A Market Projection for Long-term Care in Japan

by Hiroshi Kishida
Socioeconomic Research Dept.

1. The Long-term Care Environment

As Japan approaches a full-fledged aging society, long-term care is becoming an increasingly serious issue. Discussion of public long-term care insurance has thus far focused on a social solution to care problems such as the excessive care burdens on households and forced hospitalization. On December 9, 1997, the Long-term Care Insurance System bill was passed into law by the extraordinary Diet session, and the system will be initiated in April 2000.

Until recently, long-term care in Japan was considered to be the responsibility of families. But as housing conditions changed and nuclear families became more prevalent, families found it increasingly difficult to provide care. Public policy focused on building public care facilities that would support care. However, in densely populated areas, capacity growth in public facilities could not keep up with demand, soon revealing the limited effectiveness of institutional care. Moreover, institutional care was massively expensive, and with the demand for long-term care predicted to surge in the near future, it became clear that feasible alternatives to institutional care were needed. As a result, at-home care was reconsidered as an alternative, and the new Long-term Care Insurance system is regarded as a social system designed to support at-home care. However, we must recognize the complexity of this system--until the system is realized, at least 300 administrative and ministerial orders will have to be issued.

In addition to the financial benefit of containing medical and long-term care expenses, at-home care also offers the benefit of freeing elderly people from forced confinement to bed, a problem often encountered in institutional care. However, household and residential conditions in Japan have not changed appreciably since the time long-term care was shifted from households to institutions. The proportion of nuclear households rises every year, while the average size of household continues to decrease. Given this social environment, the demand for long-term care and welfare services from families taking care of elderly persons is expanding rapidly.

In this paper, we attempt to project the size of the long-term care market once long-term care insurance takes effect, and consider issues that will arise when private businesses enter the market.

2. Population Projection of Elderly Needing Care

(1) Assumptions and Methods

While the Long-term Insurance Law defines six levels of care, we will adopt the three-part classification found in available statistics: (1) elderly confined to bed (including those with senile dementia), (2) elderly with senile dementia (excluding those confined to bed), and (3) frail elderly persons.

Using available statistics, we obtained the number of elderly needing care in these three categories, and calculated their incidence rates with respect to the general population. Then we applied the incidence rates to the population projections made by the National Institute of Population and Social Security Research, and obtained future estimates of elderly persons needing care.

Considering factors such as medical progress and the campaign to reduce the number of bedridden elderly to zero, present incidence rates of elderly needing care are quite likely to change in the future. Nonetheless, the difficulty of reflecting these factors in the projection led us to make the unrealistic simplifying assumption that incidence rates will remain constant. For the starting point of the projection, we used the 1993 survey results of the Ministry of Health and Welfare's Research Group on Elderly Care and Support Systems for Autonomous Living (Table 1).

Table 1 Number of Elderly Persons Needing Care (1993)

	Confined to bed	Senile dementia	Frail	Total
Total (persons)	900,000	100,000	1,000,000	2,000,000
% of total	45.00	5.00	50.00	100.00
As % of population age 65+	5.33	0.59	5.92	11.83
Population of age 65+				16,900,000

Note: Population estimate is as of October 1, 1993.
Source: MHW Reseach Group on Elderty Care and Support Systems for Autonomous Living.

From institutional care data in 1993, we obtained the number of elderly needing care by type of institution, sex, and status of care. Next we subtracted these values from the MHW survey results, and assumed the remainder to represent elderly receiving at-home care. We then added up the number of elderly needing care in all these locations, and calculated the number of elderly needing care by the categories of age, sex, and care status.

We then obtained incidence rates of elderly needing care for the general population in 1993 by age, sex, and care status (Table 2). Finally, we applied the incidence rates to future population projections to project the number of elderly people needing care in the future.

(2) Projection Results

According to our projection, there will be 2.66 million elderly people needing care in 2000. By status of care, there will be 1.2 million elderly confined to bed, 140,000 with senile dementia, and 1.32 million elderly persons who are frail (Table 3). Moreover, the number of elderly needing care will increase by 1.4 times to 3.77 million in 2010, and to 4.77 million in 2020. For the period from 2000 to 2020, the projected average annual growth rate of elderly needing care is 3.0 percent. Thus whereas the total population is predicted to begin declining after peaking in 2009, our projection makes clear that the number of elderly needing care will continue to grow until 2030.

3. Market Projection for Long-term Care

After making our population projection for elderly needing care, we made a market projection for the long-term care market. The MHW has projected that long-term care expenditures for elderly people nationwide will reach 4.1 trillion yen in 2000 (under Case C, where the cost of care grows 3 percent). For our market projection, we calculated long-term care costs differently, and applied these values to our population projection for elderly needing care.

(1) Unit Costs of Care Services

The cost of long-term care varies depending on factors such as the status of care and especially whether the care is provided at home or in a facility. We assumed that the New Gold Plan is implemented as planned, such that at-home care comprises 60 percent of long-term care from 2000 and institutional care 40 percent. Using our projection of elderly needing care by type of facility, we divided long-term care into at-home and institutional care.

Table 2 Incidence Rate of Elderly Needing Care

(%)

	Confined to bed			Senile dementia			Frail			Total		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
65 - 69	1.82	1.62	1.71	0.14	0.10	0.12	2.16	1.82	1.97	4.11	3.55	3.81
70 - 74	3.49	3.48	3.49	0.31	0.30	0.31	5.07	4.33	4.63	8.88	8.12	8.42
75 - 79	4.37	4.86	4.66	0.61	0.67	0.65	5.50	4.81	5.08	10.48	10.33	10.39
80 - 84	9.51	13.99	12.37	1.11	1.35	1.26	13.63	14.91	14.45	24.25	30.25	28.08
85 - 89	12.35	18.49	16.49	1.91	2.36	2.21	14.58	15.89	15.46	28.84	36.74	34.17
90 +	14.79	21.00	19.31	2.44	2.82	2.72	15.47	16.72	16.38	32.71	40.54	38.41
Total	4.24	6.07	5.33	0.49	0.66	0.59	5.54	6.18	5.92	10.28	12.91	11.83

Next we obtained long-term care expenditures by applying the cost of care per person to the number of elderly needing care for different statuses of care and types of facility. Here we set unit care costs as follows. Care expenses include living allowances such as food, clothing, etc.

Table 3 Projection of Elderly Population Needing Care

Unit: 1,000 persons

	Confined to bed	Senile dementia	Frail	Total
1993	900	100	1,000	2,000
2000	1,203	136	1,324	2,663
2010	1,710	197	1,865	3,772
2020	2,172	255	2,344	4,771
2030	2,430	289	2,587	5,307
2040	2,376	286	2,490	5,152
2050	2,317	279	2,459	5,055
2060	2,246	274	2,345	4,866
2070	1,885	230	1,955	4,070
2080	1,636	198	1,719	3,553
2090	1,514	184	1,588	3,286

Source:National Institute of Population and Social Security Research, Sept.1992 (low estimate).

1. Unit Care Costs for Institutional Care

Facilities that accommodate elderly needing care include health facilities for the elderly, elderly welfare facilities, and hospitals. Elderly welfare facilities include *tokuyo* special nursing homes and moderate fee homes. We classified institutional care in 2000 into four categories--health facilities for the elderly, *tokuyo* nursing homes, fee-charging homes, and hospital wards for long-term care--and set unit care costs based on available statistics (Table 4).

Table 4 Unit Costs of Long-term Care Services (at present prices)

Unit: Yen

	Form of care	Condition of elderly person	Living allowance	Monthly care expense	Annual total
At-home care	Outside services	Confined to bed	56,787	200,000	3,081,444
		Senile dementia	56,787	200,000	3,081,444
		Frail	56,787	143,200	2,399,844
	Family care	Confined to bed	56,787	180,000	2,841,444
		Senile dementia	56,787	180,000	2,841,444
		Frail	56,787	128,880	2,228,004
Institutional care	Health facility for elderly	Confined to bed	66,780	298,907	4,414,539
		Senile dementia	66,780	289,785	4,305,075
		Frail	66,780	185,213	3,050,211
	Tokuyo special nursing home	Confined to bed	64,420	240,294	3,677,766
		Senile dementia	64,420	232,961	3,589,770
		Frail	64,420	148,895	2,580,978
	Fee-charging home	Confined to bed	64,420	240,294	3,656,568
		Senile dementia	64,420	232,961	3,568,572
		Frail	64,420	148,895	2,559,780
	Hospital ward for long-team care	Confined to bed	124,277	332,917	5,520,957
		Senile dementia	-	-	-
		Frail	-	-	-

2. Unit Costs for At-home Care

When care is given at home, care expenses can vary depending on whether care is provided by family members or by outside care providers. Moreover, the cost of outside care services varies depending on the type of service and frequency of use. For elderly confined to bed and elderly with senile dementia, we calculated unit care costs assuming that the outside services shown below are used. For frail elderly persons, we assume the same services are used, but that costs are less due to the less intensive care needed.

Home helper service: 4 times a week
Nurse visits: 1 time a week
Day care service: 1 time a week
Short-stay care service: 1 time every two months

When care is provided by family members, their labor is usually not reflected in the cost of care. However, since we are trying to make a rough estimate of the long-term care market, we calculated the value of their labor using the hourly wage for part-time workers.

The cost of at-home care varies considerably depending on the rate of use of outside services. Moreover, it also varies depending on whether the supply of at-home care services has been expanded to meet demand. However, since we cannot fully envision what at-home care services will look like in 2000 and 2010, we calculated unit care costs under the assumption that elderly receiving care at home will rely to a certain extent on outside service providers. Necessary costs such as emergency notification, rehabilitation, and home remodeling are included in the unit care cost.

(2) Market Projection Results

Since the purpose of our projection is to estimate the future size of the long-term care market at present prices, we calculated costs at present prices without taking into account inflation.

We project that the long-term care market will reach 8.5 trillion yen in 2000. It will grow approximately 30 percent to 11.3 trillion yen in 2010, and pass 20 trillion yen by 2030 (Table 5). Our projections are much higher than the MHW's rough estimate made in 1995 for total long-term care expenditures of 4.2 trillion yen in 2000. The gap widens for 2010, with the MHW projection at 6.9 trillion yen. The disparity can be attributed to several factors: (1) for both institutional and at-home care, our projection includes care amenities, (2) to obtain a broad image of the long-term care market, our projection includes living expenses of elderly needing care, and (3) we included the value of labor contributed by family members in estimating the cost of at-home care services.

Table 5 Projection for the Long-term Care Market

(Unit:¥billion)

			2000	2010	2020	2030	2040	2050
At-home care	Helpers	Confined to bed	1,200	2,140	3,810	3,990	4,170	4,050
		Senile dementia	120	220	390	410	440	430
		Frail	1,720	3,080	5,500	5,670	5,840	5,670
	Family care	Confined to bed	740	-	-	-	-	-
		Senile dementia	70	-	-	-	-	-
		Frail	1,070	-	-	-	-	-
	Services		210	270	340	350	370	360
Institutional care	Health facility forelderly	Confined to bed	120	200	330	340	360	350
		Senile dementia	90	150	240	250	270	260
		Frail	70	150	340	340	350	340
	Tokuyo nursing home	Confined to bed	620	1,000	1,620	1,690	1,770	1,720
		Senile dementia	150	240	390	410	430	420
		Frail	250	550	1,210	1,250	1,290	1,250
	Fee-charging home	Confined to bed	10	20	30	30	30	30
		Senile dementia	30	50	80	80	90	90
		Frail	20	50	120	120	120	120
	Hospital ward for long-team care	Confined to bed	1,950	3,150	5,090	5,320	5,570	5,420
		Senile dementia	-	-	-	-	-	-
		Frail	-	-	-	-	-	-
Total at-home care market			5,140	5,710	10,040	10,420	10,810	10,510
Total institutional care market			3,310	5,560	9,430	9,830	10,280	10,000
Total market			8,450	11,270	19,470	20,250	21,090	20,510

Note: After 2000, the market for family care is assumed to consist of outsourcing only.

4. "Silver Business" Issues

(1) Trends in Long-term Care and Welfare Services in Japan

Long-term care services in Japan have been provided primarily by municipalities, social welfare corporations, and social welfare councils. While operators in the private sector have also provided services, they account for a small part of the total. However, there has recently been an increase in outsourcing by municipalities to private providers for services such as bathing services and home helper services.

While services are primarily provided by public institutions, the large market demand predicted in our projection indicates that the care services field offers substantial business opportunities to the private sector. Once the long-term care insurance system starts, price differences between public and private sectors will disappear. Moreover, as administrative regulations on care services provided by municipalities are eliminated and users are allowed to freely choose the services they want, private providers will find market entry to become much easier.

(2) Private Sector "Silver Business" Issues

Given the maturation and stagnation of many other consumer markets, companies are keenly interested in the rapidly growing long-term care and welfare market. Companies from many diverse industries have already entered the market in anticipation of future growth. We predict that large companies will also be providing long-term care services through franchise chains.

Meanwhile, small and mid-sized companies also have business characteristics suited to the "silver business" (long-term care and welfare market) and are not likely to be crowded out by larger companies. That is, since the demand for long-term care and welfare services is personal and diverse, many aspects cannot be adequately accommodated by mass production and uniform services. There are thus many opportunities for small and mid-sized companies to exercise their strength by offering personalized care. In particular, since these services depend on human resources and are highly labor intensive, economies of scales are not very effective. Thus smaller companies have considerable opportunities in entering the market.

While the long-term care and welfare market offers considerable opportunities for the private sector, the silver business is also bound to encounter many issues not seen in other consumer markets due partly to the fact that consumers are elderly and weak. Poor quality of service may directly endanger lives. Moreover, the quality of service depends greatly on the actual person providing the service. Thus quality assurance will be a crucial issue from the viewpoint of protecting consumers.

The provision of services thus needs to be developed with an emphasis on systems for monitoring and controlling quality. With the huge potential market expected to attract entry from all quarters, the success of the long-term care insurance system and its market-based approach will rest on the extent to which services are adequately supplied and quality control maintained.