead to rivalry when organizations were competing for the same resources from an outside agency. Common services, common links with external agencies and, most importantly, a common aim to alleviate the poverty of elderly people were all very strong reasons for organizations to develop close mutual ties.

Conclusions

Welfare policy for impoverished older people in cities in developing countries should recognize the potential value of effective, participatory grassroots organizations. These organizations can be used to disseminate information about available benefits and procedures. They can also draw attention to individuals in acute need and thus facilitate the targeting of assistance. It should not be assumed that these community initiatives develop spontaneously. This paper identifies the key role that can be played by enlightened outside actors in this process. A separate survey carried out by the author in São Paulo, Brazil, was unable to find any similar sorts of organization catering for the city's 40,000 elderly slum-dwellers. This appeared to reflect the lack of interest taken by local government and local organizations, rather than a reduced desire and capacity for organization on the part of the aged themselves. With a small amount of financial backing from the state, the successful experiences of neighbourhoods such as Villa Jardín could be emulated in other shanty-towns across Buenos Aires and beyond.

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Deep social changes: the demographic growth of the elderly age group

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The demographic growth of the over-60 age group has brought about consequences that have been poorly understood by society as a whole so far. It is worth mentioning the significant projected increase of the elderly age group in Brazil from 1950 to 2025. In a 75-year period, the Brazilian population as a whole will become five times larger than it is now, whereas the over-60 age group will be 16 times larger. Other countries with a large elderly population, such as the United States, Japan and China, will experience much lower growth rates for this age group in the same period, reaching, respectively, 3.5, 5 and 6.5 times.

The decrease in mortality and birth rates has changed the age structure of the Brazilian population. There was a sharp reduction in mortality rates, particularly in the first years of life. The explanation for the growth in the over-60 age group lies, however, in the dramatic fall in birth rates, particularly in urban areas, rather than in the decrease in the mortality rate. There are several reasons for this change. The Brazilian population underwent an intensive process of urbanization, which led to a growing desire for smaller families as a result of the living in large conurbations. This is particularly true in a context of economic crisis, which intensifies the effects of urban n life, such as the increasing participation of women in the labour market and changes in social and cultural patterns that result both from moving to the city and from the impact of the media. Television, in particular, advertises a way of life associated mostly with small families. It is noticeable, as a result, that the use of contraceptives is expanding in Brazil.

Among the elderly population, the share of women is much larger than that of men (see table in Appendix I). According to demographic data published by the United Nations in 1995, the number of persons aged 60 years or older (roughly one-tenth of the world's population) consists of 302 million women and 247 million men. In developed countries, women of 60 or older amounted to more than 20% of the female population at the time. Moreover, calculations show that life expectancy at birth is higher for women. In 1995, world averages were of 67 years for women and 63 for men. As they live longer than men, there is a tendency for women to be alone in their old age, a fact that is further increased by cultural factors which cause women to have older partners. In the United States, 30% of the elderly live on their own, and 80% of these are women. In Switzerland, the number of elderly women who live on their own is four times higher than the number of elderly men who do so. The last census in Brazil showed that the percentage of widows is 45.7%, whereas widowers amount to only 12.3% of the elderly population. Men usually marry again when they lose their partners, as the data from IBGE[1] demonstrate: 77.9% of persons over 60 years who live in marital partnership are men, whereas the percentage of women in the same situation is only 38.5%.

[1] Instituto Brasileiro de Geografia e Estatística, the Brazilian authority in charge of censuses.

Women tend to be poorer than men when they reach old age. This happens because women usually have fewer opportunities to make and save money throughout their lives. Their participation in the formal labour market is less than men's, and social security systems have been designed to provide for salaried workers. Moreover, these systems hardly ever acknowledge domestic work as labour. Elderly women as a group require, thus, policies that take into account this set of factors.

The elderly generally require more health services than younger persons. The problem is compounded by the much higher hospitalization rates compared to other age groups, and by the average occupation time of hospital beds, which is three times as long. The lack of outpatient or home services means that initial care occurs in the hospital at an advanced stage of the disease, raising costs and reducing chances of a favourable outcome. The health problems of the elderly not only last longer, but they also require specialized personnel, multidisciplinary staff, equipment and supplementary tests. In short, the elderly require the most from the health services. There has not been a saving of health costs with the decrease in the growth rate of the younger population. The urbanization of malaria in the northern Brazilian state capitals, such as Manaus and Porto Velho, is now a fact of life, dengue has spread in several states – starting with an epidemic in Rio de Janeiro in 1986 – and cholera returned in 1991 after more than a century without outbreaks. There is also leprosy, tuberculosis and recent outbreaks of measles. At the same time, there is a disturbing rise in the number of deaths caused by road accidents and homicides, as well as a spread of AIDS from larger cities to mid-sized towns around the country and higher mortality rates for neoplasms and cardiovascular diseases.

Nevertheless, the picture would not be as disturbing if educational policies, aiming at training qualified personnel in various fields related to the elderly, had already been implemented, together with investments in science and technology to support projects and research in the fields of health and ageing. In Brazil, the Act 8842, which defines the national policy for the elderly, sets guidelines aiming at the promotion of social policies which would enable the elderly not only to develop their full potential but also to age in a healthy and dignified way. Therefore, it is about time to implement this law as a priority in the country's agenda.

Some 650 000 elderly persons are added to the Brazilian population every year. A lot of time has been wasted believing that Brazil is still a young country, without acknowledging in practical terms the demographic data which point to the ageing of the population. The fields of geriatrics and gerontology are complex and demand qualified well-trained personnel, innovative and creative projects, and people committed to change. This is not a matter for amateurs with simple assistance-oriented practices and good intentions but without adequate academic formation.

Brazilian population growth shows distinct characteristics. Although its percentage is reducing, the younger age group is still significant and this group now exists along with a significant elderly age group. As a result, Brazil is now facing a difficult problem: how to allocate resources to meet the growing demands of both the young and the elderly age groups, which are equally in need of services. In short, resources for support social programmes will not only have to combat high infant mortality rates and malnutrition and provide for educational programmes, but will also have to fight the chronic diseases typical of old age.

Benefits and pensions related to social security, to which all elderly persons are entitled, will also have to be provided. In economic terms, a great challenge lies ahead: two economically nonproductive groups are demanding the meager resources of a country that has little tradition of investment in social and medical areas.

There is no point in expecting state actions to be preferentially channelled to the elderly in a country like Brazil, regardless of their special needs, as the young population is still large and there are social and medical problems that are absolute priorities. However, in a period when policies are aiming to reduce state participation, the elderly will be hit particularly hard. Neoliberal policies, even in rich countries, have led to the weakening of programmes aimed at the elderly.

Once it is acknowledged that the elderly are a group requiring special care in the social and medical areas, some broad measures may be suggested, based on models of other countries, personal experience, demographic data and the latest international research findings.

Challenges

The diseases that afflict the elderly are, in most cases, chronic. They are health problems that will linger for another 15 years or more. Thus, the hospital or asylum model cannot be the basis for the health system. However, outpatient care that involves medicine, tests and frequent trips to health care units is not viable for the poor. Creativity is needed to think up alternatives that are more efficient and adequate. Formal medical care is not only expensive, but also it does not meet all the needs of the elderly. The creation of so-called alternative spaces should be encouraged, namely day centres, night centres, shelter homes and protected homes. These are places where the elderly can spend part of the day engaged in some activity, releasing relatives for work and allowing disease prevention. These units rely on the work of care providers, a special kind of professional trained to deal with the elderly. The cost of these units is low and there are good models in several countries such as the United Kingdom.

Another strategy increasingly adopted to reduce problems of elderly loneliness, improve their social contact and develop new abilities at a more advanced age is the implementation of so-called socialization centres. These centres are not medical care units, or at least that is not their main orientation. They bring elderly people together in cultural, leisure or even sports activities, under constant supervision by qualified personnel. Les Universités du Troisième Age (Third Age Universities), a successful French project, is a commendable development but is restricted to teaching. A more ambitious project for a socialization centre must also include integrated health care and other services related to providing updated information and knowledge to the elderly, together with initiatives of a cultural and intellectual nature. The range of activities should be as wide as possible and should include practical skills, technological innovations, cultural and leisure activities, and games. This model has already been implemented at the Rio de Janeiro State University. It is called Universidade Aberta da Terceira Idade (UnATI)[2], and has been recognized as one of the most creative and innovative projects in the field of third age (see Appendix II).

[2] Open University for Studies on the Elderly

Those involved in the activities of UnATI – both users and staff – are also designers of a large-scale experiment, where new alternatives for the demands of the elderly population are being constantly sought. Located inside the university, this programme attracts the elderly to the campus, where daily contact occurs with thousands of younger persons. This provides a useful possibility for reducing the gap of values and ideas which causes tension between different generations. The effort toward integration between generations is, moreover, a strategy that may contribute to reversing negative attitudes to the elderly.

Another important recommendation concerns the organization of care or rehabilitation carried out at home – the Home Internment Programme and the Home Care Programme – which aim in particular at the demented and disabled elderly. Once again, it is essential to stress that these programmes are more efficient and less costly than the traditional model of hospitalization.

For a low-income family, an elderly person who is at home and ill causes either a feeling of guilt in those who leave for work, as they feel they are abandoning their kin, or in a loss of income for those who stay at home to care for the sick person. However, in most cases, the sick person is taken to a hospital, where he or she will stay for a short time and then return home. These comings and goings will be repeated in a cycle that usually lasts for years. This means cost with no solution in sight. Alternatives should be found in which the state authorities support the family and the elderly person. In other words, benefits should be proposed, such as bursaries for the family to take care of the elderly person, to avoiding the worsening of his or her condition. This would be cheaper than frequent trips to the outpatient department and hospitalization. This bursary could be similar to the one that the city of Brasília offers to families that have children in school. Objective criteria may be defined, but this initiative undoubtedly has not only strong political appeal but is also aimed at relieving the pressure on hospitals and outpatient departments.

In the United States, many elderly prefer the state of Florida as their place of a residence. This has led to the emergence of industries related to local tourism, trade and services to cater specifically for the elderly. Some Brazilian states, particularly Rio de Janeiro and most of the north-eastern states, would be wise not to neglect this growing market. The increase in apartment hotels for the elderly, and visits to museums and theatres are some of the examples of services which could be implemented. The private sector has shown no awareness of this new consumer market.

The state of Rio de Janeiro, in south-eastern Brazil, has some features that make it strategic to the development of specific programmes for elderly citizens, not least because it holds the largest share of the elderly population in Brazil. The state capital has historically been a magnet attracting elderly individuals, particularly civil servants. Factors such as urban violence and the cost of living, may have slowed down this trend but, if present tendencies towards economic recovery are sustained, more and more elderly persons may choose Rio de Janeiro state and its capital as their place of choice for holidays or even for residence. Rio de Janeiro has a highly developed service sector, with special emphasis on tourism and an intense cultural life. Increasing the participation of the elderly in society involves reintegrating them "back into the world". The elderly have a lot to offer. Their accumulated knowledge and experience, if put to good use, may help a great deal in the revival of the city.

It is worth pointing out that tourism, culture, leisure and service activities fit both the character of the city and the skills and work potential of the elderly.

The generosity of the people is a characteristic of the north-eastern region. Wonderful beaches, ever pleasant temperatures and sun all year round make this region a natural point of convergence for the elderly. After so much effort to make human life last longer, it would be regrettable if adequate conditions to live it were not provided. The problem is not the elderly person, but the need for implementation of creative solutions.

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Appendix I

Elderly in Rio de Janeiro city in 1997

	Total population	Male %	Female %	Elderly population	Male %	Female %
Brazil	152 374 603	49.0	51.0	12 719 198	44.9	55.1
Greater Rio	10 169 683	47.3	52.7	1 129 070	40.5	59.5

Source: PNAD 1995 (IBGE), estimate based on the 1991 Census/IBGE
708 300 elderly inhabitants – 12.5% of the city's population

The National Survey by Household Sampling, carried out in 1995 and published by IBGE, provides the most recent information on the elderly. It is a sample-based survey carried out in roughly 100 000 households.

Greater Rio has 76.3% of the state population, with a very high level of urbanization (99%). In 1991, the region was made up of 13 municipalities with very varied socioeconomic and demographic situations. The municipality of Rio de Janeiro, as the core of the metropolitan region, is in a better situation than the others, although it also shows large internal inequalities.

Although the percentage of people aged 10 years or older who are working or seeking work is higher, the participation of the elderly is significant, especially males.

Economically active population (EAP)

Aggregation level and location of dwelling	Total population (%)*			Elderly population(%)		
	Total	Male	Female	Total	Male	Female
Brazil	61.3	75.3	48.1	33.4	49.4	20.4
Urban area	58.5	72.5	45.8	26.1	41.8	14.2
Rural area	72.5	85.5	58.4	59.6	72.6	46.1
Greater Rio	54.8	68.4	43.0	19.4	30.8	11.7

Source: IBGE/PNAD 95
* People 10 years or older

Appendix II

Open University for Studies on the Elderly: an innovative programme in Brazil

The Open University for Studies on the Elderly – Universidade Aberta da Terceira Idade (UnATI) – also named Program of Studies, Debates, Research and Care on the Elderly, aims to contribute to the improvement of physical, mental and social health levels of the elderly. It uses existing capabilities in the university to become a centre of public health, sociotherapy, delivery of community services, ergotherapy, research and gerontological action. These broad aims are being implemented in the State University of Rio de Janeiro – Universidade do Estado do Rio de Janeiro (UERJ). The state of Rio de Janeiro and the city of Rio de Janeiro have the largest proportion of elderly people in Brazil.

The growth of the number and proportion of elders points to the need for the development of alternative health care models. The establishment of specialized day centres for the elderly has progressively become adopted as a strategy to improve the quality of life of the elderly, improving their social contacts and helping them to develop new abilities. The main purpose of these centres is not only to offer health care but also to get elders together in cultural, leisure and even physical activities under the supervision of qualified professionals. In contrast with the successful French project "Les Universités du Troisième Age" (Third Age Universities), the specialized day centre at UnATI is a more ambitious project. Although deservedly acclaimed, the French project is restricted to teaching and learning, whereas UnATI centre includes health care and other services related to the university's academic and scientific resoureces. Its main purpose is, therefore, to develop cultural and intellectual activities by a holistic approach, integrating, for instance, the teaching of ballroom dancing with physical and health care, social contact and participation in the learning process. All activities at the UnATI centre are carried out with this same approach. Consequently, the range of activities must include the full diversity of the social and cultural context.

The idea of a thematic micro-university – that is, one that includes teaching, research and extension activities – favours the creation of innovative alternatives. Those who take part in UnATI – both users and professionals – also share a creative experience where new alternatives for the elderly are constantly being sought.

Due to their connection with universities, such programmes bring elderly people to the campus where they come into close contact with younger people. This is particularly important as an attempt to reduce the differences in values and ideas that are sources of tension between generations.

There is a multidisciplinary sector for health care of the elderly at the university hospital. This initiative arose from the creation of a referral centre for the elderly within the university.

At present UnATI occupies an area of 800 square metres inside the university campus. UnATI now develops activities both in the campus and at the outpatient department of the

hospital. Support from the university is evidenced by the transformation of UnATI from a special programme to a regular unit of the university.

The structure of UnATI is based on three areas – teaching, extension and research – which cover all activities of the project. The teaching department carries out extension courses. Over 110 courses are being offered each semester – along with specific programmes designed to provide the elderly with qualifications.

In addition to the multidisciplinary health care, the extension area also provides advice on nutrition as well as social and leagal services with the support of the appropriate departments of UERJ.

Finally, UnATI supports and stimulates professionals who work there to develop research projects with the aim of investigating a number of aspects of the ageing in Brazilian society.

In order to protect the rights of those who take part in the programmes, a commission on research ethics was created. This is composed of UnATI's professionals with the participation of the elders. It was created especially to evaluate the risks of ethical violations in projects developed at UnATI.

After two years as a regular unit, more than 2000 people have already enrolled at UnATI's courses, and more than 800 were assisted by the outpatient service. These numbers attest to the success of the project with the target population. At the end of 1994, a new multidisciplinary health service was started on the campus, with the aim of widening the options of health care for the elderly.

Growing old in Sweden – should we be worried?

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Ageing is a number one political issue in my country. It has been at the focus of interest for a very long time. Since the 1930s, questions of pensions, of old age homes, of availability of health care, home support and public transportation have made the headlines and come up as campaign themes with great regularity. A campaign favourite of politicians has been reference to the social situation of the speaker's mother. Ironic observers have sometimes mentioned this form of political rhetoric as "mothertongue".

Ageing as a social phenomenon and as a political issue is slowly changing. While issues of care, support and benefits have been at the centre for many years, it is possible to observe that other issues have become more important. Self-determination and empowerment are two new notes. Access to hi-tech health care with curing rather than caring is a third new feature. And the possible conflict between generations when the young are too few to pay the bills for the old may be under way.

Demography

Presently (1997) the number of citizens aged 65 years and older is approximately 17.4% of the total population. This figure is among the top four in the world, as is the share of citizens over 80 at 5%.

A rapid further increase is expected for both these groups. By the year 2030, those 65 and over will have reached approximately 23.5% of the population, while the group over 80 years of age will represent 8%. The increase will be particularly rapid after the year 2010. The numbers will culminate at the same time as the number of men and women in the active income earning generations reaches a significant low. An important consequence will be over-employment and competition for qualified staff between the "caring" part of the economy, the industrial sector and the private service sector.

Health status

The health situation of older persons has been closely followed for a long time. The rapid increase in life expectancy – now 81.5 years (women) and 76.5 years (men) – is in itself a significant sign of improvement in health status. Trends in this respect show a more rapid increase in life expectancy for men than for women. The increase in years of life is unevenly distributed in social stratas. While this is not great, it will have an important effect on the structure of needs in the very old population, in housing, pensions and so on.

Analyses of health indices show that improved life expectancy has meant an increase in years with minor disease and impairment, although the number of years with serious ill-health and handicap has remained unchanged over the same period of time.

Signs of ill-health in later years typically include problems of deteriorating mental health, particularly depression among old women and dementia. In coming years this

tendency will become even stronger. Fewer smokers and better nutrition will lead to fewer cardiovascular health problems. Cancer will remain as a very important cause of disease and death. But nervous diseases will take the lead both as cause of death and, particularly, as cause of low quality of life, well into the next century.

Social and economic status

Old people in Sweden often live by themselves in their own house or in an apartment, and living together with children is very rare. At ages 80-89 only 15% of men and 21% of women live in sheltered housing or institutions. At ages over 90 this increases to about 50%. The main reason for living in sheltered housing or institutions is dementia. Housing standards are high but still not entirely without problems for handicapped old persons. And housing is expensive, though supported by housing benefits for those elders with low income.

During their last year of life, about 70% of women and 30% of men live alone. A survey of old persons in seven European countries showed quite a paradox, that the feeling of loneliness seems to be much higher in countries where they live with their children than in Scandinavia. Some 30% of old people in Greece indicated that they often feel lonely, while the corresponding figure in Sweden was 6%.

Even though children have no legal obligation to care for their parents, in contrast to many other countries, they do take care of them and play a dominant role in their social network. The rumour that Sweden is a country where children have freed themselves of the burden of their parents is entirely false. Public forms of caring are important but most of the work is done by relatives, friends and neighbours, with children and spouses dominating.

Typically, the Swedish elderly value contact with their children and also their own independence and integrity. The present trend is that contacts between generations are becoming more frequent.

Old people in Sweden are socially very active. They travel and socialize with friends and neighbours. They are members of clubs and organizations. Vitality, independence, and extrovert social life dominate. About 4% of them are thought to be socially isolated.

A European six-country study of older persons, their life situation and attitudes, shows a distinct difference between Nordic countries and countries in central and southern Europe (Table 1).

It seems that multigenerational households play a lesser role than expected or, at least, a different role.

People over 65 can count on pensions that in their most basic versions leave little room for extravagance but keep them off welfare. Fewer and fewer depend only on the basic pension. Generally the economic situation for the old should rapidly improve in the coming 10-20 years, unless the economic situation in Sweden deteriorates unexpectedly.

Table 1. Situation and attitudes of older persons in six European countries

	Sweden	Denmark	Germany	Holland	Greece	Italy
Daily home activities	high	high	medium	medium	low	low
Contacts with family and friends	high	high	medium	medium	low	medium
Church only	low	low	medium	medium	high	high
Cross-generation contacts	high	high	medium	medium	low	medium
Feeling lonely	low	low	low	low	high	high
Need help for daily activities	low	medium	medium	high	high	medium

Caring for the elderly

Much of the present debate on old age policies deals with the organization, finance, quality and quantity of caring, social care and medical care.

In Sweden, as in most other countries, people over the age of 70 are the typical patients in hospitals, the typical persons to call the doctor and the typical persons to buy prescribed drugs. With public health getting better and better, old persons tend to dominate the demand side of the health care system even more. Major problems associated with this include the following:

- The organizational structure is very much directed towards dealing with children and younger adults, even though old people and very old people are totally dominant as receivers of care.
- The training of doctors and nurses is very much oriented towards the needs of these other categories of patients.
- For a long time an unofficial – often also unconscious – system of rationing of hi-tech resources was applied to people of old age. This practice is gradually being abandoned but new technologies such as genetic modification, the use of new types of organ transplant, and extremely expensive new drugs, could very well lead to the reintroduction of age-based rationing of resources.
- While there has been ample staffing for traditional adult patients, special resources for old people have suffered from severe shortages of staff. Typically, old people in hospitals, in Sweden too, have been called "bed-blockers" and the like.
- Understanding of the health situation of the old has not always been ideal. A typical example is that the use of drugs is normally well studied in children and adults and results are applied equally to the elderly. We know that the elderly use drugs in other ways, tend to comply with prescriptions in different manners and tend to react to pharmaceutical substances differently. But for unknown reasons, these differences are only rarely reflected in the planning of drug testing.

- Old people need much more cooperation between different branches of medicine and welfare. But cooperation has been very slow in coming. It needs structural change that in turn tends to affect well established vested interests.

During the last 10 years the understanding that modern medicine can do wonders for old people is getting a strong foothold. Hi-tech medicine has become a natural thing to apply to patients over 75 or 80 but the process of change is sometimes slow. The issue of cost-effectiveness is often mentioned although the concept does not apply well in this context. Ethical considerations are more important but less measurable.

Social care for old persons has gone through a tremendous structural change over the last 10 years. With strong pressure on the Swedish municipalities to reduce their budgets, large resources have been taken away from the home-assistance services that earlier were rather readily available for old people, even those with small needs. A new "old age care concept" has taken hold. Special homes for people of old age are now an option only for those with severe disabilities, particularly severe dementia. With a decrease in home-assistance services this means that many more old people with mild disabilities are left to themselves or to the help they can get from children or, mainly, their spouses. Home care, normalization of the caring situation, staying in a familiar environment, anti-institutionalization, have been important catchwords. But saving money has been the really important driving force.

Contraction of budgets has also played a major role in hospital resources for the old. Over a five-year period, the number of hospital beds in general hospitals has been reduced by 25%. And this process continues. The underlying forces have been advances in medical technology, much stricter policies for admission, and a strong commitment from old age homes and sheltered housing facilities to "take home their patients" from hospitals. Otherwise they would have to pay for patients that stayed in hospital without needing the acute care resources.

The de-institutionalization policies have been accompanied by the formation of new and more advanced home care facilities with medical resources as well as social resources. The situation of carers has become an important issue. Public health care facilities have understood that unless they make a commitment to children and spouses to inform them, to support them and sometimes give them some time off for themselves, the present huge volume of work from informal carers will greatly diminish. Particular risks to note are violence in relation to spouses and parents and burn-out among carers.

Structural development to deal with the needs of a graying nation

It is fair to say that the situation of old persons in Sweden is strained but balanced. The future needs brought about by demographic change, medico-technological innovations, changing attitudes and the rise of a new generation of elderly that is less passive, are driving forces that will put tremendous pressure on the system. Among the important questions that are asked in this context are the following:

Will old people be made to pay more themselves as a consequence of their improved economic status? "Pay as you go" financial systems have been under fire. Stable economic development is needed in order to use "pay as you go". Recent experience of severe economic setbacks have indicated that we need to discuss alternatives – basically a mixture of

a "funded system" and "pay as you go". If people of old age are subject to periods of severe contraction of budgets and services in times of economic lows and experience spending increases just as often, they will need a financial system that is less dependent on short-term economic factors. But the political obstacles to bringing about even a discussion of different approaches are many.

Will a change be needed to make the system more responsive to the needs of the oldest patients? More and more old people, including those with complicated treatment needs, will be cared for in home settings. Fewer hospitals will be used only as nursing institutions. This calls for further integration of social welfare and health care facilities. Will structural change also be needed to solve impending staffing problems? An interesting observation is that we will have severe staff shortages in welfare and health care in coming years. Competition for qualified labour will increase and there is a considerable risk that public sector employers will have difficulties when they try to compete for staff. This in turn may lead to an increased tendency to privatization in old-age care.

What will be the consequence of a generational shift in attitudes in the group of ageing persons? Will the new elders demand more control and influence and more personal choice? What would be the consequence of such a shift? Can the present monolithic system survive the pressure for "choice" and "responsive services"?

These are questions that are increasingly being asked in Sweden, and they will make it certain that old age care will stay on the agenda for the foreseeable future. Even the young politicians of today will talk about the situation of their mothers and fathers in coming election campaigns. That is a comfort because they are my children. My generation and I will be the ones they are talking about in their emotional advocacy for more effort and more money for the elderly.

Ageing and health care development in Russia

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Population ageing is a demographic process that increases the share of aged people in the Russian population and changes its age structure. As a demographic factor it influences different spheres of social activitiy. This has become clearer during the period of transition to a market economy and causes many socioeconomic problems linked to social support for the elderly and to essential changes in the structure of social services and in social policy.

Those over 60 years form the fastest growing group of the Russian population. During 1959-1997 its number increased 2.4 times and its share of the whole population increased to 17.1% (Table 1).

Table 1. Dynamics of population ageing in Russia, 1959-1997 (%of population aged over 60 years)

	1959	1979	1989	1997
Whole population	9.0	13.6	15.3	17.1
Urban population	7.6	12.1	14.2	16.0
Rural population	10.5	17.0	18.4	19.9

Compared to other countries with low birth rates, the Russian population is not the "oldest" despite the growing share of aged people. At present, Russia occupies 28th place for the percentage of population over 60 among 30 countries with similar birth rates. Russia is at the stage of population ageing when the proportion of persons of working age varies little, but at the same time that of children under 15 years decreases and that of the elderly (over 60) increases. Nevertheless, the working population is becoming older too.

In Russia there are differences in the socioeconomic and demographic development of different regions. Most of the territories of central Russia can be called the "oldest", with the proportion of retired people at 25-27%, and traditionally the territories of Siberia and the Far East are the "youngest" with under 10% retired persons.

The process of ageing differs between urban and rural populations and between males and females. Active migration of the population of working age with children, from rural to urban areas, has led to an increase of elderly in rural areas compared to urban areas. At present, people over 60 years of age make up 16.0% of urban populations and 19.9% of rural populations (Table 1).

Gender imbalance in the population of older persons was caused by excess male mortality and the demographic consequences of the Second World War. The number of males per 1000 females increased gradually from 805 in 1959 to 884 in 1997. The situation at ages over 60 is improving. There were 443 men per 1000 women over 60 in 1959, and in 1997 that number was 511. On average, at ages 60-69 the proportion of women is 1.5 times higher than that of men; and at ages over 70 it is 3 times higher. Such a situation causes the sharp problem of loneliness among old women, especially in rural areas.

In 1997 in Russia, 12.3% of men and 21.3% of women were over 60 years of age. In most of the rural territories of central Russia, the process of population ageing is faster because of the migration of the population of working age. In those regions, the percentage of old women is 2-3 times higher than that of girls (0-15 years old) and equals 40-47% of the female population.

The process of population ageing in Russia, unlike that in developed countries, is accompanied by a worsening of population health and an increase in mortality. Reduction of life expectancy in the 1990s can be considered as an unprecedented phenomenon. Life expectancy at birth reached its maximum in Russia in 1986-1987 when it was 64.9 years among males and 74.6 years among females. Its minimum was registered in 1994 when male life expectancy decreased to 57.6 years and female life expectancy to 71.2 years. During the last three years however, there has been a certain decrease in mortality and, as a result, there was an increase in life expectancy to 59.8 years for males and 72.5 years for females in 1996 (Table 2). The sex difference in life expectancy reached 12.7 years due to increased male mortality.

The reduction in life expectancy at different ages was not equal. In males it was caused by increases in mortality at ages 35-65 years due to accidents, poisonings, trauma and cardiovascular diseases, and in females at ages 45-75 years due to cardiovascular diseases. As a result, the life expectancy of males at age 60 fell in 1986-1996 from 15.0 to 13.6 years and for females from 19.8 to 18.9 years.

Table 2. Life expectancy in Russia at selected ages in 1990,1994,1996

Age	Males			Females		
	1990	1994	1996	1990	1994	1996
0	63.8	57.6	59.8	74.2	71.0	72.5
60	14.7	12.6	13.6	19.5	18.2	22.8
70	9.4	8.4	9.0	12.3	11.3	15.1

There was also an increase in mortality at higher ages. During 1990-1996 crude death rates for all males grew by 36.2%, at ages 60-69 years by 25.6%, and at ages over 70 by 9.0%. Similar trends were observed among females though they were not so marked (crude death rates increased by 22.0%, at ages 60-69 years by 17.4%, and at ages over 70 by 9.2%).

Curtailment of working life is due to all the main causes of mortality (cardiovascular diseases, malignant neoplasms, accidents, poisonings, trauma, and respiratory, digestive and infectious diseases).

Cardiovascular diseases and malignant neoplasms are the major causes of death in Russia as in other developed countries, but such patients die in Russia 10-15 years earlier. Thus, these conditions cause greater loss of work and life potential in that country than in others with comparable levels of prevalence.

Male mortality at working age in Russia is four times higher than female mortality. If current mortality levels persist, only about one-half of newborn males will reach 60 years of age. Since the beginning of the 1990s this probability was reduced: from 66.4% in 1990 to 55.8% in 1996. The chances for females are much better: 82.8% of girls born in 1996 will survive up to 60 years of age (Table 3).

Table 3. Chance of surviving to 60 and 70 years in Russia (%)

Years	Males		Females	
	60 years	70 years	60 years	70 years
1990	66.4	44.1	86.5	72.1
1994	50.1	28.5	80.4	64.5
1996	55.8	34.0	82.8	68.0

Population ageing leads to growth in the dependency ratio of the aged to the working population. This ratio is especially high in rural populations. In general, the dependency ratio of the aged is growing in Russia: during 1959-1997 it doubled in the urban population, and in the rural population it increased by 1.8 times (Table 4).

Table 4. Number of retired[1] persons per 1000 of population of working age in Russia

Years	Whole population	Urban population	Rural population
1959	202	162	252
1979	270	232	371
1989	325	292	428
1997	362	332	453

Population ageing leads to a situation where the elderly (60-74 years) and the very old (over 75 years) account for the major part of all categories of patients of medical institutions.

[1] Official retirement age in Russia is 55 years for women and 60 years for men.

Levels of morbidity among the elderly are twice as high, and among the very old six times higher, than among people of younger ages. About 80% of retired persons demand medico-social assistance. More than 70% of them usually have 4-5 chronic diseases (cardiovascular, nervous, endocrine, blood-producing, musculoskeletal, respiratory, digestive and so on). More than 50% of retired persons estimate their health as unsatisfactory. But the health disorders of the elderly are inadequately compensated by social measures.

The increase in the umber of diseases and in the disease severity, together with age-specific changes in organs and life-supporting systems, is accompanied by the decrease in personal physical abilities. Ageing people become more and more dependent upon society and family members, and solving the problems of the elderly can only be done by integrating medical and social aspects, including living conditions. Ageing is connected not only with poor health but with loneliness as well. According to statistics each fourth old person lives alone, but the number of lonely females is greater than the number of lonely males.

The leading role in care of the aged population belongs to the health care services. Such care is provided, for example, by hospitals for war veterans and the disabled. At the same time, health and preventive care for elderly persons is provided by special geriatric institutions, such as geriatric centres in some Russian cities and consultative geriatric polyclinics. Geriatric rehabilitation centres begin to play a significant role in elderly care where aged people can receive not only medical care but spend their leisure time, take part in cultural events, meet their friends etc.

According to expert opinion, the development of outpatient and non-hospital forms of elderly care must become a priority measure.

The process of population ageing in Russia is fast and has a number of negative consequences (socioeconomic, medical, psychological and many others). There are many problems for the federal government and local administrations: rising expenditure for retirement pensions, additional financial support for the elderly, medico-social support for lonely aged persons, development of a system for continuation of employment and so on.

The problem of elderly employment (to the extent that they are able) is one of the main problems of development and social policy measures. Elderly employment was stable to the end of 1980s, the proportion of working pensioners among retired persons was 30-33%. From the beginning of 1989 it began to decrease and reached 21.5% in 1992. Such a tendency was seen in all age groups of the elderly, and in both men and women. But from 1993 there has been a slight rise in employment of the younger elderly; 45.3% of women aged 55-59 years and 42.1% of men aged 60-64 years continue to work.

The transfer to a market economy in Russia is accompanied by a worsening of the financial situation of most of the elderly who have no additional sources of income other than retirement pensions. The main source of income for most of the elderly is the state retirement pension but its size in 1996 was only 37% of the average salary in Russia. Activities for finding additional financial resources are greatly limited by age-specific health disorders and the absence of private property which could provide additional income among retired persons. As a result, nearly all elderly belong to the category of "poor people".

Analysis of the status of elderly persons, including their main sociodemographic and economic characteristics, testifies to the following main problems: poverty, poor health, loneliness and low quality of life.

For most pensioners, exit from the labour market means the transfer to financial dependence (status of dependant) and the inevitable requirement of social support. This has always been the task of the family and close relatives but unfortunately, at the end of 20th century, the traditional family models are being destroyed and the average family size decreased to 3.2 persons in Russia. Although the family role is still very important, elder care is becoming the task of social institutions. Such care can be provided by nursing homes, hospitals for chronic patients, local centres of social care and a social worker who helps aged people to receive necessary care at home. The social worker provides elderly persons with assistance such as shopping, buying medicines, housekeeping etc.

There is a rather wide net of facilities such as nursing homes and hostels for war veterans and the disabled in Russia. But their number and the number of beds are not sufficient for all who need this kind of care. At the same time, the quality of care in such institutions is generally not satisfactory because of lack of state financing.

Besides nursing homes there are other forms of social care for the elderly such as social service centres, urgent social assistance services and social support for lonely aged persons at home. During the last eight years the number of departments for social service at home and the number of persons receiving such social assistance have increased by 5.4 times and the number of social workers has gone up 8 times. Now there are seven aged persons in care for each social worker on average in Russia.

Besides the departments of social service at home, the local service of urgent social assistance is being developed where aged people with urgent problems can receive necessary help such as free food, free shelter for the night, and support with food and consumer goods (within the limits of humanitarian aid). At the beginning of 1996 there were 1585 departments of urgent social assistance in Russia.

According to scientific projections, population ageing will remain the main factor in age structure change in Russia. At the beginning of 1997, the number of children and persons in the working population was higher than the number of elderly but, according to projections, by the year 2005 the number of elderly will be higher than the number of children in Russia.

According to the medium variant of projection, persons over 60 years will represent 23% of the population by the year 2020 (18.9% of the male population and 26.7% of the female population). The convergence of the proportions of males and females can be explained by the predicted decrease in male mortality at working age and older ages. Aged people will have higher educational levels than now, but the average family size will remain at 3.0-3.2 persons.

The predicted growth in the proportion and numbers of aged people (from 24.7 million in 1997 to 32.2 million in 2020) will require reformation of the health care system and increase in expenditures. Taking into consideration the fact that the consumption of

medical services at 60-64 years old is 1.6 times higher, at 65-69 years 1.8 times higher, and at over 70 years 2.4 times higher than the average, it is possible to predict that the need for medical services for elderly and very old people will increase more than 1.3 times by the year 2020.

Fundamental research in gerontology and geriatry is pursued in different scientific and practical institutions of the Ministry of Health of Russia in many regions, and the Research Institute of Gerontology of the Ministry of Health was established in 1997.

Russia actively supports the activities of the United Nations and of international nongovernmental organizations (such as Medicins sans Frontières) in solving elderly problems.

The President of the Russian Federation and the government approved the federal programme "Older Generation" for 1997-1999 that offers the means for improving the health of the elderly as well as addressing other issues concerning the ageing population.

Health and ageing in southern Europe with an emphasis on Greece[1]

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The health of older Europeans both now and over the next 25 years is of considerable concern to the Member States of the European Union (EU) since all of them confront the same problem of increasing health care demands and costs. This is partly related to similar demographic trends – a declining birth rate over the past three decades and an increase in life expectancy, importantly reflected in the increasing numbers and proportions of older people[1], especially those in the oldest age groups[2] (80 years and over). Since health and social services are disproportionately utilized in all countries by this latter group of the elderly at an ever-increasing cost, their growing numbers constitute a stimulus for examining what kind of health care solutions will be tenable and sustainable over the next few decades. Member States throughout the EU have cooperated in setting up and supporting common research projects and policy discussions at EU level, though the actual implementation of health and social services policy remains the responsibility of each national government. This paper concentrates on the issue of health and care for older people in the southern Member States of the EU. These states share characteristics that make them somewhat different from the northern EU Member States in a number of ways. These include their more recent demographic transition, economic development and urbanization; the centrality and sometimes exclusive role of the family as a provider of economic and social support to dependent members; the absence or limited nature of welfare state provisions for the care and support of the elderly; and a small-scale and often poorly organized voluntary sector. The rapid expansion in the numbers of older people that has occurred in the southern European states over the past two decades (Table 1) is confronting governments and the EU with a new set of problems. How are the considerable inequalities between Member States in terms of health and social service provision to be harmonized? In particular, what will be the most effective way of meeting the new and emerging needs of its oldest populations in the southern Member States, many of whom are among the poorest people in the EU?

Table 1. Percentage of population aged 65+

	1994	2020 (projection)
Italy	16.0	23.2
Greece	15.9	22.2
Spain	14.9	20.3
Portugal	4.1	19.7

[1] E. Mestheneos, E. Petsetaki: National School of Public Health, Greece

Demographic trends in mortality

Despite the fact that three of the four southern European states (Greece, Portugal, and Spain) have the lowest GDP per head among EU Member States, life expectancy is amongst the highest in the EU in two of these (at birth in 1995 it was 80.7 for Greece, 80.5 for Spain, and 77.5 for Italy, a fact that does not appear to be directly related to health expenditure and the availability of health services).[3]

Greece and Italy have the highest proportion of 60-69-year-olds in the EU.

Mortality

The major health problems relating to mortality are not strikingly different from those of most other European countries, with diseases of the circulatory system being the most important. Most countries have shown a decline to a rate of 1 death per 1000 population.[4] In Greece there is some increase, although the rate is lower than for other EU countries. Cancers have increased in Greece and Portugal over the past 35 years but have declined in Spain. There are clearly significant variations between southern European countries in relation to specific causes of mortality and no general trends are seen that set them apart from northern European countries. However, there are indications that changing lifestyles (e.g. sedentary occupations, a move away from a Mediterranean diet, urban isolation, increased levels of smoking especially among women[5]) will worsen the position of older people in southern Europe relative to those in northern Europe.

Morbidity

Often far greater significance in terms of the health of older people and in terms of health and care services, are morbidity rates, particularly the prevalence of chronic disease and disability. These affect mobility and the capacity of older people to live independently and in relatively good health and thus have a direct impact on the need for health and social services. Despite women's greater longevity, their levels of disability and reported health are worse than those of men, and these conditions have a direct impact on the quality of their lives.

Health care services

The major problem of the southern European states has been the lack of rational planning in the development of health care systems. While the provision of doctors in the Mediterranean Member States is as good as anywhere in Europe (402 persons per doctor in Portugal, 587 in Greece and 279 in Spain), what does differentiate their health care system is the very low provision of nurses (250 persons per nurse in Italy, 258 in Spain and 453 in Greece compared to Sweden's 95 and the United Kingdom's 120 persons per nurse). If one considers that nurses, in addition to providing care in hospitals, are also responsible for providing domiciliary nursing care, primary health care, preventive health care and helping with health promotion, it becomes apparent that the lack of nurses has serious repercussions for the development of extensive professional health care services for older people in the community.

Additional problems of adequate health coverage in the community arise from the fact that many older people in need of care live in the numerous rural villages of southern Europe. Although there have been some systematic attempts to improve health care facilities for older people in Greece, with the development of rural health care centres and even experimental centres for telemedicine, professional staffing often remains inadequate and the centres rarely provide a full health care service or play any significant role in health promotion among the rural elderly. Again in Greece, the initiation of open care centres (KAPI) in the 1980s, both in rural and urban areas, was designed not only to provide primary health care services (medical, nursing, physiotherapy) but more importantly to play an active role in health promotion by creating a venue with activities to enable older people to participate actively in society. The positive reaction to these reported by older people, allied with the recent initiation of some domiciliary care services attached to these centres and run by the local authorities, suggest that there is increasing recognition by the Greek government of the need for a mixture of primary health care and social support services for the elderly in the community. The high cost of hospital care, increasing by the demands of patients and professional staff as well as by the introduction of new medical technologies, is leading to difficult questions about health care investment and rationing choices. But these discussions have rarely been made the subject of public debate. With the Greek population over 65 years of age calculated to rise from the present 14% to 19.5% by 2030, the costs of hospital care for this group would rise from 26.1% to 41.4%. The costs of all health care for this age group, using OECD calculations, would rise from 40% of the total to 55.3% by 2030, requiring an increase in all health expenditure of 0.33% per annum. These kind of figures should make any government search for more effective and possibly cheaper ways of improving health among older people.

Income and health care

The link between an individual's absolute and relative income and his/her life chances measured in terms of mortality and morbidity has been much discussed in social science circles and there is widespread agreement that poverty, whether relative or absolute, is bad for the health of the individual. In the southern European countries with poorly developed welfare programmes[6], the level of income of older people and their families plays a significant role in the type of care they can avail themselves of, even where a national health system is in operation. A higher income enables older people to pay for private care services of all kinds, to live in better housing allowing them to stay independent longer, and to participate in and have a wider social life that encourages independence and good health. Yet poverty in southern Europe is still strongly associated with age, with those aged 80 and over being particularly affected. This is accounted for by the fact that with age more elderly people, overwhelmingly women, become widowed and live in single-person households, thus having to rely on one income. Women live longer than men but also receive lower average pensions than men. Also pensions among the oldest section of the population are lower than among those more recently retired. In southern Europe the older cohorts are more likely to have rural origins and associated rural incomes that are considerably lower than urban ones and also to have lower levels of education and worse standards of housing.[7] Even though absolute poverty has decreased in the southern Member States, the relative poverty of the oldest generation remains a factor in the kinds of choices that can be made in the design and implementation of health care policies. Income support and a more equitable income distribution through a better tax system, housing improvement grants, domiciliary health and social care services, and health promotion campaigns are far more critical for the health and well-being of older people than investment in health care facilities. In the Greek follow-up

study to the original 1979 WHO 11-countries study one of the surprise findings was that the government grants given in the early 1980s to rural villagers to build bathrooms had improved well-being, as reported by the rural elderly in the study, despite their reported worse health over a six-year follow-up period. Well-being has certainly to be considered as an element in health status but its relationship to the need for and use of health care services is far from clear. Studies of different age cohorts of older people are rare in southern Europe yet necessary if one wishes to measure the impact of public policies and changing economic and social conditions on their overall health.

Health care

Given the nature of health problems among older people, it is often extremely difficult to separate the need for social and physical care from the need for health care. Thus, indexes for measuring the activities of daily living with which dependent older people need help include elements of health care. An example of the kind of problem faced by those designing health care policy lies in the current but changing situation with respect to the support of the dependent elderly in southern Europe. Their increased numbers, the relatively recent appearance of very small families[8], urbanization and geographical mobility, and the increasing participation of women in the paid labour force have affected the capacity and often the willingness of families to care for their dependent elderly. Nonetheless, in all the southern European countries the use of residential care facilities for the elderly is low; in Greece less than 1% of those aged 65-plus are in residential care, in Portugal the proportion is 1.5% and in Spain it is 2.7%. The economic and cultural differences between northern and southern Italy are evident in the variation in the rate of institutionalization; in the north 3-4% and in the south less than 1%. The number of older people living alone is also much lower than for the northern European countries, suggesting that more family care is available for them. Here one confronts arguments about how far this is the result of the modernization process, and to what degree it is the result of families choosing to care as opposed to being forced to care. Among those who are old and without family support, health and social care of any kind is often totally inadequate. Yet even for members of the family who offer care it has been the absence of choices in health and social care that has marked the societies of southern Europe. Rising incomes among older people and their families make it feasible for them to begin to have some choices about whether they care for others or not, and whether and by whom they are cared for[9]. In the case of Greece, the lack in types of service and variety of provision is striking. With the exception of public and private residential homes, there is no sheltered housing, no meals on wheels, no respite care, no day care centres, no hospices, and no centres to help people with disabilities adapt their homes and their lives. There have been plenty of research reports on the necessity for these forms of social and health care, but there has been little move to implement them. The other Mediterranean countries share some of the same characteristics, and thus the range of health and welfare services available to older people and their carers is extremely limited while home care services are received by a tiny proportion of older people[10]. However, the move towards decentralization in government should act as a stimulus to the development of health and social service policies for older people[11].

Conclusion

In examining health trends and the need for services it is important to recognize that the sands are constantly shifting. Thus, the rapid changes in all the southern European

countries in the past 50 years mean that older people whose childhood was marked by poverty, a rural background, large families and a traditional way of life are now living in modernized societies. Their educational levels, their income, their past work and life experiences influence their health. As this generation ages and new age cohorts retire, the socioeconomic profile and behaviour of older people changes. Many of the health and social care services that are now being initiated follow the models employed in northern Europe.

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1 Between 1960 and 1990 those in the age group 55+ grew by 37% (Dooghe G et al., 1995).

2 Eurostat estimates for the year 2020 give a percentage of over 5% in the age group 80 years plus, and over 30% in the population over 60 years of age.

3 Thus in 1994 health expenditure as a % of GDP in parity purchasing power (PPP) was 5% for Greece, 8% for Italy, 7% for Spain and 8% for Portugal, whereas for Austria, Germany and France it represented 10% of expenditure.

4 The calculations are based on standardized mortality figures for Europe calculated for the report currently being written on the *Health of Older People in the European Union* for the Directorate-General V for Public Health, Luxembourg, by the Greek National School for Public Health with SEXTANT Co., Athens.

5 Greeks are the heaviest smokers in Europe with 7.7 cigarettes smoked per head of population in 1994, ahead of Spain (5.61), Italy (4.29) and Portugal (4.39) and with little sign of a significant decline in smoking except in Italy.

6 Though they have elements of the corporist welfare states of continental Europe, e.g occupationally segregated social insurance programmes, as described by Esping Anderson (1990), the full range of welfare services some of which relate to health care, have never been fully developed even within or in relation to these funds.

7 Thus in a study in Greece (EKKE, 1988, Research on Poverty) 24% of all households headed by someone 65 years and over were in poverty. The % increased for those in the oldest age groups

8 The birth rate in all the southern Member States is lower than the EU average.

9 The use of foreign labour as domestic and care workers and as nursing aides for the elderly has become established practice among many of those in the middle classes with resources to pay.

10 Jamieson A (1992) reports just over 1% of those aged 65 and over receive home care in Italy, compared to over 6% in Germany and Belgium, 8% in Great Britain and rising to over 17% in Denmark.

11 The Spanish public administration in 1993 designed a global strategy for elderly people though there is no evaluation of its implementation (Duran, 1995).

A government geriatric programme – the Norwegian experience

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On the basis of a parliamentary decision in 1993, US$7.1 million are being applied to a Norwegian government programme that began in 1994 and will last until 1999. Coordinated by the Norwegian Board of Health, the programme focuses on three main areas:

- personnel (improving the recruitment of geriatric personnel);
- competence (increasing the qualifications of multiprofessional team members);
- structure (building new models of cooperation between community and hospital care).

Nineteen counties in Norway are responsible for hospital care, but in 1994 seven of the counties were without specialists in geriatrics. As part of the programme, plans have been established, political decisions have been made and geriatric teams are being built up or planned in all Norwegian counties. Important experience is gained for national policies at the government level, and for local hospital authorities not previously focusing on the health care of elderly people.

Recruitment problems are partly a consequence of the physician's neglect of geriatric medicine. Despite an increase in interest in Alzheimer's disease, geriatric medicine has low status and attracts little research interest in many western countries. Although geriatric medicine covers a multitude of diseases, it often does not have status as a separate speciality among the medical professions.

Electronic Intranet networks between hospital units and telemedicine is being used and seems quite promising for the future of geriatric health care, both in hospitals and in the community.

The United Nations International Year of Older Persons, 1999, is also the last year of the Norwegian programme, and doctors should be more aware of the challenges of a graying society and of new treatment successes in old age. In Norway, with 7.5% of the population aged 75 years and over, there is much political interest in improving the housing standards in long-term care institutions (an extra US$2.7 billion allocated for 1998-2001), but only limited focus on the health care of geriatric patients. In the three-year period 1995-98, 1150 articles were printed on elder patient care in Norway's five biggest newspapers, but only 9% focused on health. Of these 9%, a majority (53%) had a negative message and only 16% had a positive message.

In strengthening the future of geriatric care, there is a need to get across to the general population and politicians the huge challenges to be faced as the population ages. New treatment possibilities will increase demands from coming older generations. As in the case of Alzheimer's disease, there is need for a push from the elderly themselves, and from their care-givers. It is to be hoped that international bodies can push for the necessary political priorities at the beginning of the next millennium.

The network of nongovernmental organizations for elderly persons in eastern and central Europe

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Rapid and often dramatic changes in the socioeconomic situation of elderly people in the former socialist countries of eastern and central Europe, which have experienced a sometimes difficult transition period, have resulted in the intensive development of voluntary organizations working with and for elderly people. For many of these nongovernmental organizations this is a new sphere of public activity, as it is for state institutions. We see today a great change in social policy – from a state welfare system that is insufficient and expensive to a self-support system with state protection.

The increasing number of old people and of dependent people needing home care or institutional care, and the transformation to the nuclear family, create new expectations of a new social policy. Current social policy and state budgets are unable to meet social needs and this has stimulated the development of new volunteer organizations in support of people in need.

In eastern and central Europe, with the end of its particular type of welfare state, and especially with the increasing older population, older people have been affected economically, politically, socially, psychologically, materially and medically. There is thus a necessity to empower older people, and nongovernmental organizations play a very important role in this. European Union documents also recommend improvement of regional cooperation: "governments should consider the establishment of international research and information exchange mechanisms between the countries of ECE (eastern and central Europe) to monitor national policy development in the field of ageing and the effective transfer of good practice. The European Union Observatory on Ageing and Older People provides a possible model for policy monitoring and information exchange."

Since the beginning of the 1990s we have observed increasing numbers of registered nongovernmental organizations. Because the majority of their members have rather limited experience in such work, support from more skilled organizations has been needed. This has come from two large western organizations – HelpAge International (HAI) and the American Association of Retired People (AARP). These organizations made several study visits to countries in eastern and central Europe and organized, together with the United Nations office in Vienna, three seminars, in 1991, 1992 and 1994, for representatives of the nongovernmental organizations of the region. At the last seminar, participants decided to set up their own network of nongovernmental organizations working for elderly people.

The member organizations are different and each has its own specific tasks. The overall spheres of activities are as follows:

- social integration of elderly people;
- intellectual activity (third age universities);
- moral, humanitarian and religious support;
- social support (meal, clothes etc.);

- financial support;
- medical assistance (medicines, rehabilitation equipment);
- information services;
- senior telephone (advice given by telephone);
- help for homeless and alcoholics;
- help for families with demented and terminally ill patients.

It was not easy to find a common platform of activity for such different institutions. We concluded that we have similar problems in our daily work which stem from the undefined role of nongovernmental organizations in eastern and central Europe countries and from psychological obstacles (named "homo sovieticus"). Other problems are due to shortages of experience, skills, resources, co-workers and volunteers. Therefore, the main goals of the network action are:

- integration of the members ("you are not alone with your problems");
- sharing of information and experience;
- improving professional management and skills of the leaders of nongovernmental organizations.

To achieve these goals, four fields of activities were planned:

- organization of seminars and workshops;
- organization of bilateral contacts and study visits;
- publishing of a newsletter;
- common research projects.

In 1995 the first network conference was held in Warsaw, Poland. Participants approved plans for the next four years' activities and organized the structure of the network. They drew up the following mission statement:

"The ECE[1] Network is a coalition of NGOs[2] working with and for elderly people. It provides support to improve their own work by sharing information, experience and ways of operating and supporting one another."

Based on specific expectations of member organizations, it was agreed that in the first period of work the main accent would be put on workshops concerned with specific issues.

From 1995 to 1997, seminars and workshops were organized in several countries:

- Poland (the management and use of volunteers) in 1995;
- Poland (work with volunteers), Romania (advocacy and lobbying) in 1996;
- Lithuania (the management of nongovernmental organizations), Ukraine (fundraising) in 1997.

In each, more than 200 persons participated but many more benefited. The participants of the workshops learned a lot and began to transform the theoretical and practical knowledge they had received into action in their own countries and organizations. They were obliged to share their experiences with other nongovernmental groups either by

[1] Eastern and central Europe.
[2] Nongovernmental organizations

writing an article or by organizing local seminars. The evaluation of all the workshops was very satisfactory.

Another form of network activity is the newsletter to which all member organizations contribute and which helps everybody to learn more and share experiences. The next step will be a programme of study visits. This is a programme of visits by volunteers from one organization to another to get more detailed information on specific issues, such as work with Alzheimer patients or how to run a telephone advisory service.

In October 1998 in Slovenia, the second network conference took place. Discussion focused on the action plan for the International Year of Older Persons and the particular role of nongovernmental bodies. Beside member organizations, there was also participation from non-member organizations. The four years of activity of the network was evaluated and decisions were made about future programmes. It was agreed that organizing teaching workshops for specific problems, for member and non-member organizations, should be continued, and the programme of study visits should be enlarged.

All this activity has been made possible thanks to the kind and friendly material, financial and professional support given by HAI and AARP.

The challenges of social support for elderly people

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Research is important in helping us understand how we can facilitate the process of social adaptation in late age and in the field of long-term family relationships. All censuses of the population of the Russian Federation show that families of one married couple plus one of the parents of the husband or wife, or other relative, are not common. According to the data of the last micro-census (1994) of Russia, 77.3 % of the population aged 60-69 years and 50% of those aged 70 years and over lived in families. There is a need to study the role of the family in social support.

The problem of social support of the senior generation, i.e. help and assistance to elderly people, has been investigated very little in Russia, although some authors have examined problems of mutual help within the framework of the sociology of the family (*1,2*). In works of foreign authors this theme already appeared 20-30 years ago. It raises two issues.

The first relates to the concept of "mutual dependence with a close environment" (*3,4*). In the modern literature of gerontology and psychology, problems of the elderly are usually considered as a consequence of urbanization and industrialization. Hareven (*3*) has reported that such an approach is rather simplified. She prefers to study the problems of ageing in connection with historical shifts in three areas: the historical situation, efficiency in sphere of work, and social orientation and function of the family in relation to the older generation. Rosow (*4*) has the same point of view. He has named "mutual dependence" as one of the factors that determines features of the process of ageing and the role of the elderly in society.

In traditional communities, work and the organizational structure of family were interconnected. Contacts between age groups were close, and there was a sense of mutual dependence. Such close connection and exchange of functions between generations within the framework of the family ensured the survival of elderly people where there were no other forms of guaranteed social support in old age. It allowed for the senior generation to participate in a family division of labour well into old age and provided them with authority and personal autonomy. Industrialization and demographic shifts have led to social differentiation of age groups, with age differentiation of economic functions, removing the elderly from the work market (official retirement) and resulting in a break of the link with other generations.

Today, due to modern systems of education and scientific and technical progress, the young are financially capable of providing for themselves. The senior generation receives a pension and other kinds of social help. This promotes relative independence of generations from each other, reduces the necessity for cooperation and results in the destruction of family solidarity and mutual dependence. In a modern society, responsibility for the elderly becomes formal and depersonalized.

Examining the modern family in Russian society, Aleksandrova (*5*) specifies that the elderly do not play their former role. They depart from the family, not carrying out the role of the grandparents, and the young generation does not require the support of the elderly.

The second aspect of this problem directly relates to the concept of "social support". Social support is often examined not as an independent theme but in connection with the competent functioning of the elderly (competence). This is understood as the ability to adapt to changes in environmental conditions and a feeling of personal control of situations (*6*). Social support allows the elderly to develop a feeling of control, i.e. to become "competent". Thus, social support is an important factor in assisting adaptation to the later period of life. It includes at least the following factors:

- the conveyance of positive feelings (such as the feeling that one is cared for, loved, esteemed and valued);
- the validation of the stressed individual's feelings and thoughts as "normal";
- the encouragement of open expression of feelings and thought;
- the provision of material aid.

Society should stimulate the elderly to open expression of their feelings and ideas. It is necessary to take into account the importance of feedback (response of the elderly to social encouragement). The maintenance of feedback not only enables elderly people successfully to carry out their social roles and to adapt to changes in environmental conditions, but also raises feelings of self-respect.

Social support is of various kinds: emotional support, material help and information maintenance. Dean et al. (*7*) have established that support is received from the spouse, friends and adult children.

The majority of elderly people maintain varied and complex relations with their family, friends and neighbours. Shahmatov (*8*) notes that an ideal of existence of the elderly is close social communications with a sufficiently high level of independence, i.e. a combination of family care and personal autonomy. The author states that elderly people are extremely reluctant to come to a decision to take up residence in a nursing home. This decision derives from loss of independence due to their physical condition.

Living alone, the old person postpones residence in such establishments up to the moment when he or she cannot manage without assistance. The elderly person living separately from relatives retains an option to join them in case physical weakness and decline will begin. In other words, the elderly person has to balance the problem of independence and to develop appropriate forms of behaviour. Thus a lonely lifestyle is often voluntarily selected by the elderly in preference to one with children and relatives.

Social support, including that from members of the family and from friends, should recognize the need of the elderly person for self-determination and should seek ways to improve the life of the elderly person.

Method

The purpose of the studies that have been carried out by the Gerontologist Centre is to examine the structure of social support for elderly people and the expectations of significant social groups.

A questionnaire was developed that could be completed in 10-15 minutes to report on all social connections. Some 143 men aged 60 years and over living in the Moscow area were interviewed. Of these, 91% have relatives and 43.4% live with their family.

The open form of the answers required application of a method of content analysis to allow calculation of volume of mentions of specific semantic units. The units for our research were: statements of elderly people about the role of relatives and friends in their life; estimation of the role these played in their life; and expectations from significant other social groups such as the state, social workers, other friends and relatives.

The main complexity of content analysis consists in finding in the text the appropriate indicators of the phenomena to be studied and their characteristics, to measure them and then to interpret them (*9*).

The following key concepts were the categories of content analysis in this study:

A meaning (importance) of friends in the life of the elderly person.
B role of the elderly person in the lives of his/her friends.
C role of the elderly person in the lives of his/her adult children and other relatives.
D meaning (importance) of adult children and relatives in the life of the elderly person.
E expectations of the elderly person by the state.
F expectations of the elderly person by the social worker.
G expectations of the elderly person by friends.
H expectations of the elderly person by relatives.

In all, 60 indicators were defined that reflected all the statements of elderly people. Differences in frequency were judged significant at the 5% level.

Results

The qualitative analysis of the 60 indicators is interesting. For example, the category "meaning (importance) of friends in the life of the elderly person" contains 12 indicators, and the category "meaning (importance) of adult children and relatives in the life of the elderly person" has twice as many. In the first category, only one indicator has a negative meaning ("the friends do not do anything for me") and one is neutral. In the second category are two indicators with a negative sense ("a mediocre role", "they are beggars and cannot help"). The roles of elderly people in the life of friends and children (relatives) have seven indicators each, although the category concerning children has more negative indicators.

The number of indicators in the remaining categories are: social workers (*9*), state (*7*) and friends and relatives (*6*).

Quantitative analysis shows that friends render moral support to elderly people, frequently communicate with them and "do nothing" in the same proportion. The elderly admit "the very good, main role of friends" in their life. They wait in anticipation for the kind word, moral support, goodwill, respect, love and advice in difficult situations from their friends. In turn, the elderly morally support their friends, reciprocate, try to be useful to them and frequently communicate with them. Elderly people do not communicate frequently with adult children, though they recognize them as very important, defining children as "the main value, love, attention, mood, sacred" etc. From children, as well as from friends, elderly people expect only moral support, warmth, participation, love, attention, understanding, "to be able to forgive" and "to respect old age".

From the state, the elderly people want to receive help, privileges, social protection and an increase in pension. Thus, they recognize that service from social workers is good but want from them (more attention, help, sympathy and kindness, as well as more patience to listen to the old person). Elderly people consider that social workers are necessary.

Non-significant indicators show that from 60 years of age people begin to lose friends ("no longer living"), and the neighbours become their friends and render aid. Some elderly begin from this age to communicate with friends only by telephone.

Elderly people help friends ("I help, when I can", "the friends use my telephone", "I go to the drugstore for them", "I help them to reach the polyclinic", "I pick them up", "I do a favour", etc.).

Speaking about their role in the life of children and relatives, the elderly recollect that they have brought up children (4.2 %) and now help to bring up the grandchildren (16.1 %), help in the household's business (18.2 %), communicate, help by advice, morally support (14.7 %), and financially help children and other relatives (8.4 %).

The meaning of children and other relatives for elderly people is as follows: help in household's business (19.6 %), help financially (14.7 %), communication (visit, write, call) (7.7 %). Children and relatives occupy the last place of importance with regard to functional support. Mutual aid between elderly people and their adult children and relatives is shown in Table 1. The exchange of help between elderly people and their other relatives is not shown.

Table 1. Aid by and for elderly in the family

Direction of Help	Material help	Help in bringing up grandchildren	Moral support	Help in household's business	Absence of help
From elderly to children	8.4 %	16.1 %	14.7 %	18.2 %	42.6 %
From children to the elderly	**14.7 %**	**-**	**7.7 %**	**19.6 %**	**58 %**

Discussion

The survey "Family in a mirror of public opinion" carried out in 1989 among more than 3000 persons aged 16-60 found that "the family represents for the citizens one of the major values". Unfortunately, the sample excluded the more senior. In other research there are statements that the family is no longer of great importance for elderly people. For example, Shahmatov (*10*), examining groups of elderly people aged 70-80 years, writes: "the fortress of the family and related attitudes are represented as illusory, former feelings of stability deriving from interfamily connections lose their meaning". This conclusion cannot be faulted. It is quite possible that elderly people have more expectations of their children than are shown in revealed indicators. The main attitude of the elderly person to the adult child is "I have given him/her everything; I have sacrificed myself for him/her", while the expectations are connected to a return of that "everything" in later age. Presence of the indicator "expectation of material help from children" is not present in the list of expectations from the friends. However, parents do not receive from adult children what they would like for many reasons, among which are the difficulties of a modern social and economic situation. Furthermore, their adult children now have their own grown-up children. This generation is in the most difficult situation in comparison with other age groups: it has obligations in relation to the ageing parents as well as to growing children, and cannot give up its personal life, interests and work. It is necessary to stipulate that we speak not only about material and household help but also about moral support with warm emotional relations, mutual understanding and respect.

Thus, elderly people have negative experiences with regard to the insufficiency of return of what they feel they have spent on their children. These experiences help form the attitudes of the elderly; they consider that the younger generation does not understand them. Significant parameters of lack of communication of the elderly with children and relatives are revealed in all groups. We can conclude that the elderly mainly appreciate what people of their own generation may do to understand them (high importance of parameters of communication with friends). It is possible that the great importance of the elderly's contacts with friends rather than with relatives is explained by the fact that friendship arises voluntarily and is based on common interests and lifestyles. Here choice and control of a situation are possible to a greater degree with equality of roles in communication. For example, the elderly can define the degree of involvement in dialogue. "People get used to communicate more with their contemporaries, who are not their relatives, than with the representatives of other generations in their family... As a result of contacts mainly with contemporaries, since early childhood up to old age, specific interests are formed by each generation, distinguished from the interests of other generations" (*2*).

However, the elderly person does not consider communication with friends as something significant and it is difficult to judge about depth or levels of this dialogue due to lack of information. Nevertheless, the importance of indicators such as "friends do not do anything for me" and "meeting with the friends almost each day; the large importance of these meetings", which in essence contradict each other, confirms our opinion that family, children and relatives remain the main factor in elderly life. Even when the elderly specified that children and relatives do too little for them, they protected their children and justified their actions ("they are poor", "they live too far away").

Summary

On the basis of our results, we cannot reach a firm conclusion about alienation of generations or about the absence of mutual dependence, although the picture is one of solidarity of generations. We can assume that the elderly have remained socially naive, waiting for help from the state yet at the same time not expecting it. Recent research (TZ Kozlova, unpublished observation, 1998) confirms this conclusion. Elderly people, who have been involved in the changing conditions of Soviet society, take a passive position in the face of matters beyond their control. The state for them is a dim, anonymous structure which disposes of boons and privileges, can increase pensions by strong-willed decision "which they have deserved", but does not do so because it "does not think about people". In their conception, the state and social workers are not connected. In other words, despite high satisfaction with the social services, these are not associated in any way with the state: the social worker is "good", and the state (which, by the way, has organized this service and pays the wages) is "bad".

Thus, certain conclusions about the structure of social support for elderly people cannot be drawn at the present time. We can assume that elderly people link their expectations first of all with those from whom they receive help. Therefore, the social service that represents the social worker who renders essential help regularly is in first place. Then the state that pays pensions follows. If the elderly person meets with friends frequently and they mutually help each other, we may consider they are not in last place in the list of those the elderly value, unlike children and relatives.

This research is an important step in understanding how it is possible to facilitate the process of social adaptation in late age. The research may be of use in indicating directions for future research and theory that may help clarify relationships and social support in later life.

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Senior citizens: self-reliant and productive

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"...the elderly are both agents of change and beneficiaries thereof and, far from being a burden to society or to their families, are an irreplaceable resource of accumulated knowledge, skills and experience, and remain active family members through their most advanced years"[i]

This quotation reflects the spirit and attitude towards the present and future conditions of older persons, emphasizing the positive aspects of ageing and the importance of the concepts of inclusion and participation. Nonetheless, we should not underestimate the difficulties of the situation of the elderly. Conception in her comprehensive overview *The graying of Asia* (*1*) notes: "In mid-1995, the world's elderly population (herein defined as persons 60 years and older) was estimated at 542.7 million, nearly equaling Africa's population in 1985. One in eleven of the earth's inhabitants is at least 60 years of age. Fifty-five percent of the world's elderly are women, underscoring their lower levels of mortality compared to men."

Today, ageing and the elderly are topics widely discussed at seminars and symposiums at national, regional and international levels, while the literature is growing rapidly. Interest is especially directed to the situation in the countries of Asia. This is the area with the highest proportion of the world's population. It has also become the region where the majority of the elderly population is concentrated. As Conception (*1*) notes, the majority (52%) of the world's senior citizens (people 60 and over) live in Asia; four in every 15 are concentrated in eastern Asia (which includes China), one in six inhabit south-central Asia (which includes India), about one in 15 live in south-east Asia (which includes Indonesia), while the rest live in western Asia.

This development is due to a large extent to the success in economic development in the region (until early 1997), combined with or as part of the success in population control, as indicated in declining fertility rates and increased life expectancy that also resulted in, or is a consequence of, improved health care and living standards. Whereas until the 1970s or so most of the countries in this area were still considered to have a young population, since the 1980s the older age categories have increased, making it imperative to examine the condition of the elderly.

We note, for instance, that since the 1950s life expectancy of men has increased by 20 years or more in Indonesia, South Korea and Thailand and by 15 years in Japan.[ii] That of women has increased even more dramatically; according to 1994 data, life expectancy of women at birth in Japan is 83 years, in Singapore it is 79, in Malaysia it is 74, in Thailand it is 72, in the Philippines it is 69, and in Indonesia it is 65 (*2*).

These developments have resulted in an accelerated increase in the proportion of the elderly. Between 1950 and 1995, men and women aged 65 and over were the fastest-growing age group in Singapore, South Korea and Thailand. In Japan the increase has been from 5% in 1920 to 15% in 1995 and is projected to be more than a quarter (27%) in 2025.[iii]

Although in the south-east Asia region, the proportion of those aged 65 and over is not yet as high as in Japan, there is growing concern because the necessary institutional arrangements for taking care of them outside the family are not yet in place. Even if they are, implementation is inadequate.

Moreover, the family, which is the primary support system for the elderly in Asia, can no longer be relied on entirely. This is due to demographic and other basic changes in society, such as the significant reduction in the number of children per family, mobility of the younger generation, and the changing role of women who are leaving the home to enter the workplace, thereby depriving the elderly of their main care-givers.

In addition, although respect for parents and other older people still prevails, there is a tendency to look at the elderly as people who are infirm or impaired mentally and can therefore no longer work for a living. In Indonesia this is reflected in the term used for them. There are a number of expressions, of which the most common is "lansia" (from "lanjut usia", literally meaning "advanced in age"), which was adopted in 1994 by the government as the official term for this age group (Decision of the Coordinating Minister for People's Welfare, No. 15, 1994). Other terms are "manula" for "manusia lanjut usia" (litarally "old age people"), and "glamur" for "golongan lanjut umur" ("old age group").

All these terms focus on age, thereby emphasizing the connotation of being old, infirm, "useless", resulting in older persons' marginalization, exclusion and isolation from the mainstream productive population. These terms also reflect the attitude of the people in charge of taking care of the elderly – the physicians, nurses, social workers, and relatives. This kind of attitude is not conducive to the elderly's self-esteem, self-confidence and feeling of self-reliance and usefulness.

I have suggested on various occasions and in writings in Indonesia that to refer to the elderly we should avoid using terms that can be felt to be demeaning, especially to those who continue to function productively. The appropriate term is probably the one that is common in the United States, i.e. "senior citizens". This term has the connotation of "seniority", meaning that with increasing age a person is perceived to have accumulated knowledge, experience and wisdom and has a wide network of personal and professional relations. The recognition of these characteristics should be beneficial for the confidence necessary to be self-reliant and productive. Internationally, it appears, there is also sensitivity to the term used, and 1999 is proclaimed by the United Nations as the International Year of Older Persons, rather than as the "International Year of the Elderly", with the apt, albeit rather ambitious, theme "Towards a Society of All Ages".

Most studies on the elderly focus on negative aspects and how to assist the elderly in their old age, implying that they are a burden to family and society. This paper focuses on the positive characteristics of older persons, with special attention to the female elderly. It looks at the enabling environment, examines older persons' efforts to empower themselves by setting up their own organizations, and surveys how they take care of their needs, keep healthy, trim and fit, and continue to be self-reliant and productive. As I am most familiar with the situation in Indonesia, I focus primarily on this country and, where relevant, include information on other countries in south-east and east Asia.

The issues

Issues related to the elderly need to be examined from various perspectives. There are the older persons themselves, focusing on the issues usually associated with old age: their health (physical and mental), and their social, psychological, emotional and financial condition. Then there are the immediate family and other kin, the community around them, the society at large and the state or government. These can be seen as separate, or as the environment that influences the condition of the elderly.

The elderly themselves have to be distinguished further by gender, socioeconomic stratum, and physical and mental health status. These distinctions are necessary, as the assessment of the issues related to them will determine the kind of solutions to be sought.

Undoubtedly, gender specification is an imperative, because in most countries there are more older women than older men, and there are more women than men in the lowest economic stratum. As to physical health status, it is clear that there are more unhealthy and disabled elderly women than men, which is related to the fact that there are more women among the oldest old. Also, women's health expenditure is higher than for men, as indicated by the higher premium for health insurance to be paid by women compared to men. With regard to mental health, it is not easy to determine whether women suffer more than men from impaired mental health, although there are indications (as shown in the present economic and political crisis in Indonesia) that in many cases women appear better able to cope with adversity than men.

This situation points to the relationship between ageing and "feminization". Conception (*1*) notes that in Asia the proportion of women elderly (60 years of age and over) is projected to increase from 8.8% in 1995 to almost double (15.0%) in 2025, to almost triple (22.5%) in 2050 (the corresponding figures for men are, respectively, 7.5%, 13.1% and 19.8%). In Europe the proportion of women elderly is projected to increase from 22.0% in 1995, to 29.7% in 2025, to 34.0% in 2050 (for men the figures are, respectively, 15.5%, 23.5%, and 27.7%).

The phenomenon of the feminization of the elderly, if not recognized early, may result in a situation where a large proportion of elderly women constitute a dependency problem rather than an untapped resource. This is the challenging title of a book edited by Kalyani (*3*), and the outcome of a workshop on women in an ageing society in Asia, held in Singapore in March 1994. This workshop focused on seven countries in Asia. As noted in the book, the workshop was motivated by concern about the welfare of older women in the context of the ageing revolution. This concern is based on what is referred to as "humanistic gerontology", which is usually classified under the broader category of "critical gerontology".[iv]

More importantly, from a practical point of view, this feminization of the elderly is especially pronounced in the oldest old (80 and over) category. In Asia, women in this age group are projected to rise from 9.8% of women in 1995 to 11.3% in 2025, and to 17.7% in 2050 (with the corresponding figures for men at 7.2%, 8.3% and 13.4%. In Europe the issue is even more pressing, with the percentage of women aged 80 years and over rising from 18.6% to 19.4% to 28.0% and the corresponding figures for men rising from 11.6% to 12.5% and 19.7% respectively.

If we look at the situation in South-East Asia only, the figures are lower: the projection for women 60 years and over is from 7.2% in 1995 to 13.3% in 2025, to 21.7% in 2050 (the corresponding figures for men are 6.0%, 10.9%, and 18.8% respectively). The rate for graying is fastest in Singapore: for women from 11.0% in 1995 to 29.8% in 2025 to 32.2% in 2050, with the corresponding figures for men at 9.2%, 25.7% and 27.8% respectively. Next comes Thailand with the projections of the proportion of women over 60 years rising from 8.4% to 18.0% to 26.9% respectively, with the corresponding figures for men at 6.8%, 14.6% and 22.7%. In Brunei Darussalam the proportion of women over 60 is projected to rise from 5.9% in 1995 to 17.3% in 2025, and to 25.4 in 2050 (5.4%, 16.2% and 22.7% for men), followed by Indonesia (7.2% to 1.8% to 23.1% for women and 6.3% to 11.6% to 20.0% for men), Malaysia (6.5% to 13.9% to 22.7% for women and 5.4% to 11.2% to 19.6% for men), and the Philippines (5.% to 11.7% to 20.0% for women and 5.0% to 10.3% to 17.6% for men) (*1*).

These figures also indicate that there are many more widows than widowers. UNFPA (*4*) notes, based on various sources, that the proportion of widowers among men 60 and over is under one-fifth in most countries (except for China), while in contrast 40-60% of women over 60 may be widows.

The reality of the different conditions, processes and consequences of ageing for women and men, of which widowhood is a clear indication, necessitates a method of assessment that is consistently gender-specific. This is also the case with socioeconomic status. A good indicator for this is the proportion of elderly still earning a living.

Regarding labour force participation, Tan Poo Chang (*5*) shows that, based on data from ESCAP (1991), the activity rate of older persons in Asia was much higher than that in other parts of the world. Among men aged 60-64 in 1990, 70.2% were earning a living, as were 41.6% of those aged 65 and over. The projection for 2020 is that 59.3% of men aged 60-65 will be employed, as will 26.0% of those aged 65 and over. The activity rate in South-East Asia for men 60-64 years of age was as high as 77% in 1990, and for those 65 and over was 48.3%; with the projections for 2020 being 63.1% and 26.8% respectively. In East Asia for men aged 60-64 the participation rate is 55.2% and for those aged 65 and over it is 32.6%; while the projections for 2020 are 56.1% and 21.8% respectively. For females the rate of participation in employment is much lower than that of males, but is generally far higher than the world situation. In South-East Asia for women aged 60-64, the rate of employment was 30.0% and for these aged 65 and over it was 17.7% while the projections for 2020 are 17.7% and 8.4% respectively. In East Asia the rate for women aged 60-64 is 17.6% and for these aged 65 and over it is 6.7% while the projections for 2020 are 6.2% and 3.4% respectively.

Data from Indonesia in 1996 (*6*) show that, among those who stated that they worked in the week prior to the census, persons who are over 60 do not stop working for a living, and the figure is higher in rural areas than in urban areas. Among men aged 60-69 in urban areas, 19.4% of them work, and in the rural areas the rate is 57.8%. Data on women reveal figures of 19.5% and 61.6% respectively. Among men aged 70 and over in urban areas, 5.6% still work, while in rural areas 17.3% still work. Among women in the same age groups the figures are slightly lower at 4.7% and 14.2% respectively[v].

In general the elderly earn less than the daily minimum wage, which is the main reason why they have to continue working and why they still look for other jobs. Moreover,

the majority of the elderly work in agriculture (82% of men in rural areas and 30% of men in urban areas, and 67% of women in rural areas and 17 % of women in urban areas). In a study in 1993 by the Demographic Institute in Jakarta, it was found that the major source of income of the elderly was their own salary (52.0%), with secondary assistance from children or children-in-law (18.0%), while for pensioners their pension is their main source of income (17.3%) (*7*).

Not surprisingly, elderly women who work earn even less than elderly men. The proportion of elderly women who are not married (widowed, divorced, single) is much higher than the proportion of men (63.1% versus 14.4%), indicating that many more elderly women than men need to take care of themselves (and their children), or have to rely on others. Hence, among elderly women the tendency was to have their children or grandchildren as the major source of support (47%) and secondly their own earnings (30%) (*8*). These women are part of the throng who are under the poverty line, contributing to the widely observed feminization of poverty.

The health of the elderly is crucial to their ability to continue to be productive. Generally, the proportion of people enjoying good health declines after age 40, continuing downwards at an accelerated pace from age 60 on. The Ageing in ASEAN (henceforth referred to as the ASEAN Survey) study collected information on health status by asking respondents about any major illness or injury in the past year that had affected the activities of daily living. The answers showed that of the five countries studied, both among males and females, Indonesia has the highest proportion of elderly stating they have had a major illness or injury, followed by Malaysia, Philippines, Thailand and Singapore. In all countries except Singapore, the proportions are consistently higher for women than for men.

Another question in the ASEAN Survey, again focusing on the self-perception of health condition, related to whether the elderly felt their health to be "very good" or "good". In the five countries where this information was collected, there was a higher percentage of those responding in the affirmative among men than among women, a higher proportion among those married than not married, and a higher proportion among the younger old (60-64) than the oldest old (75-plus).

The highest proportions of men reporting good health were found in Singapore (married aged 60-64, 78%; married aged 65-74, 69%; married aged 75 and over, 60%; not married aged 60-64, 86%; not married aged 65-74, 62%; and not married aged 75 and over 48%). The lowest proportions among men were found in the Philippines (married aged 60-64, 48%; married aged 65-74, 37%; married aged 75 and over, 41%; not married aged 60-64, 46%; not married aged 65-74, 36%; and not married aged 75 and over, 10%).

Among women the highest proportions were found in Indonesia (married aged 60-64, 76%; married aged 65-74, 67%; married aged 75 and over, 50%; not married aged 60-64, 73%; not married aged 65-74, 62%; and not married aged 75 and over, 44%). The lowest proportions were found in Thailand (married aged 60-64, 37%; married aged 65-74, 31%; married aged 75 and over, 30%; not married aged 60-64, 36%; not married 65-74, 33%; and not married aged 75 and over, 22%).

These figures indicate that by far the majority of elderly men and women, particularly among those aged 60-74 and married, feel "good" or "very good". Even among those without a spouse, one-third to one-half still feel positive about their health. The same

situation holds for those aged 75 and over where the figures are much lower but still between one-fifth and one-third.

As to the family situation, we note that the composition of the family is a determining influence on the well-being of the elderly. The shift from the extended to the nuclear family, with a home that has space only for a couple with two or at the most three children, makes it problematic for the elderly generation to be part of the family. This has been recognized by the Singapore housing board, for example, which is changing the policy to include living space for one or both of the grandparents of the family.

The ASEAN Survey gives some indication of living arrangements, again showing the differences between the male and female elderly. The most striking differences in the data are the categories "live alone", "live with spouse and other family members" and "live with other family members". Among males, less than 5% live alone. In Malaysia the proportion is 3.8%, in the Philippines 2.0%, in Indonesia 1.9%, and in Singapore 1.7%. Among females the proportions are 8.7% in Malaysia, 3.7% in the Philippines, 13.5% in Indonesia and 2.8% in Singapore.

As to "live with spouse and other family members", among males the proportions are the highest: 67.1% in the Philippines, 65.7% in Malaysia, 60.3% in Indonesia, while in Singapore the figure is 80.6% (combined "live with spouse only" and "live with spouse and other family members"). The percentages for females are much lower, as is also the percentage for "live with spouse only", where in the Philippines it is 28.0%, in Malaysia 22.5%, in Indonesia 16.9%, and in Singapore again the two categories combined are 31.0%. Conversely, for the category "live with other family members", the proportion for female elderly is the highest: 64.5% in the Philippines, 61.3% in Malaysia, 56.8% in Indonesia and 54.3% in Singapore. For men, the percentages are much lower: 24.5% in the Philippines, 14.1% in Malaysia, 17.2% in Indonesia and 8.9% in Singapore.

These figures confirm conclusively that there are more women elderly than men without spouses, and that they have to rely more on "other family members", again indicating their higher potential for dependency and therefore more precarious condition.

The enabling environment

The enabling environment outside the family (i.e. the community, society and the state) is a determining factor that influences the extent to which the elderly can live with a low level of anxiety with regard to the care they need. It involves health services, financial support, home care and recreational services. They can be categorized as those provided by the state or other official agencies and those provided by private institutions or groups.

In this context it is interesting to note the distinction that the chairperson of a private organization of older persons in Indonesia (in a personal communication), made in terms of the categories of elderly. He distinguishes four groups:

- those who are healthy and have money;
- those who are not healthy, but have money;
- those who are healthy, but have no money;
- those who are not healthy and have no money.

Those in the first category are of course the best off because they can continue to be independent and productive. They can live as respected members of society, surrounded by loving children and grandchildren, continue working if they are so inclined, and spend money on their hobbies, including travelling around the world.

The second category can also have a low anxiety level as they are able to pay for the health services they need. They may, however, face the problem of being deprived of tender loving care if the "significant others" around them (the immediate family, spouse and children) come to consider them a burden in terms of care and attention, especially if they suffer from a debilitating and prolonged degenerative disease.

The third category, according to the above informant, forms the biggest problem for society and the state. These include the pensioners from the civil service, who have to live on a meagre pension that is insufficient for a decent living. Unless they manage to obtain additional resources, such as support from children, or unless they get another job, life will be a continuous struggle for survival.

The fourth category is the worst off. These are by far the majority of the people in developing countries. They are the self-employed who do not fall under any social security scheme as they are usually in the informal sector of the economy. Their immediate family is unable to provide support as they are also in poor circumstances.

The services provided for these elderly people can also be distinguished into several groups: there are the services from providers such as the state (pension fund, social security, health insurance), from professionals such as medical associations, and there are the self-help groups organized by the elderly themselves.

As I am most familiar with the situation in Indonesia, and as the most recent information is at hand, taking into consideration also that Indonesia is the largest country in the Asia Region, I focus on the situation in that country to illustrate my point.

In Indonesia, welfare services for the elderly already existed during the Dutch colonial period. In 1905, a home for the elderly was established in Jakarta (then Batavia) by a Christian Protestant group (*9*). This home still, exists today, housing 48 elderly persons – 30 women and 18 men. Data on homes for the elderly started to be available only in 1961. A listing made by Setiabudhi (*9*) showed that, of the 13 on his list, all but two were set up by private groups, mostly with a religious affiliation. Of the two set up by the government, the biggest is the one established in 1965 by the Department of Social Affairs, with the name Sasana Tresna Werda Budhi Mulia, and now housing 170 elderly (of a total capacity of 180), comprising 125 women and 45 men. Accommodation in this home is free of charge. Of the homes run by private groups, the largest, called Panti Usaha Mulia, was established in 1967. It now houses 98 elderly, comprising 58 women and 40 men. There are in Indonesia a total of 144 homes for the elderly, 47 under the auspices of the Department of Social Affairs, 25 organized by the local or provincial government, and 72 run by private groups, mostly with a religious affiliation.

Then there is the non-institutional care, usually in the form of what is called "home care", which means provision of meals, assistance in health care and in spiritual and religious matters, training in productive skills, and recreational activities. This type of care for the elderly is organized by groups in the community under the supervision of the local office of

the Department of Social Affairs. They are referred to as Pusaka (short for Pusat Satuan Keluarga, or family unit centre). Jakarta has 49 of these Pusaka groups spread over the five administrative areas (*9*). These Pusaka are mostly run by social foundations and religious groups.

The above information indicates that there are only a limited number of homes for the elderly and even more limited provision of non-institutional care.

Looking at the role of government in the care for the elderly, we note that laws and regulations (*10*) directly concerned with the elderly date from 1965 (Public Law No.4/1965 Concerning Assistance to Senior Citizens, and Amendments to Government Regulation No.32/1979 Concerning Retirement of Civil Servants). There are other laws and regulations that also have an impact on the elderly (e.g. Public Law No.3/1966 Concerning Mental Health, Public Law No.6/1974 Concerning the Principles of Social Welfare). These laws and regulations are implemented by the Ministry of Social Affairs, Ministry of Health and Ministry of Manpower, and coordinated by the office of the Coordinating Minister for People's Welfare. This Coordinating Ministry put out Decision No.5/1989, establishing the 1989-1990 Working Group on Senior Citizens' Welfare.

Included in the efforts of the government is the social security system that is applicable to civil servants and armed forces personnel and their families. In case of death, the benefits revert to the surviving spouse. Pension age starts generally at 55, and for certain categories in certain rankings at 60, while for university professors it may start at 70 (*11*). People working in private companies are also protected through the "jaminan sosial tenaga kerja" or "jamsostek" (social security for workers).

However, one could very well ask how well these laws and regulations are implemented. This can be gauged by the assessment made by Wirakartakusumah (*11*) who said: "Present and past efforts at managing senior citizens issues and providing guidance to the elderly were sporadic. They were untargeted and unintegrated and remained sectoral". On implementation at regional and local levels, he notes: "Senior citizens in the regions were perceived as senile people. Therefore, most of the services rendered to the elderly were confined to those normally extended to senile people. Senior citizens who were still productive and remained active received little or no attention from the local authorities."

In addition, we should take into consideration that the majority of those who work are in the informal sector, where there is no protection at all. According to data of 1990, 60% (or 27.7 million) of the male employed are in the informal sector, while for women it is 68% (or 17.6 million). The growth rate for men from 1980-1990 is 21%, while for women it is 42%. The informal sector includes the self-employed, self-employed with temporary help, and unpaid family workers. Considering the numbers involved in this informal sector, especially among women, what should or can be done to increase security in their economic activities, and who should be responsible for this (*12*)? A significant number of workers in the informal sector belong to the category of older persons.

At the local level, further developments in care for the elderly show that in the Jakarta region the provincial government is paying more serious attention to the growing number of people of advanced age. In 1966 the Special Region of the Capital City of Jakarta issued Decision No.A.10/1/16/1966, dated 30 April 1966, establishing the Social Welfare Activities Coordinating Agency (known by the acronym BPKKS) (*9*). This agency was charged with

assisting the disabled, including the aged, blind, deaf, mentally impaired and orphans. In 1984, this agency became the BKKKS by decree of the Minister for Social Affairs No. 58/HUK/KEP/84 and reinforced by instruction of the Minister of Home Affairs (No.5/1985) and the governor of the Special Region of the Capital City of Jakarta (No.850/1985).

Starting in the 1990s also, more activities are seen at national level. In 1996 the government proclaimed 28 May the National Older Persons Day. Furthermore, in the Broad Outlines of State Policy 1998-2003 (*13*), a document put out by the People's Consultative Assembly, an item (Item 8) on "Elderly population" was inserted in Chapter IV in the section on "People's welfare, education and culture". The People's Consultative Assembly is the highest legislative body in Indonesia, convening every five years to elect the president and to review and reformulate the Broad Outlines of State Policy.

This is the first time the elderly population has been included in the Broad Outlines of State Policy as a separate item.[vi] The elderly were already mentioned in the previous Board Outlines of 1993-1998, but then it was as part of the section on the development of the total Indonesian person. There are three points in this Item 8, all showing a positive approach to the elderly. The first point encourages the elderly to continue playing a role in the development of the nation in accordance with their function, wisdom, experience, expertise, abilities and age. The second point refers to service to the elderly, which should be viewed as an appreciation in the form of services and assistance in support of the well-being of those who are physically or mentally impaired and therefore can no longer be productive. The third point refers to the socialization of the institutionalization of the elderly in the mainstream activities of the nation in order that society may appreciate and respect the elderly in day-to-day life, based on scientific studies of the elderly population.

Moreover, in February 1998, the Minister for Social Affairs, then Mrs Inten Suweno (there have been two ministers after her in two consecutive Cabinets)[vii] established the National Institute for the Welfare of Older Persons. This is an organization initiated by a number of people active in associations such as the Perhimpunan Gerontologi Indonesia (Indonesian Society for Gerontology), Perhimpunan Wredatama Republik Indonesia (Indonesian Society for the Elderly), PEPABRI (Indonesian Association for Retired Army Personnel) and in nongovernmental organizations such as the BK3S (Coordinating Body for the Cooperation of Social Welfare Organizations) and the Yayasan Emong Lansia/HelpAge Indonesia (Foundation for the Care of the Elderly in cooperation with Help/Age Indonesia). The objective of this national institute is advocacy to the government on policies and programmes for the elderly in order to uphold the dignity of older persons. Its functions include the formulation of policies and general guidelines regarding programmes and activities and their effective implementation, coordination with various related agencies, social organizations and nongovernmental groups, and dissemination, monitoring and control of the programmes and projects.[viii]

More recent data indicate a shift in the approach towards welfare services. At a national meeting organized by the Indonesian Council for National Welfare in April 1998, it was resolved that services that had been mostly reactive should be proactive; that those that had been remedial should be developmental; that those that had been dependent on government or other sources of funding should be in the form of a partnership; that those oriented to social welfare should become a social service; that those run on a volunteer basis should become public service and professional; and that those that were rehabilitative should become a "social safety net" based on the participation of the local community.

Another agency under the aegis of the government, i.e. the office of the Coordinating Minister for People's Welfare, is the Kelompok Kerja Tetap Lanjut Usia, known as Pokjatap Lansia (Permanent working group on the elderly). Then there are also the special directorates on matters concerning the elderly in the ministries of health, social welfare and manpower.

It appears, therefore, that the operational structure for assistance to the elderly by the government and its related agencies is in place but it is the implementation that is inadequate. The Central Bureau of the Census has information on the size of the older population, starting from 60 years, but there is no statistical information on the proportion of those needing assistance. It is proposed that this be remedied by constructing a measure of the status of neglect of the elderly using a number of questions that are included in the national socioeconomic surveys conducted regularly by the Census Bureau. This should be useful for the planning and implementation of assistance to needy elderly, which is the province of the Ministry of Social Affairs. Assistance by private organizations and groups seems to be operating more effectively, but this observation needs to be investigated more carefully in order to come to a more reliable assessment of the role of the private sector in this area.

However, with the worsening of the economic situation that has now lasted for more than a year, the continuing political instability and the intermittent flare-ups of social unrest, the proportion of people living below the poverty line has increased considerably. The preoccupation of the government with the macro-economic problems does not leave much room for the implementation of policies to alleviate shortages of basic foodstuffs in the day-to-day life of the people. This will undoubtedly hit the elderly, the very young and the disabled first of all. Hence, those sections of the population that can still help themselves will have to get organized in order to maintain a decent standard of living and help those less fortunate.

Self-reliant and productive senior citizens

The notion of self-reliance is associated with being independent both economically and in relations with other people, and relying on one's own abilities, initiatives, resourcefulness and efforts to meet challenges in life and to cope with adversity. Being productive in the case of the elderly should not be seen solely in economic terms. It also includes the ability to participate in and contribute to the development and well-being of the family, community, society and the state. As Tan Poo Chang notes (*5*), "... there are many activities which are non-economic in nature which also have exchangeable values. Productive ageing should therefore be taken to mean involvement in various activities, be they social or economic, as one grows older." Pangalangan and Quieta (*14*), also note that in the Philippines, "The services to the elderly from merely custodial and institutional care primarily for the abandoned sick and unattached have expanded to the organization of the aged in the communities. These services are not only for social and recreational needs, but cover vocational training and livelihood programs. This points to the increasing recognition that apart from requiring social services, the elderly have great potential for their continuing contribution in community and economic activities."

This section describes of one of these groups in Indonesia, organized by and for older persons, that was formally established on 6 July 1996. It has the name Paguyuban Dharma Wulan (Society for Older Persons) or Wulan (older citizens) for short.[ix]

In a personal communication, the first and present chairperson, Titus K. Kurniadi (henceforth to be referred to as "my informant"), informs me that the group started at his initiative and that of a number of friends. At the end of July 1996 there were 60 registered members and today Wulan already counts 543 members in Jakarta and 180 in Semarang, making a total of 723. There is also a branch in Bandung with about 50 members, and new branches are being established in Bogor and in Surabaya.

The organization is open to all, but the membership can be characterized as more ethnic Chinese, more Christian (Protestants and Catholics) and more "the haves". Although in the Indonesian census the definition of older persons is those aged 60 and over and the official age of retirement for civil servants and the armed forces is 55 (the definition also used by the Ministry of Social Affairs, but apparently they have changed to 60 recently), Wulan encourages people of 50 to join. As my informant explains, this is in order to have younger people who are more energetic, who can do the "legwork" for the organization, and who can be groomed to take over the leadership when the time comes. However, as might be expected, the organization has difficulties recruiting younger persons. It is crucial for the organization to increase its membership because if it is big, it will have a good bargaining position for negotiating special services and discounts for older persons.

My informant has already approached insurance companies in order to obtain health insurance for people over 60 and special discounts for credit cards, but has not yet succeeded. He has had more luck with discounts for hospital care at some hospitals and for discount on medicine. There is also a bank that gives preferred banking services and a special interest rate for time deposits, and an optical store that gives discounts on spectacles for members. The government has already instituted the "life-long identity card" for those reaching age 60, meaning that after this age they do not have to renew their identity card. There are also discounts for 60-plussers on state and private airlines for domestic travel, and on the state railway and state shipping companies.

The objective of Wulan is for older persons to have a meaningful life and be useful to others. Hence, as stated in the maiden issue of their journal *Wulan*, in August 1996, their vision is "mandiri" (in the journal translated as "independence"), "terhormat, bermartabat" (dignity), and "bermakna, bermanfaat" (purpose, but it can be translated as meaningful, useful). This is very much in line with the "United Nations Principles for Older Persons: to add life to the years that have been added to life", as stated in the International Plan of Action on Ageing (in the Report of the World Assembly on Ageing, Vienna, 26 July-6 August 1982). These principles are independence, participation, care, self-fulfilment, and dignity.

Wulan's mission is therefore: "To fulfill the task and purpose of Wulan in an independent way by utilizing the abilities they have to help each other and other people" (my translation). This mission is expressed in activities that include conducting seminars, usually for members only but also for the general public, on topics related to the life of older persons, such as health issues, inheritance and making a will, insurance, investment; putting out publications such as the journal *Wulan*; free consultation on matters of interest to older persons by members for members; cooperation with other organizations or corporations to obtain special services; and partnership programmes with organizations with similar objectives. The organization also plans to have a club house and to build residences for older persons.

To be able to achieve this, one has to be self-reliant and independent (especially financially), healthy (physically and mentally), and have a social conscience. The majority of Wulan's members belong to the category of "healthy with money".

The organization is run by a board of officers, consisting of a chairperson, three vice-chairpersons, a secretary and vice-secretary, a treasurer and vice-treasurer, and four members. They serve a two-year term. There are no women among the officers though these are three women on the board of trustees. The annual membership dues amount to slightly more than two-thirds of what one would pay for a year's subscription to an international news magazine. Life membership is also available.

According to my informant, social programmes are combined with sports and fitness activities, such as early morning walks at the week-end, tai-chi exercises, tennis and golf tournaments. On weekdays there may be a visit to a factory owned by one of the members. To help others outside the organization, there is a project for the provision of clean water in a village outside Jakarta. (*15*).

The seminars are usually for members and their guests, with the speaker being one of the members or an invited guest. The topics include health, economics, law, especially related to inheritance, while one of the recent seminars was on sex and the elderly. There is also an interest in continuing education. The idea of the "University of the third age" has caught on among Wulan's members and they are cooperating with one of the private universities in Jakarta.

The group also organizes seminars that are open to the public. The most recent was held in June 1998 in one of the 5-star hotels in south Jakarta, in cooperation with the economic newspaper *Bisnis Indonesia* and the newsmagazine *Gatra*.

The membership list indicates that there are about 328 women in Wulan, almost half the total number of members. When the Jakarta Chapter of Wulan was founded, most members of the board were women (11 of the 17). They are the two vice-chairpersons, the secretary, the treasurer and one of the two vice-treasurers, and six of the eight members. This is an indication that most of the activities of this chapter, which already has about 600 members, will be supported by the women members. Also, in the June 1998 issue of the journal *Wulan*, there is a profile of one of the women members who is a former Supreme Court judge and who is available for free consultation on matters related with inheritance. In the August issue, she and two other lawyers have written articles on inheritance.

The above description gives a clear indication that organizations run by the elderly themselves can be viable, provided there are enough among them who are healthy and fit, independent financially, productive in an economic as well as a non-economic way, and who possess a high social conscience.

Conclusion

As the numbers and proportions of older persons will increase all over the world, particularly in Asia, while the traditional support system of the family can no longer be entirely relied upon, it is imperative for the community, society and the state to think of ways to cope with the situation. This calls for a division of labour. The needy, disabled, sick, neglected and abandoned, should continue to be the province of the government, with

institutional care, home care and welfare programmes, although traditionally religious organizations have been doing this. The best known organization of this kind is that established by Mother Theresa of Calcutta.

In Indonesia, the Central Bureau of Statistics, with the Ministry of Social Welfare and a number of research institutes, is working on indicators to measure the type and size of needy and neglected elderly in order for the ministry to target policies and programmes correctly. However, with the economic situation continuing to worsen, it may not be realistic to expect the government to produce the necessary social safety nets, although financial assistance and assistance in kind (e.g. rice and medicine) are coming from international agencies and other countries.

It is therefore encouraging to observe, as described above, the efforts made by groups of elderly themselves to organize and assist each other and needy persons. Those that are viable usually have activities that range from the social and recreational to the charitable and educational. These efforts promote both preventive health care and the idea of continuing to be productive economically and otherwise. Such efforts should be supported by the government, the private sector, health care providers and the health care industry.

Other aspects that should receive attention relate to life-long education that prepares everyone to become independent, self-reliant and productive senior citizens. There is also growing recognition of the importance of intergenerational relationships, whereby the older generation and the very young work together and learn from each other: the very young appreciating the older persons and the older generation feeling useful and youthful by being around the young.

Finally, there is a clear need for research on the type and magnitude of the conditions and problems of older persons in relation to gender, age groups, physical and mental health status, socioeconomic status, and ability to continue to be productive. Research is also necessary on the enabling environment, the resources available in the family, community, society and the state to care for older persons in a way that is conducive to making them independent, self-reliant and productive.

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[i] This quotation is taken from "The Kitakyushu Declaration on Population Ageing in the Context of the Family and Recommendations of the Conference" contained in *Ageing and the family. Proceedings of the United Nations International Conference on Ageing Populations in the Context of the Family, Kitakyushu, Japan, 15-19 October 1990.* New York, United Nations, 1994. As stated in the preface, this international conference was part of the efforts of the United Nations system to address problems associated with ageing and changes in family patterns. These efforts started in 1982 with the World Assembly on Ageing in Vienna, followed by the International Symposium on Population Structure and Development in Tokyo in 1986 which considered the issues raised by ageing populations at national levels, while in 1988 an International Conference on Ageing Populations in the Context of Urbanization was held in Sendai, Japan. The Kitakyushu Conference reaffirmed that "... an important objective of socio-economic development is an age-integrated society where bonds of kinship and linkages between generations are strengthened". The objective of the conference was to identify and analyse critical issues arising from the rapid change in family structures and the rapid increase in the relative size of elderly populations. To address these objectives the conference brought together some 50 experts from countries all over the world, who reviewed some 30 papers and drafted 26 recommendations related to international action, policy, data collection, research and training. The conference focused on the crucial role of the family as the main support system of the elderly, and highlighted the pressing problems related to changes in the family and in society in general.

[ii] Asia-Pacific Population and Policy. *Asia's next challenge: caring for the elderly.* East-West Center, Program on Population, April 1998, No. 45, p.1

[iii] Ibid, p.1,2

[iv] Mehta K, ed. *Untapped resources. women in ageing societies across Asia.* Singapore, Times Academic Press, 1997. The book is the outcome of the "Workshop on population ageing-women in an ageing society", held in Singapore in March 1994. It was organized by the Japanese Organization for International Cooperation in Family Planning (JOICFP) and the Department of Social Work and Psychology of the National University of Singapore. The participants came from 11 countries and represented a variety of disciplines.

[v] The data is taken from the report of a study conducted by Diao Ai Lien et al., 1998 (with the present author as consultant) on the conditions of the elderly in Indonesia. It is a cooperative effort of the Central Bureau of the Census, the Indonesian Institute of Sciences, and UNICEF. It is sponsored by UNICEF.

[vi] The *Garis-garis Besar Haluan Negara 1998-2003* or Broad Outlines of State Policy is a political document produced by the People's Consultative Assembly, the highest legislative body in Indonesia, when it convenes every five years to elect the president of the nation and to deliberate on the policies and strategies for national development that form the basis of the Five-year Plans. The one used as a reference for this paper is the most recent one produced in March 1998. Item 8 on "The elderly population" comes under the subheading "People's welfare, education and culture" which also includes separate items on "children and teenagers", "youths" and "women".

[vii] Since the beginning of the economic crisis that began to be really felt in Indonesia by the end of 1997, the economic and political situation has rapidly deteriorated. Since then the situation in Indonesia has been characterized by uncertainty in the economy, instability in the political arena and insecurity in social life.

[viii] This section is based on information from personal communications with, and data collected by, Dr Tony Setiabudhi, a physician active in the organization Yayasan emong lansia (Foundation for the caring of the elderly), which works for the welfare and well-being of the needy elderly with support from HelpAge International. Dr Setiabudhi has kindly allowed me to use his report on "The development of community-based organizations serving older persons in Indonesia". Another source of valuable information is the paper by Dr Wicaksana Martin Roan, a psychiatrist, entitled "Assessment of needs and available resources for developing community-based care programmes for the elderly and disabled people". This is a country report on Indonesia, presented at the ASEAN seminar on community-based care programmes for the elderly and disabled persons, held in Bangkok in August 1997.

[ix] The Wulan organization provided me with the booklet of their membership list, the maiden issue of their journal *Wulan* published in August 1996, and the most recent issues of June and August 1998. Each issue has a lead article, and there are regular sections, such as news from the organization and from the chapters, consultation, business opportunities, profiles, book reviews, letters to the editor and communications between members.

Women and health in old age: the Indian scenario

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Until the recent past, whether by oversight or deliberately, older populations were systematically excluded from much basic scientific investigation as well as from consideration of health issues of the general adult population. As we approach the 21st century, scientists know that the health agenda of our elderly is important because of the dramatic demographic shift in both developed and developing countries which is pushing more and more of our population into the senior bracket.

Since India's independence in 1947, the life expectancy of Indians has doubled from 33 years to almost 60 years. The steady increase in life expectancy at birth for Indian women has been a comparatively recent phenomenon. Indian women, who not long ago had much higher mortality rates at all ages, are now expected to live another 16.8 years after age 60, as compared to Indian men who have only 15 years more to live (*1*). In fact, India is one of the few countries where the sex ratio is biased in favour of the male, and men outnumber women at all age levels almost until old age. Women above 60 years should constitute about 41.12% of the total elderly population of India by 2025. Women above 75 years are growing at an even faster rate and will form nearly 54% of the total elderly population in India by 2025 (*2*). In absolute numbers there will be 90 million elderly women (60 years and above) out of a total of 167 million elderly in India by the year 2025 (*2*). Following the global trend, the sex ratio in India will favour women (though not to the same extent as in the developed countries) as we move from 60-year-olds to 75 years and above. By the year 2025, there are expected to be 104 males for every 100 females in the total population of India, only 95.65 males are expected in the over-60s and the proportion will drop further to 81.43 males per 100 females in the 75 years and over group (*3*).

This dramatic increase in life expectancy for post-menopausal women has created new sociocultural and health problems globally. Changes in family size and structure are also generating new challenges and health issues for women. The traditional Indian joint family and extended family is being superseded by the nuclear family, giving rise to various health issues including the mental health concerns of older women, previously not common in an Indian household. Indian women are more vulnerable due to social and economic marginalization. For the poor, old age itself is a curse, and it is worse to be an old woman than an old man. They become an additional burden on the already fragile social security system of the country, ravaged by poverty, unemployment and a teeming population explosion (*4*).

Old age and widowhood

Marital status is an important determinant of where older persons reside, of their support system, and their individual well-being. Older persons in intact marriages tend to enjoy higher levels of survival and better mental health, utilize more health services, have more social participation, and have a better life satisfaction than those who are without partners (*5*). Some 51% of Indian women above the age of 60 years are widows, as compared to only 20% of men in the same age group (*3*). A study in three homes for the elderly in Pune City, India, revealed that 81% of women living there were widows (*6*). While

65% of men above the age of 60 are still active economically, only 14% of women are so. Some 15% of men above the age of 50 years (data on 60 years and above is not available) are educated while only 7% of women are so (*3*).

An Indian woman often enjoys power and authority if she happens to be the wife of the head of the family. If this association is broken, her access to resources for care and sustenance is reduced, making her vulnerable. The risk increases for women who have no assets for survival such as education, possessions or social status (*7*). This vulnerability when compounded by failing health, disability and widowhood makes the elderly woman the most defenceless in the Indian context (*8*).

Anthropology of health

The last decades of life were ignored even by ethnographers writing the life cycle of a community (*9*). It was Barbara Myerhoff (*10*) who in *The anthropology of health* noted that while ethnographers have traditionally relied heavily on reports from the aged in collecting their field data, they neglected to study the accumulated knowledge of their own grandmothers. The neglect of work on ageing and health even in developed societies finds better expression in Becker and Kaufman's (*11*) more recent comment that the aged are considered as "uninteresting and devoid of relevance for critical issues in contemporary life...".

Health of the elderly women in India: a review

With advancing years the elderly have a number of health problems, most of them chronic in nature. The progressive debilitation of functional capabilities is accentuated by such factors as gradual decline in vision accompanied by other eye problems such as retinal disorders, cataract and glaucoma. In addition there is likely to be hearing impairment ranging from difficulty in understanding words or hearing certain sounds, to total deafness; blood pressure changes; osteoarthritis; disorders of the digestive tract like milk intolerance, flatulence, constipation, etc. The elderly suffer not only from chronic ailments specific to old age, but also from ill-health accumulated over the life span that may manifest itself in old age in an aggravated form.

Nationally representative data for the study of ageing in India are rare, though scattered and small studies provide some picture of the sociodemographic profile of the Indian elderly. The readily available data with age as a parameter are those collected for demographic purposes, such as general censuses and surveys aimed at identifying the cause of death (*7*). The National Sample Survey Organization has filled this lacuna in the recent past and has conducted periodic surveys (*12, 13*) focusing especially on the elderly. The organization has collected information relating to various sociocultural and demographic variables, including health status. Health status information relates to the chronic diseases and locomotor disabilities by sex in those aged 60 years and above.

Mortality data for women above the age of 50 years indicate that respiratory diseases predominate over degenerative diseases such as cancer, heart and cardiovascular diseases, as in other developing Asian countries (*14*). Mortality data for rural India for the years 1988 to 1993 suggest a similar pattern. Disorders of the respiratory system (chiefly asthma and bronchitis) are top of the list (18-19%) followed by diseases of the circulatory system (10%) (mainly heart attacks); and disorders of the central nervous system (mainly paralysis) and

other defined symptoms (12%) which include cancer. Nearly 50% of the deaths were reported to be due to senility. Over the five-year period (1988-1993), the figures were fairly stable. Cancer alone, classified under the "other clear symptoms" accounted for nearly half the deaths (*7*).

Leading sites of cancer in adult women were the cervix (53.51%) followed by the breast (12.36%), oesophagus (5.27%) and ovary (2.96%), as reported by the Tata Memorial Rural Cancer Centre (*15*). A constant increase in the frequency of cancer of the cervix and breast was noted for 10 years from 1982 to 1991, while almost equal numbers of men and women sought treatment. Another study in nine north-eastern states of India found a lower incidence of cancer of the cervix (20%, as compared to 48% in central India) (*16*). It was followed by cancer of the breast (13%), pharynx and larynx (10%) being almost equal in male and female subjects; mouth (9.5%), ovary (5%) and others constituting 17.12%. Records of the BBCI hospital from 1990 to 1997 (*16*) show that every year consistently there have been almost double the number of men seeking diagnosis for suspected cancer and also for the frequency of positive diagnosis (66-67%), as compared to women (32-35%). The lower incidence of cancer of the cervix reported there indicates the general neglect of the health of women by their families and by themselves, especially in the less developed states. Gynaecological ailments tend to be downplayed.

Since most diseases of the elderly are of a chronic nature, morbidity data indicate the health status of the aged. Nearly half (45%) of the elderly surveyed in 1991 reported having some chronic disease (*7*). Health problems of the joints, coughs and blood pressure accounted for about 80% of ailments (Table 1). The dominant complaints such as problems of the joints and coughs could be due to their visible and clear manifestations, while ailments such as blood pressure variations can be diagnosed and monitored only under medical supervision. Unfortunately in India, the majority of ailments may never be recognized because of limited visits to a doctor or health centre. More women suffer from problems of the joints (osteoarthritis) than do men, in both urban and rural settings. This is to be expected since after the menopause women are more vulnerable to the development of osteoarthritis (*17*). Loss of mobility or any kind of disability effectively reduces an elderly woman's sphere of activities, thus increasing her dependency. Rao and Townsend (*7*) have rightly commented that, while in the early years of an Indian woman's life cultural taboos reduce her mobility, it is physical causes that do so in later years.

Table 1. Chronic diseases among the elderly in India

Disease	Rural		Urban	
	Male	Female	Male	Female
Problem of joints	44.5	50.6	35.1	44.2
Cough	35.5	32.7	26.0	22.4
Blood pressure	6.4	6.5	16.8	18.5
Diabetes	2.1	1.2	5.9	4.3
Heart disease	3.7	3.9	6.9	5.6
Piles	3.8	2.5	4.3	2.6
Urinary problems	4.1	2.7	5.1	2.4

Source: Rao & Townsend

Urban-rural differences in the pattern of chronic illness are well defined in the Indian context. While the frequency of hypertension, heart diseases and diabetes is higher among urban Indian populations, it is cough and problems of the joints that are more frequently reported from villages (*7, 13*). Visual disability and other eye problems are among the most commonly reported both by urban as well as by rural elderly. Visual impairment is associated with ageing and tends to be higher in older age groups (*3, 8*). Cataract is the most common eye problem, accounting for roughly 80% of cases of blindness (*19*). Other eye problems such as glaucoma, retinal disorders and corneal opacity largely remain undetected and untreated. A small study conducted in Tamil Nadu, South India, reported visual disability affecting 89% of the elderly (*20*). A similar study in the rural north-eastern Indian state of Manipur recorded eye problems in nearly 80% women above the age of 60 years (*21*). Considerably more women than men are affected by visual disability in India (*8, 9*). The enormity of the problem of housing blind elderly women can be judged from the fact that in Pune there is one home exclusively for blind elderly women out of a total of five for elderly women generally.

Poor utilization of health services, a documented reason for women's poor health at all periods of the life cycle, is an important reason why many conditions such as diabetes and blood pressure remain unrecognized and untreated.

Physical illness of any nature, and disability and handicap due to sensory impairment such as loss of hearing or vision play an important role in disturbing the mental balance of an individual. The finding that the majority of depressed elderly patients come from an atypical family set-up is an indication that the physical composition of families plays an important role in the mental health of the elderly (*22*). In addition, factors such as widowhood, childlessness, death or migration of children and reduced or no income are among the factors which adversely affect the mental health of elderly women (*23*). Epidemiological studies in India have provided a prevalence rate of mental morbidity among the aged as 89/1000 population. Affective disorders, particularly depression more than mania, late paraphrenia and organic psychiatric syndromes constitute the major problems of mental morbidity in the elderly. Depression itself accounts for about 60/1000. The risk of psychiatric illness in the elderly increases with age. The overall prevalence of psychiatric morbidity rises from 71.5 per thousand (for 60-year-olds) through 120 (in 70-year-olds) to 155 in those 80-plus (*24*). Many of these old people can be restored to more or less normal health with a comprehensive approach that includes psychological and social support in an overall strategy for care of the elderly. There is a lack of information on female psychiatric patients in India, especially on elderly females.

Several health conditions remain specific to women in old age due to the decline and cessation of ovarian function. Osteoporosis, coronary heart disease, urogenitary problems especially, urinary incontinence, and falling attacks are some of the ailments specific to their group (*21, 25*). Gynaecological cancers and prolapse are conditions afflicting elderly women in India and are carry-over effects from early childbearing and high fertility (*7*). Studies from several parts of India indicate that there is a gender bias in accessing and using health-care and that this bias starts early in life. This gender discrimination continues in later life as well, when women have a tendency to downplay their morbidity, attempt home remedies and seek traditional medical treatment before reaching the modern health care system (*26*). While evidence is not available to document the health care behaviour of elderly women, it is assumed that the pattern set in childhood and adulthood continues.

There is a lack of published data on the relatively common health ailments of older women in India, such as osteoporosis, urinary incontinence and falls.

Present study

The present study of a localized group of elderly women was aimed at highlighting the prevalence of some of the so-called "minor" health complaints in the urban middle-class older women of India. Since the elderly are not a homogeneous subpopulation with a uniform set of needs, it was also planned to estimate the increase in kinds of disability from the young old (60-69 years) to the old old (70-79 years) and the really old (80 years and above). This study formed a part of a major research project which focused on "normative age (anthropometric) changes in women" and excluded women having any major illnesses such as heart problems, tuberculosis, chronic asthma, cancer, severe diabetes or severe arthritis. Information on the so called "minor" health problems usually associated with advancing age included hearing and vision impairments, digestive disorders, diabetes (NIDDM), bone fractures after the age of 50 years (usually attributed to osteoporosis), urinary incontinence, falling attacks and blood pressure variations. The population surveyed comprised 100 urban Maharashtrian Brahmin women of Pune City from the middle socioeconomic stratum. Their age ranged from 60 to over 90. A second group of 52 migrant Punjabi and Sindhi women over 50 were also surveyed. In each age group (60-69, 70-79 and 80 and over) data on a minimum of 30 subjects were collected (Table 2). The migrant group, being smaller, could not be subdivided and the results are pooled (Table 3).

Table 2. Characteristics of the Baharastrian Brahmin study population

Parameters	60 – 69 (35)	70 – 79 (30)	80 + (32)	Total (97)
	N (%)	N (%)	No (%)	No (%)
Living arrangement				
Alone	4 (11)	4 (13)	2 (6)	10 (10)
With spouse	21 (60)	7 (23)	51(6)	33 (34)
With married son	8 (23)	17 (67)	20 (63)	45 (46)
With married daughter		2 (7)	3 (9)	5 (5)
With other relatives	2 (6)		2 (6)	4 (4)
Education				
Illiterate		2 (7)	1 (3)	3 (3)
VIIth grade	15 (43)	15 (50)	23 (72)	53 (55)
Xth grade	13 (37)	11 (37)	8 (25)	32 (33)
Undergraduate	3 (11)	2 (7)		5 (5)
Graduate & above	4 (11)			4 (4)
Marital status				
Married	25 (71)	9 (30)	5 (16)	39 (40)
Widow	9 (26)	21 (70)	27 (84)	57 (59)
Unmarried	1 (3)			1 (1)
Feeling				
Lonely	11 (31)	6 (20)	7 (22)	24 (25)
Bored	6 (17)	5 (17)	10 (31)	21 (22)
Helpless	7 (20)	2 (7)	6 (19)	15 (15)
Afraid of death	8 (23)	5 (17)	2 (6)	15 (15)

Table 3. Common health complaints of migrant women (n = 52)[1]

Parameters	N (%)
Hearing impairment	10 (19)
Eye ailments	18 (35)
Arthritis	13 (25)
Fractures	6 (11)
Digestive disorders	15 (29)
Urinary incontinence	7 (13)
NIDDM	7 (13)
Hypertension	18 (35)
Hypotension	2 (4)

Results and discussion

The majority (80%) of the women interviewed lived either with a spouse and unmarried children or with a married son, daughter-in-law and grandchildren with or without their spouses. A few lived with a married daughter or other relatives. While 40% of them were still with their spouses, nearly 59% were widows. Widowhood increased drastically from the young old (26%) to the old old (70%) and to the really old (84%). The majority (97%) of the respondents interviewed had basic schooling up to 6th grade, and nearly 33% had passed 10th grade (Table 2). Maharashtrian Brahmin women as such are known to have a higher literacy rate (*6*). While the majority had been housewives, 16.5% were career women before they retired.

Health profile

The women's chief complaint was eye ailments. Nearly 57% suffered from one form of eye ailment or another, such as glaucoma, retinal disorders and watering. 45% suffered from cataract and a few had already been operated on for either cataract or glaucoma. A significant increase in eye ailments was observed with age. Hearing impairment also showed an increase from the seventh decade to the eighth and ninth, so that more than half of those aged 80 years and above suffered from partial deafness. The differences for hearing with age were statistically highly significant but no case of total deafness was encountered. Nearly 45% of women complained of osteoarthritis and the frequency was almost consistent for older age groups. In an effort to estimate the onset of osteoporosis, information on the number of fractures experienced after the age of 50 years was recorded. The study showed that 15% of the women reported at least one fracture after the age of 50 years which was not due to an accident (Table 4) but occurred during routine work, mostly at home. Two subjects, each in their eighth and ninth decades, reported repeated fractures indicating a relatively advanced stage of osteoporosis.

[1] 50 years and above. Data being small has been pooled for all age groups

Table 4. Common health complaints in Maharashtrian Brahmin women 60 years old and over

Parameters	60 – 69 (35)	70 – 79 (30)	80 + (32)	Total (97)
	N (%)	N (%)	No (%)	No (%)
Hearing impairment (Partial)	3 (9)	6 (20)	18 (56)	27 (28)
Eye ailments total	13 (37)	20 (67)	22(69)	55 (57)
Cataract	11(31)	17 (57)	16 (50)	44 (45)
Other ailments[2]	2 (6)	3 (10)	6 (19)	11 (11)
Arthritis total	13 (37)	15 (50)	15 (47)	43 (44)
Mild	11 (31)	11 (37)	11 (34)	33 (34)
Moderate	2 (6)	3 (10)	4 (13)	9 (9)
Acute		1 (3)		1 (1)
Fractures total	5 (14)	3 (10)	7 (22)	15 (15)
Once	5 (14)	2 (7)	6 (19)	13 (13)
More often		1 (3)	1 (3)	2 (2)
Urinary incontinence	7 (20)	9 (30)	11 (34)	27 (27)
Digestive problems total				50 (52)
Constipation	5 (14)	8 (27)	7 (22)	20 (20)
Flatulence	5 (14)	5 (17)	5 (16)	15 (15)
Diarrhoea	1 (3)			1 (1)
Others	6 (17)	4 (13)	4 (13)	14 (14)
Falling attacks	1 (3)	2 (6)		3 (3)
Blood pressure variations total	11 (31)	13 (43)	16 (50)	40 (41)
Hypertension	10 (29)	8 (27)	12 (38)	30 (31)
Hypotension	1 (3)	5 (17)	4 (13)	10 (10)

Nearly half of the women complained of some problem or the other related to the digestive system. Constipation ranked the highest, the older groups complaining of it more often. Nearly one-third of all elderly questioned reported flatulence or disturbance in the digestive system. The prevalence of urinary incontinence and hypertension increased gradually from the seventh to the ninth decade (Fig. 1). Three elderly women, one in the seventh and two in the eighth decade, reported unexplained falls. None from the ninth decade complained of this. No cases of (Type 2) diabetes were reported.

Migrant women aged between 50 and 80 years complained of eye problems (56%), the frequency of cataract being more or less the same for both groups. Two migrant women were blind and the frequency of eye ailments increased drastically with age, especially from the seventh decade (32%) to the eighth decade (73%), unlike in the Maharashtrian women. Twenty per cent reported hearing problems, including one 84-year-old woman who was totally deaf, blind and incontinent. However, fewer of the migrant women complained of osteoarthritis compared to the Maharashtrian women. Bone fractures were more common in the eighth decade. Of the 29% complaining of digestive disorders, half complained of constipation, with the prevalence increasing from younger to older age groups. More than one-third reported blood pressure variations and approximately 14% were diabetic (Table 3). Comparison with rural elderly (60-plus) women of Manipur (*21*) in north-eastern India

[2] including glaucoma/retinal disorders/itching etc.

showed that eye ailments (80%), arthritis (62%), hearing impairment (51%) and fractures (26%) were less frequent in the urban Maharashtrian and migrant women. In fact, fractures were twice as common among rural women, and arthritis was two and a half times more frequent. However, hypertension was more frequent in urban Maharashtrian and migrant women as compared to women in Manipur (Fig. 2). Hypertension is known to be less common in rural populations as compared to urban populations (*28-30*).

Fig. 1 Increase in health complaints from "young old" to "old old"

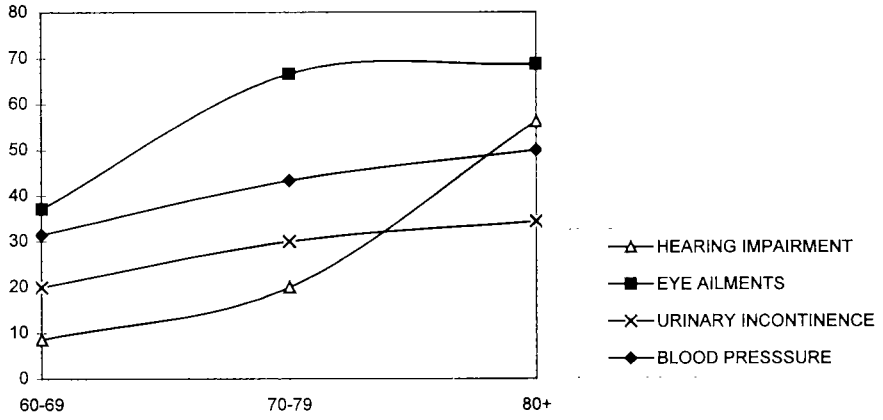
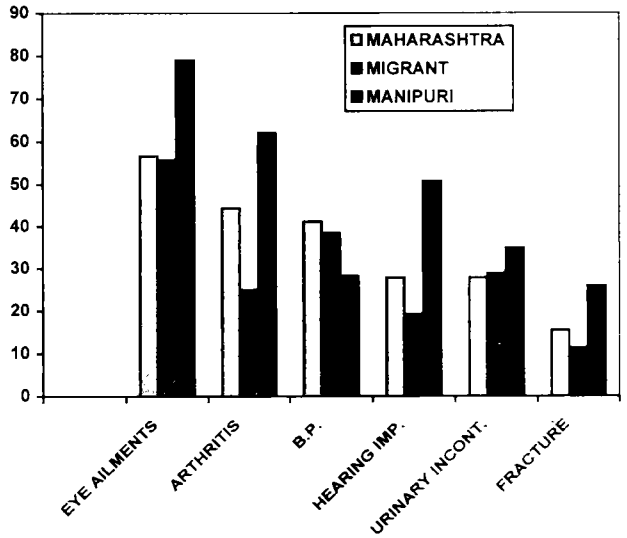


Fig. 2 Some common health complaints of three Indian populations



One of the reasons for the frequency of eye ailments being higher in the women of Manipur could be lack of suitable medical facilities in rural areas of less developed north-eastern states, as compared to the cities of Maharashtra where frequent eye camps are held and free cataract operations and other remedial measures are offered. Moreover, increased literacy and better socioeconomic conditions in the Maharashtrian sample, compared to the illiterate rural women of Manipur, makes them more aware of how to use such facilities more efficiently. Urban Maharashtrian and migrant women seem to be comparatively better off compared to the rural Manipuri women also as far as osteoporosis is concerned, as judged by the number of fractures. These differences can be explained partly on the basis of a much lower consumption of calcium-rich products by Manipuri women, compared to the migrants who are known to be fond of milk and milk products, and the Maharashtrian Brahmins who consume calcium-rich coconut regularly in their cooking.

Other factors

While feelings of loneliness and fear of death were more pronounced in the young old, it was boredom and helplessness that were the chief concerns of the oldest group of Maharashtrian women (Table 2). As reported earlier (*21*), people tend to lose the fear of death gradually as they became older. A similar trend was observed here also.

It is possible to lead a comparatively healthier life in later years by making some changes in lifestyle and diet. These changes are possible only when a person is aware what needs to be done. Attitudes of the family and of the women themselves need to be changed from the belief that, once childbearing is over, a woman's health is not important. Here self-help and self-care become vital. Self-help requires an individual to know more about her health, health problems, and the reasons for them. Self-help can keep various degenerative changes at bay. In other words, health education of the people, especially the women who cook for families and are primarily responsible for care of the elderly at home, is important. For example, constipation can be reduced to a large extent by introducing more fibrous food in the diet, and a calcium-rich diet and regular exercise can slow down osteoporosis. Many eye and hearing ailments, and incontinence, are largely treatable.

Conclusion

The increase in disabilities due to vision and hearing impairment, osteoarthritis, urinary incontinence and hypertension highlights the differential health status of elderly women, with the disadvantage of the older groups being greatest. The urban-rural differences in the health of elderly women are also quite clear from the above. Hence, there is an urgent need for education, including health education in our villages. We urgently need a database on health status profile (rural and urban) and disease profile, highlighting the age as well as gender-specific disorders. We need to have public health programmes that encourage healthy habits and lifestyles to enhance both the quality and quantity of life. This has been forcefully emphasized by Robert Butler (*31*) in the following words: "A successful health and social service system needs to be evolved which provides universal access, is comprehensive, and promotes collaborative care... Such a system needs to emphasise the responsibilities of the patient's family and community, and focus on health education, health promotion, and disease prevention...".

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Empowerment of the elderly in the informal sector: elderly business in south Jakarta[1]

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The elderly have the potential to lead a productive life especially directly after retirement. The informal sector is one of the most likely sectors to find the productive elderly. The business of the elderly may be carried out at home with a limited number of workers. The enterprise is likely to require limited skill, be highly specific, need limited funding, have limited production and be easily marketable. No extensive advertising is required. This kind of home industry is also used by the elderly to keep themselves busy.

The retirement age in Indonesia is 55 years according to present Indonesian law (*1*). This retirement age coincides with the official retirement for civil servants. It is also based on the life expectancy of Indonesians in 1965. However, life expectancy has increased from 55 years in 1980 to 67 years in 2000 (*2, 3*)

In Indonesia, the characteristics of informal sector activities are as follows: they are simple business activities, they require only small capital, and they do not require strict licensing by the government (*1-5*). Officially, those businesses employing fewer than 100 workers are considered as small businesses and do not require the strict government supervision and control which is mostly directed at the larger industries.

The objective of this study was to observe the activities of the elderly in the informal sector. The parameters used to observe these activities were sociodemographic and economic aspects.

Method

A descriptive cross-sectional observational study was conducted on informal businesses of the elderly in south Jakarta, specifically in the Tebet and Cilandak districts where there were academic-community partnerships between Trisakti University and the South Jakarta Health Service. A closed questionnaire consisting of 80 variables was used in the survey (*5-8*). This instrument has been previously pretested. However, the results of only seven variables related to social demographic and economic aspects are presented in this paper. The paper is based on the conceptual framework illustrated in Fig. 1.

Results and discussion

Social demography

In Tebet district, the owners' ages varied between 53 and 60 years. Sixty-six per cent were married and education varied from primary to college. In Cilandak district, 61% were female and widowed. The owner's age in Cilandak varied between 60 and 82 years, and

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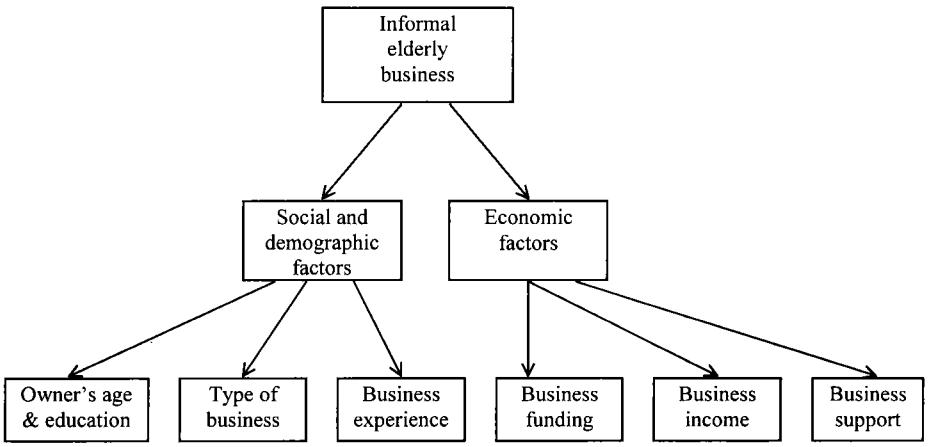
Figure 1. Conceptual framework of informal elderly businesses in south Jakarta



education ranged from high school to college. In Cilandak, the elderly owners were more educated, more active and more likely to be retirees from government and the armed forces.

There were three types of elderly informal business in Tebet district. There was a plastic fashion handbag company using the trademark "E", which used raw materials such as colourful plastics and sewing thread. There was a bakery owned by an elderly couple, which used raw materials such as wheat flour, eggs, sugar, margarine, milk and other baking ingredients. The herbal beverage company using the trademark "DPN" used raw materials such as sugar and a variety of herbal roots. The businesses generally employed 2-6 workers.

In Cilandak, elderly-owned businesses consisted of catering (small to full meals), weaving, paper recycling and small shops. The weaving business produced napkins from cleaned flour bags with various designs. The finished products of the paper recycling business were paper wrappers, greetings cards, and paper gift boxes. These products are distributed to a large international bookstore in south Jakarta and to clients who know the business from friends and community exhibitions. Another side-business was paper publishing and reselling of used paper for small merchants in the traditional market. Small shop merchants focused on selling furnace oil, vegetables, and general groceries. They generally employed 2-4 workers. The number of workers was greatly dependent on the number of client orders during a given time period.

The business experience of elderly owners in Tebet district varied between 3 and 17 years. The business was generally started at retirement to fill their leisure time. Recently started businesses were the bakery and herbal beverage company, while the oldest informal business in Tebet district was the handbag company. In this case, the owners were former employees of a handbag factory. After the couple retired from the factory, they developed their own small handbag business.

In Cilandak, informal businesses run by the elderly developed mainly as pastimes. Business experience of the elderly owners varied from 5 to 7 years. The recycling business received technical assistance from UNESCO. The owner, besides running the business, also served as trainer for school drop-outs interested in recycling activities. Table 1 summarizes the social demography of informal elderly businesses in south Jakarta.

Table 1. Social demography of informal elderly businesses in south Jakarta, 1998

Variable	Tebet (N=3)	Cilandak (N=12)
Owner's age (years.)	53 - 60	60 - 82
Owner's education	primary - college	high school - college
Type of business	handbags (1) bread bakery (1) herbal beverage (1)	catering (4) weaving (1) paper recycling (2) small merchant (5)
Number of workers	2 - 6	2 - 4
Business experience (years)	3 - 17	5 - 7

Economic aspects

All informal elderly business was self-funded at the beginning, apart from being partly supported by children and other members of the extended family. The initial amount of money used to set up the business was between US$ 0.10 for the handbag company in 1965 and US$ 25.00 for the bakery and beverage companies in 1996.

Information on initial funding of informal elderly businesses in Cilandak was provided by the furnace oil and recycling business owners. Initial funding was in the range of US$ 40.00 for furnace oil to US$ 80.00 for recycling in 1993. However, no data was available for catering, weaving and other small merchants. They did not record initial funding used to start the business because the business began as a hobby or pastime.

Gross monthly income of informal elderly businesses varied between US$ 45.00 and US$ 3120.00 in 1998. The lowest income came from herbal beverages in Tebet, namely US$ 45.00. This home industry produced 32 bottles of herbal beverages per week, with a nominal price of US$ 0.35 per bottle. The highest income was from the handbag company in Tebet district, namely US$ 3120.00. This home industry produced 120 handbags per day with a nominal price of US$ 1.00 per handbag.

In Cilandak district, the catering business depended on orders from customers. The cost of the meals varied from US$ 0.50 to US$ 20.00. Usually group meal orders varied from 30 to 200 people for each group order. Thus, each group meal order amounted to between US$ 15.00 and US$ 100.00. Other informal elderly businesses such as catering, weaving and small shops also based their monthly income on customers' orders. The paper recycling business was dependent on people selling used paper or on the amount of paper collected at the waste disposal. The price of recycled paper was approximately US$ 0.20 per kilogram

before the economic crisis in Indonesia. Presently, the price of paper has doubled in the traditional marketplace since the start of this crisis. The daily income from selling recycled paper products was US$ 7.50. Products in great demand were envelopes, wrapping paper, letter writing paper, paper bags, small note sheets and greetings cards.

All informal elderly businesses related to food products were registered at the Ministry of Health. However, the development of informal businesses was not supervised by the Ministry of Small Industries. Occasionally, a simple management training course for small businesses was provided by the economics faculty of a local university. No assistance was given for the occupational health and safety of workers by the local health centre. No routine hygiene and sanitary inspection was conducted by the local health centre, except in the case of occasional food poisoning outbreaks in the area. Marketing opportunities came from the occasional "elderly fairs" conducted by the community. Marketing of products was primarily via local vendors and small shop owners, though some products were mass-produced to fill orders from larger shops. From the point of view of marketing, the Tebet elderly businesses seemed more organized compared to their counterparts in Cilandak, mainly due to the coordinating activities of the local health centre. Table 2 summarizes the economic aspects of informal elderly businesses in south Jakarta.

Table 2. Economic aspects of informal elderly businesses in south Jakarta 1998

Variable	Tebet	Cilandak
Business funding	$ 0.10 - 25.00	$ 40.00 - 80.00
Business income (monthly)	$ 45.00 - 3120.00	$ 210[2]
Business support	Presently no support provided by small industries and health agencies	

Conclusion

- Businesses in the informal sector are an appropriate way for the elderly to fill their leisure time and do not require extensive premises, a large number of workers or expensive equipment and may be located in the home. If the business is developed properly, it will be a source of income and provide the basis for the development of a grassroots economy in Indonesia.

- Even though the funding required for these businesses is not substantial, more facilities should be given to them in order to help them and thereby contribute to the welfare of the community and help build a solid foundation for the national economy.

- More attention should be given to these specific elderly small industries by the Small Industries agency. Help could focus on simple, modern marketing and management capabilities for elderly owners. If this business sector is developed consistently, there is great potential for it to develop into a larger industry in the future.

[2] for recycling business only

- In the health sector, we recommend that health education and promotion in sectors such as occupational health and safety of workers, personal hygiene, and the safety of food products be provided to the elderly owners. In this way, they will be empowered to increase the quality and productivity of their business in the informal sector.

Acknowledgement

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Using primary health care principles to explore community services to Australians with dementia

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Like most other developed countries, Australia has an increasing number of people with dementia. With a population of only 19 million, we have an estimated 135,000 people suffering from dementia – a figure that is predicted to rise significantly in coming years (*1, 2*).

Of the chronic morbidities associated with an ageing population, adult-onset dementia poses one of the greatest challenges to families and health services. First, the person suffering from dementia will require increasing levels of supervision. Second, the possible onset of incontinence, behavioural problems, wandering and falls may result in the person requiring admission to long-term care. The financial burden placed on families and the state to provide such long-term care can be enormous. Finally, caring for a person with dementia in the community can be stressful to the family care-givers. Internationally, studies have repeatedly shown that caring for a relative with dementia is often highly distressing for family care-givers – many of whom are elderly and infirm themselves.

Against this backdrop, the present study was conceived and conducted in Perth, Western Australia. In this paper I discuss how primary health care principles were used to explore the effectiveness of services providing support for families caring for a relative with dementia.

A comprehensive primary health care model, as set out in the Alma Ata Declaration (*3*), and later in the Ottawa Charter (*4*), identified a number of principles necessary for the equitable and efficient delivery of community health care. Five of these principles were identified as pertinent to the community management of dementia:

- appropriate services;
- coordinated care;
- accessibility of support services;
- multisectoral care and collaboration;
- continuity of care.

These principles were used as a conceptual framework for exploring and analysing possible service deficiencies.

Method

The study used a qualitative methodology to research families and support agencies responsible for managing dementia in the community. The support agency component of the study used in-depth, exploratory interviews with 23 general practitioners and 22 nonmedical

support agencies. Both the interviews and the analysis were informed by the primary health care principles outlined above.

Using a pre-existing structure, such as principles of primary health care, is a departure from the conventional approaches to qualitative research outlined authors such as Strauss & Corbin (*5*) and Taylor & Bogdan (*6*). In a conventional qualitative methodology, the research aims to impose as little structure as possible on the interviews. Instead, each interview is informed by the themes emerging from previous interviews.

Despite the benefits of the conventional approaches to qualitative research, the methodology is time-consuming, costly and impractical for poorly accessible regions. Because of these difficulties, researchers often resort to the traditional survey methods. While surveys have the advantage of economy, they are often inadequate for exploring the complexities associated with dementia management.

In this paper I outline an alternative approach to qualitative research in the assessment of community support services for dementia. I believe a more eclectic mix of qualitative research methodologies offers a cost-effective alternative and is consistent with the procedure advocated by Miles and Huberman (*7*).

The present study integrated an extensive literature review guided by the principles of primary health care. The salient principles were later used to guide the collection and analysis of the interview data.

Not only is the primary health care approach to qualitative research more cost-effective but it also has the advantage of producing explicit and practical outcomes. The usual goal of conventional qualitative research is the identification of unifying concepts, themes or theories from the research data. While such aims are laudable for achieving an in-depth understanding of a problem, they may not necessarily suggest practical solutions. However, using primary health care principles rapidly focuses the interviewees on the various dimensions of community care services for the aged – particularly service deficiencies. Table 1 highlights the differences in the two approaches to qualitative research for assessing the effectiveness of community care services for the aged.

Findings

The findings below illustrate some of the outcomes that can be derived from the primary health care approach to qualitative research.

Principle of appropriate services

The general practitioner data suggest that there are two distinct styles of general practice evolving in Western Australia. One style of practice is characterized by having multiple general practitioners working in the practice, has a rapid patient throughput, prefers younger patients, and concentrates on discrete, acute organic diseases. The other type of practice tends to be smaller, is less concerned with rapid throughput, deals with older patients, and has a higher proportion of chronic or nonorganic cases. Given the complex needs of people

suffering from dementia and their family care-givers, this move towards large rapid practices was felt to be inappropriate for the effective community management of dementia.

Table 1. Conventional and primary health care approaches to qualitative research for assessing dementia support services

	Approach	Outcome	Cost
Conventional	Open unstructured approach during the early data collection phase.	Identification of unifying concepts, themes or theories associated with support services. Greater in-depth understanding of strengths and weaknesses of services. Firm practical recommendations may not be an outcome or a goal.	High, because the unstructured approach requires multiple interviews before the key themes emerge.
Primary health care	Extensive literature review to identify deficiencies or areas for improvement to support services. Issues arising from the review are classified under the appropriate primary health care principle. The main principles identified are then used to structure and focus the interviews.	Identification of service deficiencies or areas for improvement. Firm practical recommendations for improved health service delivery is an expected outcome.	Relatively low because the existing structure focuses the interview on key issues

Almost a quarter of the respondents felt that support programmes were often inappropriate for male family care-givers. For example, most male care-givers reported they gained little relief from support groups. Given that in Australia approximately 20% of care-givers for the aged are male, designing intervention programmes that more accurately reflect the needs of males could play a useful role in more effectively supporting this group of care-givers.

Australia has a number of federally funded programmes for the support of people in the community. The way these programmes are structured and administered varies. For example, the large programmes are usually administered through local councils and mainly subcontract services through other agencies to provide home care support.

Alternatively, some regions have small programmes linked to organizations like community nursing services. The case managers associated with the smaller community options have more direct control over the appointment and provision of their support staff, such as home care or nursing aides, or home handymen. Furthermore, since the staff are required to provide an ongoing report directly to the case manager, the care-giver's and patient's changing needs could be more precisely monitored. In short, these smaller programmes were reported to be much more appropriate for care-givers and patients with complex care needs.

Principle of coordinated care

An obstacle to effective coordination was the perceived over-assessment of care-givers and their dependent relatives. Over one-third (37%) of the interviewees felt that the failure of some agencies to accept assessments made by another service provider led to duplication and poor coordination. The major cause of the problem stemmed from the purpose of the assessments. A number of support agencies felt that the assessments were not truly focusing on the underlying needs of the patient or care-giver. Rather, they were just using a checklist to verify the patient's or care-giver's eligibility to receive the agency's services, or simply as part of an administrative ritual.

Principle of accessible support services

The shortage of emergency respite services was another concern raised by general practitioners and support agencies. General practitioners often had to deal with situations where care-givers were suddenly unable to provide care to their dependent relative. This meant the general practitioner had to arrange emergency respite at short notice. The shortage and lack of access to emergency respite meant the general practitioners had to admit their patients to acute hospital settings. Not only was such an arrangement costly, the setting was also inappropriate for the patients themselves-particularly if they were severely disorientated or wandered.

Principle of multisectoral care

The exploration of multisectoral care highlighted a paradox among the general practitioners. On the one hand, they general practitioners would speak of the hardships family care-givers were experiencing, and would bemoan the fact that they never had sufficient time or remuneration to attend to the care-giver's emotional and instrumental needs. On the other hand, there was a reluctance to refer to agencies with the time, resources and expertise to meet these needs. This reluctance to refer often deprived care-givers and care receivers of adequate support-especially during the early stages of the dementing process.

Principle of continuity of care

In Australia, patients are encouraged to continue using their own general practitioners after they enter nursing home care. However, because of the distance families had to travel to find a nursing home suitable for a person with dementia, their general practitioner was often reluctant to travel to the nursing home. Thus the nursing home admission represented a break in the continuity of care.

Conclusion

Despite increased government funding to dementia support programmes in Australia, deficiencies in these services still exist. Deficiencies were particularly noted in the coordination of care, interventions appropriate to the needs of family care-givers, and multisectoral management. The study was able to demonstrate the utility of using primary health care principles as a conceptual framework for exploring the effectiveness of community support services.

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Health status of older persons in China

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This paper reports on the morbidity and mortality of age-related diseases including hypertension, stroke, coronary heart disease (CHD), cancer, diabetes, senile dementia, benign prostatic hyperplasia (BPH) and osteoporosis experienced by older persons in China. It also discusses the current social welfare services and health care policy for a rapidly ageing nation in China.

Trends in population ageing

Life expectancy

During the last 50 years, as in many other nations, life expectancy at birth in China increased from about 30 years in the late 1940s to about 70 years in 1989 (Table 1). Compared to other nations, life expectancy at birth in China's urban areas (72.4 years) in 1989 was close to that of some developed countries such as the United Kingdom (72.5), France (72.6) and Italy (72.7). The life expectancy in China's rural areas was lower than that in the industrialized countries but higher than that in many developing countries.

Table 1. Life expectancy at birth

Year	Area	Life expectancy at birth
Before 1949	Nationwide	About 30
1957	11 provinces	57.0
1963	21 provinces	61.7
1975	26 provinces	68.2
1989	Rural area	69.1
	Urban area	72.4

Changes in the size of the older population

According to the national census conducted in 1964, 1982 and 1990, Table 2 shows that the elderly population gradually increased in terms of absolute numbers and percentage distribution over the last 30 years in China. For ages 60 and over, the population increased from about 6% to 9% over the period. Similar levels of increase were observed for those 65 years and above, as shown in Table 2

Geographical variations of older populations

The population of 60 years and above in 1990 in China can be divided into three types based on data from China's 29 provinces and regions. The proportion aged 60 years and over in Shanghai, Zhejiang, Beijing, Jiangsu and Tianjin, was slightly over 17%. These 5 provinces (cities) can be defined as "senior-type" provinces (cities). Eleven provinces had an

Table 2. Population and proportion of older people

Year	Total population in thousands	in thousands (%)	
		Population aged > 60	Population aged > 65
1964	694,580	42,200 (6.08)	24,530 (3.53)
1982	1,003,790	76,650 (7.64)	49,270 (4.91)
1990	1,143,330	98,210 (8.59)	63,790 (5.58)

older population of 8-9% and can be classified as "adult-type" provinces (cities). These provinces are Shangdong, Guangdong, Liaoning, Sichuan, Henan, Hunan, Shanxi, Anhui, Hainan, Hubei and Guanxi. The rest of the provinces containing 5.2% to 7.9% of older people were classified as "young-type" including Fujian, Jiangxi, Shanxi, Yunnan, Taibei, Jilin, Guizhou, Inner Mongolia, Heilongjiang, Gansu, Xinjiang, Ningxia and Qinghai. Some of these, including Inner Mongolia, Qinghai and Gansu, are less developed inland provinces. The 5 senior-type provinces (cities) are more developed and are located in China's coastal regions. The distribution of the older population in China is uneven, with more older persons located in the east than in the west.

Dependency ratio

With implementation of the one-child policy in China, the total fertility rate decreased markedly to the level of 2.3 children per woman in 1992 and the support ratio for the elderly increased accordingly. Table 3 shows that youth support ratios decreased from 0.80 in 1985 to 0.39 in 1995 and the trend will likely continue in the future. The elderly support ratio remained at 0.10 between 1985 and 1995 but will increase from 0.11 to 0.38 over the period 2000-2040.

Table 3. Trends of youth and elderly support ratios (1985-2040)

Year	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040
Youth	.80	.66	.60	.58	.56	.50	.46	.44	.43	.42	.40	.39
Elderly	.10	.10	.10	.11	.12	.13	.15	.18	.21	.25	.32	.38

Characteristics of the ageing population

Most countries took 50 to 80 years for the population aged 65 years and over to increase from 5.0% to 7.0%. But it took China only 18 years to reach the same level. China has the largest number of older people, accounting for 97 million out of the total of 480 million elderly in the world. China has also had a relatively lower level of economic development. Most ageing countries are developed countries with more resources. For example, their GNP per capita is around US$5000 while that of China is less than US$1000.

Health status of older persons

Self-reported health conditions

Data collected from 12 provinces in 1992 (Centre for Chinese Elderly Research) showed that slightly over one-fifth of elderly people reported themselves unhealthy. The proportion of disabled elderly accounted for 53.7% of the total disabled population. Older persons occupied about 85% of the home-beds, indicating the importance of community health care services in China.

Table 4: Self-reported health status by older persons In 12 Chinese provinces, 1992

Status	Male	Female
Healthy	32.7%	38.5%
Fairly healthy	**46.4%**	**40.0%**
Unhealthy	20.9%	21.4%

Causes of death

The common causes of death among older persons in Beijing during 1997-1998 were reported as tumors (19.2%), cerebrovascular disease (16.8%), coronary heart disease (9.7%), pulmonary heart disease (4.7%), infectious diseases (4.7%), kidney diseases (2.0%), pulmonary tuberculosis (1.3%), liver cirrhosis (1.0%) and diabetes (1.0%).

A general hospital-based survey of causes of death among elderly patients in 11 provinces showed the order of causes of death as follows: cerebrovascular disease, cardiovascular disease, cancer and respiratory disease (pulmonary infection and pulmonary heart diseases).

Autopsies performed on 653 elderly patients over 60 years in the National Army General Hospital showed that cancer (42.6%) and stroke (11.2%) were mainly responsible for the deaths.

Analysis of the causes of death among elderly patients aged 60 years and over in Shanghai (Table 5) indicated that the order of causes of death changed with age. For example, the main cause of death in the 60-69 age group was cancer, while in those aged 70-84 group it was cerebrovascular disease, and in those aged 85 and above, it was cardiovascular disease.

Table 5. The cause of death by age in Shanghai

Age	Order of causes of death
60 – 69	Cancer > Cerebrovascular > Cardiovascular > Respiratory
70 – 84	**Cerebrovascular > Cancer > Cardiovascular > Respiratory**
>85	Cardiovascular > Cerebrovascular > Respiratory

Morbidity

The major diseases affecting the older persons in China were hypertension, coronary heart disease, diabetes and stroke. The prevalence rate of stroke in northern China was higher than in southern China. According to the data collected from 9 regions (cities) in China, the most prevalent diseases affecting older Chinese were hypertension (22.4-42.2%), coronary heart disease (5.1-33.8%), cerebrovascular disease (2.5-4.2%), pulmonary heart disease (0.7-6.1%), chronic bronchitis (12.3-30.4%), diabetes (1.4-12.9%), cancer (0.3-4.5%), senile cataract (17.5-86.8%), prostate hypertrophy (3.9-68.8%) and dementia (1.3-3.9%). A survey of 2742 elderly patients in Beijing in 1997 showed that the order of prevalence of geriatric diseases was hypertension (20%), coronary heart disease (15.8%) and stroke (5.4%) respectively.

Hypertension

In 1991, 60 million cases of hypertension were reported with prevalence rates of 11-70% (50% in average) among the older Chinese. Table 6 shows that the prevalence rate of hypertension in Tianjin in 1985 increased with age. Following this, Li *et al* reported (1997) that in a sample of 39 283 aged 15 years and over in Yunan Province 85.6% of the cases of hypertension were in older persons. By age and gender, hypertension among the older persons was much higher than in the younger age group; females had half the prevalence of males and the prevalence in urban areas was 1.5 times higher than that in rural areas.

Table 6. Prevalence of hypertension in Tianjin, 1985

Age	Number	Prevalence (%)		
		Definite	Borderline	Total
60 ~	1392	33.2	8.7	41.9
65 ~	1078	36.2	11.0	47.2
70 ~	1456	35.9	11.8	47.7

Diabetes

Table 7 shows that the prevalence of diabetes among the population aged 60 and over was much higher than that for the age group 30-60 years.

Table 7. Prevalence of diabetes (1980-1995)

Area	Prevalence (%)	
	Aged 30-60 years	Aged ≥ 60 years
Nationwide (1981)	1.4	4.2
Beijing (1982)	2.0	6.8
Shanghai (1980)	1.4	3.8
Daqin (1989)	1.6	2.4 (male) 4.6 (female)
Beijing & Liaoning (1993)	2.8	5.5
Beijing Iron & Steel Co. (1995)	3.0	10.0

Stroke

According to the survey of 63 195 persons conducted in 1982 and of 250 000 persons conducted in 22 provinces in 1994, the prevalence rate of stroke in urban areas was 620 per 100 000, while in rural areas it was 253 per 100 000. The prevalence rate of transient ischemic attack (TIA) was 89 per 100 000 in urban areas and 114 per 100 000 in rural areas. Table 8 shows the prevalence rate of stroke in Chinese older persons in 1986.

There were some geographic differences of stroke incidence, mortality and morbidity being "high" in northern China and "low" in southern China. This phenomenon may be associated with climate, dietary habits (such as salt intake) and other factors. The higher morbidity and low mortality in urban areas and lower morbidity and higher mortality in rural areas may indicate a higher proportion of older people and better health care services in urban areas.

Table 8. Prevalence rate of stroke in Chinese older persons (1986)

Age	Sample	Number of cases	Prevalence rate (per 100 000)
60	197 106	1040	527.6
65	154 447	1169	754.3
70	108 827	1169	1074.2
75	68 564	730	1064.7
80	35 129	428	1218.4
85	18 214	229	1257.3

In populations over 65 years, cerebral infarction accounted for 15-50% of the stroke and cerebral haemorrhage for 50-80% based on data of 19 rural regions (Cao, 1989). Mortality was 546 per 100 000 from haemorrhage and 206 per 100 000 from infarction in urban areas and 490 and 260 per 100 000 respectively in rural areas. It appears that cerebral haemorrhage in many Asian countries like Japan and China is more common than in many western countries. The mortality due to haemorrhagic stroke increased sharply from age 35 in both urban and rural areas while the mortality from infarction stroke increased more markedly from age 55.

Coronary heart disease

As in other nations, the prevalence of CHD among Chinese males over the age of 65 was higher, ranging from 33.19 per 100 000 in Jiangsu to 481.92 in Beijing, than that for females which ranged from 16.49 per 100 000 in Anhui to 310.16 in Inner Mongolia. The average age of onset of CHD in China was 61 for males and 63 for females. As for stroke, the risk factors related to CHD included hypertension, hyperlipidemia, smoking, diabetes, overweight and physical inactivity.

Cancers

Malignant tumors were reported as the first cause of death in China in 1997 and the mortality rate was 135 per 100 000 population, claiming about 1.35 million deaths due to cancer. In the last 20 years, cancer mortality was reported to have increased sharply, in particular in the older population. The mortality from stomach cancer and cervical cancer increased with age and peaked at 70.

Dementia

An epidemiological survey in China indicated that the prevalence of dementia in older populations ranged between 0.4 and 2.2% with an incidence of about 0.3% in urban areas and 0.2% in rural areas. In Shanghai, the prevalence rate was 1.2% including 0.7% of Alzheimer's type and 0.3% vascular dementia. Prevalence increased with age with the highest prevalence in the age group 80 and over.

Benign prostatic hyperplasia

The study of BPH was conducted in different older populations in China. In Nanjing, 310 of 614 retired men were found to have BPH. In Beijing (1995), 116 of 296 elderly persons were diagnosed as BPH cases. The total prevalence rate was 39.2%, but it differed widely by age group: 23.7% in the 40-49 years age old group, 35.2% in the 50-59 years age group and 51.8% in the 60 years and over group. In Zhejiang (1995) province, a survey of 2217 males aged 40 years and over showed that 456 cases were diagnosed as BPH and the prevalence rate was 20.6%.

In Beijing, one study was carried out among 321 male autopsy cases. The prevalence rate of BPH showed an increase with age from 4.8% at 31-41 years to 83.3% at 81-90 years.

Osteoporosis

There are an estimated 60-80 million cases of osteoporosis in China. In Shanghai, the prevalence rate of osteoporosis was 62.7% for older men and 90.5% for older women respectively, close to the prevalence in white older persons in Kentucky, USA (92.0%). The prevalence rates from fracture in Shanghai differed considerably between urban and rural areas: 16.5% (12.4% for males and 19.6% for females) in urban areas, and 6.9% (3.4% and 8.9% respectively) in rural areas.

In general, the prevalence rate of osteoporosis differed according to age and locations (Table 9). In comparison, the rates for females in L2-L4, neck and wards were much higher than those for males in the same age. Data from a nursing home in Guangzhou (1997) showed that the rate of osteoporosis was 34.6%. Data from Xinjiang (1997) showed a rate of osteoporosis for women 2.8 times higher than that for men.

Table 9. Prevalence rate of osteoporosis in Beijing

Age	Men (%)				Women (%)			
	L2-L4	neck	Ward's	trochanter	L2-L4	neck	Ward's	trochanter
60-	13.0	33.0	25.3	13.3	30.0	68.9	73.8	33.6
70-	11.4	55.6	48.1	26.0	51.7	82.1	89.7	48.7
80-	20.6	65.4	50.0	28.8	81.3	85.7	100.0	50.0

Social welfare and health care for older persons

A number of social and economic policies have been carried out to deal with changes in age structure and the challenges of support to older persons in China. For example, urban communities have set up many day-care centres and senior citizen apartments to take care of the elderly. In the rural areas such as townships and villages, community homes were established for the aged, particularly for those who live alone.

As the elderly populations increased in size, policies on social support, social welfare and health care have been implemented in China. Five national targets were recommended and established by the National Aging Committee in 1992.

Financial support

In 1987, data from a sample survey showed that three ways were used to give financial support to the elderly. First, retirement pay covered up to 62.8% in urban areas and 26.2% in rural areas. Support provided by families accounted for 73.2% in rural areas and 35.7% in urban areas. Support by government social welfare accounted for less than 3.0%.

Accordingly, relevant changes in social policies and welfare structures have occurred. A National Elderly Endowment Insurance, Enterprises and Personal Endowment Save Combined System has been established since 1987. The insurance system could also help resolve some of the problems in relation to income support.

Employment

Retired persons can also be employed as consultants to serve various units and agencies in public welfare services. The first personnel exchange centre for the elderly was established in Beijing 1988.

Health care

Hostels, nursing homes, geriatric clinics and especially community health centres provide geriatric services. During recent years home care and home-bed service systems have been established in China. General practitioners have been trained in China to provide public health care in the community. In a county of Heilongjiang Province a two-week health care facility has been organized for the elderly people.

There are many professional institutes of gerontology in China and nearly every province has such an institute. Special clinics for treating diseases of the elderly have been

established almost in all hospitals in urban areas of China. The governments and departments of health care have put special emphasis on the control and prevention of diseases of the aged in China.

Education

Universities and educational centres for older people have been set up since the late 1980s. Traditional Chinese writing, Chinese painting, literature, history, health promotion and other courses have been provided to enable pensioners to enjoy their later life.

Physical exercise and entertainment

Sports centres, senior citizens clubs and marriage management agencies for elderly people have been set up, particularly in the urban areas in China. The activities are mostly managed by civil administration bureaus at various levels and carried out by neighbourhood committees in urban areas. The township governments in the rural areas supported by social organizations have organized activities such as traditional Chinese dancing, Chinese chess and card games for the elderly.

An ageing society in Hong Kong[1]

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Many programmes have been developed over the past two or three decades to serve the needs of the ageing population in western industrialized countries. In much of Asia and the Pacific, the increase in life expectancy and the rapid reduction in fertility is bringing about rapid and intense demographic ageing (*1, 2, 3*). These countries will overtake many western countries in the number and percentage of elderly population in the next century and, indeed, by the next century the majority of the world's ageing population will be living in Asian countries (*4*). In contrast to the western industrialized countries, which in general took over 100 years to arrive at aged communities, the Asian countries will take less than 40 years to complete the same process. The success with which societies cope with the rapid ageing phenomenon will depend heavily on whether central and local governments, health and welfare authorities and other agencies have taken appropriate action to prepare for population ageing. In addition, societies, individuals and families will also have to prepare themselves for the changes related to population and personal ageing. There is thus clearly a need for the development of the discipline of gerontology in the region, both as a general preparation of people for the coming phenomenon and with regard to the provision of professional education, training and research in relation to population ageing.

Rapid population ageing in Asia and the Pacific can be well illustrated by the experience of the Hong Kong Special Administrative Region of China, which is second only to Japan in this respect.

Demographic ageing in Asia and Hong Kong

The proportion of the elderly population will increase progressively in the developing countries over the next 20 years or so (*5, 6*). More importantly, the number of elderly people aged over 80 will increase dramatically. Those aged 80 and over will increase in the less developed countries from 29 million in 2000 to 67 million in 2025. The magnitude of the problem to be faced by these countries can be easily imagined. The majority of the aged population will be residing in China and India, which will be home for 134 million and 65 million elderly people respectively by 2000. By 2025, China itself will probably have around 284 million elderly people. By 2000, the proportion of elderly people in China will likely exceed 10% of the total population and, by 2025, some 20% of China's population will comprise elderly people. China alone will also probably be home to 25 million people aged over 80 by 2025.

Hong Kong has been ageing rapidly over the past 15 years. In 1986, the percentage of elderly people already exceeded 10%. This ageing is also coupled with a rapidly increasing life expectancy. It has been projected that the percentage of the population aged 65 and over will increase from 10% in 1996 to 12.5% in 2016 and 19.5% in 2036 (*7*). In addition, there will also be a rapid increase in both the number and proportion of people aged 85 and over.

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The elderly dependency ratio will steadily increase from 125 in the year 1991 to 167 in the year 2006 (Table 1) (*8*). Demographic data during the past 20 years have demonstrated that Hong Kong has entered a phase of rapid ageing. Hong Kong ranks second in demographic ageing in Asia and the life expectancy of Hong Kong's population has bypassed that of most western countries. The ageing experience in Hong Kong could serve as a useful experience in preparing for ageing in other Asian countries.

Table 1. Projected dependency ratios in Hong Kong, 1991-2011

	Mid-1991	Mid-1996	Mid-2001	Mid-2006	Mid-2011
Population	5 686 600	5 884 700	6 080 500	6 282 100	6 479 800
Percentage of population					
0-14	21%	18%	16%	15%	15%
15-64	70%	72%	72%	73%	73%
≥ 65	9%	10%	12%	12%	12%
Age dependency ratio					
Child	297	253	225	211	208
Elderly	125	145	161	167	169
Overall	422	398	386	378	377

In most aged societies, the key changes are not only demographic but also socioeconomic and structural. In the 1991 census of Hong Kong, it was found that some 23% of all elderly people living in the community were either living alone or with their spouse only. The economic situation of many elderly people is worrying. In a review of the labour participation of elderly people, it has been shown that there has been a trend of progressive reduction of labour force participation among elderly people since 1971. The percentage of elderly people over 65 years who are engaged in work dropped from 21.6% in 1971 to 13.8% in 1991 (Table 2).

A number of changes can be seen in Hong Kong's ageing experience and many are visible to greater or lesser extents in other similar Asian countries:

- a progressive reduction in average household size;
- the extended family (previously a major mode of family life) has been largely replaced by nuclear families;
- almost one-quarter of Hong Kong's elderly population is either living alone or with spouse only;
- elderly people in Hong Kong cannot automatically or solely rely on their family for care and support;
- the reduction in labour force participation highlights the employment and income insecurity of older people;
- there is a widespread feeling that "Asian values" of family care and filial piety have been eroded or even disappeared, yet in practice official policy still relies heavily on care by the family.

Table 2. Proportion of elderly working persons in the elderly population by age in Hong Kong, 1971-1991

Year	Elderly population	Number of elderly working persons	Percentage in the elderly population
60-64 Age group			
1971	115 701	53 803	46.5%
1976	155 380	67 230	43.3%
1981	180 209	83 472	46.3%
1986	209 614	84 874	40.5%
1991	234 861	86 966	37.0%
65+ Age group			
1971	177 572	38 436	21.6%
1976	242 800	48 520	20.0%
1981	326 809	76 288	23.3%
1986	408 542	75 935	18.6%
1991	482 040	66 419	13.8%

Elderly people and society

In any aged society, a number of issues need to be addressed, many of which are underpinned by the need for well-founded research. As Mamo (*9*) in the same workshop background paper points out, many developments in the establishment of services for elderly people and, indeed, in the wider fields of social care, have tended to be opinion-based rather than research founded. Indeed, a lack of adequate understanding of the delicate relationship between elderly people and the above issues will exacerbate societal problems. The key areas identified are described below.

The family

In most industrialized countries, the family continues to function with good relationships maintained between ageing persons and their adult children. Even in the most developed countries, the family continues to provide most health care and support services to older persons, especially through daughters and daughters-in-law. However, demographic changes will increasingly affect the capacity of the family to continue its care-giving role. Most salient features are the reductions in birth rate and the resulting decrease in the number of children available in any family to care for ageing parents.

A second factor affecting families as care providers is the increase in numbers of the extreme aged (the "oldest old"), who may require intensive nursing and other support. While family members may wish to continue care for very elderly relatives, they will in most cases lack the skill and physical capacity to provide continuous nursing supervision. Linked to the growing prevalence of the extreme aged is the increasing probability of families with four or five generations. It therefore becomes exceedingly difficult for a middle-aged person to care

for two generations of elderly relatives, in addition to carrying out the roles of parent and grandparent. Migration, family separation and splits following divorce (increasingly common in Hong Kong) also reduce the ability of the family to care for elderly members. The predominance of widowed women among the elderly is a further factor affecting the availability of family support. The loss of a spouse means loss of socioeconomic support and companionship and makes older women particularly vulnerable to poverty and social isolation.

A major current policy issue is how to find a proper balance between the family and government assistance. How may families be helped to continue to be responsive to the affective needs of elderly members and yet provide outside care when critically required? Social policy must take into consideration not only the needs of the aged persons but also links between the generations.

Community and home-based care for older persons, in the sphere of health, housing and social welfare, are central measures for supporting the family. Professional assistance, financial aid and counselling services need to be made available to families caring for disabled or chronically ill ageing members. Respite care is also required to provide periodical relief to such families and economic policies must ensure that they are not directly penalized for carrying out their care-taking roles. A combination of service and financial policies is therefore required to strengthen the capacities of families to respond to the needs of their ageing members and to permit the continued integration of the ageing in family life.

Health

For elderly populations, specific health goals include the achievement of maximum independence and productivity and also the prevention of debilitating conditions in old age through healthier lifestyles, early diagnosis, environmental safety and health education. With respect to the provision of health care services, the elderly should have free choice and accessibility.

Housing

Housing programmes for the elderly must be coordinated with community health and social welfare programmes, provision of opportunities for employment, education and recreation, and creation of a safe transport infrastructure. Size of housing units is crucial, as units that are too small will not be suitable for multigeneration occupancy. This could undermine other social policies with respect to family care.

Social welfare

A central goal of many contemporary social welfare programmes is to provide support at community level, to permit elderly people to remain in their familiar environments for as long as possible. Institutional care is increasingly de-emphasized, in recognition of the fact that community-based services are more supportive of the psychosocial well-being of elderly persons and more effective in economic terms. Social welfare programmes encompass a broad range of preventive, remedial and developmental services for the elderly.

Income security

The availability of an adequate income is a central concern of many older persons and a prerequisite for obtaining proper housing, good nutrition and many other elements of well-being.

Employment

For older persons, continued employment can serve simultaneously to maintain personal earnings, to promote participation in the social and economic life of the community and to ease the burden placed on national resources for support of the economically inactive elderly. It may be essential in cases, common in Asia, where pensions are non-existent and savings and family care inadequate. Continued working may be as much a necessity as a choice. Policies to promote employment among elderly people should include the creation of suitable and safe work environments, the adjustment of work schedules and provision of vocational counselling and training. Sadly, elderly people in Asia are all too often employed in inappropriate manual and dangerous, low-paid, tasks.

Education

There are clearly multiple needs among ageing populations. Social gerontology is one relatively new subject in Asia that can provide multidisciplinary involvement. Indeed, there is a pressing need for research on various areas of needs of an ageing population, both to inform policy and to develop professional and public education programmes. The complex interrelations between demographic changes, socioeconomic patterns in the ageing community, health status, caring patterns of elderly people, changing cultural attitudes towards elderly people, epidemiology and the development of policy-making are rarely properly addressed by any single discipline. The cooperation among the various disciplines in gerontology such as geriatric medicine, the various social sciences, nursing professionals, rehabilitation professionals, epidemiologists and others, is increasingly recognized as contributing to the provision of appropriate support services and care for elderly people.

The development of such services will demand an increasing number of professionals and care providers. They will come from students in the disciplines of health care such as medicine, nursing, physiotherapy, occupational therapy, social work and the social sciences related to medicine (for examples, see the journal *Social Science and Medicine*). Classically, clinical medicine has tended to underestimate the contributions of social change to its own impact. There is a strong need for the joint development of the disciplines of gerontology and geriatric medicine in the tertiary institutes to prepare the majority of professionals who will be providing care for elderly people.

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A model of community health care for the elderly in Shanghai

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The aged population of Shanghai has been increasing since 1979 when the proportion of elderly aged 60 years and over was 10.2%. Based on data from the Shanghai Ageing Committee, by the end of 1996 the proportion of elderly had risen to 17.87% (2.31 million elderly). The population of the oldest old, aged 80 years and over, has increased more rapidly and in 1996 had risen to 10.7%. The Shanghai Municipal Health Bureau's sampling survey showed that 74% of the elderly suffer from various chronic diseases, 1.5% are disabled or handicapped and 3.46% suffer from Alzheimer's disease. The leading causes of death in the elderly are cerebrolvascular disease, coronary heart disease, pulmonary heart disease, cancer and accidents. The proportion of bedridden elderly for whom long-term or special care is needed amounts to 4.8%.

In recent years, community health care for the elderly has much improved and 55.2% are covered by medical insurance. Four geriatric hospitals and 29 nursing hospitals for long-term and terminal care, with more than 4000 beds, have been established. This paper describes a pioneer model of community health care for the elderly.

The model community, NanXi community, is one of five communities in the JingAn urban district of Shanghai. The total population of NanXi was 45 800 in 1990 and 77 900 in 1997 the population increase being due to a readjustment of community boundaries. The proportion of the elderly aged 60 years and over increased from 22.10% to 25.22% and the proportion of the oldest old, aged 80 years and over, increased as a percentage of those aged 60 and over from 10.19% at the end of 1990 to 14.61% at the end of 1997.

The community primary health care service has been operating for more than three decades, with continuous improvement. A three-level network of health care designed specifically for the elderly was established in 1990. The network comprises a municipal hospital (HuaDong Hospital) and Shanghai Geriatric Institute, a district hospital (JingAn Geriatric Hospital) and JingAn Geriatric Health Centre, and a community hospital (NanXi Community Hospital).

The role of the municipal level is to study and investigate geriatric health care issues in the community and to provide comments and suggestions for the promotion of community health care services to the elderly. The district level organizes and assists the community hospital in planning geriatric health in the community. The community role is to plan communal geriatric health care and to provide and deliver a variety of health care services to the elderly in cooperation with the Community Administration Office and community health stations.

The aim of the pioneer community health care programme for the elderly is to improve both health status and quality of life of the elderly. The 50-bed community hospital plays a fundamental role in the network. It provides a convenient medical service to the elderly outside the hospital as well as in it. Doctors, nurses and public health professionals

serve the elderly community at community health stations or in their own homes, and periodically carry out general examinations, particularly among the oldest old.

Eight community-based health stations with 16 trained health care professionals and 18 health consulting stations with more than 30 retired medical workers have been established in the community. They provide health care, rehabilitation, health education and disease prevention services to the elderly, in collaboration with community hospital professionals.

The community hospital cooperates with schools in organizing a series of lectures on self-care for the elderly.

A health monitoring network has also been developed in the district. The elderly are divided into three categories. In the first category are those aged 90 or over plus the elderly disabled. The second category includes those 80 years and over and those elderly with illnesses requiring follow-up. In the third category are all other elderly groups. Community doctors, nurses and health professionals visit the elderly according to their particular needs.

Based on the project Serving the aged, a variety of group activities aimed at providing support services and improving the quality of life of the elderly have been organized by the Community Administration Office. These include a household service programme, care groups for the single and lonely, a home for the elderly, performances by Peking Opera Society, a canteen, painting and calligraphy groups, a dance club, a choir, a gardening club, a knitting group, annual sports meetings, morning exercise classes, etc. In addition each of the 198 disabled or single elderly is provided with an emergency electric bell to call for immediate help.

According to statistical data, the average life expectancy of the district's population increased from 67.5 years in men and 71.5 years in women in the 1960s to 76.1 years in men and 79.3 years in women in 1996. The healthy life expectancy of the elderly in the model community increased from 14.6 years in men and 14.45 years in women in 1990 to 18.7 years in men and 20.2 years in women in 1995. The rate of dependency in physical activities of daily living of the elderly decreased from 4.8% in 1990 to 1.8% in 1993.

The model of community health care for the elderly has proved successful in the Shanghai JingAn district. The programme is still ongoing and is developing in other districts.

The profiles and challenges of ageing population – the case of Japan

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The total population of Japan is currently about 126 million, and is expected to reach its peak in the year 2007. Currently, the population of elderly people aged 65 or older represents 16.2%, or about 20 million. By the year 2025, this percentage is estimated to grow to 27%, and by 2050 one-third of Japan's population will be over 65 years of age.

The number of elderly people in need of long-term care due to infirmities, dementia and other conditions will also sharply increase. The number will double during the next 25 years.

If we look at all social security needs – pension, medical services, and welfare services including long-term care – collectively the total security needs will grow to 33.5% of the national income, of which 13% is medical. In real cash terms, expenditures for medical services will grow to US$760 billion as compared to the current level of US$200 billion.

As a policy preference, Japan wishes to keep the overall burden of public expenditures against its national economy below 50%. In order to meet this requirement, structural reform of the social security system is an absolute necessity.

In 1998 it is estimated that the gross national expenditure on medical services is US$240 billion. The expenditures for the elderly (principally the population over 70) account for one-third of the total.

Focusing more on systems to cover expenditures for elderly care, three major events in the history of Japanese social security can be identified.

In 1961, Japan achieved universal coverage of all Japanese citizens by one or other health insurance system. Insurance systems to cover employees had existed for a long time and, by that year, Japan's community health insurance system covered the rest of the people throughout the country. In this community-based insurance system, or National Health Insurance, municipal governments take responsibility for collecting premiums from their residents and for making payments to doctors and medical facilities. The National Health Insurance scheme covers roughly 70% of medical bills, with the rest paid by clients themselves. The full coverage of people by public health insurance schemes has since been considered one of the most important aspects of Japan's health service system.

Japan's economy enjoyed rapid growth during the decade after that, and the government introduced a provision for covering user charges for elderly people by public funds so that they can receive medical care free of charge.

By covering people in the community rather than people in the workplace, the National Health Insurance has a large percentage of elderly people among its beneficiaries. This means that after a few years the balance sheets of National Health Insurance systems became critical, despite the fact that they were heavily subsidized by the state government.

The second major event took place in 1983, when a health insurance scheme for the elderly was introduced. In this system, elderly people belong to either the National Health Insurance or to one of employee's insurance as dependents of policy-holders, or in a few cases as policy-holders themselves. Elderly people continue to pay premiums to the insurers of their respective insurance schemes.

All insurers pay contributions to a special account that has been set up to cover medical costs for elderly people of 70 years and above. The funds of this special account are distributed to each municipality which, in turn, is responsible for making payments to doctors and medical facilities.

The principle is that the contribution from each insurer is calculated in proportion to the number of its members regardless of their age. In other words, insurers of employees are invited to contribute a substantive amount of the funds even though their clients are mainly younger people.

In the current system, some 60-70% of medical costs for the elderly are covered from this source which is principally a system of financial adjustment operating by the mutual collaboration of insurers. Elderly people themselves are also invited to pay a modest amount of user charges that collectively account for some 8% of the medical costs of the elderly. Slightly more than 30% of the revenues of this special account come from the state, prefectural and municipal governments

It is not hard to imagine that employees' medical insurers are not comfortable with the current system. As medical expenditures increase, even these insurers are not well off.

It is not easy to contain medical costs, sustain sound administration of insurance systems, and at the same time ensure provision of adequate levels of medical services.

Reform of the current system is thus a matter of heated debate at the moment. The government, in close collaboration with the political parties, has been addressing this matter since the latter half of 1997.

The third major event regarding elderly care is the establishment of an insurance system for the long-term, personal care of the elderly. Bills setting out the principles of this insurance system already passed Japan's parliament. We are now in the process of designing details of the system ready to launch it in April 2000.

In the past, Japan's long-term personal care for the frail elderly, except for medical services, has been provided through a welfare service system. Welfare services are typified by special nursing homes, principally for meeting meet the nonmedical care needs of the frail elderly who are not able to stay at home, as well as sending assistants to client's homes

(home helpers) to assist in their daily life. Providing these services is the responsibility of municipalities. Because the principal design of the welfare system was drawn up at a time when the number of elderly people was far smaller than now, the municipalities are currently supposed to provide these services as a remedial arrangement. These services are completely funded from tax revenues, and it is principally up to the municipality to decide whether or not a particular service is needed by a particular frail elderly person.

As the need for care services grows, however, the government has been committed to drastically extending the bases for the provision of personal care services such as special nursing homes, day service centres, home helpers, visiting nurses, short-stay facilities, and so on. In other words, Japan is trying to sharply increase the number of these services. This initiative was led by the finance and the home affairs ministries, as well as by the health and welfare ministry, in coordination with the political parties, and is called the Gold Plan. During the period 1995 to 1999, it is estimated that US$33 billion will have been spent by the national government to achieve the goals of this Gold Plan.

The introduction of the new insurance system for long-term care is intended to accomplish the following:

- reconstruction of the current service system according to users' choice;
- clarification of the relationship between provision of services and collection of charges for long-term care;
- sustaining of a system to guarantee personal care services which are the largest cause of anxiety for the future among ordinary Japanese people;
- distinguishing long-term personal care services from medical services to be covered by health insurance; and thus making a first step towards reform of social security system as a whole.

Japan considers this as a necessary investment for the future.

Preferences of the Japanese elderly and policy implications for public health services and family support[1]

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The provision of long-term care for the aged is becoming increasingly important, given the anticipated sharp growth in their proportion of the population. The target for the year 2000 in Japan is for the national programme to provide services to 50% of the elderly in need of home health care. Due to the rapid increase in expenditure on the elderly in hospitals, the Japanese government has tried to increase the use of community-based home health care services. A recent measure taken by the Japanese Ministry of Health and Welfare has been to reduce reimbursement rates to general and geriatric hospitals. The objective is to provide an incentive to reduce the length of elderly patients' hospital stays. Along with this measure, the historic shortage of long-term nursing facilities has also forced the elderly to rely more on home health care services. The lack of adequate long-term care is having substantial effects on frail elderly people and their immediate supporting family and the provision of home health care services within the framework of a long-term care system is becoming one of the most urgent tasks of the Japanese welfare system.

A number of studies with various approaches have been conducted analysing home health care services in the USA. Swan & Benjamin (*1*) examine Medicare home health care use, grouping all types of services into a single bundle. However, Moscovice et al. (*2*) and Kemper (*3*) differentiate between formal and informal home health care services to analyse characteristic determinants. Frederiks et al. (*4*) rather focus their analysis on skilled and semiskilled services of home health care while Gonzales (*5*) has a different focus to find economies of scope of home health care services, and finds that home health care agencies provide more services than an optimal level. Hughes et al. (*6*) find a moderate impact of home health care services in reducing hospital days. For informal care, Pezzen et al. (*7*) emphasize that a choice among alternative combinations of formal and informal care depends on a family living arrangements

A number of previous studies have evaluated home health care for the aged in Japan. Despite the importance of these studies, there is a general lack of empirical research examining the factors that influence long-term care utilization, especially home health care, in Japan. Using aggregate Japanese data, Chuma et al. (*8*) rather emphasize institutional long-term care. A particularly interesting result is that the number of public home-helpers hired by local governments increases demand for home health care but decreases demand for care in welfare facilities and hospitals. Hiraoka et al. (*9*) studied 439 elderly individuals in need of care and 662 elderly persons living alone in Tokyo. They find a gap between their estimation and the government plans, and note that a drastic expansion in home services will be required in the future. Kimura (*10*) simulates the expenditures of home health care and suggests that less expensive home health care services compared with hospital care will be an option

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guaranteeing quality of care. Yamada et al. (*11*) provide strong evidence of the negative relationships between nursing home care and community-based formal home care, and state that well organized and well developed community-based formal home care is a viable option to substitute for costly long-term care at hospitals and nursing homes.

While acknowledging the contribution of previous studies on the delivery of home health care services, our study extends these analyses by using a more detailed approach to the micro data on Japanese elderly people aged 65 and over. The key feature of our approach is to examine how both different measures of health status and family-related resources affect nine types of home health care services. An examination of socioeconomic and demographic characteristics of the elderly similar to those of the US studies, but from different national characteristics, will provide a new insight into the literature and fill a gap. We regard this analysis as particularly worthwhile, since understanding the determinants of different types of home health care services is essential for the design of an appropriate long-term health care programme and is important in planning the optimal provision of home health care services. Such planning will help policy-makers to implement home health care programmes and coordinate these services with other long-term health care services.

Method

A simple theoretical model

In our model, a typical elderly person is assumed to be a rational individual whose utility at any given time, U_i, is a function of "healthy time" and a composite good. Healthy time is produced by the use of home health care services and the individual's stock of health. The individual faces a binary choice represented by a random variable y_i that takes the value 1 if the person chooses home health care services and 0 if the choice is not made. If P_i is the probability that y_i takes the value 1, then 1- P_i is the probability that y_i is 0. This can be summarized by writing the probability function for y_i as

$$f(y_i) = P_i^{yi}(1 \quad P_i)^{1-yi}, \text{ where } \quad y_i = 0,1.$$

We then define the individual's utility derived from the choices as follows:

$$U_{i,yi=1} = {}_1E(HT_1) + \mathbf{X}'_1 + e_{i,1} \text{ , and}$$
$$U_{i,yi=0} = {}_0E(HT_0) + \mathbf{X}'_0 + e_{i,0} \text{ ,}$$

Where $E(HT_i)$ is the expected healthy time, i.e. $E(HT_i) = {}_i y_i + {}_i STH$, $i = 0,1$ and $y_i = 0,1$; STH is the individual's health stock; **X** is a vector of the individual's socioeconomic and sociodemographic characteristics and a composite good; and e_i is a random disturbance. The individual will choose home health care services only if $U_{i,yi=1} > U_{i,yi=0}$ by maximizing the utility subject to his/her budget constraint. The probability that $y_i=1$ is:

$$P_i = \text{Prob}[y_i=1] = \text{Prob}[U_{i,yi=1} > U_{i,yi=0}].$$

The cumulative density function of the logistic random variable is

$$F(y_i=1) = 1/[1+\exp^{-(1+\ 1\,STH + X'1+e1)}].$$

Under the Japanese national health care system, the government sets a fixed fee for each item of services. A point system is used to reimburse health care providers. The contribution of the elderly patient to the cost of services is minimal, since the national, state and local governments share the costs of provision. We assume, therefore, that the price of home health care services is constant in this analysis.

We consider an elderly person's preference to use nine different types of formal home health care services: doctor visits, nurse visits and counselling services, (skilled, specialized health inputs); short-stay services for a limited number of days at a community centre and day-care services for a limited number of hours at a community centre, (professional, institutional health services); and home help visits, bathing services, home-delivered meals, and medical equipment for daily needs (semi-skilled health services). We note that our analysis could be improved if we specified the model as a multinomial or nested logit model, with additional categories representing the use of multiple services. The data survey method and questionnaires, and computational resources, however, limit us to using a dichotomous logit. The modelling of combined services, and their substitutability and complementarity, is left as a topic for future research.

Survey data

The data used in this study are from the *Khonensha Seikatsu Jittai Sougo Chosa* (the General Survey on the Actual Living Conditions of Elderly People, 1990), conducted by the Nenkin Sogo Kenkyu Centre (Pension Research Centre), and supported by the Ministry of Health and Welfare of the Japanese government. This survey provides the first set of comprehensive nationwide data examining the daily living conditions of the Japanese elderly. The sample was taken between 29 November and 18 December 1990. The data comprise a substratified random sample of 3000 elderly males and females aged 65 and over, 84% of whom (2529 elderly people) responded to the survey. Due to some missing observations on the variables of interest in our study, our total number of observations is 2404.

Variables

Previous studies have shown that perceived health status should be treated as an exogenous variable in the demand for nursing home care (*12*) and demand for health (*13*). Bound (*14*), however, emphasizes the difficulty in comparing self-reported health status across individuals. Nevertheless, self-reported, subjective health measures contain important information, although the results from using such data should be interpreted carefully. Greene et al. (*15*) use three different measures of health status: instrumental activities of daily living, self-evaluated health, and cognitive impairment. Their results suggest that an assessment of health status: requires the use of objective indicators of health in addition to subjective health measures. Health status is a critical determinant of the need for formal home care services. Omitting measures of health status tends to bias estimates of the impact of factors influencing home health care services. The use of self-reported measures of health status to study behaviour is found in various parts of the literature; for example, modelling labour supply and retirement decisions (*14, 16, 17*). Our study considers three types of health status indicators: (a) a subjective measure of health status; (b) an objective measure of physical dependence and health status based on the ability to perform daily tasks (*2, 4, 18, 19*); and (c) an objective measure of psychological status (*20, 21*).

We include measures of a person's living situation, in particular cohabitation, which measures the availability of informal care for the elderly person, since family members and relatives may actively provide informal care (*3*). Greater availability of family care may reduce the likelihood of using home care services by substituting informal for formal home care. We use the following variables to account for an individual's cohabitant living situation: whether a spouse is present, whether the individual is a widow or widower, whether the individual lives alone, whether the individual lives as part of a household that contains two generations of the family, whether the person lives in a three-generation family household, and whether the person has children who are not living with him or her.

Since our nine types of formal home health care services may be jointly determined, the errors of our estimated logit regressions may be correlated across the nine types of health care service, and a single equation estimation method may lead to inefficient estimates. Estimating a system for our nine services would, however, be extremely cumbersome given the size of our data set and our computational facilities. Studies on home care in the USA have used both ordinary least-squares (*3, 4, 19*) and systems estimation techniques (*2*). The summary definitions, means and standard deviations of all the variables used in this study are listed in Tables 1 and 2.

Empirical results

Tables 3-1, 3-2 and 3-3 present the estimates of our logit model of home health care services. The estimated coefficients and the marginal effects are on the left and right of each column, respectively. Tables 4 and 5 show the probability of using home health care services. Our discussion focuses on the effects of two measures of objective health status (daily health functioning and psychological status) and the availability of family-related resources as measured by family structure, relatives and friends.

The results in Tables 3-1 through 3-3 show that the measures of subjective health are not significantly related to the use of any home health care services. An increase in physical dependence from level I to level II lowers the probability of using doctor visits. Thus, an elderly person who is less physically able is less likely to use doctor visits. In contrast, both instrumental dependence levels I and II have significant positive effects on the probability of using doctor visits, but not nurse visits. These contradictory results are difficult to explain. It may be the case that when an elderly person is unable to function independently, home health care services, such as doctor visits, cannot substitute for services that should be provided either at a nursing home or hospitals.

An individual with physical dependence level I in Table 3-1 has a higher probability of using counselling services, while the presence of instrumental dependence (both levels I and II) has a negative effect. Limitations with respect to physical activities appear to require fewer counselling services. If health status is strongly related to life satisfaction for elderly people, a combination of physical illness and depression is probably common. Controlling for the effect of physical limitation allows a more accurate assessment of the effects of psychological status on the likelihood of using home health care services. The estimated

Table 1: Definition of variables

Formal home care services

Doctor visits (binary): 1=elderly person who wants to use home health and medical services by doctors, when he or she becomes bedridden.

Nurse visits (binary): 1=elderly person who wants to use home health and medical services by nurses, when he or she becomes bedridden.

Counselling (binary): 1=elderly person who wants to use counselling services, when he or she becomes bedridden.

Home help visits (binary): 1=elderly person who wants to use personal-care assistance and housekeeping, when he or she becomes bedridden.

Bathing (binary): 1=elderly person who wants to use bathing service at day-service centre, when he or she becomes bedridden.

Meals (binary): 1=elderly person who wants to use home-delivered meals, when he or she becomes bedridden.

Equipment (binary): 1=elderly person who wants to use durable medical equipment, when he or she becomes bedridden.

Short-stay CC (binary): 1=elderly person wants to use short-stay home-based services for a limited number of days at a community centre, when he or she becomes bedridden.

Day-care CC (binary): 1=elderly person who wants to use day-care home-based services for a limited hours of a day at a community centre, when he or she becomes bedridden.

Subjective health (binary): 1=perceived health (good/very good).

Daily health functioning

Physical dependence: five measures of physical dependence in daily dependence activities: walking without help, climbing stairs, physical strength represented by bed-making by himself or herself, hands' and fingers' ability represented by cutting own nails, and eyesight ability represented by reading newspapers.
I = two to four dependence
II = five dependence.

Instrumental dependence: five measures of instrumental dependence of either using (electric or non-electric) household tools and machines or performing complicated daily tasks: preparation of meals, being able to use a washing machine, being able to use an automatic machine to deposit/withdraw money at a bank, shopping for necessities, and being able to fill in forms.
I = two to four dependence
II = five dependence.

Memory: six abilities of daily living: remembering the location of own clothes, cooking a variety of dishes without recipes, following community rules and regulation, remembering the location of important documents, a choice of clothes by one's own the taste and continuation of having hobbies. Score = 0-6.

Psychological status

Depressed affect: seven measures of depressed affect: loneliness, uselessness, anxiety, sadness, preference for death, uneasiness and dissatisfaction.
I =one to three depressed affect
II = four and more depressed affect.

Positive affect: five positive affect: life, family relationship, ageing, happiness and health. Score = 0-5.

Negative affect (binary): 1=elderly person has negative attitude toward being outgoing.

Family-related resources

Spouse present (binary): 1=married and living with wife.
Widowed (binary): 1=widow or widower. *Living alone* (binary): 1=elderly person lives alone. *Two generation* (binary) variable: 1=two-generation family. *Three generation* (binary): 1=three-generation family. *Children* (binary): 1=an elderly has a child or children but not living together. *Relatives:* frequency of communication with relatives. *Association:* frequency of association with friends. *No friend:* having no close friends.

Other factors

Age: age of an elderly person. *Sex:* 1=male. *Urban* (binary): 1=urban city dweller. *Wealth:* amount of wealth (bonds, stocks, savings and trusts). *Home owner* (binary): 1=own house or apartment.

Table 2: Means and standard deviations

	Mean	Standard deviation
Formal home care services		
Doctor visits	0.5786	0.4939
Nurse visits	0.3028	0.4596
Counselling	0.1510	0.3581
Home help visits	0.2321	0.4223
Bathing	0.2292	0.4204
Meals	0.1086	0.3112
Equipment	0.1610	0.3676
Short-stay CC	0.2171	0.4124
Day-care CC	0.1793	0.3837
Subjective Health	0.6722	0.4695
Daily health functioning		
Physical dependence I	0.2816	0.4499
Physical dependence II	0.0129	0.1129
Instrumental dependence I	0.3041	0.4601
Instrumental dependence II	0.0537	0.2254
Memory	4.5171	1.5138
Psychological status		
Depressed affect I	0.5957	0.4909
Depressed affect II	0.1631	0.3695
Positive affect	3.2001	1.2224
Negative affect	0.2034	0.4026
Family-related resources		
Spouse present	0.6310	0.4826
Widowed	0.3290	0.4699
Living alone	0.0923	0.2896
Two generation	0.5878	0.4923
Three generation	0.3827	0.4862
Children	0.5250	0.4995
Relatives	0.7691	0.4215
Association	0.6294	0.4831
No friend	0.2987	0.4578
Other factors		
Age	71.81	5.6137
Sex	0.4642	0.4988
Urban	0.6880	0.4634
wealth low	0.2005	0.4005
wealth lower middle	0.2804	0.4493
wealth middle	0.1660	0.3721
wealth upper middle	0.0782	0.2686
wealth high	0.0903	0.2866
Home owner	0.8765	0.3291

Table 3-1: Regression results: doctor visits, nurse visits and counseling

Variable	Doctor visits			Nurse visit			Counselling		
Subjective health	0.091	0.0214	(0.961)	-0.037	-0.0078	(-0.371)	-0.202	-0.0251	(-1.583)
Daily health functioning									
Physical dependence I	-0.229	-0.0538	(-1.908)c	-0.108	-0.0225	(-0.856)	0.533	0.0662	(3.385)a
Physical dependence II	-0.886	-0.2084	(-2.156)a	-0.422	-0.0879	(-0.890)	0.891	0.1106	(1.605)
Instrumental dependence I	0.348	0.0820	(2.831)a	-0.005	-0.0011	(-0.041)	-0.345	-0.0428	(-2.057)b
Instrumental dependence II	0.658	0.1607	(2.591)a	-0.013	-0.0028	(-0.050)	-1.143	-0.1418	(-2.988)a
Memory	0.022	0.0053	(0.580)	-0.044	-0.0092	(-1.079)	-0.070	-0.0087	(-1.345)
Psychological status									
Depressed affect I	0.094	0.0220	(0.900)	0.097	0.0202	(0.869)	0.489	0.0607	(3.133)a
Depressed affect II	0.051	0.0119	(0.345)	0.302	0.0629	(1.941)c	0.724	0.0898	(3.485)a
Positive affect	-0.008	-0.0019	(-0.218)	-0.040	-0.0082	(-0.987)	0.097	0.0121	(1.838)c
Negative affect	-0.191	-0.0450	(-1.607)	0.006	0.0012	(0.046)	-0.182	-0.0226	(-1.071)
Family-related resources									
Spouse present	-0.091	-0.0214	(-0.398)	0.007	0.0014	(0.028)	0.070	0.0087	(0.215)
Widowed	-0.069	-0.0161	(-0.301)	-0.047	-0.0097	(-0.188)	-0.010	-0.0012	(-0.030)
Living alone	-0.317	-0.0746	(-1.751)c	-0.152	-0.0316	(-0.767)	-0.161	-0.0200	(-0.623)
Two generation	0.245	0.0576	(2.199)b	0.003	0.0006	(0.024)	0.087	0.0108	(0.568)
Three generation	-0.163	-0.0383	(-1.556)	-0.054	-0.0112	(-0.485)	-0.098	-0.0123	(-0.696)
Children	0.026	0.0061	(0.296)	0.337	0.0702	(3.628)a	0.032	0.0040	(0.268)
Relatives	0.245	0.0578	(2.366)b	0.021	0.0045	(0.193)	-0.299	-0.0371	(-2.139)b
Association	0.013	0.0031	(0.135)	0.064	0.0132	(0.612)	0.000	0.0000	(0.000)
No friend	0.121	0.0286	(1.176)	-0.019	-0.0039	(-0.172)	-0.603	-0.0748	(-3.915)a
Other factors									
Age	-0.008	-0.0019	(-1.697)c	-0.010	-0.0020	(-1.909)c	-0.020	-0.0024	(-2.957)a
Sex	0.303	0.0713	(2.842)a	0.082	0.0172	(0.729)	-0.030	-0.0037	(-0.201)
Urban	0.129	0.0305	(1.364)	0.053	0.0110	(0.521)	-0.201	-0.0249	(-1.580)
wealth low	-0.147	-0.0345	(-1.079)	-0.267	-0.0555	(-1.787)c	0.070	0.0087	(0.380)
wealth lower middle	-0.026	-0.0062	(-0.207)	0.053	0.0111	(0.396)	-0.020	-0.0025	(-0.117)
wealth middle	0.113	0.0267	(0.781)	-0.037	-0.0078	(-0.243)	-0.202	-0.0251	(-1.004)
wealth upper middle	0.205	0.0482	(1.101)	0.122	0.0255	(0.643)	0.051	0.0064	(0.210)
wealth high	0.079	0.0186	(0.445)	0.046	0.0097	(0.250)	-0.495	-0.0614	(-1.826)c
Home owner	0.260	0.0611	(1.882)c	-0.113	-0.0236	(-0.772)	-0.076	-0.0094	(-0.393)
Log likelihood		-1594.24			-1456.59			-982.68	
Number of observations		2404			2404			2404	

t-ratios are in parentheses. a, b and c represent statistically significant coefficients at the one, 5% and 10% significant levels, respectively.
Marginal effects are listed right next to the estimated coefficients.

Table 5-2: Regression results: short-stay CC, day care CC and home help visits

Variable	Short-stay CC			Day-care CC			Home help visits		
Subjective health	0.584	0.0097	(0.510)	-0.195	-0.0285	(-1.640)	-0.138	-0.0239	(-1.255)
Daily health functioning									
Physical dependence I	-0.096	-0.0159	(-0.674)	-0.120	-0.0175	(-0.785)	-0.259	-0.0447	(-1.813)c
Physical dependence II	0.558	0.0926	(1.254)	0.614	0.0896	(1.333)	-0.389	-0.0671	(-0.716)
Instrumental dependence I	-0.045	-0.0075	(-0.312)	0.030	0.0043	(0.192)	-0.065	-0.0112	(-0.454)
Instrumental dependence II	0.564	0.0936	(1.994)c	-0.000	-0.0000	(-0.001)	-0.382	-0.0659	(-1.220)
Memory	0.0371	0.0062	(0.802)	-0.002	-0.0003	(-0.039)	-0.072	-0.0124	(-1.579)
				Psychological status					
Depressed affect I	0.211	0.0351	(1.690)c	-0.114	-0.0167	(-0.868)	-0.027	-0.0047	(-0.225)
Depressed affect II	0.225	0.0374	(1.257)	0.817	0.0119	(0.448)	0.142	0.0245	(0.840)
Positive affect	0.005	0.0009	(0.119)	-0.001	-0.0001	(-0.015)	-0.026	-0.0045	(-0.591)
Negative affect	-0.053	-0.0089	(-0.364)	-0.025	-0.0037	(-0.166)	-0.038	-0.0066	(-0.271)
				Family-related resources					
Spouse present	-0.257	-0.0426	(-0.844)	0.176	0.0257	(0.576)	0.034	0.0058	(0.130)
Widowed	0.191	0.0032	(0.062)	0.172	0.0251	(0.559)	-0.179	-0.0308	(-0.694)
Living alone	-1.228	-0.2038	(-4.334)a	-0.352	-0.0514	(-1.432)	0.046	0.0079	(0.226)
Two generation	0.090	0.0149	(0.688)	-0.011	-0.0016	(-.079)	-0.463	-0.0798	(-3.615)a
Three generation	0.118	0.0195	(0.976)	0.224	0.0327	(1.703)c	-0.124	-0.0213	(-0.974)
Children	0.112	0.0186	(1.081)	-0.041	-0.0060	(-0.373)	0.174	0.0300	(1.703)c
Relatives	0.130	0.0215	(1.014)	-0.112	-0.0164	(-0.858)	-0.053	-0.0092	(-0.439)
Association	-0.051	-0.0084	(-0.438)	-0.014	-0.0020	(-0.110)	-0.193	-0.0334	(-1.715)c
No friend	-0.121	-0.0201	(-0.977)	0.033	0.0048	(0.252)	-0.212	-0.0366	(-1.741)c
				Other factors					
Age	-0.028	-0.0046	(-4.680)a	-0.017	-0.0025	(-2.795)a	-0.003	-0.0004	(-0.461)
Sex	0.188	0.0311	(1.477)	-0.113	-0.0164	(-0.831)	-0.333	-0.0574	(-2.677)a
Urban	-0.075	-0.0124	(-0.669)	-0.082	-0.0119	(-0.676)	0.116	0.0200	(1.023)
wealth low	0.220	0.0365	(1.282)	0.250	0.0365	(1.415)	-0.160	-0.0276	(-0.964)
wealth lower middle	0.238	0.0395	(1.502)	0.205	0.0299	(1.229)	0.033	0.0057	(0.218)
wealth middle	0.438	0.0727	(2.513)b	0.253	0.0369	(1.349)	0.266	0.0459	(1.614)
wealth upper middle	0.397	0.0660	(1.838)c	0.002	0.0003	(0.009)	0.031	0.0053	(0.144)
wealth high	0.370	0.0615	(1.764)c	0.350	0.0510	(1.564)	0.354	0.0610	(1.793)c
Home owner	0.107	0.0178	(0.600)	-0.308	-0.0449	(-1.795)c	0.074	0.0127	(0.466)
Log likelihood		**-1226.04**			**-1119.98**			**-1263.46**	
Number of observations		**2404**			**2404**			**2402**	

t-ratios are in parentheses. a, b and c represent statistically significant coefficients at the one, 5% and 10% significant levels, respectively.
Marginal effects are listed right next to the estimated coefficients.

Table 3-3: Regression results: bathing, meals and equipment

Variable		Bathing			Meals			Equipment	
Subjective health	0.005	0.0008	(0.042)	-0.129	-0.0120	(-0.859)	0.070	0.0093	(0.548)
Daily health functioning									
Physical dependence I	0.023	0.0040	(0.166)	-0.326	-0.0304	(-1.593)	0.115	0.0153	(0.744)
Physical dependence II	-0.850	-0.1482	(-1.468)	-0.315	-0.0010	(-0.003)	0.699	0.0931	(1.415)
Instrumental dependence I	0.241	0.0420	(1.715)c	-0.107	-0.0100	(-0.535)	0.360	0.0479	(2.272)b
Instrumental dependence II	0.600	0.1046	(2.132)b	0.338	0.0315	(0.839)	0.220	0.0294	(0.662)
Memory	0.065	0.0113	(1.431)	-0.034	-0.0032	(-0.538)	0.058	0.0078	(1.139)
Psychological status									
Depressed affect I	0.011	0.0020	(0.094)	-0.010	-0.0010	(-0.063)	0.185	0.0247	(1.318)
Depressed affect II	0.030	0.0052	(0.175)	-0.228	-0.0212	(-0.955)	0.239	0.0319	(1.204)
Positive affect	-0.002	-0.0003	(-0.038)	0.053	0.0049	(0.886)	0.008	0.0011	(0.165)
Negative affect	0.224	0.0391	(1.644)	-0.076	-0.0070	(-0.389)	(0.461)	0.074	0.0098
Family-related resources									
Spouse present	0.291	0.0507	(0.999)	-0.453	-0.0423	(-1.427)	0.237	0.0316	(0.690)
Widowed	0.239	0.0416	(0.809)	-0.193	-0.0180	(-0.637)	0.313	0.0418	(0.900)
Living alone	-0.578	-0.1008	(-2.477)b	0.059	0.0055	(0.227)	-0.416	-0.0554	(-1.534)
Two generation	-0.033	-0.0057	(-0.258)	-0.194	-0.0181	(-1.115)	0.098	0.0130	(0.668)
Three generation	-0.059	-0.0104	(-0.496)	-0.799	-0.0745	(-4.267)a	-0.006	-0.0009	(-0.048)
Children	-0.021	-0.0036	(-0.205)	-0.046	-0.0043	(-0.332)	-0.198	-0.0264	(-1.717)c
Relatives	-0.157	-0.0274	(-1.321)	-0.372	-0.0347	(-2.389)b	-0.018	-0.0025	(-0.132)
Association	-0.025	-0.0043	(-0.218)	-0.067	-0.0062	(-0.439)	0.233	0.0311	(1.767)c
No friend	-0.059	-0.0103	(-0.492)	-0.064	-0.0059	(-0.389)	-0.011	-0.0014	(-0.076)
				Other factors					
Age	-0.025	-0.0044	(-4.386)a	-0.009	-0.0008	(-1.228)	-0.036	-0.0048	(-5.390)a
Sex	-0.307	-0.0536	(-2.478)b	-0.035	-0.0033	(-0.205)	-0.023	-0.0030	(-0.159)
Urban	-0.028	0.0049	(-0.254)	0.100	0.0093	(0.628)	-0.186	-0.0247	(-1.504)
wealth low	0.171	0.0299	(1.030)	-0.006	-0.0006	(-0.028)	0.085	0.0114	(0.446)
wealth lower middle	0.400	0.0697	(2.632)a	-0.025	-0.0023	(-0.115)	0.299	0.0399	(1.726)c
wealth middle	0.276	0.0481	(1.595)	0.485	0.0452	(2.176)b	0.240	0.0319	(1.212)
wealth upper middle	0.334	0.0582	(1.564)	0.331	0.0309	(1.174)	0.479	0.0638	(2.038)b
wealth high	0.413	0.0720	(2.034)b	0.199	0.0185	(0.708)	0.069	0.0092	(0.280)
Home owner	0.043	0.0075	(0.260)	-0.443	-0.0413	(-2.387)b	-0.115	-0.0153	(-0.595)
Log likelihood		-1276.39			-780.84			-1042.47	
Number of observations		2404			2404			2404	

t-ratios are in parentheses. a, b and c represent statistically significant coefficients at the one, 5% and 10% significant levels, respectively.

coefficients on the psychological status variables, depression effect I and II, are positive and highly significant. Thus, as one would anticipate, persons with a poorer psychological status have a higher probability of using counselling services.

For daily health functioning Table 4 also shows the interactive effects on the probabilities of using different types of home health care services across a number of key variables, namely physical dependence and instrumental dependence, by sex. The section labelled 1 shows the effects of the aforementioned variables on the probability of using doctor visits. For males a higher instrumental dependence level raises the probability of using doctor visits from 68% for persons with no instrumental dependence (ID-0) to 75% for those with instrumental dependence level I (ID-I), and to 80% for persons with independence level II (ID-II). Our results show that elderly persons with higher measures of instrumental dependence, which measures their ability to perform daily tasks, are more likely to use doctor visits. On the other hand, given a person's degree of instrumental dependence, those with higher measures of physical dependence have a lower probability of using doctor visits. In addition, we note that the estimated probabilities of using doctor visits are generally higher than those of other home health care services (see sections 2 through 9 of Table 4). These results suggest that home health care services by doctor visits are more important for elderly people compared to other types of health care services. Nurse visits and services provided by short-stay community centres are the next most probable services among our categories of home health care services. Our results also show that the probability of using a skilled health care service, such as doctor or nurse visits, is slightly higher for men.

Given that a person has an indicator of adverse psychological status (depressed effect level I or II), the probability of using counselling services in section 3 of Table 4 rises with respect to measures of physical dependence and falls with respect to measures of instrumental dependence. The results for short-stay community centre and day-care community centre (Table 4, sections 4 and 5, respectively) show that the elderly are more likely to use these services when they have higher levels of physical and instrumental dependence. A male without any physical or instrumental dependence (ID-0, PD-0) has a 34% probability of using a short-stay community centre facility. This rises to 47% when physical and instrumental dependence are at level II (PD-II and ID-II). A similar situation arises for women, whose probability of the use increases from 30% to 43%. The estimated probabilities of using a day-care community centre also show a similar positive association with respect to higher levels of physical and instrumental dependence. These results are explained by the fact that community centres usually provide not only material services such as meals, bathing and other health care services, but also classes that teach family members how to care for frail elderly people.

The logit results for home help visits are shown in Table 3-2. The coefficient for physical dependence level I is statistically significant and negative. An increase in the propensity to associate with friends reduces the probability of home help visits, while an elderly person who has no friends is less likely to use home help visits. The results show that women are 5% more likely to use home help visits. In section 6 of Table 4, it can be seen that higher levels of physical or instrumental dependence are associated with lower probabilities of using home help visits. There are two possible reasons for the results. First, performing all the necessary home help functions for persons with serious physical disabilities may be too expensive. Patients with low levels of physical ability may simply

require more help than can be given by home help visits. Second, the point system used for care in the national health care system may discourage the use of home help visits under these circumstances.

Table 4: Effects of physical dependence(pd) and instrumental dependence(id) on the probability of using home health care services

(0=no dependence; I=partial dependence; II=dependence)

	Male			Female		
	PD-0	PD-I	PD-II	PD-0	PD-I	PD-II
(1) Doctor visits (x100=%)						
ID-0	0.68	0.63	0.47	0.61	0.56	0.40
ID-I	0.75	0.69	0.53	0.68	0.62	0.46
ID-II	0.80	0.75	0.61	0.73	0.69	0.54
(2) Nurse visits (x100=%)						
ID-0	0.34	0.32	0.26	0.32	0.30	0.24
ID-I	0.34	0.32	0.26	0.33	0.30	0.24
ID-II	0.34	0.32	0.25	0.32	0.30	0.24
(3) Counseling (x100=%)						
ID-0	0.18	0.27	0.34	0.18	0.27	0.35
ID-I	0.15	0.23	0.30	0.15	0.23	0.30
ID-II	0.08	0.13	0.17	0.08	0.13	0.17
(4) Short-stay community centre (x100=%)						
ID-0	0.34	0.21	0.33	0.30	0.18	0.30
ID-I	0.22	0.20	0.33	0.19	0.17	0.29
ID-II	0.34	0.32	0.47	0.30	0.28	0.43
(5) Day-care community centre (x100=%)						
ID-0	0.18	0.19	0.33	0.20	0.21	0.36
ID-I	0.22	0.20	0.33	0.24	0.22	0.33
ID-II	0.22	0.20	0.33	0.24	0.22	0.33
(6) Home help visits (x100=%)						
ID-0	0.26	0.21	0.19	0.32	0.27	0.25
ID-I	0.24	0.20	0.18	0.31	0.26	0.23
ID-II	0.19	0.16	0.16	0.25	0.18	0.18
(7) Bathing (x100=%)						
ID-0	0.18	0.18	0.08	0.23	0.23	0.11
ID-I	0.22	0.22	0.11	0.27	0.28	0.14
ID-II	0.28	0.29	0.14	0.35	0.35	0.19
(8) Meals (x100=%)						
ID-0	0.06	0.05	0.05	0.06	0.05	0.05
ID-I	0.06	0.05	0.05	0.06	0.05	0.05
ID-II	0.08	0.07	0.08	0.09	0.07	0.07
(9) Equipment (x100=%)						
ID-0	0.15	0.16	0.25	0.15	0.16	0.26
ID-I	0.19	0.21	0.32	0.20	0.22	0.33
ID-II	0.17	0.19	0.30	0.18	0.19	0.30

In Table 3-3, the results show that as instrumental dependence rises, the probability of using bathing and equipment services increases. The estimated coefficients on the physical and instrumental dependence variables are not significant in the provision of home-delivered meals. In Table 4, section 7 shows that the probability of using bathing services is higher for women. However, an increase in physical dependence (PD) lowers the probability of using bathing services for both men and women, given the level of instrumental dependence. The probabilities of using bathing service increases with higher levels of instrumental dependence; thus, 23% for females with PD-0 and ID-0, 27% for females PD-0 and ID-I and 35% for females with PD-0 and ID-II. The probability of using the home-delivered meals (section 8) is very low and this programme appears less popular compared to other home health care services. Elderly males and females (section 9) are more likely to use special beds, wheelchairs and other special equipment as they become more physically disabled.

Table 5. Effects of physical dependence(pd) and instrumental dependence(id) on the probability of using home health care services

PD-II=physical dependence
ID-II=instrumental dependence
by living with and without child or children

	Male		Female	
	with PD-II	**without PD-II**	**with PD-II**	**without PD-II**
(1) Doctor visits (x100=%)				
ID-II	0.61	0.60	0.54	0.52
(2) Nurse visits (x100=%)				
ID-II	0.25	0.33	0.24	0.32
(3) Counseling (x100=%)				
ID-II	0.17	0.22	0.17	0.23
(4) Short-stay community centre (x100=%)				
ID-II	0.47	0.45	0.43	0.40
(5) Day-care community centre (x100=%)				
ID-II	0.33	0.28	0.33	0.30
(6) Home help visits (x100=%)				
ID-II	0.16	0.39	0.18	0.32
(7) Bathing (x100=%)				
ID-II	0.14	0.15	0.19	0.20
(8) Meals (x100=%)				
ID-II	0.08	0.16	0.07	0.17
(9) Equipment (x100=%)				
ID-II	0.30	0.24	0.30	0.24

The availability of other family members indicates the potential for providing informal care (*3*). We find that the coefficients for the "Two generation" and "Three generation" variables are negative in some of the semiskilled formal home care service in Tables 3. For example, see the "Two generation" variable in the home help visits in Table 3-2, and the "Three generation" variable in the home-delivered meals in Table 3-3. In

addition, an elderly person with children has a smaller probability of using home help visits. These results underscore the importance of family presence and children in reducing the need for some home health care services. It appears that the availability of family resources, i.e. informal care, affects the decision to rely on some care services that do not require extensive training. These results support our idea that family resources may be substituting for formal state resources in the provision of semiskilled services such as home help visits, bathing and home-delivered meals. We note, however, that the presence of a spouse, which might be considered an important family resource for the provision of informal care, is never statistically significant.

We find that the probabilities of using doctor visits, short-stay community centre and day-care community centre are higher for those elderly with children in Table 5. In contrast, the probabilities of using less skilled services (e.g. home help visits, bathing and home-delivered meals) are higher for elderly persons without children. Once again, these findings suggest that there exists some degree of informal care substitution by family members for those services that require less training. Conversely, skilled services (for example, physician visits) are less easy for family members to provide.

The presence of relatives, with whom one has frequent communication, reduces the probability of requiring counselling services, implying that such relatives may be informally providing counselling services or close substitutes for those services. The estimated coefficient on the variable indicating the absence of close friends is negative and statistically significant, however. This result is somewhat puzzling. However, this variable may have captured other effects; for example, having no close friends may indicate a weak attachment to the community and it is possible, therefore, that these persons are cut off from access to these services.

Summary

Our analysis shows that the probability of using doctor visits at home is between 40% and 80%, while that of nurse visits is between 24% and 34%. These two are the most favourable high-skill home health care services among elderly people with physical functional limitations. Elderly people are more likely to require doctor visits services as they increase their level of instrumental dependence, for any given level of physical dependence. The probability of using skilled services such as doctor and nurse visits is higher for men, while the probability of home help visits is greater for women. Elderly males with functional limitations may, therefore, use more expensive formal home health care services than their female counterparts. There is a strong association between depression and physical dependence, and in combination, these factors appear to raise the likelihood of using certain home health care services. These two factors combined increase the probability of using counselling services, while weak social attachment and having a close relationship with relatives lowers the probability of using counselling services.

Our calculated probabilities show that the disabled elderly with no children are more likely to use semiskilled services such as home help visits, bathing and home-delivered meals. The results suggest that these semiskilled services are substitutes for informal home care provided by close family members. Our results show that many frail elderly in Japan rely heavily on support from their families and relatives.

There is a significant positive relationship between levels of physical and instrumental dependence, and the use of equipment services, such as special beds, wheelchairs, special telephones for the elderly, and walking equipment for disabled elderly persons. Also, the probability of using bathing services by both elderly males and females is positively associated with higher levels of instrumental dependence. In comparison to the use of equipment and bathing services, the probability of using home-delivered meals is much smaller and is not affected by changes in the levels of physical and instrumental dependence.

The results of our research imply that national government needs to coordinate the use of human services in the provision of home health care services. Specifically the use of doctor, nurse and home help visits should be coordinated with the use of community services provided at short-stay and day-care community centres. The recent government effort to develop a comprehensive formal home health care system, in order to cope with the growing aged population, is potentially less expensive than increasing the amount of long-term nursing home services. Understanding the growing need for care and the factors that influence the mix and quantities of formal home health care services is important for policy purposes. In particular, our study should aid policy-makers in their attempts to predict future demand. Moreover, our analyses invite further development of formal home health care services as part of a long-term health care strategy.

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The rationales for establishing independent long-term care[1]

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Long-term care has been described as "a variety of ongoing health and social services provided for individuals who need assistance on a continuing basis because of physical or mental disability. Services can be provided in an institution, the home, or community, and include informal services provided by family or friends as well as formal services provided by professionals or agencies" (*1*). These complex properties have made the provision of long-term care a very difficult task. On one hand, health and social services are organized and staffed by professionals of quite different training and orientation. On the other hand, because long-term care is entwined with the everyday life of the individuals, exactly how the responsibility should be divided between formal and informal care remains unclear (*2*).

Providing long-term care by expanding coverage under health insurance has not proved to be successful because, firstly, this approach leads to overmedicalization with inadequate attention to social needs and high costs. Secondly, because medical care pertains to life and death issues, in principle it is generally seen as a universal right that should be available to everyone equally. In contrast, since long-term care shades into ordinary life, very few will object to the fact that people with more money will be more comfortable. Over-application of egalitarian ideals to long-term care have made it difficult for people to get more than a minimum level of either institutional or community-based care, even if they can pay for it. Thirdly, unlike medical care where patients are very much dependent on physicians for making decisions, in long-term care, the individual (and family) is much more able to choose among services as well as providers, and to evaluate quality, though consultation with professionals would certainly be helpful. This implies that it is difficult to set resource limits through institutionalized negotiations between payers and providers in order to contain costs through budget caps, fee schedules and so on in long-term care because it is the individual as consumer who makes the decisions. Moreover, negotiating with providers is more difficult in long-term care because they are fragmented among various professions and organizations.

A different set of problems arises if long-term care were to be provided as part of the social service system. While the health care system has the danger of being too generous, the social service system has the danger of being too minimal and being set at a bare-bones level. This is because the basic principle of social services is to provide a safety-net when individual and family support has become exhausted. Even when a strict means test is not applied, there is often a stigma attached to obtaining the services that inhibits middle-class participation (particularly for home care). There is also a danger that those having informal support would tend to be excluded so that their families will be forced to shoulder an unfair burden. Nor would it be easy to integrate publicly-financed services with informal care or self-financed services under a bureaucratically controlled model. Thus, while the present social service system may be appropriate for providing public assistance, the tight control that

[1] An earlier version of this paper was distributed at the Keio University International Symposium for Life Sciences and Medicine: Long-term care for frail older people: reaching for the ideal system, Tokyo, 19-21 May 1998 with Kieke Okma and John C. Campbell as co-authors.

is exercised by the government makes it inappropriate to meet the flexible needs of long-term care. In addition, in a mirror image to the health care model, a system dominated by the social services will tend to downplay the importance of medical care. For example, a chronic medical condition such as diabetes or arthritis, which actually could be improved with careful medical attention or rehabilitation, will be seen as an untreatable functional impairment that requires only care and support.

What about having the medical care system and the social service system each handle the aspects of the problem that it can do best? That is *de facto* what happens in most places today. It sounds all right in the abstract, but in reality these aspects are not so readily separable. That is why the so-called "team approach" (close cooperation between physician, nurse and social worker) is seen as so vital in the geriatric field. Moreover, so long as separately financed systems are coexisting, major turf battles will result not in attracting clients, but in trying to dump the most difficult or expensive problems into the other system. Such dysfunction is common in the long-term care field in many countries.

Scope of a separate long-term care system

The above provides a strong argument for establishing long-term care as a separate system. Its scope would be the services central to long-term care: medical supervision of chronic illnesses, nursing, personal care services, home-making, and training for informal care-givers. These should be financed and delivered in an integrated way so the right balance of care can be found for each individual, regardless of age. Acute care to cure illnesses should be continue to be financed and provided by the regular medical care system, without discrimination by age. On the other hand, problems that essentially stem from low income, such as inadequate food, shelter and so forth, should still be covered by social assistance.

Where the boundaries of the long-term care system should be set with the medical care system and the social services system will have to be decided in each country at the national level with some allowances made for regional variations. The extent to which treatment of minor acute medical problems, rehabilitation and hospice care are to be delivered by the long-term care system or the medical care system would depend largely on whether appropriate payment mechanisms can be developed for physicians and other professionals within the long-term care system. Another aspect that needs to be considered is entry into the medical care system for those currently receiving long-term care. If only light care is being provided, there should be no special barriers to entering the medical care system. However, if heavy care is being provided, it may be more appropriate for the long-term care system to exercise control, as has been successfully done in the On Lok and PACE programmes (*3*).

For the interface with the social service system, a major problem would be the provision of adequate housing for individuals who require only light care but have low incomes and lack informal support. These individuals have traditionally been under the protection of the social service agency, which has tended to give them priority, including admission to nursing homes. However, under a separate long-term care system, they may face difficulties in adjusting to the new situation. Appropriate investment should be made in this area for the new long-term care system to provide care under universal standards.

Goals of the ideal long-term care system

To make long-term care an entitlement of every individual

The primary goal of establishing a separate long-term care system is to make a decent level of long-term care a right or entitlement. Without a clearly defined notion of entitlement, provision will remain subject to the idiosyncratic arrangement of informal care, and of being the residual after areas having more priority are satisfied in the medical care and social service systems. In order to be able to exercise this right, the absolute amount of formal services must be increased, which means that more money must flow into a separate long-term care system. For this purpose, a social insurance model would be better than taxes or private insurance in making its provision an individual right by ear-marking resources.

To set up mechanisms to limit public expenditure

There are basically two ways to limit public expenditure. One is on an individual basis: the amount of benefits a person is entitled to would be determined according to an eligibility classification system. The other is to allocate a global budget to the local community that will be managed by a "care manager". While the latter may be more effective for limiting costs, there is less guarantee of assuring the individual's rights to services. Therefore, the former would seem to be more appropriate if the following mechanisms can be established:

- The eligibility levels are clearly defined so that they reflect both the relative amount of resources that are needed and the public perception of the difference in burden among the different levels.
- The assessment process is objective, reliable and clearly defined. Those undertaking the assessment should be appropriately trained and the assessment form and the algorithm for classification well validated.
- The availability of informal care is not be part of the criteria for determining the eligibility level as this would lead to denying or decreasing services to those who are in a position to receive such care. Such arrangements can force families to provide care until they are burnt out.
- There are adequate measures for monitoring and for an appeal mechanism to deal with complaints concerning decisions about the eligibility level.
- There are appropriate incentives for individuals to improve their functional status. One possible solution is, once the eligibility level is determined, that it would not be lowered even if client's conditions were to improve marginally.

To avoid government bureaucracy and control of service delivery

Once the government has fulfilled its financial obligation for providing a decent level of long-term care as an entitlement, bureaucratic control should be minimized in order to assure maximum individual choice and ready access to services. This means that the government should in principle divorce itself from the process of actually delivering services. There are three options for doing so: cash benefits, vouchers and benefit-in-kind. Of these three, vouchers will allow the maximum degree of choice within the monetary constraints of their eligibility level. Since vouchers, can be redeemed only for purchasing long-term care, the market would be greatly expanded. It will also be easy to supplement the services that can be purchased by the voucher with privately financed services.

The Japanese public long-term care insurance programme

Japan's rapidly ageing society and the inadequacies in providing long-term care under health insurance and as part of social welfare have led to the legislating of a new long-term care social insurance programme which will be in force as from April 2000. Half the costs will be paid by the premiums that will be levied on all those older than 40 years, and half will be covered by general taxation. The insurers will be the municipalities with a pooling mechanism at the national level to balance the differences in demographic structure. The benefits will include institutional care, respite care, day care, home help, visiting nurses and loan of devices. Eligibility status will be classified into 6 levels that will be determined by assessment of functional and cognitive status (*4*).

The new programme will be in line with the normative criteria outlined in that it will be a new social insurance programme independent of the existing health insurance and social welfare systems. Furthermore, the eligibility will be determined by assessing only the individual, not the family's caring capacity or economic status, so that receipt of long-term care services will become an entitlement. However, it has the following problems. Firstly, age is a criterion for receiving services. Those under 40 would be totally excluded, while those between the ages of 40 and 65 will be eligible only if they require care as a result of "age-related" disease. This measure was introduced to limit expenditure but will result in major logistic problems. Secondly, the benefits would appear to be too generous for the proposed budgetary levels. In particular, half of the 3 million expected beneficiaries are projected to be in the lightest category of "being at the risk of requiring long-term care", with accompanying problems in limiting coverage. Thirdly, the proposed method of assessing individuals to determine their eligibility status is flawed, making the logic of the decision unclear to the client.

Many other problems remain to be solved, such as providing appropriate incentives for improvement, where the dividing line between the health insurance and social welfare services should be drawn, how to eventually introduce a voucher system and so on. However, if these could be resolved, Japan's long-term care insurance could serve as a model for meeting the challenges of the ageing society.

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Community-based rehabilitation for older persons in Japan

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Three years ago the Great Hanshin Awaji Earthquake claimed the lives of 6400 people in Kobe, my hometown. This tragedy taught us many lessons about the importance of human relationships and networks in the community, the need for 24-hour community care services that incorporate both medical and social aspects, voluntary activities, and the need for barrier-free housing, transport and environment. The key concept we derive from those lessons is that of community-based rehabilitation.

Key ideas in community-based rehabilitation

The meaning of "community-based rehabilitation" varies with different perceptions of rehabilitation. Rehabilitation is generally taken to mean training such as physical therapy, occupational therapy and so on for the recovery of functional ability. However, the word rehabilitation has had a deeper meaning, including "the recovery of rights and honour as a person".

If we consider this kind of rehabilitation of the whole person, the idea of community-based rehabilitation takes on a far broader significance than simple physical therapy. Even if people with disabilities living in the community require care, it is extremely important to create the conditions in which they can continue to live among the people of that community with dignity and mutual respect. Health, medical and other social services alone are insufficient for this task. Housing, transport, public spaces and the general environment must be considered with universal design principles in mind.

In Japan there was no clear definition of community-based rehabilitation until recently. In 1991, the situation led the Japan Association of Rehabilitation Hospitals to define community-based rehabilitation as follows: "The term community-based rehabilitation refers to the work of all those involved in medical and health care, welfare and other aspects of daily life who aim to enable the elderly and people with disabilities to live out their lives actively and safely within the communities where they have always lived." These services must be easily and quickly available, comprehensive, continuous and systematic. Efforts are also needed to unify the individual groups and organizations working in this field in order to make their work more effective.

Since then the concept of community-based rehabilitation has been recognized at international level as one that is applicable to developed countries as well as to developing countries. In 1994, ILO, UNESCO and WHO adopted a common definition of community-based rehabilitation that represents an approach that is in line with our own.

If the goal of community-based rehabilitation is to be achieved, it requires a solid infrastructure of social resources, including the personnel, facilities and systems that will serve as support and safety-net in the community. In that regard, the leading welfare states of Europe made a resolute shift in policy around 30 years ago, moving from the previous emphasis on hospital and institutional care to a new emphasis on community and residential

care. Japan is moving along the same path, but progress is slow and faces resistance from administration and politics.

Factors that affect community-based rehabilitation are:

- national policy emphasis on quality of life;
- correction of the nation's vertically divided administration;
- structure of community rehabilitation systems;
- the position of local governments (leaders' enthusiasm, awareness of needs);
- community health, medical and welfare network;
- technical aid system;
- movement towards independent living;
- public participation, social education and voluntary movement;
- accessibility of the community environment;
- expansion and education of home care personnel;
- building and integration of community home care centres.

The future of community-based rehabilitation in Japan

In order to achieve the fundamental ideals of community-based rehabilitation, there must be a determined shift in policy for the 21st century, taking into account the factors that impede this kind of rehabilitation and the factors that will bring its success.

Policy shift from economic priority to emphasis on the quality of life

The share of Japan's GDP which is allocated to social security is extremely low compared to that of other developed countries. This clearly leads to shortfall in the personnel needed to support communities. For example, if we compare Denmark (population 5.15 million) with Hyogo prefecture which has a similar population (5.45 million), Hyogo has only 1/22 of Denmark's number of beds in homes for the elderly, one-third the number of nurses, one-tenth the number of physical therapists, one-tenth the number of occupational therapists, and 1/23 the number of home helpers. The budget of 8 trillion for geriatric medical treatment against 1 trillion for geriatric social services shows that home and social services have largely been overlooked for many years, a policy that has led to desperate shortage of social resources. The resulting mismatch between needs and services must now be confronted. The introduction of public nursing insurance is all very well, but a real breakthrough will require a resolute decision for a sea change in Japanese politics, from the primacy of the economy to an emphasis on quality of life. This shift of aim to the growth of a welfare economy will expand internal demand. In particular, the current vertical division of budget structures which separates medicine from welfare must be replace by policies which combine the two, emphasizing 24-hour total home medical and social care in the community.

Redical reform of the vertically-divided administration

People with disabilities have needs that vary from person to person. Therefore, for holistic rehabilitation, those in charge of rehabilitation services (medical treatment, education, psychology, employment, engineering, social welfare, housing, community development, etc.) under a vertically-divided administration must devise ways of delivering an integrated, organic combination of these service in a rapid and sustained way. A swift, accurate and flexible response to people's needs requires bold action to correct this vertical

division of administration. For example, the administrative structure of the Ministry of Health and Welfare places the authority over home help services, visiting nurses, PT and OT services, and general practitioner services in different departments even though they are elements of the same home care programme. This structure must be rebuilt around the needs of the people. The integration of these services should be the responsibility of politicians and should not be left to bureaucrats. Politicians should study the situation and exert their leadership to build a lateral organization in the form of a department of home care.

A 24-hour general care system

If the elderly and people with disabilities are going to be able to go on living in their communities, progress must be made in providing an integrated service that operates on a 24-hour basis and overcomes the barriers between medicine, health and welfare.

Some specific ideals are:

- a 24-hour visiting medical service system provided by general practitioner group clinics;
- unified stations combining visiting nurse and rehabilitation services by visiting OT, PT as well as home helps making visits on a 24-hour basis;
- technical aid branches;
- unified and integrated day service centres which would meet these kinds of diverse needs (In Hyogo prefecture these are called community security centres); these centres should serve the same kind of population unit as is served by a junior high school (population 10 000-20 000 people).

Radical reform of the medical service system and restructuring of the primary health care system

Medical care reform and consumers' movements

A real reform of the medical insurance system should include the following elements:

- A comprehensive vision for the ageing society should be created to addresses medical, health care, welfare, housing, public space and other aspects.
- This vision should be followed by a review of the concept of the social security system to coincide with a policy direction that is oriented to emphasize the national standard of living and quality of life.
- A medium and long-term plan in line with the above concept should be drawn up for the reform of medical insurance.
- Medical insurance in the shorter term should be handled in line with the above plan.

The Ministry of Health and Welfare has probably considered arguments such as this on many occasions but so as far as the public can see there is no ongoing reform process. The public can see the increasing burden planed on the elderly to meet the ballooning cost of geriatric medial care and to shore up the system's financial resources, and they can inevitably see that it is merely an ad hoc measure. The elderly people of Japan are relying on the authorities and gritting their teeth as they try to hold on to livelihoods.

Establishment of a system for the education of general practitioners

In general, the vast majority of Japan's doctors specialize in the treatment of diseases of specific organs. Therefore they are both proud of and confident in their ability to treat diseases in their own field. There are very few educational resources available which can give them the ability to work around the community as family doctors with a holistic approach. They tend to look down upon the nurses, Ots, PTs, MSWs, home helps and other members of the team that must work together to provide total care in the community. They have little experience of working together with others as equal members of team. That is why there are few cases of doctors working in a leadership capacity within a comprehensive, continuing team that combines elements of health, medicine and welfare.

I must emphasize that the building of an education system for general practitioners, with the cooperation of the Ministry of Health and Welfare and the Ministry of Education, is of the utmost importance. Doctors educated as specialists in family practice, rooted in the community, well aware of home and family relationships and available on a 24-hour basis, will restore the relationship of trust between doctors and patients and build a system of community care.

Establishment of a system for community-based rehabilitation

I will now use the example of strokes, the most commonly encountered problem, to illustrate the rehabilitation system that I hope to see in the future:

- an expanded emergency life-saving system;
- enhanced rehabilitation functions in community-supporting hospitals to treat patients through the acute period (around one to two weeks);
- rehabilitation-specialized hospital beds secured in each secondary health care and medical treatment region (areas with populations of 300 000-600 000 people) to enhance care in the recovery phase of rehabilitation (around two months); greater coopeartion between hospitals is also required at this level;
- a rapid transition to rehabilitation care teams built around general practitioners in the community and a system for linkage with hospital treatment.

This system also requires an improvement of the welfare infrastructure in the form of a technical aid system for home remodelling and the provision of technical aid services. Universal design must be furthered through housing and the community environment as a central pillar of community care.

For people who are trying to live with their disabilities in the community, their housing conditions may prove to be a great obstacle. Cramped Japanese houses are often described as "rabbit-hutches". Housing in the community, with associated care services, is a goal of community care. In the future we should press forward nationwide with a technical aid system that will meet people's needs for home remodelling in a more rational and efficient manner, and with universal design principles to provide the conditions for community welfare development.

In Hyogo prefecture, the lessons of the earthquake are being put to work in the Hyogo Phoenix Plan for reconstruction. Collective housing is being built to create communities with community security centres close at hand. To create such communities, the key concepts of

community welfare development are being applied in policies that call for the construction of general care stations to serve broad areas, community security centres that provide 24-hour care over the same service areas as junior high schools, and housing reconstruction community plazas covering primary school service areas. Nobody can tell what tomorrow will bring and we should not become shortsighted and wait until we are disabled. This kind of building at national and community levels is vital if we are to be able to grow old without fear of the future.

Intergenerational contracts and rapidly ageing populations in Japan

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More than three years after the Great Hanshin Awaji Earthquake of January 1995, more than half of the 4500 residents of the post-quake temporary shelters are over 65 years of age and living alone. Why are they living alone in a country where cohabitation rates with children are higher than international levels? This is an extreme situation that has arisen following the earthquake. This paper briefly discusses intergenerational contracts and population ageing and examines the concept from the perspectives of old age security issues such as income and care provision in the general Japanese context, with special reference to the case of the 1995 Great Hanshin Awaji Earthquake.

As Peter Laslett says, intergenerational contract is to be modified in line with other social changes (*1*). What impact does a crisis such as an earthquake have on the intergenerational contract? In this paper I look at the concept in its general context before looking at the more specific case in Kobe.

Intergenerational contract

As people live longer, the contemporaneous period for parents and children is lengthening and so is that of daughters-in-law and parents-in-law (*2*). Longevity itself is supposed to bring increased general well-being. On the other hand, it creates confrontation between generations in a way that no previous generations have experienced. This makes us more aware of the intergenerational contract and conflicts at a personal level. The issues related to the concept of intergenerational contract and conflicts are always there, but as we face population ageing this concept has been receiving more attention, especially from sociologists.

The intergenerational contract is unique in the sense that it involves both those in the past and those who are not yet born (*1*). Laslett uses the term, "processual justice" as a notion of "equity" between age groups over time. Policies should not place the burden on particular generations and cohorts at the time of rapid population ageing. A phase in the demographic transition needs to be considered. Laslett says that it is acceptable for the quantity and quality of intergenerational transfers to be modified in the light of new developments. Indeed the 1995 Great Hanshin Awaji Earthquake must have resulted in major and unexpected changes.

What implications do current policies have for future generations? Should an individual of a future generation be responsible for compensating others from a past generation? When one knows someone personally, factors other than theoretical and economic justice, including altruism, love and guilt, will have a major influence on intergenerational behaviour (*3*).

Implications of population ageing

How can we support those who lose their independence in terms of their wealth and health? While in Japan health and pension systems have been mainly a responsibility of the state, care for frail elderly has instead been a concern of the family. Yet it has also become an issue for society as a whole as the number of those who need care increases and the period during which the care is needed grows longer.

Until recently, Japan's welfare system relied largely on the contribution of family support from middle-aged women (*4*), both as carers of their children and as the major carers of elderly parents and parents-in-law. The probability of women aged 40-59 having to care for an elderly relative is 10% and will increase considerably in the future (*5*). In many countries, the major care-givers are reported to be women. However, what is different in Japan compared to other industrialized countries is that the major care-givers include daughters-in-law, while female care-givers in other industrialized countries are more often wives and daughters.

Is care for the old considered as a burden? Many people may be willing to provide care but the environment makes it difficult. Where is the limit of the burden? Where is the point of healthy balance of what people hope to provide and what they can afford to provide practically?

How is care provided by different generations: from children to aged parents and from parents to small children? A British study, by looking at the unpaid work of old people, shows a striking amount of practical help, voluntary work and caring responsibilities undertaken by older people for family and non-family (*6*). Were this to continue, the demographic change of ageing populations would not be a problem. But society needs to change and the role of different age groups and individuals will change. Will this present a problem?

Japan's old age security

While current public pension systems are a major item of old age security, and the formal care system for old people (*Kaigo Hoken* or care insurance) is a core issue of current welfare system reform, informal family systems to support old family members have been a major source of old age security too.

The *ie* (family) system of inheritance was abolished by a new law after the war. However, the practice remains. The eldest son inherits the properties such as housing and ricefields or the family business, and in return for this he and his family live with the old parents and look after them. The traditional value favouring cohabitation with the eldest son has weakened considerably over time (*4*) for various practical reasons, among them housing and the unwillingness of prospective brides to assume the burdens of care for ageing parents-in-law. The adoption of children is not common in Japan. However, the adoption of children from relatives is not uncommon when a family has no son of its own to receive the inheritance. Two-thirds of adoptions involve the adoption of adult sons aged 20 and over (*7*).

Wealth of old people

The Ministry of Health and Welfare White Paper reports that the economic status of households in which the head of the household is elderly is not lower on average than that of other households (*1*). The income of households in which the head is elderly is somewhat low when compared to households headed by persons in their 30s and 50s, but the income per household member is nearly the same as for other age groups. The savings balance is largest for those households in which the head of the household is 65 years of age or older. Considering that over 80% of the elderly 65 years of age or older own their own home, the White Paper concludes that the economic status of households with older heads is not inferior to those in younger households (*1*). But as their wealth is largely based on household assets, it can be said that Japanese old people are "house rich but have no cash". A high proportion of Japanese old people are house owners while it is no longer possible for the younger generation to buy a new house without their parents' help due to rapid increases in land prices. It is not a usual practice for old people to sell their house and to move into a smaller house after their children have left and become independent, though this is a rather common practice in the USA.

There was major loss of housing during the earthquake. What was then left for an old person? The issue of housing will be discussed later in this paper.

Pensions

Table 1 lists income sources for the elderly aged 60 and over in Japan, the USA and Germany and shows that public pensions are the largest source of income and that private pensions are a small component of old-age income in Japan.

Table 1: Income sources for the elderly aged 60 and older[1] in Japan, United States, and Germany, 1996

Specific income source	Percent specific mentioning income source			Percent specific responding source is that main source		
	Japan	US	Germany	Japan	US	Germany
Work	35	26	7	22	16	5
Public pensions	84	83	84	57	56	77
Private pensions	8	33	24	2	13	10
Savings	21	24	21	2	2	2
Assets	11	34	12	3	9	2
Children	15	3	3	4	0	0
Public assistance	1	2	1	0	0	1
Other	4	7	4	2	2	2
No answer	0	2	0	8	4	2

Source: Management and Coordination Agency (1996) (Ogawa & Retherford, 4)

[1] Note: Results are based on self-reports. For income in general (first three columns), respondents often indicated more than one specific source, so that percentages add to more than 100 down columns. For main income source (last three columns), the percentages for particular income sources add to 100 within rounding error. The distinction between savings and assets is not clear-cut, but most Japanese view savings as money in savings accounts.

The table also shows, surprisingly in view of Japan's relatively high saving rate, that the proportion of the elderly who mention savings as an income source is not higher than in the other two countries. This may be because the savings of the Japanese elderly are tied up in home ownership to greater extent than in the other two countries (*4*).

Primarily as a result of the rapid expansion of pension benefits since the mid-1970s, Japanese elderly have been enjoying the fastest income gains of any age group in recent years. Over the period 1981-1996, the proportion of elderly aged 60 and over who reported that their primary income source was their pension increased from 35% to 57% and the proportion who reported that work was their primary income source declined from 31% to 22%, although this is still high by international standards (*4*). The changes in the pension systems resulted in fewer Japanese elders reporting economic difficulties than in any other industrialized country (*8*).

Saving rate

Japan's saving rate is higher (*9,11*) than that of any other OECD country (Table 2), although Hayashi reports that Japan's national saving rate is not as high as commonly thought (*12*). However, the saving rate is decreasing. The younger generation does not have as many savings as the older generation. Japan's national saving rate peaked around 1970 and thereafter declined rather quickly until 1984 (*12*). If society is ready to support those who fall into poverty in old age, a decreasing rate of saving is not a problem. However, this could be bad both for the economy as a whole and for the security and welfare of the aged.

Japanese elderly save when investments in real assets are included in savings and this result is not affected by the labour force (*13*). The use of the data is questionable because it is very difficult to obtain an accurate figure of the income of the elderly who live with children and because the elderly in institutions and in hospitals (where they may stay for long periods) are excluded from the sample.

Table 2: Saving rates of major industrial countries (% of GNP)

	1984	1989	1993	Average 1984 - 93
Canada	21.1	20.1	15.3	18.5
France	18.8	21.6	18.2	19.9
Germany	21.7	25.6	20.7	22.9
Italy	21.1	19.7	18.2	19.4
Japan	30.8	33.5	33.2	32.8
UK	17.6	16.5	13.2	15.9
USA	16.7	14.1	12.6	13.7

Source: IMF, World Economic Outlook (Baumgartner & Meredith, 11)

Housing and living arrangements

Housing is a major issue when considering the intergenerational contract in Japan. Also, housing is a major issue for the well-being of earthquake victims.

The ratio of the elderly living together with their children in Japan is falling (Table 3), but it is still extremely high compared to other countries. Although the rate of children living together with their parents is declining, about half choose to live nearby, less than one hour away. The younger generation is beginning to consider the question of living together with their parents and the question of supporting their parents as separate issues.

As society has grown increasingly oriented to nuclear families, the percentage of households where children and the elderly live under the same roof has been decreasing, and 40% of the elderly now live either alone or as a couple. It is becoming increasingly difficult to expect families to provide support (*1*). What is the impact for children? Despite the length of overlap in generations, the quantity and the quality of time that families spend together is getting shorter. Do children have time to sit and eat and talk with their older generations when they need to rush to study? What is the impact of fewer intergeneraional contacts on the mental development of children?

Table 3: Percentage of those over age 60 and over age 65 living with children in Japan from 1980 to 1990

Year	Over 60	Over 65
1960	-	87.3
1965	-	84.8
1970	-	79.9
1975	-	75.5
1980	66.7	69.0
1981	66.3	68.7
1982	65.2	68.0
1983	64.1	66.8
1984	62.6	65.3
1985	61.8	64.6
1986	61.5	64.3
1987	60.5	63.3
1988	59.0	61.9
1989	57.6	60.0
1990	57.5	59.7

Source: Ministry of Health and Welfare and Kosei tokei kyokai, 1986, p.72, and 1989 through 1992, p.73 (Anderson, 14; Sonoda, 15)

There is unnecessary stress on children when it is taken for granted that they work hard and compete to pass a school entrance examination and find employment at a major company. This creates a problem in their attitudes towards their parents and grandparents.

They see elders as the source of their stress, instead of thanking them for what they have received from them. How about parents? When they sacrifice a lot to provide education and opportunities for their child, not enjoying themselves but focusing only on their child, can they accept the child's failure? Do they love their children as a person or as an object of their expectations? When educational competitiveness was not as high as it is today, the older generation of parents provided other things to their children. They may have thought they earned the entitlement to receive care from their children in their old age. The attitude of "taken for granted" must change over time.

Housing policy may be considered to promote intergenerational links even when it does not promote actual cohabitation but promotes the independence of old people and a healthy intergenerational relationship. What was the housing policy in Kobe at the time of relocation to *Kasetsu* (temporary shelters) and then to *Fukkou Jutaku* (public reconstruction housing)? The policy of giving priority to elderly people created a heavy concentration of old people in these places. This backfired with the opposite result of what was intended.

Care for old age

One of the very positive consequences of the traumatic experiences of the 1995 Great Hanshin Awaji Earthquake is that community development has received a great amount of attention. Efforts to develop community support systems have become popular with nongovernmental organiztions and volunteers, some of them with experience in developing countries.

The widely believed assumption might have been that old people are happier to receive care from their own family. However, they might feel guilty to take up the time and energy of their family members who are busy. Do they prefer to receive care from their own family members because they have a more intimate relationship with them? Or is it because they would lose face if their daughters-in-law do not provide them with care (*16*)? If it is the latter, the belief that old people want to be cared for by their own family would be untrue and the expectation of daughters-in-law would be unfair.

Changes in family structure, in family occupations and, therefore, in income patterns have caused changes in the expectations of older generations and of younger generations about the support system for old people. Hashimoto (*17*) concludes that culture matters, not in the sense of identifying particular traits such as dependency, but in the symbolic credits and debts that define "entitlement" (emphasized in the American model) and "deservedness" (emphasized in the Japanese model) (*17,18*). These societal changes will change the acceptable social norms of family duties, expectations and blame when support fails. The answer would change to a question about what the "guilty" must suffer when they cannot provide what they hoped to provide and what alternatives should be available.

Is the three-generation or four-generation household an ideal or a source of potential conflict? If the sandwich generation, i.e. women aged 40-59, have to spend more time and resources to care for the older generation, the time and resources they have for their children and themselves will be reduced. Or will the younger generation be better off by receiving a financial transfer from their grandparents and parents within the household (especially when the pension for current old people has been generous in general but will fall as the population

ages when the younger generation will have to contribute more and will have less savings of their own)?

What if the elderly person becomes demented or bedridden? The burden on the carer and the family will increase. What are the rights of demented people? Who makes decisions about residential care for old people and how?

In Japan, the traditional norm is that the first son's wife is expected to fulfil all the practical care-giving responsibilities for her parents-in-law. In 1997, on average 82.3 people per 1000 aged 65 and over were bedridden and, of these, 49.3 were taken care of at home (*19*).

When men only work until they retire, what are the sources of satisfaction for the retired man? They are often linked to family ties. However, how realistic it is to depend on family ties when the number of elderly living alone increases dramatically? Most people in *Kasetsu* live alone. Where do they find their *Ikigai* (value of life)?

The disadvantaged old in Japan

The Ministry of Health and Welfare White Paper reports that elderly households have a large income differential (*1*). The ratio of low-income elderly households is high compared to all households, substantiating the large differential between the haves and the have-nots. The earthquake made those who were poor in normal circumstances the weakest. How will intergenerational contracts vary between a richer old person and a poor one?

Conclusion

This paper looks at intergenerational contracts in a Japanese context. It is a part of a larger research project that will analyse the welfare system in Japan and assess how it responds to the needs of the elderly in times of crisis. The extreme situation faced by the elderly community as a result of the Great Hanshin Awaji Earthquake increased tensions within families and throughout social groups.

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The challenges of ageing and health in the Philippines

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Decline in fertility and mortality rates in the Philippines makes for a gradual process of ageing of society. From this perspective, I examine how institutions are responding to the needs of the elderly and what opportunities are being presented for the phasing-in of changes necessary to prepare for the inevitable ageing of society. Unless the challenges are taken up now, the rapid pace of socioeconomic transformation and current societal inequities are likely to shape the nature of the response.

The focus on health is in keeping with the theme of this symposium, and distinguishes this report from other studies on the elderly population in the Philippines. An attempt is made to weave the information together to gather insights for managing the transition to an ageing society.

Concepts and perspectives

Demographers use age in years as the threshold to set off the elderly from the rest of the population. The practice is to use 60 years as the age to mark the start of the elderly group. The steady decline in mortality rates has increased the likelihood of this age threshold being reached by more people. The increased number and growing proportion of elderly persons in society signal three things: society's triumph over early death and disease, the inevitability of old age for the majority and not just for a privileged few, and the increasing demand for resources to support the elderly population. As Caselli and Lopez (*1*), citing Preston, put it: "In all likelihood, as today's adults grow old, the elderly of the future will demand more from society than do elderly populations of today. Future generations will be better educated and today's adults will demand more in their old age to maintain the lifestyles to which they have been accustomed."

This momentum of demand has implications for the current allocation of resources for the elderly. Old age is not just the beginning of retirement or cessation of active life. Nor is it merely a question of longevity or the release of saved resources, as life-cycle theorists would put it. To examine the conditions of ageing and health in a relatively young society is to call attention to the pressured tip of the population pyramid. The pressures come from having to provide for the young as well as support the adults in an economy characterized by poverty, unemployment and inequalities. To appreciate the conditions of the elderly population in Philippine society one has to view the complex interrelationships and dynamics of family/kinship, community and state. The quality of life and the status of the elderly in society are by-products of their socioeconomic position prior to reaching the age threshold. This position is in turn an off-shoot of the opportunities society offers to its citizens. The health conditions of the elderly are a reflection of their lifestyles as well as of the ability of the state, in terms of resources, and in planning and technical capability, to combat diseases and influence health behaviour.

Trends in ageing and health in the Philippines

Demographic background

It is estimated that there were approximately 68 million Filipinos in 1995 and the total is expected to reach 76 million in 2000 and 84.2 million in 2005 (Table 1A). The fertility rate in 1995 of 3.8 was barely half the rate in 1965, which was 6.8. The Philippines had the highest fertility rates registered during the period and the slowest rate of decline compared to other countries in the region (Table 1B).

Crude death rates per thousand population from life table estimates showed a slow decline from 8.48 in 1970 to 9.49 in 1980 and 7.36 in 1990 (Table 1C). Age-standardized crude death rates showed that between 1970 and 1990 mortality declined by as much as 27% for the country as a whole. Life expectancy at birth increased by six years (from 61 to 67 years) for females and five years (from 57 to 62 years) for males between 1970 and 1990. During the same period, infant mortality rates declined from 94 per 1000 live births to 60 for males, and from 84 to 53 for females. The national pattern is reflected throughout the country (*2*).

Epidemiologic trends among the elderly

The demographic picture is of a country of many young people and few older persons. However, the number of older persons in the country can compare in size to that of the total population of a small country. Data from the last census in 1990 showed that there were approximately 3.7 million Filipinos aged 60 years and above. They comprised about 5.5% of the population. This group was largely (35%) composed of the "young old" belonging to the 60-64 age group, followed by 26% in the 65-69 age group. Elderly women outnumber elderly men, reflecting the life expectancy profiles shown above.

Mortality statistics in 1993 showed that the five leading causes of death among elderly persons were tuberculosis of the respiratory system, cerebrovascular disease, hypertension without heart involvement, acute myocardial infarction, and diseases of the pulmonary circulation and other forms of heart disease. The same causes were detected across elderly age groups, although for those aged 70 and older pneumonia was cited as the leading cause of death.

Morbidity trends among the older age group are not officially monitored. Interviews, however, showed that in terms of infectious diseases older persons suffer from pulmonary and upper respiratory tract infections and obstructive lung ailments. Among noninfectious problems, osteoarthritis and cardiovascular ailments are widespread. It was observed that there is an increasing prevalence of prostate disease for males above 60 years of age. Complications arising from poly-pharmacy and nutritional deficiencies were also noted.

The disease and mortality patterns among the elderly mirror the country's epidemiological profile, showing the coexisting prevalence of preventable diseases with chronic and degenerative ailments. This has implications for resource requirements of health service delivery, as well as for the focus of targeted public health programmes.

Economic trends

For the Philippines as a whole, poverty, inequality, unemployment and underemployment remain serious problems. While neighbours in the region have registered significant strides in reducing poverty, progress in these areas for this country has been sluggish. Income inequality remains high. There is widespread belief among economists that improvements in poverty reduction lie in how fast the country has experienced economic growth, and that has been disappointing. Overall, the country has grown less than half as fast as its neighbours (*3*). Table 3 illustrates these trends.

Surveys have shown that, in the age group 65 and above, there was still high labour force participation. Labour force statistics showed that in 1992, for example, males and females aged 65 and over had labour force participation rates of 60.7 and 28.7 respectively. Some 57% of the males in the older age group were still employed, against 26.6% for females (*4*). In a special analysis of the low-income population from FIES data in 1991, Racelis and Herrin (cited in *4*) state that among the poor, 65.4% of men and 31.5% of women aged 65 and above were reported to be employed.

Most of the older men (87.4%) and 61.4% of women were working in agriculture. One-fifth of older females reported work in the production and transport sector. The majority (77% for men, and 55% for women) of those aged 65 and above are self-employed without other employees. More than a quarter (27.6%) of older females reported working without pay in their own enterprises, as against 4.8% of males in the same class of work.

Problems and challenges

The demographic picture shows that, with much of the transition still ahead, the Philippines can expect to derive benefits from its continuing labour force growth and decreasing dependency. However, prior to reaching that state, the conditions for older persons need to be examined as the elderly will remain significant contributors to production, especially in rural areas. With about two-thirds of the rural population being considered income-poor, the condition of the elderly in the Philippines is therefore one of impoverishment.

At the same time, limited access to farmland, widespread unemployment and limited public housing combine to make older persons still significant bread-winners in their families. Surveys and small sample analysis of census data showed that, except for 2–3% of the sample population, all elderly persons are found to be living with their family, often covering three to four generations (*5*). For much of the rural sample in the studies cited, the majority of older persons own the residence they now share with their dependents. These living arrangements, cohabitation, are the same for urban areas. Older persons are care-givers for the children left behind by parents working overseas. This twin role in production and care-giving may explain the relatively high status enjoyed by older persons in the country, as shown in an ASEAN survey (*6*). However, this also raises ethical questions about whether these arrangements are choices and preferences expressed by older individuals. It also calls into question the nature of intergenerational relationships and of intra-household allocation of resources.

Under conditions of impoverishment and increasing vulnerability in the home, the ability of the elderly group to access state resources, especially for health and other

safety-nets, provides another level of support. Social security and welfare expenditures remain at low levels, about 3% of government expenditures. Only one-fifth of the workforce is covered by social security. With resources extremely limited, the current focus of government programmes is directed towards the needs of the larger base of the population pyramid. Resources for controlling family size far outweigh allocation for the health problems of the elderly. No public tertiary facilities provide geriatric wards, nor are there adequate numbers of trained specialists and allied professional support. Health insurance schemes do not allow cover for those over 65 years of age, even as dependents of younger paying members.

This leaves community and other sectors such as former employers, the private sector and voluntary groups as mediating supports for the elderly. Common disabilities of older persons have close links to home and work conditions. Problems often reported for the elderly include memory loss, hearing and sight impairments, reduced mobility and incontinence. Occupational safety enhancements need to be increasingly emphasized in schemes to mitigate the problems of ageing. Workplace introduction to modern computer technology can also assist the elderly to manage the transition to a high technology world and help reduce intergenerational gaps. The fact that some people are more adept than others at adopting modern technology deserves some life-history studies, particular for women workers in the electronics and technology fields.

Moreover, communities, including local governments, must be harnessed to provide adequate home support and social assistance to families with elderly and disabled members. Assistance in the form of medical aids for the elderly can be provided by the private sector and other voluntary groups. The problems and health needs of the elderly require a continuum or network of support systems straddling health providers, health and social institutions, communities and the home. The complexities of the struggle to survive economically, to manage health complications and to enjoy a better quality of life in one's twilight years are daunting.

Policy responses

Legislatively, major landmarks have been achieved for the elderly in the Philippines. However, much remains to be done, particularly with respect to implementation. Two legislative bills have been passed in the recent congress. One, Republic Act 7432, provides for privileges in basic commodities for senior citizens. These are largely in the form of discounts in pharmacies, public utilities, restaurants and other places. Official reports showed that some 2.5 million senior citizens have enjoyed these privileges. There is also another law creating the Office for Senior Citizens' Affairs. These initiatives have been undertaken with the cooperation of the burgeoning senior citizens' groups in the country, and the large support of an appointed sectoral representative to the legislative body. However, sectoral representations have been recently changed to a party list system, which mandates that only groups that take 2% of total votes in the country are entitled to representation. The electorates are allowed to choose the sectors they want to represent them. Clearly, this marginalizes groups in the elderly sector as relative numbers and other conditions count against them.

There are extreme inadequacies reported with regard to institutional facilities such as residential homes, nursing homes, geriatric wards, and day facilities for the elderly. The government runs only one or two homes for the aged. The slack in the public sector is taken

up by the private sector, mostly by private charitable institutions. However, private facilities are also few and are largely fee-paying.

The struggle for the elderly sector to be heard is taken up by nongovernmental organizations in the country. New bodies are constantly evolving. One coalition, the Coalition for Services for the Elderly (COSE) has arranged with some social housing schemes to allot one house for its elderly members to maximize their role and function in the community. They have also developed their own guidelines for health workers in a primary care setting to address the health needs of the elderly. Increasingly the state is looking at these community-based groups as allies and significant resources for delivering needed services in a situation of strained fiscal resources.

In the dynamics of Philippine life, the strength of one's position is often dictated, if not by numbers, by the relative claims to resources vis-à-vis other claims and groups. The elderly group can claim to be in a relatively better position as political and other social figures belong to this group. However, these resources need to be harnessed to respond effectively to the needs of the sector amid the changing dynamics of society.

Conclusion

The issues of ageing and health are further complicated by the inadequacy of current information on the number of the elderly and monitoring of their conditions, as well as by the lack of multidisciplinary research to address policy development and intervention needs. Several developments, however, can provide directions for research and intervention:

- Socioeconomic transformations brought about by globalization are likely to bring mixed outcomes for the position of the elderly in society. If this process brings increased access to wealth-generating opportunities to the younger generation, it is the efficiency of intergenerational transfers that will determine the resources that will be made available to the elderly. Current banking and capital market reforms, and especially their implications for pension plan reforms and tax policies, can be examined with regard to the extent that they provide for the financial security of the elderly. Assistance with financial planning for retirement needs to be developed.
- If expanded economic opportunities lead to family break-ups and decreasing filial loyalty, then the state and community acquire greater importance in alleviating the conditions of older persons. An integrated system with basic health services for the elderly will require retraining of current personnel and training of new professionals such as geriatric medical specialists, occupational therapists, and physical and psychiatric therapists. A community approach would require the mobilization of family members, local government and nongovernmental organizations.
- That the elderly are increasing in numbers is due not only to demographic trends but also to the success of interventions that prolong life. With much of elderly population located in rural areas, much needs to be known about health promotive practices for the elderly. The information can be disseminated and replicated in other areas. Such practices can also be examined for their cost-efficiency and effectiveness vis-à-vis other interventions.
- Lastly, the application of epidemiology to understanding ageing and health is lacking in the country. For example, the rising incidence of tuberculosis among elderly patients need to be assessed. A systematic approach to understanding the conditions of ageing and health needs to begin with this.

It is in moblizing the resources needed for understanding (research) and responding (treatment and rehabilitation) to the health problems of the elderly, and in creating that delicate balance between individual and family responsibility and the state and community, that the greatest challenges in preparing for the ageing of society lie.

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The impact of population ageing in Singapore: policy issues and implications for health care financing

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Financing health care of the ageing population has surfaced as a critical issue in newly industrializing countries such as Singapore which have undergone rapid demographic and epidemiological transition. Current trends in the changing age structure will have tremendous implications for the employment, financial security and health care of the aged. As health needs of ageing populations are expected to intensify the demand for and the expenditure on health care, it becomes necessary to plan appropriate and cost-effective services for the increasing number and proportion of older persons. Hence the urgency for bold and innovative approaches to organizing and financing of health care in view of the pressures of increasing health care costs.

Singapore has embarked on a policy of health reform by restructuring its health care financing system through a compulsory medical savings scheme. This is part of a central provident fund for the working population. The mandatory Medisave scheme for basic medical coverage is further backed up by a voluntary Medishield insurance scheme for catastrophic illness, and by Medifund, a medical endowment fund contributed by the government to provide targeted public subsidy to the poor and indigent. Singapore's 3M system of health care financing attempts to avoid the problems of conventional pay-as-you-go taxation and social insurance systems. Present generations of younger wage-earners are mandated to save for their own health care needs in old age, instead of depending on the uncertain taxes and contributions of future generations. Medical savings accounts can also be used to cover dependent family members, consistent with the traditional values of filial piety and extended family support.

Unlike social insurance and tax-based financing, the savings approach would not place a heavy burden on the declining proportion of the young and productive, and would free health care expenditure from the vagaries of economic cycles. To avert the intergenerational transfer problems due to the old-age crisis, a mix of three pillars to support the basic functions of old age security – redistribution, insurance, and savings – has been proposed. Together, these three pillars co-insure against the risks of old age while not impeding growth. As health care needs are projected to be greater in old age, a similar mix of financing methods are recommended to offer more protection, while promoting economic growth in countries with rapidly ageing populations. These considerations have formed the basis for the existing system of integrating old age security and health care financing in the Singapore model.

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Regional public health for elderly people in Kobe City[1]

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The Great Hanshin Awaji Earthquake, which occurred on 17 January 1995, resulted in a decrease of population in Kobe City of about 100 000. The city's current population is roughly 1.45 million with a geriatric rate of 13.5%. Kobe City has 108 hospitals in nine separate wards and about 20 000 beds in total. However, there are many bedridden elderly people in these hospitals as a result of what is dubbed "social admission". For this reason, Kobe City is rapidly constructing nursing homes. The total number of beds in special nursing homes for elderly people has increased three times over the past 10 years and there are 3000 beds available at present. In addition, the total number of beds in health service facilities for elderly people has also increased 10 times during the past six years and 1500 beds are open at the present time.

Thus, there are sufficient medical facilities in Kobe City at the present time. Recently, all patients including the elderly have been required to pay a part of medication costs in hospitals and nursing homes. The result has been a decrease in the number of visits to medical facilities.

The day-care service in special nursing homes is responsible for rehabilitation exercises as requested by physicians, while the adjacent care support centre has a demonstration room for various equipment to assist elderly and disabled people in their homes. Attractions include visits and parties.

For bedridden elderly people who stay at home, public health nurses and clinical nurses visit to supply practical care, as do home helps for daily chores, feeding and shopping. Periodic visits by dentists and home doctors are also available in some areas, as is a van that provides a mobile bathing service.

The Village of Happiness has more than 30 facilities that supply various public health and social welfare services, including a nursing home for patients with senile dementia, a rehabilitation hospital, short-stay facilities, a gymnasium, a recreation centre, and a "silver college". It also employs staff to offer a variety of home services. The silver college is a 3-year educational facility for people over 60. The course includes community welfare, environmental issues, art and international communication. The purpose of the college is to improve and renew the knowledge of the elderly in order that they may contribute to their own communities.

A public health and welfare information section for elderly people has been established at each ward office to supply a variety of assistance from consultation to practical care. The section is authorized to link up with representatives from the medical community, nursing homes, local welfare commissioners, and women's associations for help and information regarding public health, medical care and social welfare.

[1] Presented by Y. Kawakami, Kobe City, Japan

As elsewhere in Japan, the top three causes of death in Kobe City are malignant tumors, heart disease and strokes. Japan is experiencing a dramatic increase of lifestyle related diseases, including hypertension and diabetes mellitus. This country is spending ¥8 trillion to treat these disorders, which is about one-third of total medical costs. To reduce their incidence and progression, the public health department in each ward advises local citizens on proper diet, exercise and relaxation, cessation of smoking habits, and appropriate alcohol intake, and so on. Kobe City has the second worst incidence of tuberculosis in Japan, with high susceptibility among elderly people. Therefore, Kobe City Health Centre and Kobe City Tuberculosis Oversight Committee meet weekly to discuss preventive and therapeutic strategies, as well as the management of individual patients. The public health department is providing both basic medical and tuberculosis examinations to housewives and self-employed people over 40 years of age. The examinations include blood pressure check, urine and blood analyses, and chest X-rays and cover some 80 000 citizens annually. In addition, screening for stomach, uterus, lung, breast and colon cancers is also available to anybody who wants to be examined. About 140 000 citizens are examined annually. The public health department also supplies training opportunities for citizens, including cooking practice, health education, exercise lessons and rehabilitation training.

A local welfare centre has been established in each primary school district in Kobe City. The activities include educational opportunities for local children to have interactive experience of elderly people. For the elderly, lunches, Karaoke singing, stretching exercises, Japanese chess, social dances, and frequent communications with local kindergarten children are also regularly scheduled.

There are many clubs for elderly people with activities that include walking, ball games, support for the debilitated, community clean-ups and vegetable gardening. To promote these activities among the elderly, the city supplies free tickets for the bus and subway.

The recent trend is to construct facilities for housing for elderly people in one place. In the centre of Chuou ward, there is one of these developments. The facility includes a care support centre for bedridden people and a rehabilitation centre for both inpatients and outpatients on the first floor, a special nursing home, a regular nursing home, and a health service facility on the second, third and fourth floors, and public housing on the fifth and sixth floors.

In Hyogo ward, a joint public health and social welfare facility has been constructed. In central Hyogo ward a health examination facility, gymnasium and cooking instruction facility are all within the Kobe City Health Promotion Centre. Also, a special nursing home for elderly people is in operation.

In Nagata ward, heavily damaged by the earthquake, there exist a local welfare centre, a day service centre, a children's centre, and "silver" housing for the elderly.

As the geriatric population is increasing annually in Japan, the medical cost of elderly people is also increasing. At present, the cost has surpassed ¥10 trillion, which is about 36% of all medical costs of this country. Unfortunately, the trend is still increasing year by year.

On the other hand, the percentage of those old people willing to work is higher in Japan and Korea than in Germany and the United States. Therefore, the most efficient way to

curtail the medical cost of elderly people depends upon the maintenance of their health. As long as they are healthy, they like to be independent and contribute to their society rather than to stay in nursing homes or health service facilities.

After the Great Hanshin Awaji Earthquake, Kobe City alone provided 30 000 temporary housing units. Over the past three and a half years, many people have gradually moved into new permanent housing. At present, only 7000 temporary housing units are occupied, which is less than a quarter of the original number. However, many elderly who live in either temporary or permanent housing units are alone and the city is obliged to continue to supply living and health support services to them.

In spite of its tight financial situation, Kobe City continues to pursue policies of public health and social welfare for elderly people in order to prepare for the coming aged society.

As Japanese society ages, many elderly people hope for a long and healthy life, followed by a peaceful ending. In Japan, some term this "Pin Pin Korori" which translates as "being lively, well and sound throughout a long life, and then meeting a swift death free from pain". In order to live a healthy and long life, it is necessary that people are educated about the importance of diet, exercise, proper rest, not smoking, and limiting alcohol consumption from a young age.

Furthermore, to raise the quality of life among all citizens, as well as to reduce total medical costs, we shall make additional efforts to see that people suffering from lifestyle-related diseases are more fully supported by the public health system.

The Healthy Long-life Plan

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The Healthy Long-life Plan is one of Hyogo prefecture's health and welfare plans for the elderly. The background to establishing local health and welfare plans for the elderly dates back to the late 1980s, a turning point of the Japanese welfare system, especially for local governments. At that time the social security programmes for the elderly underwent structural reform.

One of the major changes was to provide much more in-home care instead of institutional care to allow the elderly to continue to live in their own communities as long as possible. Another change was a shift of welfare service administration from the national government to municipalities in the course of decentralization. Responsibility for welfare programmes had formerly belonged to national government, and local governments had just followed the programmes given. In order to take responsibility, local governments were required to set goals and measures for their own welfare programmes. In consequence, the establishment of a Local Health and Welfare Plan for the Elderly became mandatory for municipal and prefecture governments. These changes were authorized by eight welfare laws reform in 1990.

In the course of welfare reform in 1989, the Ten-Year Strategy to promote Health Care and Welfare for the Elderly, named the "Gold Plan", was formulated. The Gold Plan prescribed various welfare services and defined developmental programme goals by 1999. It included home helps, nursing homes and other services for the elderly.

The Healthy Long-life Plan of Hyogo prefecture was established under those circumstances. In compliance with the Gold Plan, it was established in October 1990 for provision of health care, medical and welfare services, establishing targets for the 21st century. It had previously been prepared as Hyogo's original health and welfare plan for the elderly, but it turned out to be a plan that was later designated by law. The Healthy Long-life Plan was revised in February 1994 to meet new needs and respond to arising issues. At a national level, after target figures in plans all over Japan were aggregated, the Gold Plan was comprehensively reviewed and a new Gold Plan was formulated in December 1994.

The characteristic of the Healthy Long-life Plan of Hyogo is that it is an action plan to promote health care and welfare policies for the elderly and enable municipalities to carry out their respective health and welfare plans. The Healthy Long-life Plan of Hyogo has five strategies, namely:

- a campaign to promote communal partnership;
- a strategy for security improvement;
- a strategy to reduce the number of bedridden elderly to zero;
- a strategy to triple health and welfare facilities for the elderly;
- a strategy for enhancement for the elderly.

The plan includes not only health and welfare services in a narrow sense, but also community development and housing programmes. Based on the relevant ordinance for the

creation of a welfare-oriented society, barrier-free design is encouraged in public and private buildings, roads, parks and on public transportation. In addition, housing for the elderly and support for house renovation are promoted. Elderly citizens are encouraged to remain socially involved and employed and to achieve meaningful lives in good health.

The plan's current progress varies, depending on services. Generally, institutional services have progressed more than in-home services. For example, the achievement rate for the special nursing home elderly was close to 100% in 1997. That of home helps and short-stay facilities was over 70% and should reach 100% by 2001. On the other hand, the achievement rate of day service/day-care and support centres for in-house care were less than 60% in 1997. This trend is similar to that of the new Gold Plan.

The level of progress also varies by area. In general, infrastructure development is lagging behind in urban areas. For example, the achievement rates of home helps and of special nursing homes in the rural (northern) areas are higher than in urban areas.

To meet the increased need for care services for the elderly following the Great Hanshin Awaji Earthquake, Hyogo prefecture is making all-out efforts to carry out the urgent project to establish in-home services and to expedite the construction of special nursing homes for the elderly.

The key to the success of the Healthy Long-life Plan is to improve the overall care system and to ensure flexibility to cope with new issues that arise after the public care insurance system is implemented in 2000.

To this end, an on-site survey is under way in cooperation with municipalities. This aims at:

- encouraging elderly citizens to maintain their health for independent living;
- establishing a new system for integrated services of health care, medicine, and welfare;
- providing the basis of in-home services in corporation with NGO and companies;
- promoting a welfare-oriented society based on the lessons from the earthquake.

Based on the results of this survey, Hyogo prefecture will review the current Healthy Long-life Plan, set up new targets for a five-year period starting from 2000, and enhance its in-home and institutional services.