# 第Ⅱ部 平成14年度 研究報告

第1研究「高齢者に対する介護保険給付、医療費、福祉サービスに関する パネル・データの構築とこれを用いた所得階層別等の実証分析」

主任研究者

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# 高齢者に対する介護保険給付、医療費、福祉サービスに関する パネル・データ構築のためのパイロットスタディ

#### 池上直己 (慶應大学医学部)・社団法人北海道総合研究調査会

#### 1. 目 的

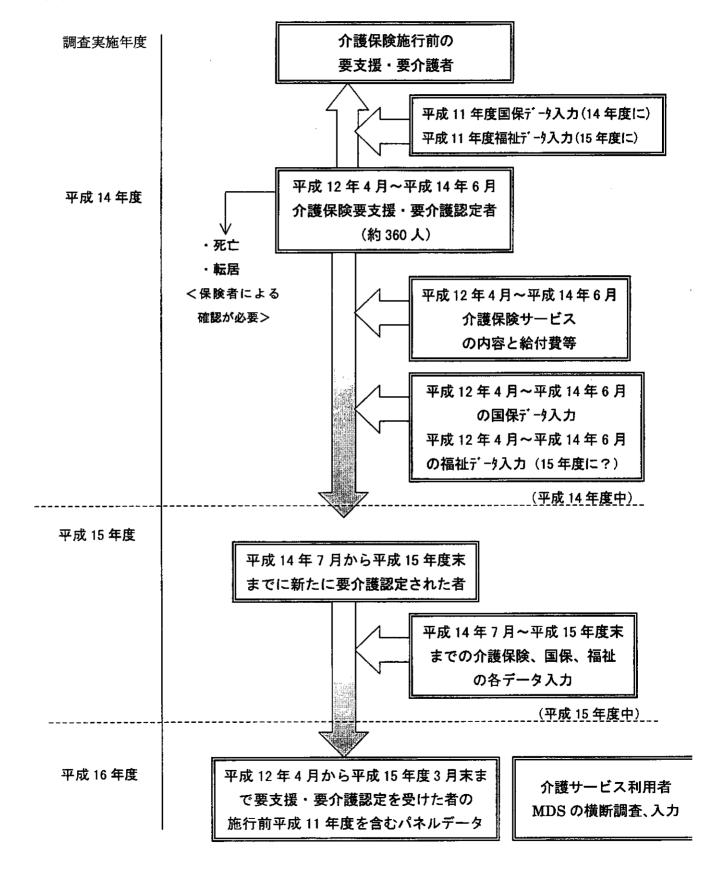
介護保険制度は、介護サービスの充実と、医療保険財政の改善等が大きな目的であった。このような目的が達成されているかどうかを把握するためには、国や都道府県のレベルで集計されたデータだけでは不十分であり、要介護者の属性、介護サービスの利用、医療サービスの利用等を、各個人のレベルで把握し、その動向を追跡・分析する必要がある。「パネルデータ」とは、ある集団において、このような様々な情報を個票レベルで定点的に把握したデータセットのことである。

本研究では、厚生労働省の政策科学推進事業の研究助成を受けて、早くから介護保険に対応してきた奈井江町・浦臼町において、パネルデータを構築し、分析することが目的である。3 ヵ年にわたる研究の初年度として、そのための基礎的作業を行う。研究完成時には、以下の課題について、実証的な分析結果を得ることが期待される。

- ・ 介護保険の創設とのその後の介護サービスのニーズと供給の関係
  - ・どのような介護ニーズを持った要介護者に、どのようなサービスが提供されているか
  - ・介護者の生活にどのような影響を与えているか
  - ・特に低所得者への影響や、認定を受けたがサービスを利用しない者の実態はどうか
  - ・介護サービスの整備は、どのようなニーズの充足に役立っているか
- ・ 介護保険の創設とその後の介護サービスの拡大が、医療サービスの利用と国保財政に与えた 影響
  - ・医療保険から介護保険に直接移管されたサービス以外に、どのような影響があったか
  - ・入院に影響は与えたか
- ・ 介護保険の創設とその後の介護サービスの拡充が、福祉サービスの利用と町の財政に与えた 影響
  - ・ヘルパー等の利用は介護保険創設前後でどう変わったか
  - ・特別養護老人ホームの入所者の特性は介護保険創設前後で変わったか
  - ・単独事業として介護保険創設後も継続しているオムツの支給や給食サービスへの影響は

# 2. パネル・データの作成方法 (平成 12 年-15 年度) (アメリカのデータについては、第 II 部の 2 を参照)

### (1) 基本的考え方



# (2) データセットの構成

- 1) 介護保険データ
- · 被保険者番号(ID化)
- ・ 介護サービスの種類と請求回数(毎月の請求を個人単位で把握)
- · 介護保険被保険者所得段階(要転記)
- · 要介護度
- ・ 年度中の死亡、転居 (要確認)

# 2) 国保データ

- · IDを介護保険にそろえる
- ・ 保険点数 (毎月の請求を個人単位で把握、集計:入院/外来別合計のほか、入院日)
- ・ 11 年度データについては老健・訪問看護等の請求点数を個別に把握

# ※国保データ入力フォーマット (例)

ID	レセプト		保険	点数	入院日		
	年	月	入院	外来	年	月	日
1234555	11	6		* * *			
1234555	11	7		* * *	i		
1234555	12	1		* * *			
1234555	12	4		* * *	i		
1234555	12	8		* * *	1		
1234555	13	2	* * *	* * *	13	2	5
1234555	13	3	* * *	* * *	13	2	5
:	:	:	:				:
1234777	11	12	* * *		10	10	4
1234777	12	1	* * *		10	10	4
1234777	12	2	* * *		10	10	4
1234777	12	3	* * *		10	10	4
1234777	12	4	* * *		10	10	4
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#### 3) 福祉サービスデータ

- ・ 介護保険施行前、平成 11 年度のサービスの利用状況(個票レベル)
- ・ 介護保険施行後の給食等のサービス利用状況(個票レベル)

#### 4) 基本属性

- · ADL 寝たきり度 (JABC)、痴呆度
- · 世帯構成
- · 介護者の属性(雇用状況、健康状態等)
- ・ 個票としてデータのリンクは困難ゆえ全体としての背景データに留まる?

- 5) 介護サービス利用の背景となる属性
  - ・ MDS、MDS-HC のデータ

# 3. 平成14年度研究として検討するべき課題

- 1) 奈井江町・浦臼町としての課題、優先順位
- 2) データの保管状況 (特に平成11年度国保データなど)
- 3) プライバシーの確保
- 4) 本年度の作業工程(1月には次年度の申請、年度末までに14年度の報告書の提出)
- 5) 介護保険・医療保険データ以外の福祉サービス利用データの有無、保管状況 (個票でわかるか)、使用許諾についての協議
- 6) 基本属性、MDS2.1、MDS-HC データの有無、保管状況(個票でわかるか)、使用許諾についての協議

# 4. 平成15年度以後の課題

- 1) 福祉サービス利用について個票レベルでの把握
- 2) 基本属性把握
- 3) MDS、MDS-HC データの把握
- 4) 平成14年7月から平成15年度末までに新たに要介護認定を受けた者の一連のデータ収集

## 5. 調査結果

5.1 調査対象地域(奈井江町、浦臼町)の概況

平成 14 年 3 月末の住民基本台帳によると、調査対象地域(奈井江町、浦臼町、以下本地域)の 人口は 10.013 人であり、65 歳以上の高齢者人口は 2,804 人となっている。

本地域は、人口減少、高齢化が進んでおり、高齢化率は、全国が 18.3%、北海道が 19.0%、本地域が 28.0%となっている。

平成 12 年の本地域の課税所得対象額は、約 96 億円となっている。また、納税義務者一人当たりでみると、全国が 364 万円、北海道が 329 万円、奈井江町が 289 万円、浦臼町が 435 万円となっている。

### 5.2 要介護認定者数等の動向

#### (1)要介護認定者数

平成 14 年 5 月における本地域の要介護認定者数は、366 人となっている。また、65 歳以上の 高齢者に占める要介護認定者の割合は、全国が 13.3%、北海道が 13.8%、本地域が 13.1%とほぼ 同様の割合になっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 29.8%、北海道が 28.5%、 本地域が 12.6%であり、本地域の増加率は低くなっている。

#### (2) 要介護度別割合

平成 14 年 5 月における要介護度別割合をみると、本地域では、全国と北海道に比較して要支援の割合が高く、要介護 5 の割合が低くなっている。

## 5.3 サービス利用者の動向

#### (1) 介護サービス利用者数

平成 14 年 5 月における本地域の介護サービス利用者数は、299 人となっている。また、高齢者数に占める介護サービス利用者の割合は、全国が 10.6%、北海道が 10.7%、本地域が 10.7%とほぼ同様の割合になっている。さらに、要介護認定者数に占める介護サービス利用者の割合は、全国が 79.7%、北海道が 78.1%、本地域が 81.7%であり、本地域はやや高くなっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 40.0%、北海道が 29.6%、 本地域が 11.6%であり、本地域の増加率は低くなっている。

# (2) 居宅サービス利用者

平成 14 年 5 月における本地域の居宅サービス利用者数は、164 人となっている。また、高齢者数に占める居宅サービス利用者の割合は、全国が 7.6%、北海道が 6.9%、本地域が 5.8%と本地域はやや低くなっている。さらに、介護サービス利用者数に占める居宅サービス利用者の割合は、全国が 71.7%、北海道が 64.6%、本地域が 54.8%であり、本地域は低くなっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国 50.7%、北海道 42.5%、本地域 26.2%であり、本地域の増加率は低くなっている。

#### (3) 施設サービス利用者

平成 14 年 5 月における本地域の施設サービス利用者数は、135 人となっている。また、高齢者数に占める施設サービス利用者の割合は、全国が 3.0%、北海道が 3.8%、本地域が 4.8%と本地域はやや高くなっている。さらに、介護サービス利用者数に占める施設サービス利用者の割合は、全国が 28.3%、北海道が 35.4%、本地域が 45.2%であり、本地域は高くなっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 18.7%、北海道が 11.1%、本地域が $\triangle 2.2\%$ であり、本地域の施設サービス利用者は若干の減少を示している。

# (4) 介護サービス未利用者

平成 14 年 5 月における本地域の介護サービス未利用者数は、67 人となっている。また、高齢者数に占める介護サービス未利用者の割合は、全国が 2.7%、北海道が 3.0%、本地域が 2.4%となっている。さらに、要介護認定者数に占める介護サービス未利用者の割合は、全国が 20.3%、北海道が 21.9%、本地域が 18.3%であり、本地域はやや高くなっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 0.9%、北海道が 24.8%、 本地域が 17.5%であり、本地域の増加率は全国と比べて高くなっている。

#### 5. 4 給付額等

#### (1) 介護サービス給付額

平成14年5月における本地域の介護サービス給付額は、4千6百万円となっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 34.9%、北海道が 20.0%、 本地域が 5.4%であり、本地域の増加率は低くなっている。

# (2) 居宅サービス給付額

平成 14 年 5 月における本地域の居宅サービス給付額は、約 5 百万円となっている。また、居宅サービス利用者一人あたりの給付額は、全国が 9 万円、北海道が 7 万 6 千円、本地域が 3 万 4 千円であり、本地域はそれぞれ半額以下で低くなっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 66.0%、北海道が 53.8%、 本地域が 43.4%であり、本地域の増加率は低くなっている。

# (3) 施設サービス給付額

平成 14 年 5 月における本地域の施設サービス給付額は、約 4 千万円となっている。また、施設サービス利用者一人あたりの給付額は、全国が 31 万 9 千円、北海道が 33 万 1 千円、本地域が 30 万 2 千円円となっている。

一方、平成 12 年 7 月から 14 年 5 月までの増加率をみると、全国が 19.0%、北海道が 9.8%、 本地域が 1.6%であり、本地域の増加率は低くなっている。

# パネルデータ総括表

			全国	北海道	奈井江・浦臼
総人口(住民基本台帳)	(人)	平成12年3末	126,071,305	5,682,827	10,305
		平成13年3末	126,284,805	5,675,309	10,186
		平成14年3末	126,478,672	5,667,024	10,013
対全国比(平成14年3末)	(%)	_		4.5	0.008
対北海道比(平成14年3末)	(%)	_	-94-	<u></u>	0.177
老年人口(住民基本台帳)	(人)	平成12年3末	21,522,800	1,004,543	2,719
		平成13年3末	22,343,007	1,045,059	2,762
		平成14年3末	23,083,204	1,079,398	2,804
対全国比(平成14年3末)	(%)		-	4.7	0.012
対北海道比(平成14年3末)	(%)	. –	_	_	0.260
髙齢化率	(%)	平成12年	17.1	17.7	26.4
		平成13年	17.7	18.4	27.1
		平成14年	18.3	19.0	28.0
人口密度	(人/km²)	平成7年	332.3	72.6	55.6
		平成12年	340.4	72.5	52.6
課税所得対象額	(百万円)	平成3年	175,873,369	6,558,496	9,591
		平成12年	188,148,651	7,299,916	11,711
対全国比(平成12年)	(%)	_		3.9	0.006
対北海道比(平成12年)	(%)	_	_	_	0.160
課税所得対象額	(千円)	平成3年	3,688.7	3,224.2	奈井江 2,526.1 浦 臼 3,371.3
納税義務者1人当たり	:	平成12年	3,643.8	3,297.1	奈井江 2,896.1 浦 臼 4,354.4

			全国	北海道	奈井江・浦臼
要介護認定者数	(人)	平成12年7月	2,369,885	115,576	325
		平成14年5月	3,076,461	148,495	366
対全国比(平成14年)	(%)	_		4.8	0.012
対北海道比(平成14年)	(%)	_	.—		0.246
増加率	(%)	_	29.8	28.5	12.6
対髙齢者数	(%)	平成14年	13.3	13.8	13.1
介護サービス利用者数	(人)	平成12年7月	1,751,971	89,539	268
		平成14年5月	2,452,974	116,008	299
対全国比(平成14年)	(%)		_	4.7	0.012
対北海道比(平成14年)	(%)	_			0.258
増加率	(%)	_	40.0	29.6	11.6
対高齢者数	(%)	平成14年	10.6	10.7	10.7
対認定者数	(%)	平成12年7月	73.9	77.5	82.5
		平成14年5月	79.7	78.1	81.7
居宅サービス利用者数	(人)	平成12年7月	1,167,871	52,618	130
		平成14年5月	1,759,698	74,983	164
対全国比(平成14年)	(%)	-	_	4.3	0.009
対北海道比(平成14年)	(%)	-	-	-	0.219
増加率	(%)	_	50.7	42.5	26.2
对髙齢者数	(%)	平成14年	7.6	6.9	5.8
対サービス利用者数	(%)	平成12年7月	66.7	58.8	48.5
		平成14年5月	71.7	64.6	54.8
施設サービス利用者数	(人)	平成12年7月	584,100	36,921	138
		平成14年5月	693,276	41,025	135
対全国比(平成14年)	(%)	_		5.9	0.019
対北海道比(平成14年)	(%)	_	_		0.329
増加率	(%)	_	18.7	11.1	-2.2
対高齢者数	(%)	平成14年	3.0	3.8	4.8
対サービス利用者数	(%)	平成12年7月	33.3	41.2	51.5
		平成14年5月	28.3	35.4	45.2
介護サービス未利用者数	(人)	平成12年7月	617,914	26,037	57
		平成14年5月	623,487	32,487	67
対全国比(平成14年)	(%)			5.2	0.011
対北海道比(平成14年)	(%)				0.206
增加率	(%)		0.9	24.8	17.5
対高 <b>齢者数</b>	(%)	平成14年	2.7	3.0	2.4
対認定者数	(%)	平成12年7月	26.1	22.5	17.5
		平成14年5月	20.3	21.9	18.3

			全国	北海道	奈井江・浦臼
要介護度別割合	(%)	要支援	13.5	15.0	32.3
(平成12年7月)		要介護1	26.0	29.4	17.2
		要介護2	18.3	18.2	9.8
		要介護3	14.4	12.3	12.6
		要介護4	15.0	13.2	8.0
		要介護5	12.8	11.8	20.3
(平成14年5月)		要支援	13.3	14.2	21.9
		要介護1	29.5	32.1	27.6
		要介護2	18.8	18.6	17.5
		要介護3	12.9	11.4	11.5
		要介護4	12.9	11.2	11.7
		要介護5	12.5	12.5	9.8

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			全国	北海道	奈井江•浦臼
介護サービス給付額	(百万円)	平成12年7月	282,263	16,092	44
		平成14年5月	380,884	19,303	46
対全国比(平成14年)	(%)	_	_	5.1	0.012
対北海道比(平成14年)	(%)	. –	-	_	0.240
増加率	(%)		34.9	20.0	5.4
1人当たり給付額	(円)	平成12年7月	161,111.7	179,720.6	164,383.7
		平成14年5月	155,274.4	166,393.7	155,231.8
居宅サービス給付額	(百万円)	平成12年7月	95,923	3,719	3.9
		平成14年5月	159,226	5,721	5.6
対全国比(平成14年)	(%)	-	_	3.6	0.004
対北海道比(平成14年)	(%)	_	_	_	0.099
増加率	(%)	_	66.0	53.8	43.4
1人当たり給付額	(円)	平成12年7月	82,134.9	70,679.2	30,243.7
		平成14年5月	90,484.8	76,297.3	34,381.9
施設サービス給付額	(百万円)	平成12年7月	186,340.0	12,373.0	40.1
		平成14年5月	221,658.0	13,582.0	40.8
対全国比(平成14年)	(%)	_	_	6.1	0.018
対北海道比(平成14年)	(%)	_	-		0.300
増加率	(%)	_	19.0	9.8	1.6
1人当たり給付額	(円)	平成12年7月	319,020.7	335,120.9	290,747.5
		平成14年5月	319,725.5	331,066.4	302,042.0

# 日本の介護保険に関する日米比較について -ブランダイス大学との共同研究の方向性-

# 池上直己 (慶應大学医学部)

# Long-Term Care Insurance in Japan Collaborative Research Ideas by Keio and Brandeis University

On April 1. 2000, Japan implemented the biggest and most radical program of public, mandatory long-term care insurance (LTC) in the world (Ikegami, 2001). The program had multiple objectives that affected families and individuals, the market for long-term care services, roles of local governments, and how LTC services were financed. Some of the key objectives included:

- Shift primary responsibility of caring for disabled elders from families to the state irrespective of income and family support availability,
- Enhance consumer choice among long-term settings and services
- Ensure individual participation in program financing through insurance premiums co-payments
- Better integrate health and social services via unified financing not only at the system level but also at the individual level
- Expand local government autonomy and responsibility in social policy by having municipalities become the insurer for LTCI, set premiums, enter into contracts to provide services, and bear the risk of paying for deficits
- Stimulate the development of a provider market using financing and provider payment mechanisms

Long-term care is the third leg of a social security system for older individuals. The legislation is focused on how the system is financed and how eligibility is determined. Service provision is left to evolve with the incentive provided under a reimbursement system. Levels of payment may well determine who gets and who provides care.

It is rarely that a policy intervention of such a magnitude occurs. This presents an unique opportunity for a multi-year research study to conduct an analysis of what happens over time to individuals and family members, service provision, how local governments with

differing characteristics perform as insurers and managers of the long-term care insurance program, and the cost of long-term care insurance.

Dr. Ikegami in particular and other senior researchers at Keio university have been at the vanguard of health policy research and discussions in Japan for many years and especially so with regard to the new initiative on long-term care. Similarly, for over two decades the Schneider Institute for Health Policy at Brandies University has been at the forefront of research, evaluation, and policy analysis on issues related the long-term care in the United States. The academic and research strengths of these institutions provide a unique opportunity to approach NIA to support a multi-year research initiative. Some of the key objectives of the collaboration would include:

- 1. Identifying and setting of the research agenda for the cross-national comparative study
- 2. Jointly setting up longitudinal studies, data collection and analysis
- 3. Publications in recognized peer reviewed journals
- 4. Organizing an annual symposium were researchers present key results
- 5. An exchange of scholars program
- 6. Establishment of a joint center to study long-term care issues in an international context

#### Study Design

By conducting the study over a five-year period we will be able to assess changes that have occurred because of the introduction of the social insurance program for long-term care. Since the study will incorporate investigations at different levels of analysis, in particular the individual or family unit, and the on the system that evolves for the delivery of services, the plan is to conduct the analysis in urban and rural areas according to the level of income in the local governments. We would want to select areas from different sections of Japan as well. For each of these areas our plan is to survey an appropriate number of individual and families on an annual basis. Since we want to learn about the transitions to different levels of disability, the analysis would sample equal numbers of both disabled and able in each community. The survey instruments would include basic socio-demographic variables, level of activity and health and social service use. The data would enable us to determine the role of family members and friends in supporting older

individuals over time and at different levels of health status. We expect that family members will reduce the amount of time devoted to care giving, allowing more participation in the job market for informal care givers. Levels of satisfaction could rise or fall for both the disabled individual and caregiver; the formal service system may change differently in various communities.

It will be necessary to inventory the long-term care providers in each area and to determine the scope and level of services provided. A range of service providers will be included. The provider sample each year will be drawn from those used by the case managers. The analysis will seek to explore the relationship of service demanded and supply response and how this relationship is affected by the actions taken by the case manager to secure services for those needing care. Case manager activities will be compared across and within geographic areas. Other than interviews with case managers, interviews will be conducted with a fixed sample of hospitals and social service agencies to learn how they have modified their scope of services to meet the demand for long-term care services. Data will be gathered from the local area agency on the entire set of providers and the level of services provided. The auspices and origins of the new long-term care services may determine the extent to which they reflect medical as opposed to personal services and the extent to which they are add-ons or substitutes for existing services. If hospitals are the sponsor or founder of the service, cost may fall in the acute sector, but be more expensive on a per unit basis in the long-term care sector.

The third level of analysis has to do with the additional costs generated by the new social insurance program. In addition to conducting analyses at the local level, the national figures will be gathered as well for expenditures on acute care, long-term care and social services. Total additional costs must include the long-term care as well as reduced or increased expenditures for other services. The sources of this data will be gathered from the individuals surveyed as well from area and national statistics. The national and individual statistics will be used to develop a cost model for long-term care based on the incidence, duration and intensity of service. These elements of cost will be evaluated over time since the evolution of the delivery system could impact of these elements in

different ways. For example, the more hospital sponsored system could have higher incidence and intensity, but lower duration. Issues to be considered are the total costs, distribution of costs across individuals, and individual/family expenditures across areas. While this is a national program, differences are expected to emerge in total costs because of variations in cost and utilization across areas.

# **Specific Research Questions**

# Person-Level Studies of Health, Caregiving, and Service Use

Japan's early implementation of an ambitious and radical program of public, mandatory long-term care insurance since April, 2000 is intended at the individual level to:

- Shift primary responsibility of caring for disabled elders from families to the state irrespective of income and family support availability,
- Enhance consumer choice among long-term settings and services, and
- Ensure participation in program financing through insurance premiums and copays.

To some extent, these individual and family behavioral changes will both depend on — and shape—successful attainment of long-term care system changes at the local level and national level policy objectives. In order to address basic evaluative questions for Japanese policy makers in assessing and modifying this program will require more annual cross-sectional data on individual and family health, caregiving, and service use behaviors than is being collected at this point. (Dr. Ikegami please supply additional documentation of this point.)

Among these basic evaluative questions that should be explored in the context of Japan's new long-term care program at the individual and family level are:

- How do patterns of receipt of informal caregiving vary across sub-population groups and time during implementation of the new LTCI?
- How do age, health and functional social class/income, and caregiver availability cohorts differ in use of formal services? How do these patterns change over time?
- How do the onset, intensity, and duration of use of institutional and community oriented services differ across age, health and functional social class/income, and caregiver availability cohorts? How do these patterns change over time?

• How do out-of-pocket service costs and insurance payments differ by age, health and functional social class/income, and caregiver availability cohorts? How do these patterns change over time?

Yet as the program unfolds over the next 5-10 years, it is possible that new cohorts of the rapidly aging and increasingly diverse Japanese population will be making long-term and health services decisions in the context of emerging delivery system and different societal expectations. These decisions may have relevance for other self-care, health-related behaviors, and caregiving/care receiving attitudes and behaviors. New long-term care financing and service demand may have secondary impacts on the disablement process as well as on the use of acute and chronic health care services. Studies of person and family level health, caregiving, and service use experiences during the gradual implementation of Japan's long-term care program could provide unparalleled opportunities. In this context, lessons can be learned about how the natural histories of chronic diseases and disablement, volunteer caregiving and care-receiving attitudes and behaviors, and demand for public and privately financed services vary both across time in individuals and between sub-population cohorts. Prospective data collection on representative samples drawn in the 10-12 diverse study areas (described above) for age cohort, functional status, and poverty/social status, might allow us to examine such questions as:

- How do attitudes and behavior regarding informal caregiving and receipt of informal care vary across sub-population groups and time during implementation of the new LTCI? What individual and community factors are associated with normative changes?
- Do attitudes and behavior regarding institutional and community-oriented services vary across sub-population groups and time during implementation of the new LTCI? What individual and community factors are associated with normative changes?
- How do chronic disease management, self-care, and use of health care services differ by differ by age, health and functional social class/income, and caregiver availability cohorts? How do these patterns change over time?
- What are the secondary impacts of changing patterns of LTCI use upon labor market participation by elders and near elders? How do these effects differ by age, health and functional social class/income, and caregiver availability cohorts? How do these patterns change over time?
- What are the secondary impacts of increased availability of LTCI on retirement savings, investment and expenditure patterns? How do these effects differ by age, health and functional social class/income, and caregiver availability cohorts? How do these patterns change over time?

We will examine currently available administrative data sets and national research efforts to see if the information contained in them will be sufficient to support the research objectives. In case these data sets are inadequate we will work in the localities selected for other study components to reflect community-level variations in urban/rural status, wealth or income levels, and health and long-term care system features. We will develop a long-term research program with the following components:

- 1. Development of a nationally representative sample of elders and near elders (persons age 55 and above). Through stratification and over-sampling the sample will be designed to support both analysis within and comparisons between age, health/functional status, SES/income, and informal caregiver availability cohorts in each community. To meet these complex needs, these may be relatively large samples within each study community.
- 2. Develop culturally appropriate measures of health/functional status, long-term care use, acute care use, informal care use, provision of informal care, attitudes towards use and receipt of care from different sources, out-of-pocket spending on health care and potential individual level moderating factors? These measures would be drawn from health status and demographic instruments with know reliability, validity, and comparability in Japanese samples, instruments that have been used in prior Japanese studies, and new psychometric work to newly translate instruments into Japanese.
- 3. Work with research teams in each of the study communities to ensure comparable and high quality sampling and survey protocol implementation, and transfer of data to a single locale for data preparation and analysis.
- 4. Design and implement prospective longitudinal data collection on survey participants over a 5 year period, expanding the sample over time to include new cohorts coming of age for program financial or service participation.

## Provider Markets and Service Delivery

Japan's new financing and service entitlements are fostering new service systems and approaches to care. The goal is to modernize a long-term care (LTC) system that was characterized by under funding, fragmentation (including a split between medical and social care), bias toward use of medically-insured institutional care for the most disabled, community-based care focused on the poorest and most at risk through local social welfare offices, and strong social mores toward family care by daughters-in-law.

What will actually result from the effort to strengthen the delivery system and address these issues is not clear, however. To understand the new system that evolves it will be important to track what happens in the areas of integration of medical and social care, public versus private responsibilities, institutional versus community-based care, and urban/rural and socioeconomic differences in access to help from the system. These issues are discussed in turn below, and a section follows on approaches to researching these issues.

### Integration of medical and social care

The new law shifts skilled nursing and therapies formerly covered by health insurance to the new LTC system and also encourages hospitals to convert their acute beds occupied by long-term patients to LTC financing. These appear to be reasonable actions from cost-control and system-coherence points of view, but questions remain:

- Will nursing/rehabilitation/medical management services be truly integrated with social and functional support services, or will control of their use remain separate? If there is consolidated case management of both skilled and social care services, what professionals, ideologies, and agencies will control the system?
- Will new mechanisms of integration be developed between the broader medical care and LTC systems (e.g., procedures for referrals, information sharing, care coordination), or will the shifting of some medical services to the LTC system simply create new borders that perpetuate the traditional separations of medical care and LTC organizations and providers?
- What care management model will be adopted in LTC a "medical model," a "social model." or "consumer choice" model?

#### Public versus private responsibilities

The new service financing is meant to encourage private enterprises to create new LTC capacity. Because the LTC service system was so underdeveloped before LTCI, it is unclear what mix and sponsorship of new services will result.

- What types of services (e.g., homemaker, personal care, respite, day care, foster care, nusing and therapies, foster care, assisted living, nursing facilities) will be the most and least viable (popular), and will the mix change over time? How will the mix of affiliated services change (e.g., personal emergency response systems, equipment/devices, supplies, transportation)?
- How will management and contracting for LTCI services be structured? Will
  municipalities maintain control of service types and amounts (and thus financial

- risk) through case management or will case management be ceded to private entitities? If the latter, how will public spending be controlled and conflicts of interest be avoided?
- What mix of public, non-profit, and for-profit services will result in different service areas and in the system overall?
- Will provider organizations tend toward vertical integration, horizontal integration, both, or neither?

### Institutional versus community care

The new law is meant to give service users choices among ranges of options in both residential and community-based service options. What options are developed and used, however, will depend on a variety of factors that will be important to track and understand. These include

- What range of residential alternatives (e.g., foster care, assisted living, nursing facilities) are available and what are their relative costs, amenities, and capabilities in terms of level of care available?
- Are community alternatives capable of maintaining individuals with extensive LTC needs at home and at what cost relative to residential facilities?
- How do case managers and service delivery organizations manage access and transitions across community/institutional/residential borders?

#### Geographic and socio-economic differences

Japan is like most other societies in having differences between urban and rural areas and poor and wealthy areas in the availability of health and human services. The LTCI program should increase the LTC buying power of most elders (the poorest may struggle with the 10% copay) and thus should redress some of the access advantages of urbanized and wealthy elders. It will be important to track the changes in service availability and use by area and the differences in patterns in types of services used.

- Will urban/rural and socio-economic differences be redressed, and if so how much?
- Will the patterns of services (e.g., home care versus residential care) differ by area?

Staffing, training, and certification

The increase in demand for LTC services will require an expanded workforce, particularly in the area of paraprofessional services. Training, certification, and supervision systems will also be developed to varying degrees.

- Will staffing shortages hamper development of new LTC services?
- Will there be competition for staff within the LTC sector and between LTC and medical care, and how will this be resolved?
- What types of certification and licensure systems for workers and agencies are used for various job categories and agency types?

# Research approaches

We will track the development of the service system in each of the study communities through several methods of data collection. From the data collected we will create several products: system profiles (including updates) of each community and analytical papers on the issue areas (likely including those above) that turn out to be critical to the development of service delivery systems. Data collection will include:

Contracted agency inventories: At baseline and in follow up we will work with local LTCI administrators to develop databases to characterize all agencies eligible for reimbursement from LTCI. The databases will include type(s) of service offered, sponsorship/profit status, prices, capacity, purchases, and utilization.

Case management studies: At baseline and follow up we will identify the types of LTCI case management that are occurring and their institutional locations. Sampling locations by type, we will visit offices to review records and interview case managers and administrators about practices concerning assessment, user choice, care planning, service contracting, service availability, and financial responsibilities and incentives.

Provider studies: At baseline and follow up we will visit a small sample of provider agencies of each type to solicit their views and experiences in developing, selling, and providing services under LTCI. Issues covered will include agency missions, contracting approaches, adequacy of payment levels, incentives in payment and case management systems, barriers to entry (e.g., capital costs, licensure, zoning, etc.), and staffing issues.