Working Paper 2010-01

Health Care Resources 2009 in Korea:
Analysis and Policy Directions

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WORKING PAPER 2010-01

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http://www.kihasa.re.kr
ISBN: 978-89-8187-653-1 93510

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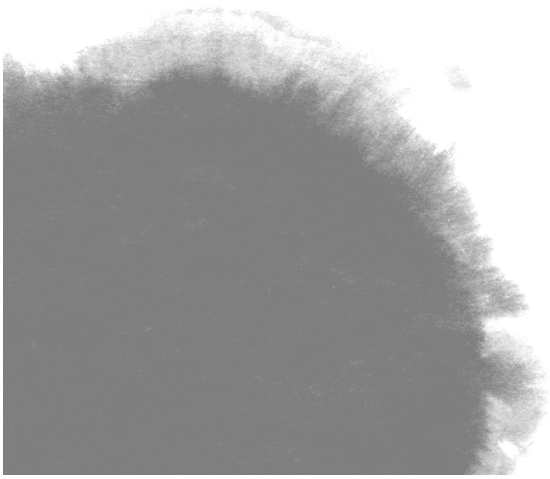


CHAPTER 1
Introduction

Section 1. Background

□ Health care resources are the most important element in the national health care system. It is thus necessary to accurately estimate the supply and demand of health care services, with a view to producing reliable statistics for the improvement of health care policies.

□ As part of the effort to improve health care policies, Article 55 of the Framework Act on Health and Medical Services and Article 41 of the Enforcement Article of the Framework Act on Health and Medical Services stipulates that the Minister of Health and Welfare should conduct a survey on health care resources every five years. With the survey conducted only once in every five years, however, it is hard to capture the rapidly changing conditions of health care resources. Furthermore, the demands of such international organizations as OECD for updated data on health care resources data is rarely met.

□ Imbalance in supply and demand of health care resources leads to serious issues in the health care market. While oversupply of health care resources is known to create supply-induced demand and over-competition which in

lead to increases in social costs, including medical expenditures, undersupply tends to weaken competition in the medical market and reduce accessibility to services. Therefore, health care resources must be constantly monitored so that they can be supplied at a balanced level.

□ In order to achieve the government's aim to keep national medical expenses at an appropriate level and to systemize health care policies, a system for health care resources survey and management is required to identify, manage and monitor resources on a yearly basis.

Section 2. Purpose of the Survey

The purposes of this study are:

1. **To produce accurate health care resources statistics and establish a process of producing such statistics**

Despite the importance health care resources have in the national health care system, a comprehensive survey of them has not been carried out. Moreover, based on accurate estimation of health care demands and supply, statistics should be produced to help establish good health care policies. Such statistics, however, do not exist. The existing statistics on the supply of health care services is simply based on the data gathered from medical institutions' reports (regarding the number of beds, patients and personnel), created by community health service centers and submitted to provincial governments, piecemeal information from patient

surveys and reports on health insurance benefit from the Health Insurance Review and Assessment Service (HIRA). This study is a response to the issues of health care resources statistics production and the need to establish a reliable process for producing reliable statistics.

2. **To gather statistics on health care demands and service use behavior for establishing health care polices**

Surveys on health care demands that have partially been carried out in specific divisions or areas, but there were limitations to relevant information, such as status reports from medical institutions and surveys on national health, nutrition or patients. The study aims to gather appropriate statistics on health care demands and usage behavior to provide a ground for health care polices.

3. To provide the statistics to cities and community health centers for establishing local health care plans. The Regional Public Health Act, established in 1995, stipulates the heads of local governments (mayors, county governors, heads of gu offices, mayors of metropolitan cities and governors) to establish regional health care plans every four years and submit to the Ministry of Health and Welfare and establish yearly action plans every year (Articles 2 and 5 of the Act). However, it is difficult to come up with regional health care plans from insufficient statistical data. There are no regional statistics on the residents' medical usage and health level and health awareness. Facilities, personnel and equipments statistics are not reliable because they are not compiled through a systematic and comprehensive process. Therefore, health policies based on national health care status surveys and detailed regional statistics data gathered by community

health service centers will serve as a basis for establishing proper regional health care plans. For this purpose, the survey results will be used to analyze medical resources supply by region and by medical institution types, further presenting analyses of the current status of major health care personnel, facilities and equipments by region and medical institution types.

Section 3. Survey Overview

1. Background

□ Health care resources are the most important element in the framework of the national health care system. Therefore, it is necessary to produce health resources statistics for health care policies. This should be done by examining health care demand and supply. Oversupply of health care resources leads to supply-induced demand and excessive competition, increasing medical expenses and, thus, social costs, whereas undersupply weakens competition in the medical market and reduces accessibility to medical services. Therefore, constant monitoring of health care resources is required to keep the supply at an appropriate level.

□ In order to achieve the government's aim to keep national medical expenses at an appropriate level and to systemize health care policies, a system for health care resources survey and management is required to identify, manage and monitor resources on a yearly basis.

2. Survey purpose

□ To maintain an appropriate level of supply and demand of health care resources to keep national medical expenses at a reasonable level, improve access to medical services, provide basic information for establishing health care policies and lay a health care knowledge base.

□ To enable 16 local governments and 243 small-scale local governments to develop and implement feasible health care projects, provide a database for actively establishing local health care plans and policies, and comply with the requirements from international organizations, including OECD, on health resources related statistics.

3. Survey target and period

A. Target

※ Target: Health care institutions as of June 30, 2009

○ Medical institutions including those specified (in Paragraph 2, Article 2 of the Law on Public Health Care and in Article 3 of the Medical Service Act) as general hospitals, hospitals, dental hospitals, oriental medicine hospitals, nursing homes, clinics, dental clinics, oriental dental clinics and midwifery clinics

○ Community health service centers, medical centers, branch office of community health service centers specified in the Regional Public Health Act and health service centers specified in the Act on Special Measures for Health Care in Rural Area

○ Pharmacies, as stipulated by Article 16 of the Pharmaceutical Affairs Act

B. Survey period

○ Survey period: July 1 to 31, 2009
○ Complementary and follow-up survey period: August 1 to 31, 2009

4. Survey details

A. Overview

○ Status and characteristics of personnel, facilities and equipments of health care institutions (see survey form)
○ Identify the distribution, quantitative and qualitative levels and utilization of health care resources
○ Identify and collect data on supplier type, supplied volume, supplying organization and functions by health care service area

B. General and facilities status

○ Information on the institution's name, address, service commencement date, establishment type, inpatients, size, number of beds (type of wards), ambulance, facilities for providing meals, morgue facility, parking lots, etc.

C. Personnel status

○ Status of personnel including doctors, dentists, oriental

medicinal doctors, pharmacists and other workers

D. Medical equipment status

○ Major test equipments, operation and treatment equipments, radiology diagnostic and radiation therapy equipments, manual therapy equipments, dental equipments, oriental medicine equipments, pharmaceutical equipments, etc.

E. Status of pharmacies

○ Name of institution, address, service commencement date, size of pharmacy, average number of prescriptions filled, pharmacy equipments, pharmacists, pharmacist's assistants, etc.

5. Survey method

Using the health care resources survey management system, health care institutions directly made inputs that were confirmed by the heads of the community health service centers. In order to guide and monitor the inputs from health care institutions, training has been provided to cities, do's and community health center employees and a guidance and monitoring structure established.

□ Establishment and improvement of the medical resources survey and management system

○ A survey on the supply of health care resources will be conducted after improving the health care resources

system established in 2008.

□ Upload and pre-testing of HIRA medical institution file

○ HIRA's medical institution file was uploaded to the health care resources survey system and pre-tests were conducted on test survey target institutions selected from each institution type.

○ Contents of the medical institution file: general information on health care institutions, personnel, facilities (beds), equipments, etc. (see survey details)

□ Training of responsible personnel in community health centers and promoting the survey to health care institutions across the country

○ Training was provided to responsible employees of city and do offices and community health centers regarding the survey details and methods.

○ Community health service centers sent notices and official correspondences by post to health care institutions of their districts, one week prior to the health care resources survey (the survey date varies by region).

□ Health care resources survey (community health centers and health care institutions)

○ Health care resources surveys are led by community health centers, encouraging local health care institutions to actively participate in the surveys.

○ Health care institutions access the 'Health Care Resources Survey Management System (www.hrsic.go.kr)' on the internet, review the previous year's details on the concerned institutions, workers, facilities and equipments and make any additions,

revisions and supplementations as necessary.

○ Health care institutions, on completing the survey, clicks 「submit」 in the website's window to be 「Approved」 by the responsible personnel of the community health service centers.

□ Incomplete health care institution survey (community health service centers)

○ Approximately 5 percent of the health care institutions are estimated as not being able to use the online survey system.

○ In such cases, community health service centers directly send survey forms by post, collect the filled out forms and input the information to the system.

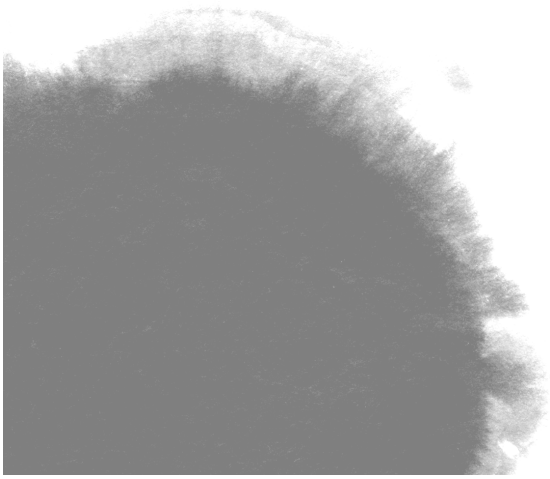
□ Management of the health care resources survey and analysis of the supply of resources

○ Survey and management of health care resources are handled by regional self-governments (community health service centers) to provide the basis for regular health care management. It will serve as the base data for establishing regional health care plans every 4 years and as the statistics data of health care institutions to be reported to the Ministry of Health and Welfare each year.

○ The Korea Institute for Health and Social Affairs (KiHASA) manages and analyzes the results of the survey, providing the information to the Ministry of Health and Welfare for establishing health care policies and to regional self-governments for regional health care planning.

02

Status of Facilities and Beds



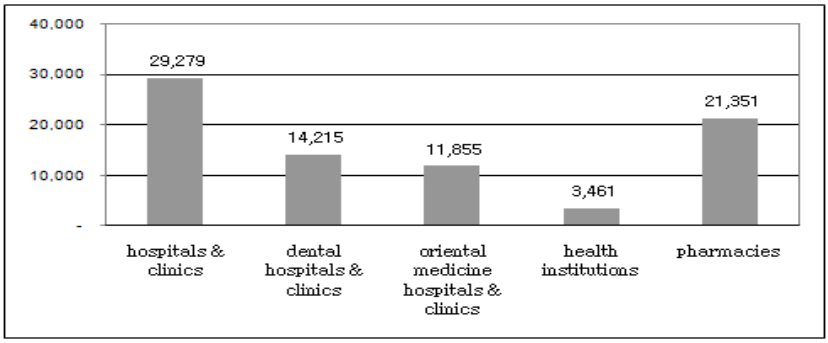
CHAPTER 2
Status of Facilities and Beds

Section 1. Status of health care facilities by region

1. Regional distribution of health care institution types

As of June 2009, there were 80,161 health care institutions including pharmacies. Of these, hospitals and clinics accounted for 36.5% (29,279) and pharmacies for 26.6% (21,351), followed by dental hospitals and clinics (17.7% or 14,215), oriental medicine hospitals and clinics (14.8% or 11,855) and health service institutions (4.3% or 3,461).

[Figure 2-1] Distribution of health care institutions by type



More than 45% of the institutions were located in Seoul and Gyeonggi-do, 25.6% and 19.8%, respectively. In contrast, Jeju and Ulsan had the least at 1.1% and 1.9%, respectively.

By institution type, hospitals and clinics were concentrated in the metropolitan areas, 25.1% (7,351) in Seoul, 20.1% (5,889) in Gyeonggi-do and 7.8% (2,285) in Busan. Jeju recorded the lowest at 1.1% (311). Likewise, 30.9% (4,394) of dental hospitals and clinics were in Seoul, 21.7% (3,084) in Geyonggi-do and the least in Jeju with 1.0% (144). Approximately half of the oriental hospitals (47.2%) were in Seoul and Gyeonggi-do, with Seoul accounting for 28.2% (3,341), Gyeonggi-do 19.0% (2,258) and Busan 8.0% (954). Health service institutions including community health service centers, branch offices of community health service centers and public health service centers showed high rates in regional areas than in metropolitan cities including Seoul. Jeonnam and Gyeongbuk areas had the highest proportion with 16.2% (561) and 16% (555), respectively, followed by 12% (414) in Chungnam and 11.8%(409) in Jeongbuk and Gyeongnam. The difference is minimal among these regions.

〈Table 2-1〉 Regional distribution of health care institutions by type(I)

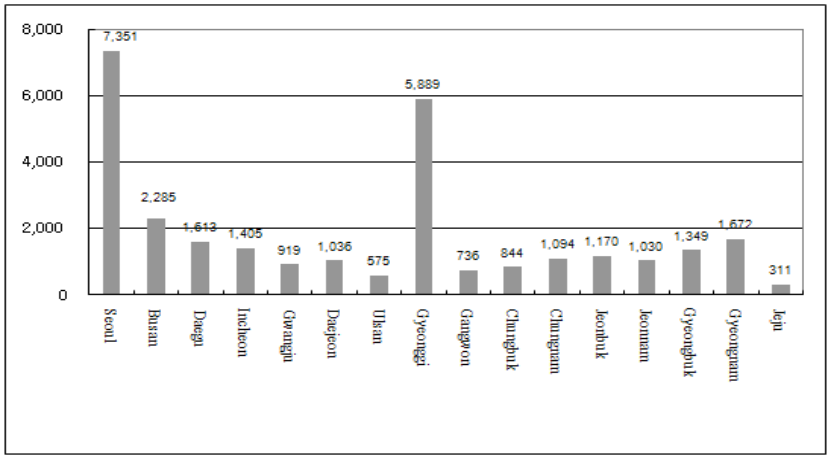
Region		Hospitals & clinics	Dental hospitals & clinics	Oriental medicine hospitals & clinics	Health service institutions	Pharmacies	Midwifery clinics	Total
	N	7351	4394	3341	26	5416	6	20534
Seoul	Percent A	35.8	21.4	16.3	0.1	26.4	0.0	100.0
	Percent B	25.1	30.9	28.2	0.8	25.4	12.0	25.6
	N	2285	1030	954	30	1538	13	5850
Busan	Percent A	39.1	17.6	16.3	0.5	26.3	0.2	100.0
	Percent B	7.8	7.2	8.0	0.9	7.2	26.0	7.3
	N	1613	714	740	26	1171	1	4265
Daegu	Percent A	37.8	16.7	17.4	0.6	27.5	0.0	100.0
	Percent B	5.5	5.0	6.2	0.8	5.5	2.0	5.3
	N	1405	669	504	59	987	1	3625
Incheon	Percent A	38.8	18.5	13.9	1.6	27.2	0.0	100.0
	Percent B	4.8	4.7	4.3	1.7	4.6	2.0	4.5
	N	919	467	307	15	646	4	2358
Gwangju	Percent A	39.0	19.8	13.0	0.6	27.4	0.2	100.0
	Percent B	3.1	3.3	2.6	0.4	3.0	8.0	2.9
	N	1036	435	425	21	683	2	2602
Daejeon	Percent A	39.8	16.7	16.3	0.8	26.2	0.1	100.0
	Percent B	3.5	3.1	3.6	0.6	3.2	4.0	3.2
	N	575	306	252	26	361		1520
Ulsan	Percent A	37.8	20.1	16.6	1.7	23.8		100.0
	Percent B	2.0	2.2	2.1	0.8	1.7		1.9
	N	5889	3084	2258	335	4298	9	15873
Gyeonggi	Percent A	37.1	19.4	14.2	2.1	27.1	0.1	100.0
	Percent B	20.1	21.7	19.0	9.7	20.1	18.0	19.8
	N	736	306	306	245	643	4	2240
Gangwon	Percent A	32.9	13.7	13.7	10.9	28.7	0.2	100.0
	Percent B	2.5	2.2	2.6	7.1	3.0	8.0	2.8
	N	844	292	314	268	618	3	2339
Chungbuk	Percent A	36.1	12.5	13.4	11.5	26.4	0.1	100.0
	Percent B	2.9	2.1	2.6	7.7	2.9	6.0	2.9
	N	1094	414	413	414	854		3189
Chungnam	Percent A	34.3	13.0	13.0	13.0	26.8		100.0
	Percent B	3.7	2.9	3.5	12.0	4.0		4.0
	N	1170	426	418	408	863		3285
Jeonbuk	Percent A	35.6	13.0	12.7	12.4	26.3		100.0
	Percent B	4.0	3.0	3.5	11.8	4.0		4.1
	N	1030	356	300	561	847	4	3098
Jeonnam	Percent A	33.2	11.5	9.7	18.1	27.3	0.1	100.0
	Percent B	3.5	2.5	2.5	16.2	4.0	8.0	3.9
	N	1349	493	547	555	1077		4021
Gyeongbuk	Percent A	33.5	12.3	13.6	13.8	26.8		100.0
	Percent B	4.6	3.5	4.6	16.0	5.0		5.0
	N	1672	685	657	409	1122	2	4547
Gyeongnam	Percent A	36.8	15.1	14.4	9.0	24.7	0.0	100.0
	Percent B	5.7	4.8	5.5	11.8	5.3	4.0	5.7
	N	311	144	119	63	227	1	865
Jeju	Percent A	36.0	16.6	13.8	7.3	26.2	0.1	100.0
	Percent B	1.1	1.0	1.0	1.8	1.1	2.0	1.1
	N	29279	14215	11855	3461	21351	50	80211
Total	Percent A	36.5	17.7	14.8	4.3	26.6	0.1	100.0
	Percent B	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Percent A: Percent within regions
Percent B: Percent among institutions

<Table 3-2> shows a detailed distribution of health care institutions by type. General clinics accounted for 33.6%, dental clinics 17.5% and oriental medicine clinics 14.6%, adding up to 65.7% of the total. Pharmacies accounted for 26.6% and the rest 7.7%. General specialty institutions occupied 0.1%, where 17 out of 44 institutions were in Seoul and the rest, relatively evenly distributed throughout most regions except for Ulsan City, Jeonnam, Gyeongbuk and Jeju provinces. General hospitals occupied only 0.3%, 16% and 18% of which, respectively were in Seoul and Gyeonggi-do. Hospitals took up 1.5%, 19% of which were in Gyeonggi-do and 13% in Seoul.

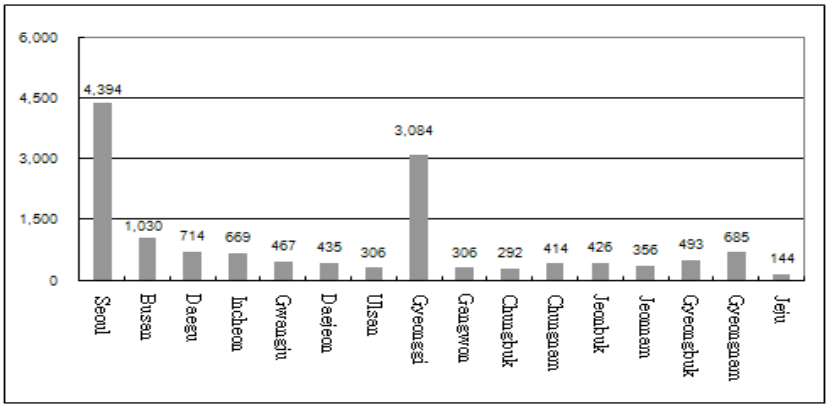
Clinics recorded the highest proportion at 33.6% among health care institutions. A total of 46% of the clinics were concentrated in Seoul and Gyeonggi-do with 26% and 20%, respectively. Jeju had the least number of clinics with 1%, a noticeable gap compared to Seoul and Gyeonggi-do. Other regions showed a distribution of between 2% and 8%.

[Figure 2-2] Regional distribution of hospitals and clinics



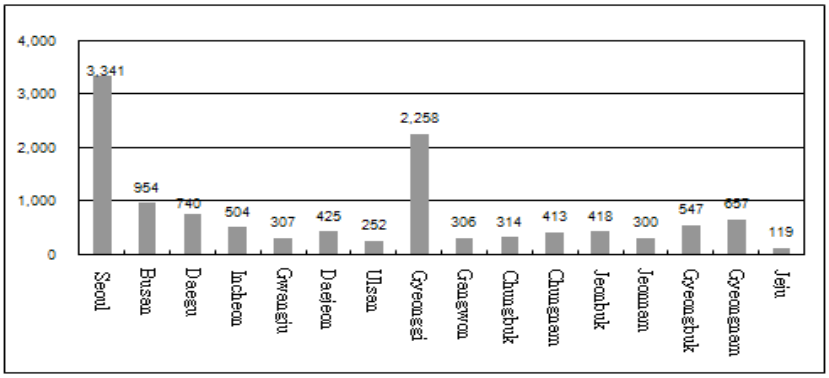
Dental hospitals constituted 0.2% of the total and dental clinics 17.5%. As with hospitals and clinics, over 50% of dental hospitals and clinics were in Seoul and Gyeonggi-do. In the case of dental hospitals, Seoul (37%) and Gyeonggi-do (19%) showed a large gap, followed by 18% in Daegu. These figures signify that dental hospitals were seriously concentrated in Seoul. Busan was third in the number of dental clinics (7%) but the gap was strikingly large compared to Seoul (21%) and Gyeonggi-do (22%). Again, Jeju showed the lowest ratio without any dental hospitals and merely 1.0% of dental clinics.

[Figure 2-3] Regional distribution of dental hospitals and clinics



Oriental medicine hospitals constituted 0.2% and oriental medicine clinics 14.6% of the total, where Seoul has the largest number with 21% and 28%, respectively, and Jeju the smallest with approximately 1% for both types.

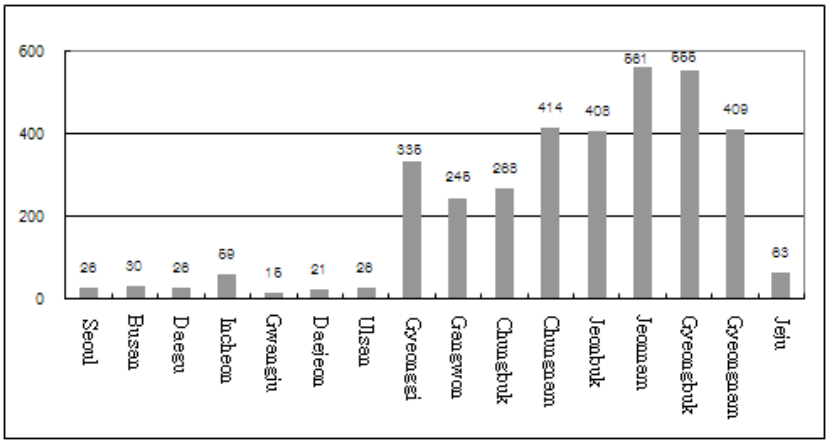
[Figure 2-4] Regional distribution of oriental medicine hospitals and clinics



The distribution of health care institutions shows that there are 239 community health service centers, accounting for 0.3% of the institutions with Gyeonggi-do being the highest (18%), followed by Seoul (10%) and Gyeongbuk (9%). A few more community health service centers are located in areas other than the six metropolitan cities.

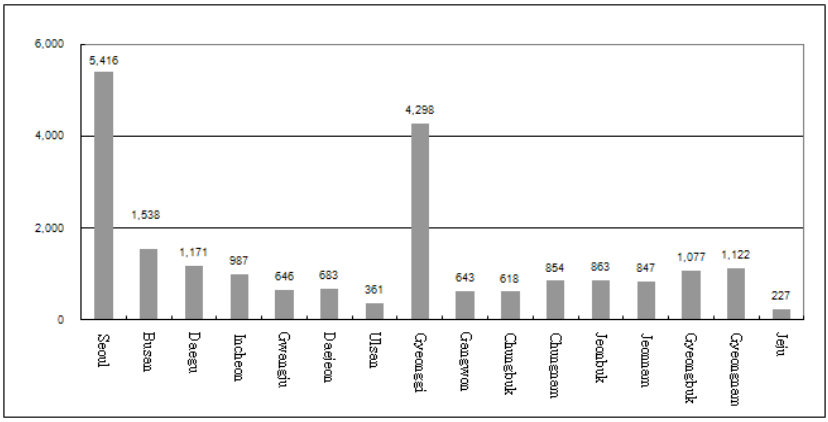
A total of 1,290 or 1.6% of health service institutions are branch offices of community health centers. Gyeongbuk accounted for 17% and Jeonnam 16% of the total, while proportion in the six metropolitan cities (Seoul and Incheon not included) was less than 1%. Similarly, many public health service centers were distributed in regions than in Seoul or the six metropolitan cities, Jeonnam being the highest with 17% and Gyeongbuk coming next with 16%.

[Figure 2-5] Regional distribution of health service institutions



Pharmacies ranked second, next to clinics (33.6%), consisting 26.6% of the total. Among all regions, the highest proportion was 29% in Gangwon and the lowest was 24% in Ulsan. By region, Seoul had the most with 25% of the total (5,416) and Jeju the least with 1% (227).

[Figure 2-6] Regional distribution of pharmacies



〈Table 2-2〉 Regional distribution of health care institution types

Region		Total	General specialty hospitals	General hospitals	Hospitals	Special hospitals	Nursing homes	Clinics
	N	20,534	17	43	157	2	61	7,069
Seoul	Percent A	100	0	0	1	0	0	34
	Percent B	26	39	16	13	4	8	26
	N	5,850	4	23	89	14	91	2,062
Busan	Percent A	100	0	0	2	0	2	35
	Percent B	7	9	8	8	25	12	8
	N	4,265	4	7	94	2	35	1,469
Daegu	Percent A	100	0	0	2	0	1	34
	Percent B	5	9	3	8	4	5	5
	N	3,625	2	11	47	2	31	1,310
Incheon	Percent A	100	0	0	1	0	1	36
	Percent B	5	5	4	4	4	4	5
	N	2,358	2	17	48	2	16	832
Gwangju	Percent A	100	0	1	2	0	1	35
	Percent B	3	5	6	4	4	2	3
	N	2,602	2	6	32	3	32	961
Daejeon	Percent A	100	0	0	1	0	1	37
	Percent B	3	5	2	3	5	4	4
	N	1,520		4	34		28	506
Ulsan	Percent A	100		0	2		2	33
	Percent B	2		1	3		4	2
	N	15,873	5	48	228	12	132	5,458
Gyeonggi	Percent A	100	0	0	1	0	1	34
	Percent B	20	11	18	19	21	18	20
	N	2,240	2	14	36	2	16	665
Gangwon	Percent A	100	0	1	2	0	1	30
	Percent B	3	5	5	3	4	2	2
	N	2,339	1	10	37		24	772
Chungbuk	Percent A	100	0	0	2		1	33
	Percent B	3	2	4	3		3	3
	N	3,189	2	9	42	6	42	988
Chungnam	Percent A	100	0	0	1	0	1	31
	Percent B	4	5	3	4	11	6	4
	N	3,285	2	12	58	3	60	1,034
Jeonbuk	Percent A	100	0	0	2	0	2	31
	Percent B	4	5	4	5	5	8	4
	N	3,098		19	73	2	32	903
Jeonnam	Percent A	100		1	2	0	1	29
	Percent B	4		7	6	4	4	3
	N	4,021		18	75		68	1,178
Gyeongbuk	Percent A	100		0	2		2	29
	Percent B	5		7	6		9	4
	N	4,547	1	24	130	6	59	1,450
Gyeongnam	Percent A	100	0	1	3	0	1	32
	Percent B	6	2	9	11	11	8	5
	N	865		6	5		8	292
Jeju	Percent A	100		1	1		1	34
	Percent B	1		2	0		1	1
	N	80,211	44	271	1,185	56	735	26,949
Total	Percent A	100.0	0.1	0.3	1.5	0.1	0.9	33.6
	Percent B	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Percent A: Percent within regions
Percent B: Percent among institutions

Region		Hospitals & clinics	Dental hospitals & clinics	Oriental medicine hospitals & clinics	Health service institutions	Pharmacies	Midwifery clinics	Total
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Ulsan	N	575	306	252	26	361		1520
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	Percent B	2.0	2.2	2.1	0.8	1.7		1.9
Gyeonggi	N	5889	3084	2258	335	4298	9	15873
	Percent A	37.1	19.4	14.2	2.1	27.1	0.1	100.0
	Percent B	20.1	21.7	19.0	9.7	20.1	18.0	19.8
Gangwon	N	736	306	306	245	643	4	2240
	Percent A	32.9	13.7	13.7	10.9	28.7	0.2	100.0
	Percent B	2.5	2.2	2.6	7.1	3.0	8.0	2.8
Chungbuk	N	844	292	314	268	618	3	2339
	Percent A	36.1	12.5	13.4	11.5	26.4	0.1	100.0
	Percent B	2.9	2.1	2.6	7.7	2.9	6.0	2.9
Chungnam	N	1094	414	413	414	854		3189
	Percent A	34.3	13.0	13.0	13.0	26.8		100.0
	Percent B	3.7	2.9	3.5	12.0	4.0		4.0
Jeonbuk	N	1170	426	418	408	863		3285
	Percent A	35.6	13.0	12.7	12.4	26.3		100.0
	Percent B	4.0	3.0	3.5	11.8	4.0		4.1
Jeonnam	N	1030	356	300	561	847	4	3098
	Percent A	33.2	11.5	9.7	18.1	27.3	0.1	100.0
	Percent B	3.5	2.5	2.5	16.2	4.0	8.0	3.9
Gyeongbuk	N	1349	493	547	555	1077		4021
	Percent A	33.5	12.3	13.6	13.8	26.8		100.0
	Percent B	4.6	3.5	4.6	16.0	5.0		5.0
Gyeongnam	N	1672	685	657	409	1122	2	4547
	Percent A	36.8	15.1	14.4	9.0	24.7	0.0	100.0
	Percent B	5.7	4.8	5.5	11.8	5.3	4.0	5.7
Jeju	N	311	144	119	63	227	1	865
	Percent A	36.0	16.6	13.8	7.3	26.2	0.1	100.0
	Percent B	1.1	1.0	1.0	1.8	1.1	2.0	1.1
Total	N	29279	14215	11855	3461	21351	50	80211
	Percent A	36.5	17.7	14.8	4.3	26.6	0.1	100.0
	Percent B	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Percent A: Percent within regions
Percent B: Percent among institutions

Region		Dental hospitals	Dental clinics	Oriental medicine hospitals	Oriental medicine clinics	Medical centers	Community health service centers
Seoul	N	65	4,329	30	3,311		25
	Percent A	0	21	0	16		0
	Percent B	37	31	21	28		10
Busan	N	10	1,020	6	948		16
	Percent A	0	17	0	16		0
	Percent B	6	7	4	8		7
Daegu	N	18	696	8	732		8
	Percent A	0	16	0	17		0
	Percent B	10	5	6	6		3
Incheon	N	4	665	12	492		10
	Percent A	0	18	0	14		0
	Percent B	2	5	8	4		4
Gwangju	N	5	462	12	295		5
	Percent A	0	20	1	13		0
	Percent B	3	3	8	3		2
Daejeon	N	6	429	5	420		5
	Percent A	0	16	0	16		0
	Percent B	3	3	3	4		2
Ulsan	N	4	302	2	250		5
	Percent A	0	20	0	16		0
	Percent B	2	2	1	2		2
Gyeonggi	N	34	3,050	27	2,231	2	44
	Percent A	0	19	0	14	0	0
	Percent B	19	22	19	19	11	18
Gangwon	N	1	305	2	304	2	18
	Percent A	0	14	0	14	0	1
	Percent B	1	2	1	3	11	8
Chungbuk	N	1	291	3	311		13
	Percent A	0	12	0	13		1
	Percent B	1	2	2	3		5
Chungnam	N	6	408	6	407	2	14
	Percent A	0	13	0	13	0	0
	Percent B	3	3	4	3	11	6
Jeonbuk	N	3	423	9	409	4	10
	Percent A	0	13	0	12	0	0
	Percent B	2	3	6	3	22	4
Jeonnam	N	6	350	8	292	4	18
	Percent A	0	11	0	9	0	1
	Percent B	3	2	6	2	22	8
Gyeongbuk	N	7	486	10	537	3	22
	Percent A	0	12	0	13	0	1
	Percent B	4	3	7	5	17	9
Gyeongnam	N	7	678	3	654	1	20
	Percent A	0	15	0	14	0	0
	Percent B	4	5	2	6	6	8
Jeju	N		144	1	118		6
	Percent A		17	0	14		1
	Percent B		1	1	1		3
Total	N	177	14,038	144	11,711	18	239
	Percent A	0.2	17.5	0.2	14.6	0.0	0.3
	Percent B	100.0	100.0	100.0	100.0	100.0	100.0

Note: Percent A: Percent within regions
Percent B: Percent among institutions

Region		Branch offices of community health service centers	Public health service centers	Dispensaries	Midwifery clinics	Pharmacies
	N	1		2	6	5,416
Seoul	Percent A	0		0	0	26
	Percent B	0		5	12	25
	N	9	5	2	13	1,538
Busan	Percent A	0	0	0	0	26
	Percent B	1	0	5	26	7
	N	9	9	2	1	1,171
Daegu	Percent A	0	0	0	0	27
	Percent B	1	0	5	2	5
	N	25	24	2	1	987
Incheon	Percent A	1	1	0	0	27
	Percent B	2	1	5	2	5
	N		10	2	4	646
Gwangju	Percent A		0	0	0	27
	Percent B		1	5	8	3
	N	8	8		2	683
Daejeon	Percent A	0	0		0	26
	Percent B	1	0		4	3
	N	10	11	3		361
Ulsan	Percent A	1	1	0		24
	Percent B	1	1	8		2
	N	126	163	6	9	4,298
Gyeonggi	Percent A	1	1	0	0	27
	Percent B	10	9	15	18	20
	N	94	131	1	4	643
Gangwon	Percent A	4	6	0	0	29
	Percent B	7	7	3	8	3
	N	94	161		3	618
Chungbuk	Percent A	4	7		0	26
	Percent B	7	8		6	3
	N	158	240	5		854
Chungnam	Percent A	5	8	0		27
	Percent B	12	13	13		4
	N	149	245	1		863
Jeonbuk	Percent A	5	7	0		26
	Percent B	12	13	3		4
	N	209	330	1	4	847
Jeonnam	Percent A	7	11	0	0	27
	Percent B	16	17	3	8	4
	N	218	312	10		1,077
Gyeongbuk	Percent A	5	8	0		27
	Percent B	17	16	26		5
	N	169	219	2	2	1,122
Gyeongnam	Percent A	4	5	0	0	25
	Percent B	13	11	5	4	5
	N	11	46		1	227
Jeju	Percent A	1	5		0	26
	Percent B	1	2		2	1
	N	1,290	1,914	39	50	21,351
Total	Percent A	1.6	2.4	0.0	0.1	26.6
	Percent B	100.0	100.0	100.0	100.0	100.0

Note: Percent A: Percent within regions
Percent B: Percent among institutions

2. Regional distribution by establishment type

Establishment type of health care institutions in regions shows that most of the institutions were established by individuals (89.6%), followed by public institutions (5.8%), medical corporations (1.7%), corporations (0.4%), foundations (0.3%), educational foundations (0.3%), social welfare corporations (0.2%), special corporations (0.2%), company corporations (0.1%), military hospitals (0.1%), other entities (1.2%), national institutions (0.1%) and religious corporations (0.2%). <Table w-3> shows the ratio of establishment type of health care institutions by region.

In the case of hospitals established by individuals, Seoul was the highest with 27.7% and Gyeonggi-do next with 20.4%. While Busan came third (7.7%), the proportion fell far from that of Seoul and Gyeonggi-do. Jeju had the least number of hospitals established by individuals with the ratio being merely 1.0%. The proportion of these hospitals was in the order of Seoul (96.7%), Gwangju (95.6%) and Daegu (95.4%). More than 90% of the overall health care institutions in Seoul, six metropolitan cities and Gyeonggi-do were established by individuals. On the other hand, Jeonnam (69.3%) and Gyeongbuk (74.1%) had the lowest number of such hospitals.

National institutions were located mostly in Seoul (20.6%) and Jeonnam (15.9%) and the Percent within other regions were low. A relatively even number of public institutions were distributed mostly in cities and do's other than large or metropolitan cities. Gyeongbuk had the most with 16.2% and Ulsan the least with 0.7%. Rest of the regions showed

figures in between these two. There were 150 institutions established by educational corporations, consisting 0.3% of the total, with 31 of them located in Seoul (20.7%). Number of institutions established by special corporations was 129 in total, Busan having the most with 30 institutions (23.3%). A total of 140 institutions were established by social welfare corporations, in the order of Seoul (17.9%), Gyeonggi-do (15.0%) and Busan (10.7%). Number of institutions established by corporations was the highest in Seoul with 34 institutions (16.0%) out of the total 212 institutions, and Busan coming next with 32 institutions (15.1%). Institutions established by foundations were in the order of Gyeonggi-do (18.1%), Seoul (15.6%) and Busan (13.1%). Seoul had the highest number of institutions established by corporations with 28.0% and Busan (14.0%) and Gyeongbuk (12.0%) following. Out of 979 medical-corporation-established institutions, 198 were in Gyeonggi-do (20.2%) and only 1.1% was in Jeju. Military hospitals were mostly located in Gyeonggi and Gangwon areas where military camps are located, with 10 hospitals each (19.2%). Gyeongnam had 5 (9.6%) out of total 52 military hospitals.

〈Table 2-3〉 Regional distribution of health care institution establishment types (pharmacies not included)

Region		National	Public	Educational corporations	Special corporations	Religious corporations	Social welfare corporations	Corporations	Foundations	Company corporations	Medical corporations	Individuals	Military hospitals	Other
Seoul	N	13	36	31	18	1	25	34	31	21	110	14,623	2	173
	Percent A	0.1	0.2	0.2	0.1	0.0	0.2	0.2	0.2	0.1	0.7	96.7	0.0	1.1
	Percent B	20.6	1.1	20.7	14.0	20.0	17.9	16.0	15.6	28.0	11.2	27.7	3.8	23.8
Busan	N	3	32	10	30		15	32	26	3	94	4,042	4	21
	Percent A	0.0	0.7	0.2	0.7		0.3	0.7	0.6	0.1	2.2	93.7	0.1	0.5
	Percent B	3.2	0.9	6.7	23.3		10.7	15.1	13.1	4.0	9.6	7.7	7.7	2.9
Daegu	N	1	28	8	5		8	10	16	1	40	2,953		24
	Percent A	0.0	0.9	0.3	0.2		0.3	0.3	0.5	0.0	1.3	95.4		0.8
	Percent B	1.6	0.8	5.3	3.9		5.7	4.7	8.0	1.3	4.1	5.6		3.3
Incheon	N		54	7	7		9	15	2	3	29	2,458	3	51
	Percent A		2.0	0.3	0.3		0.3	0.6	0.1	0.1	1.1	93.2	0.1	1.9
	Percent B		1.6	4.7	5.4		6.4	7.1	1.0	4.0	3.0	4.7	5.8	7.0
Gwangju	N		16	8	3		3	7	7	7	13	1,636		12
	Percent A		0.9	0.5	0.2		0.2	0.4	0.4	0.4	0.8	95.6		0.7
	Percent B		0.5	5.3	2.3		2.1	3.3	3.5	9.3	1.3	3.1		1.7
Daejeon	N		23	8	7		12	10	2	1	36	1,792	4	24
	Percent A		1.2	0.4	0.4		0.6	0.5	0.1	0.1	1.9	93.4	0.2	1.3
	Percent B		0.7	5.3	5.4		8.6	4.7	1.0	1.3	3.7	3.4	7.7	3.3
Ulsan	N		25	3	7		4	7	3	5	22	1,066		17
	Percent A		2.2	0.3	0.6		0.3	0.6	0.3	0.4	1.9	92.0		1.5
	Percent B		0.7	2.0	5.4		2.9	3.3	1.5	6.7	2.2	2.0		2.3
Gyeonggi	N	7	344	22	11	1	21	28	36	8	198	10,763	10	126
	Percent A	0.1	3.0	0.2	0.1	0.0	0.2	0.2	0.3	0.1	1.7	93.0	0.1	1.1
	Percent B	11.1	10.1	14.7	8.5	20.0	15.0	13.2	18.1	10.7	20.2	20.4	19.2	17.3
Gangwon	N	6	246	4	6	2	3	9	5	1	31	1,253	10	21
	Percent A	0.4	15.4	0.3	0.4	0.1	0.2	0.6	0.3	0.1	1.9	78.5	0.6	1.3
	Percent B	9.5	7.2	2.7	4.7	40.0	2.1	4.2	2.5	1.3	3.2	2.4	19.2	2.9
Chungbuk	N	2	262	8	8		9	16	3	1	35	1,354	3	20
	Percent A	0.1	15.2	0.5	0.5		0.5	0.9	0.2	0.1	2.0	78.7	0.2	1.2
	Percent B	3.2	7.7	5.3	6.2		6.4	7.5	1.5	1.3	3.6	2.6	5.8	2.8
Chungnam	N	7	391	12	4		4	6	4	4	53	1,796	4	50
	Percent A	0.3	16.7	0.5	0.2		0.2	0.3	0.2	0.2	2.3	76.9	0.2	2.1
	Percent B	11.1	11.4	8.0	3.1		2.9	2.8	2.0	5.3	5.4	3.4	7.7	6.9
Jeonbuk	N	6	392	12	4	1	4	12	25		54	1,884	1	27
	Percent A	0.2	16.2	0.5	0.2	0.0	0.2	0.5	1.0		2.2	77.8	0.0	1.1
	Percent B	9.5	11.5	8.0	3.1	20.0	2.9	5.7	12.6		5.5	3.6	1.9	3.7
Jeonnam	N	10	547	5	3		2	2	5	3	58	1,559	2	55
	Percent A	0.4	24.3	0.2	0.1		0.1	0.1	0.2	0.1	2.6	69.3	0.1	2.4
	Percent B	15.9	16.0	3.3	2.3		1.4	0.9	2.5	4.0	5.9	3.0	3.8	7.6
Gyeongbuk	N	6	554	11	3		11	5	24	9	99	2,179	4	37
	Percent A	0.2	18.8	0.4	0.1		0.4	0.2	0.8	0.3	3.4	74.1	0.1	1.3
	Percent B	9.5	16.2	7.3	2.3		7.9	2.4	12.1	12.0	10.1	4.1	7.7	5.1
Gyeongnam	N	5	402	1	11		7	14	8	8	96	2,805	5	63
	Percent A	0.1	11.7	0.0	0.3		0.2	0.4	0.2	0.2	2.8	81.9	0.1	1.8
	Percent B	4.8	11.8	0.7	8.5		5.0	6.6	4.0	10.7	9.8	5.3	9.6	8.7
Jeju	N		64		2		3	5	2		11	545		6
	Percent A		10.0		0.3		0.5	0.8	0.3		1.7	85.4		0.9
	Percent B		1.9		1.6		2.1	2.4	1.0		1.1	1.0		0.8
Total	N	66	3,416	150	129	5	140	212	199	75	979	52,708	52	727
	Percent A	0.1	5.8	0.3	0.2	0.0	0.2	0.4	0.3	0.1	1.7	89.6	0.1	1.2
	Percent B	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

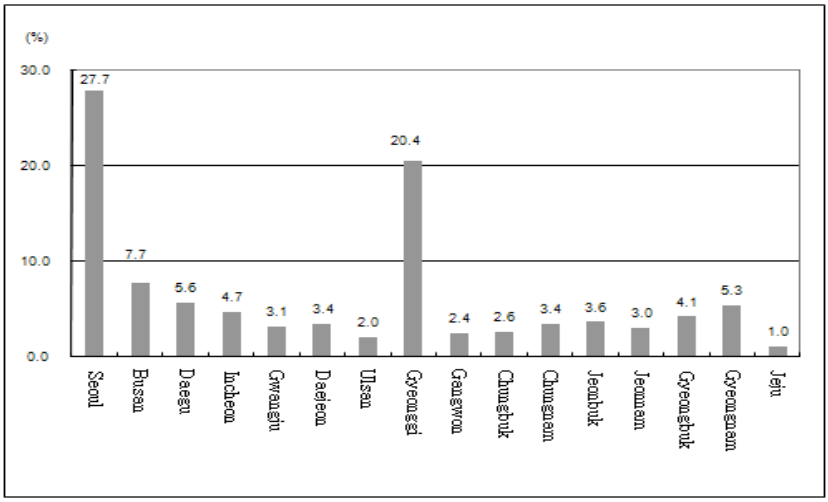
Note: Percent A: Percent within regions
Percent B: Percent among establishment type

〈Table 2-4〉 Distribution of health care institution type by establishment type (pharmacies not included)

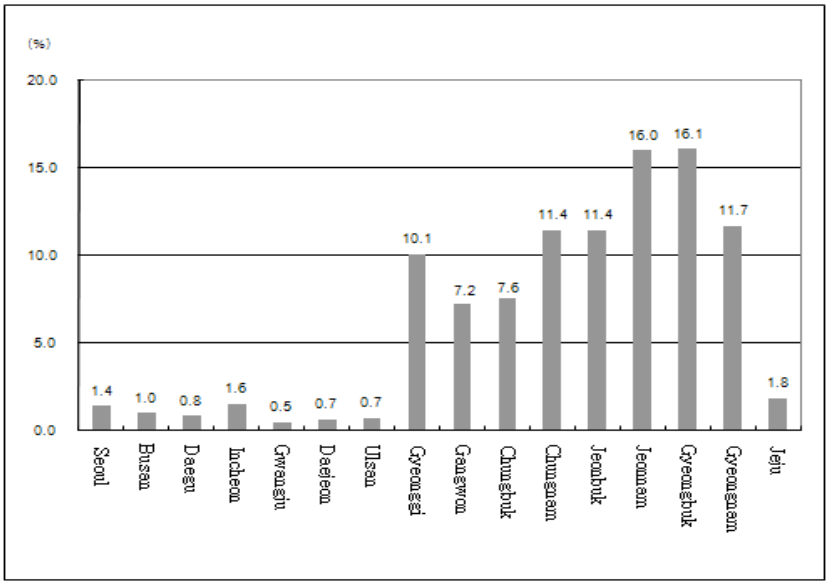
		Hospitals and clinics	Dental hospitals and clinics	Oriental medicine hospitals and clinics	Health care institutions	Midwifery clinics	Total
Count		24	3	2	34		63
National	Percent A	38.1	4.8	3.2	54.0		100.0
	Percent B	0.1	0.0	0.0	1.0		0.1
	Count	3					3
National university	Percent A	100.0					100.0
	Percent B	0.0					0.0
	Count	70	3	5	3,338		3,416
Public	Percent A	2.0	0.1	0.1	97.7		100.0
	Percent B	0.2	0.0	0.0	96.4		5.8
	Count	102	13	35			150
Educational corporation	Percent A	68.0	8.7	23.3			100.0
	Percent B	0.3	0.1	0.3			0.3
	Count	96	10	23			129
Special corporation	Percent A	74.4	7.8	17.8			100.0
	Percent B	0.3	0.1	0.2			0.2
	Count	4	1				5
Religious corporation	Percent A	80.0	20.0				100.0
	Percent B	0.0	0.0				0.0
	Count	124	3	13			140
Social welfare corporation	Percent A	88.6	2.1	9.3			100.0
	Percent B	0.4	0.0	0.1			0.2
	Count	163	19	30			212
Corporation	Percent A	76.9	9.0	14.2			100.0
	Percent B	0.6	0.1	0.3			0.4
	Count	155	8	35	1		199
Foundation	Percent A	77.9	4.0	17.6	0.5		100.0
	Percent B	0.5	0.1	0.3	0.0		0.3
	Count	63	11	1			75
Company corporation	Percent A	84.0	14.7	1.3			100.0
	Percent B	0.2	0.1	0.0			0.1
	Count	826	51	99	3		979
Medical corporation	Percent A	84.4	5.2	10.1	0.3		100.0
	Percent B	2.8	0.4	0.8	0.1		1.7
	Count	27,273	13,942	11,439	4	50	52,708
Individual	Percent A	51.7	26.5	21.7	0.0	0.1	100.0
	Percent B	93.2	98.1	96.5	0.1	100.0	89.6
	Count	26	7	19			52
Military hospital	Percent A	50.0	13.5	36.5			100.0
	Percent B	0.1	0.0	0.2			0.1
	Count	349	143	154	81		727
Other	Percent A	48.0	19.7	21.2	11.1		100.0
	Percent B	1.2	1.0	1.3	2.3		1.2
	Count	29,278	14,214	11,855	3,461	50	58,858
Percent A		49.7	24.1	20.1	5.9	0.1	100.0
Percent B		100.0	100.0	100.0	100.0	100.0	100.0

Note: Percent A: Percent among establishment type
Percent B: Percent among medical institutions

[Figure 2-7] Regional distribution of medical institutions established by individuals



[Figure 2-8] Regional distribution of national and public medical institutions



3. Regional distribution of medical fields practiced

A. Distribution of 26 general medical fields

Various medical practices were undertaken by a total of 119,335 hospitals and clinics nationwide. Among these fields, Internal Medicine was most widely practiced, by 19,545 hospitals and clinics (16.4%), followed by Pediatrics and Adolescents (13,419 or 11.2%), Dermatology (10.1%) and Otorinolaryngology (7.8%).

〈Table 2-5〉 Medical fields practiced by hospitals and clinics

Rank	Medical fields	Total (count)	Ratio (%)
1	Internal Medicine	19,545	16.4
2	Pediatrics and Adolescents	13,419	11.2
3	Dermatology	12,062	10.1
4	Otorinolaryngology	9,359	7.8
5	Orthopaedic Surgery	8,422	7.1
6	General Surgery	8,321	7.0
7	Urology	7,867	6.6
8	Family Medicine	5,961	5.0
9	Neurological Surgery	4,391	3.7
10	Physical Medicine & Rehabilitation	3,798	3.2
11	Obstetrics and Gynecology	3,782	3.2
12	Ophthalmology	3,564	3.0
13	Radiology	3,299	2.8
14	Anesthesiology and Pain Medicine	3,178	2.7
15	Neurology	3,039	2.5
16	Plastic & Reconstructive Surgery	2,826	2.4
17	Psychiatry	2,072	1.7
18	Diagnostic Laboratory Medicine	1,657	1.4
19	Thoracic & Cardiovascular Surgery	768	0.6
20	Pathology	702	0.6
21	Emergency Medicine	372	0.3
22	Tuberculosis	306	0.3
23	Occupational & Environmental Medicine	213	0.2
24	Preventive Medicine	213	0.2
25	Radiation Oncology	103	0.1
26	Nuclear Medicine	96	0.1
	Total	119,335	100.0

The above table reveals that the top 7 medical fields of Internal Medicine, Pediatrics & Adolescents, Dermatology, Otorinolaryngology, Orthopaedic Surgery, General Surgery and Urology form the highest proportion in all regions. With regards to distribution by region, Internal Medicine was the highest in Seoul (18.9%) and Gyeonggi (18.7%) and Gyeongnam (7.5%) followed, a large gap between Seoul, Gyeonggi-do and other regions. Jeju had 224 hospitals and clinics practicing Internal Medicine, accounting for 1.1% of the total. Pediatrics and Adolescents came second among the 26 fields, Gyeonggi-do having the most (22.0%) and Seoul (20.8%) and Busan (7.2%) coming next. Dermatology, ranking third, was also concentrated mostly in Seoul (23.3%) and Gyeonggi-do (20.2%), followed by Busan (7.8%) and Gyeongnam (7.2%).

In the case of other fields, more than half (55.1%) of Plastic & Reconstructive Surgery were practiced in Seoul and Gyeonggi-do, 35.9% and 19.2%, respectively. Radiology was located the most in Seoul (22.6%), followed by the order of Gyeonggi-do (17.2%), Busan (8.2%) and Gwangju 7.8% (6.8%). Proportion of Radiation Oncology was high in Seoul (33.0%), Gyeonggi-do (16.5%) and Busan (8.7%). In the case of Diagnostic Laboratory Medicine, Gyeonggi, Gwangju, Daegu, Busan and Jeonnam areas had a similar proportion of approximately 10%, apart from Seoul (360 institutions practicing or 21.7%). Out of 96 institutions practicing Nuclear Medicine, 30 were in Seoul (31.3%) and 17 in Gyeonggi-do (17.7%), amounting to 49.0% concentrated in the two regions. Unlike other fields, Preventive Medicine was practiced the most in Gyeonggi-do (14.1%) with Gyeongnam (11.7%), Seoul (11.3%) and Jeonnam (8.5%) following.

〈Table 2-6〉 Regional distribution of medical fields practiced by hospitals and clinics

Region		Internal Medicine	Neurology	Psychiatry	General Surgery	Orthopaedic Surgery	Neurological Surgery	Thoracic & Cardiovascular Surgery	Plastic & reconstructive Surgery	Anesthesiology & Pain Medicine	Obstetrics and Gynecology	Pediatrics and Adolescents	Ophthalmology	Otorhinolaryngology
Seoul	N	3,696	630	537	1,556	1,571	790	136	1,015	615	1,007	2,790	787	1,965
	%	18.9	20.7	25.9	18.7	18.7	18.0	17.7	35.9	19.4	26.6	20.8	22.1	21.0
Busan	N	1,308	252	142	585	606	361	51	212	266	306	967	190	602
	%	6.7	8.3	6.9	7.0	7.2	8.2	6.6	7.5	8.4	8.1	7.2	5.3	6.4
Daegu	N	918	166	83	312	365	244	23	127	215	201	722	227	523
	%	4.7	5.5	4.0	3.7	4.3	5.6	3.0	4.5	6.8	5.3	5.4	6.4	5.6
Incheon	N	917	135	90	437	457	256	35	133	123	172	738	148	484
	%	4.7	4.4	4.3	5.3	5.4	5.8	4.6	4.7	3.9	4.5	5.5	4.2	5.2
Gwangju	N	553	130	100	305	278	158	42	123	136	152	424	154	311
	%	2.8	4.3	4.8	3.7	3.3	3.6	5.5	4.4	4.3	4.0	3.2	4.3	3.3
Daejeon	N	596	138	95	253	266	119	30	80	93	107	447	95	310
	%	3.0	4.5	4.6	3.0	3.2	2.7	3.9	2.8	2.9	2.8	3.3	2.7	3.3
Ulsan	N	363	65	30	141	146	83	18	47	75	72	270	63	195
	%	1.9	2.1	1.4	1.7	1.7	1.9	2.3	1.7	2.4	1.9	2.0	1.8	2.1
Gyeonggi	N	3,658	531	420	1,600	1,676	859	136	542	551	689	2,946	659	2,028
	%	18.7	17.5	20.3	19.2	19.9	19.6	17.7	19.2	17.3	18.2	22.0	18.5	21.7
Gangwon	N	627	57	41	239	261	115	21	34	87	91	333	81	223
	%	3.2	1.9	2.0	2.9	3.1	2.6	2.7	1.2	2.7	2.4	2.5	2.3	2.4
Chungbuk	N	745	102	66	296	295	149	29	51	99	108	406	102	282
	%	3.8	3.4	3.2	3.6	3.5	3.4	3.8	1.8	3.1	2.9	3.0	2.9	3.0
Chungnam	N	1,055	146	86	447	440	190	45	77	137	129	553	138	360
	%	5.4	4.8	4.2	5.4	5.2	4.3	5.9	2.7	4.3	3.4	4.1	3.9	3.8
Jeonbuk	N	980	124	89	375	392	235	37	59	129	140	501	182	357
	%	5.0	4.1	4.3	4.5	4.7	5.4	4.8	2.1	4.1	3.7	3.7	5.1	3.8
Jeonnam	N	1,121	112	70	538	469	232	48	83	175	173	604	200	446
	%	5.7	3.7	3.4	6.5	5.6	5.3	6.2	2.9	5.5	4.6	4.5	5.6	4.8
Gyeongbuk	N	1,323	170	77	495	478	216	48	75	200	163	657	225	507
	%	6.8	5.6	3.7	5.9	5.7	4.9	6.2	2.7	6.3	4.3	4.9	6.3	5.4
Gyeongnam	N	1,461	246	121	646	619	340	61	150	247	228	914	270	674
	%	7.5	8.1	5.8	7.8	7.3	7.7	7.9	5.3	7.8	6.0	6.8	7.6	7.2
Jeju	N	224	35	25	96	103	44	8	18	30	44	147	43	92
	%	1.1	1.2	1.2	1.2	1.2	1.0	1.0	0.6	0.9	1.2	1.1	1.2	1.0
Total	N	19,545	3,039	2,072	8,321	8,422	4,391	768	2,826	3,178	3,782	13,419	3,564	9,359
	%	100	100	100	100	100	100	100	100	100	100	100	100	100

Region		Dermatology	Urology	Radiology	Radiation Oncology	Pathology	Diagnostic Laboratory Medicine	Tuberculosis	Physical Medicine & Rehabilitation	Nuclear Medicine	Family Medicine	Emergency Medicine	Occupational & Environmental Medicine	Preventive Medicine
Seoul	N	2,807	1,627	747	34	145	360	73	823	30	1,414	72	28	24
	%	23.3	20.7	22.6	33.0	20.7	21.7	23.9	21.7	31.3	23.7	19.4	13.1	11.3
Busan	N	945	625	271	9	59	157	37	286	8	462	16	12	14
	%	7.8	7.9	8.2	8.7	8.4	9.5	12.1	7.5	8.3	7.8	4.3	5.6	6.6
Daegu	N	553	336	208	6	63	174	6	191	7	283	18	6	9
	%	4.6	4.3	6.3	5.8	9.0	10.5	2.0	5.0	7.3	4.7	4.8	2.8	4.2
Incheon	N	591	450	167	5	29	56	14	198	2	300	24	15	8
	%	4.9	5.7	5.1	4.9	4.1	3.4	4.6	5.2	2.1	5.0	6.5	7.0	3.8
Gwangju	N	409	281	225	4	57	170	18	197	6	201	15	10	15
	%	3.4	3.6	6.8	3.9	8.1	10.3	5.9	5.2	6.3	3.4	4.0	4.7	7.0
Daejeon	N	403	227	82	4	16	35	7	172	6	215	12	8	9
	%	3.3	2.9	2.5	3.9	2.3	2.1	2.3	4.5	6.3	3.6	3.2	3.8	4.2
Ulsan	N	262	181	62	1	16	19	5	75	2	86	5	7	6
	%	2.2	2.3	1.9	1.0	2.3	1.1	1.6	2.0	2.1	1.4	1.3	3.3	2.8
Gyeonggi	N	2,433	1,589	568	17	95	209	58	705	17	1,079	72	42	30
	%	20.2	20.2	17.2	16.5	13.5	12.6	19.0	18.6	17.7	18.1	19.4	19.7	14.1
Gangwon	N	256	201	80	3	16	31	6	75	2	119	12	9	4
	%	2.1	2.6	2.4	2.9	2.3	1.9	2.0	2.0	2.1	2.0	3.2	4.2	1.9
Chungbuk	N	348	236	68	2	14	23	14	124	1	193	15	8	10
	%	2.9	3.0	2.1	1.9	2.0	1.4	4.6	3.3	1.0	3.2	4.0	3.8	4.7
Chungnam	N	507	342	115	2	11	37	8	183	1	270	18	14	14
	%	4.2	4.3	3.5	1.9	1.6	2.2	2.6	4.8	1.0	4.5	4.8	6.6	6.6
Jeonbuk	N	452	324	89	4	20	43	12	133	5	374	18	5	7
	%	3.7	4.1	2.7	3.9	2.8	2.6	3.9	3.5	5.2	6.3	4.8	2.3	3.3
Jeonnam	N	548	401	223	2	46	139	8	229	-	253	24	10	18
	%	4.5	5.1	6.8	1.9	6.6	8.4	2.6	6.0	-	4.2	6.5	4.7	8.5
Gyeongbuk	N	574	387	148	3	48	90	17	160	2	301	24	16	17
	%	4.8	4.9	4.5	2.9	6.8	5.4	5.6	4.2	2.1	5.0	6.5	7.5	8.0
Gyeongnam	N	865	591	223	5	60	101	21	211	5	362	22	20	25
	%	7.2	7.5	6.8	4.9	8.5	6.1	6.9	5.6	5.2	6.1	5.9	9.4	11.7
Jeju	N	109	69	23	2	7	13	2	36	2	49	5	3	3
	%	0.9	0.9	0.7	1.9	1.0	0.8	0.7	0.9	2.1	0.8	1.3	1.4	1.4
Total	N	12,062	7,867	3,299	103	702	1,657	306	3,798	96	5,961	372	213	213
	%	100	100	100	100	100	100	100	100	100	100	100	100	100

B. Distribution of Dental Specializations

Dental hospitals and clinics were classified into 11 fields including Oral & Maxillofacial Surgery. These 11 fields were practiced by 98,117 dental institutions with 29,799 fields or 30.37% of the total practiced in Seoul and 21,154 fields or 21.56% in Gyeonggi-do. Unlike general hospitals and clinics, most fields practiced by dental institutions were evenly distributed between the ratio of 7.8% and 9.7%, Oral Pathology being the lowest and Dental Prosthetics and Conservative Dentistry the highest.

By region, the proportion of all fields were highest in Seoul and in the order of Gyeonggi, Busan, Daegu, Incheon and Gyeongnam. Among the rest, Ulsan and Jeju had the least. Dental hospitals and clinics were mostly located in Seoul and Gyeonggi-do and metropolitan cities including Busan, Daegu and Incheon compared to other regions.

〈Table 2-7〉 Status of medical specializations practiced by dental hospitals and Clinics

Rank	Medical fields	Number of concerned field practiced (count)	Ratio (%)
1	Dental Prosthetics	9,531	9.7
2	Conservative Dentistry	9,490	9.7
3	Periodontology	9,440	9.6
4	Preventive Dentistry	9,401	9.6
5	Pediatric Dentistry	9,303	9.5
6	Oral & Maxillofacial Surgery	8,994	9.2
7	Oral Medicine	8,940	9.1
8	Oral & Maxillofacial Radiology	8,734	8.9
9	General Dentistry	8,442	8.6
10	Orthodontics	8,236	8.4
11	Oral Pathology	7,606	7.8
	Total	98,117	100.0

〈Table 2-8〉 Regional distribution of medical specializations practiced by dental hospitals and clinics

Region		General Dentistry	Oral & Maxillofacial Surgery	Dental Prosthetics	Orthodontics	Pediatric Dentistry	Periodontology	Conservative Dentistry	Oral Medicine	Oral & Maxillofacial Radiology	Oral Pathology	Preventive Dentistry
Seoul	N	2245	2,766	2923	2581	2817	2894	2920	2744	2681	2379	2849
	%	26.6	30.8	30.7	31.3	30.3	30.7	30.8	30.7	30.7	31.3	30.3
Busan	N	502	591	618	537	607	611	614	580	573	507	603
	%	5.9	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.7	6.4
Daegu	N	373	479	504	427	490	496	498	473	470	410	494
	%	4.4	5.3	5.3	5.2	5.3	5.3	5.2	5.3	5.4	5.4	5.3
Incheon	N	271	460	482	428	470	481	478	452	446	387	484
	%	3.2	5.1	5.1	5.2	5.1	5.1	5.0	5.1	5.1	5.1	5.1
Gwangju	N	267	320	337	305	336	333	341	326	318	281	335
	%	3.2	3.6	3.5	3.7	3.6	3.5	3.6	3.6	3.6	3.7	3.6
Daejeon	N	279	297	325	277	312	319	321	304	291	263	319
	%	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.5	3.4
Ulsan	N	173	171	192	161	184	190	189	177	171	150	188
	%	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Gyeonggi	N	1714	1,954	2063	1812	2028	2049	2057	1922	1889	1623	2043
	%	20.3	21.7	21.6	22.0	21.8	21.7	21.7	21.5	21.6	21.3	21.7
Gangwon	N	302	176	189	139	189	185	188	178	165	129	193
	%	3.6	2.0	2.0	1.7	2.0	2.0	2.0	2.0	1.9	1.7	2.1
Chungbuk	N	224	195	194	172	195	193	195	192	186	156	199
	%	2.7	2.2	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Chungnam	N	377	276	300	233	291	299	298	269	263	211	294
	%	4.5	3.1	3.1	2.8	3.1	3.2	3.1	3.0	3.0	2.8	3.1
Jeonbuk	N	295	307	320	279	316	321	322	310	299	283	327
	%	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.4	3.7	3.5
Jeonnam	N	364	224	239	205	239	234	233	209	206	159	222
	%	4.3	2.5	2.5	2.5	2.6	2.5	2.5	2.3	2.4	2.1	2.4
Gyeongbuk	N	425	318	335	266	329	328	329	324	315	271	334
	%	5.0	3.5	3.5	3.2	3.5	3.5	3.5	3.6	3.6	3.6	3.6
Gyeongnam	N	529	377	421	344	412	417	419	396	382	329	427
	%	6.3	4.2	4.4	4.2	4.4	4.4	4.4	4.4	4.4	4.3	4.5
Jeju	N	102	83	89	70	88	90	88	84	79	68	90
	%	1.2	0.9	0.9	0.8	0.9	1.0	0.9	0.9	0.9	0.9	1.0
Total	N	8442	8,994	9531	8236	9303	9440	9490	8940	8734	7606	9401
	%	100	100	100	100	100	100	100	100	100	100	100

C. Distribution of Oriental Medicine Specializations

Oriental hospitals and clinics were classified into 10 fields including Oriental Internal Medicine and Oriental Obstetrics and Gynecology, among which, Oriental Internal Medicine formed the highest proportion at 11.6% or 10,939 institutions. Apart from Oriental Emergency Medicine and General Oriental Medicine, the ratios for the remaining 8 fields were between 9.6% and 11.6%. The following table illustrates the proportion of each oriental medicine specialization.

〈Table 2-9〉 Status of medical specializations practiced by oriental hospitals and clinics

Rank	Medical Specializations	Number of concerned specializations practiced (count)	Ratio (%)
1	Oriental Internal Medicine	10,939	11.6
2	Acupuncture	10,770	11.4
3	Oriental Obstetrics and Gynecology	10,628	11.3
4	Oriental Pediatrics	10,545	11.2
5	Oriental Ophthalmology, Otorhinolaryngology & Dermatology	10,480	11.1
6	Oriental Neuropsychiatry	10,286	10.9
7	Oriental Rehabilitation Medicine	9,410	10.0
8	Sasang Constitutional Medicine	9,011	9.6
9	Oriental Emergency Medicine	6,531	6.9
10	General Oriental Medicine	5,548	5.9
	Total	94,148	100.0

As seen in the regional distribution of oriental medicine hospitals and clinics table <2-10> below, most fields are located in Seoul and Gyeonggi-do. The proportion of Oriental Internal Medicine was highest in Seoul at 27.4%, Gyeonggi-do at 18.6% and Busan at 7.6%. Jeju barely reached 0.9%. The

ratio of Oriental Internal Medicine, Oriental Obstetrics and Gynecology, Oriental Pediatrics, Oriental Ophthalmology, Otorhinolaryngology & Dermatology, Oriental Neuropsychiatry, Acupuncture, Oriental Rehabilitation Medicine and Sasang Constitutional Medicine was high in the order of Seoul, Gyeonggi, Busan, Daegu, and Gyeongnam. There were 6,531 institutions practicing Oriental Emergency Medicine at the ratio of Seoul (31.7%), Gyeonggi (22.6%), Busan (7.6%), Daegu (7.5%) and Incheon (4.7%).

〈Table 2-10〉 Regional distribution of medical specializations practiced by oriental medicine hospitals and clinics

Region		General Oriental Medicine	Oriental Internal Medicine	Oriental Obstetrics and Gynecology	Oriental Pediatrics	Oriental Ophtalmology, Otorhinolaryngology & Dermatology	Oriental Neuropsychiatry	Acupuncture	Oriental Rehabilitation Medicine	Sasang Constitutional Medicine	Oriental Emergency Medicine
Seoul	N	1184	2994	2971	2956	2943	2927	2983	2766	2739	2068
	%	21.3	27.4	28.0	28.0	28.1	28.5	27.7	29.4	30.4	31.7
Busan	N	352	834	816	806	804	774	830	717	659	495
	%	6.3	7.6	7.7	7.6	7.7	7.5	7.7	7.6	7.3	7.6
Daegu	N	303	697	688	685	683	680	691	623	606	490
	%	5.5	6.4	6.5	6.5	6.5	6.6	6.4	6.6	6.7	7.5
Incheon	N	189	476	463	460	460	453	469	420	414	308
	%	3.4	4.4	4.4	4.4	4.4	4.4	4.4	4.5	4.6	4.7
Gwangju	N	123	300	287	289	290	273	301	237	211	76
	%	2.2	2.7	2.7	2.7	2.8	2.7	2.8	2.5	2.3	1.2
Daejeon	N	237	399	382	384	375	371	385	346	317	224
	%	4.3	3.6	3.6	3.6	3.6	3.6	3.6	3.7	3.5	3.4
Ulsan	N	102	248	233	231	226	223	243	187	177	85
	%	1.8	2.3	2.2	2.2	2.2	2.2	2.3	2.0	2.0	1.3
Gyeonggi	N	967	2031	2000	1991	1990	1954	2014	1834	1764	1473
	%	17.4	18.6	18.8	18.9	19.0	19.0	18.7	19.5	19.6	22.6
Gangwon	N	226	278	263	261	263	247	269	228	207	157
	%	4.1	2.5	2.5	2.5	2.5	2.4	2.5	2.4	2.3	2.4
Chungbuk	N	187	296	281	280	278	267	288	234	206	161
	%	3.4	2.7	2.6	2.7	2.7	2.6	2.7	2.5	2.3	2.5
Chungnam	N	334	405	371	368	362	359	376	317	288	158
	%	6.0	3.7	3.5	3.5	3.5	3.5	3.5	3.4	3.2	2.4
Jeonbuk	N	221	411	383	381	370	368	395	345	324	200
	%	4.0	3.8	3.6	3.6	3.5	3.6	3.7	3.7	3.6	3.1
Jeonnam	N	288	307	286	277	269	259	296	216	198	74
	%	5.2	2.8	2.7	2.6	2.6	2.5	2.7	2.3	2.2	1.1
Gyeongbuk	N	375	524	486	475	464	452	508	370	360	231
	%	6.8	4.8	4.6	4.5	4.4	4.4	4.7	3.9	4.0	3.5
Gyeongnam	N	377	636	617	601	600	583	620	483	462	282
	%	6.8	5.8	5.8	5.7	5.7	5.7	5.8	5.1	5.1	4.3
Jeju	N	83	103	101	100	103	96	102	87	79	49
	%	1.5	0.9	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.8
Total	N	5548	10939	10628	10545	10480	10286	10770	9410	9011	6531
	%	100	100	100	100	100	100	100	100	100	100

4. Regional distribution of beds

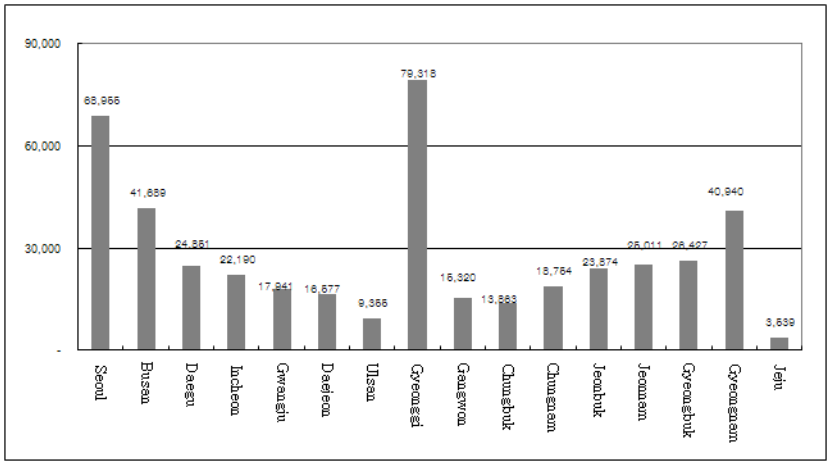
There were 448,604 beds for inpatients, among which, 88,104 were of high-class and 360,500 of standard. There were also 3,762 daytime beds. By region, Gyeonggi-do had the most number (79,318 or 17.7%) of inpatient beds. Seoul, Busan and Gyeongnam followed with 68,955 (15.4%), 41,689 (9.3%) and 40,940 (9.1%) beds, respectively. Meanwhile, Jeju had the least number of beds, accounting for 0.8% (3,539 beds) of the total.

〈Table 2-11〉 Regional distribution of number of beds

Region		Standard beds	High-class beds	Total number of inpatient beds	Daytime beds
Seoul	Number of beds	49,399	19,556	68,955	972
	%	13.7	22.2	15.4	25.8
Busan	Number of beds	31,917	9,772	41,689	226
	%	8.9	11.1	9.3	6.0
Daegu	Number of beds	20,642	4,209	24,851	128
	%	5.7	4.8	5.5	3.4
Incheon	Number of beds	17,942	4,248	22,190	184
	%	5.0	4.8	4.9	4.9
Gwangju	Number of beds	13,607	4,334	17,941	186
	%	3.8	4.9	4.0	4.9
Daejeon	Number of beds	12,948	3,629	16,577	159
	%	3.6	4.1	3.7	4.2
Ulsan	Number of beds	7,418	1,937	9,355	39
	%	2.1	2.2	2.1	1.0
Gyeonggi	Number of beds	64,198	15,120	79,318	765
	%	17.8	17.2	17.7	20.3
Gangwon	Number of beds	13,276	2,044	15,320	71
	%	3.7	2.3	3.4	1.9
Chungbuk	Number of beds	11,529	2,334	13,863	33
	%	3.2	2.6	3.1	0.9

Region		Standard beds	High-class beds	Total number of inpatient beds	Daytime beds
Chungnam	Number of beds	16,224	2,530	18,754	138
	%	4.5	2.9	4.2	3.7
Jeonbuk	Number of beds	20,781	3,093	23,874	358
	%	5.8	3.5	5.3	9.5
Jeonnam	Number of beds	21,128	3,883	25,011	189
	%	5.9	4.4	5.6	5.0
Gyeongbuk	Number of beds	22,759	3,668	26,427	121
	%	6.3	4.2	5.9	3.2
Gyeongnam	Number of beds	34,106	6,834	40,940	193
	%	9.5	7.8	9.1	5.1
Jeju	Number of beds	2,626	913	3,539	-
	%	0.7	1.0	0.8	-
Total	Number of beds	360,500	88,104	448,604	3,762
	%	100.0	100.0	100.0	100.0

[Figure 2-9] Number of inpatient beds by region



〈Table 2-12〉 Distribution of number of beds by medical institution type

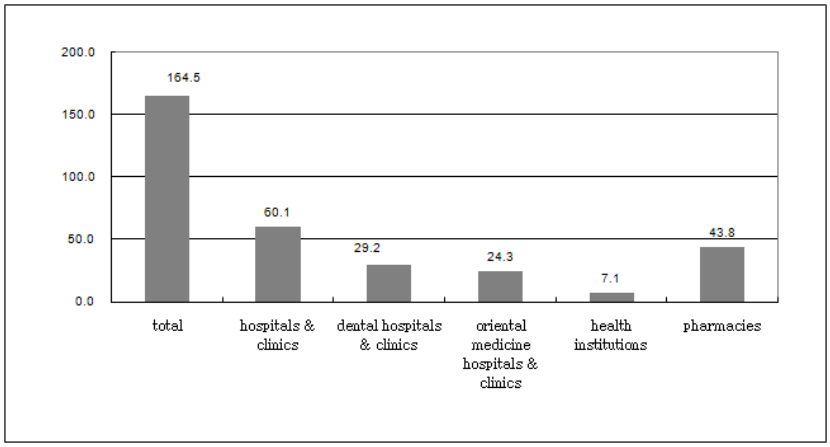
Medical institution type		Standard beds	High-class beds	Total number of inpatient beds	Daytime beds
Hospitals and Clinics	Number of Beds	351,701	84,938	436,639	3,728
	%	97.8	96.5	97.6	99.1
Dental hospitals and clinics	Number of Beds	212	52	264	7
	%	0.1	0.1	0.1	0.2
Oriental medicine hospitals and clinics	Number of Beds	7,129	2,919	10,048	25
	%	2.0	3.3	2.2	0.7
Health care institutions	Number of Beds	417	52	469	-
	%	0.1	0.1	0.1	-
Midwifery clinics	Number of Beds	40	49	89	-
	%	0.0	0.1	0.0	-
Total	Number of Beds	359,499	88,010	447,509	3,760
	%	100.0	100.0	100.0	100.0

5. Regional distribution of health care facilities against the number of population

A. Health care facilities per 100,000 people by region

The table below presents the number of health care facilities per 100,000 people by region considering the number of population. There were 164.5 health care institutions per 100,000 people, specifically 60.1 hospitals and clinics, 29.2 dental hospitals and clinics, 24.3 oriental medicine hospitals and clinics, 7.1 health service institutions and 43.8 pharmacies. Seoul had the most number of hospitals against the number of population with 204.6 institutions and Incheon had the least with 137.0 institutions. The types of health care institutions can be illustrated in detail as follows:

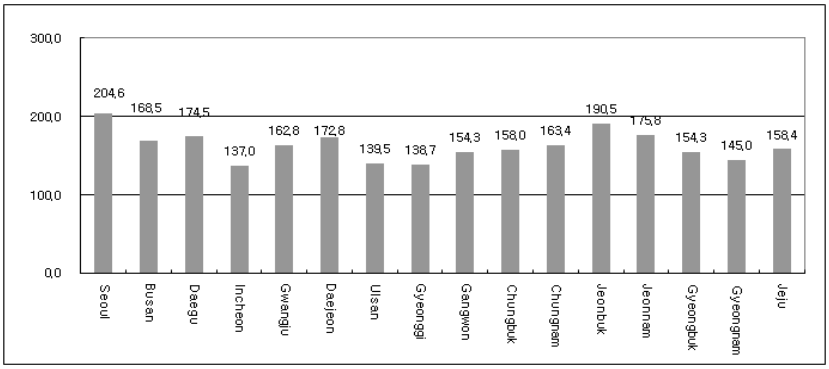
[Figure 2-10] Distribution of health care institutions per 100,000 people



〈Table 2-13〉 Regional distribution of number of health care institutions per 100,000 people

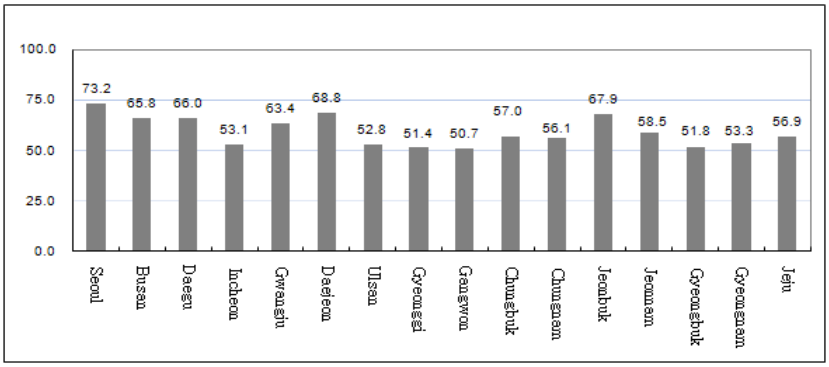
Classification	Total	Hospitals and clinics	Dental hospitals and clinics	Oriental hospitals and clinics	Health service institutions	Pharmacies
Total	164.5	60.1	29.2	24.3	7.1	43.8
Seoul	204.6	73.2	43.8	33.3	0.3	54.0
Busan	168.5	65.8	29.7	27.5	0.9	44.3
Daegu	174.5	66.0	29.2	30.3	1.1	47.9
Incheon	137.0	53.1	25.3	19.1	2.2	37.3
Gwangju	162.8	63.4	32.2	21.2	1.0	44.6
Daejeon	172.8	68.8	28.9	28.2	1.4	45.4
Ulsan	139.5	52.8	28.1	23.1	2.4	33.1
Gyeonggi	138.7	51.4	26.9	19.7	2.9	37.5
Gangwon	154.3	50.7	21.1	21.1	16.9	44.3
Chungbuk	158.0	57.0	19.7	21.2	18.1	41.7
Chungnam	163.4	56.1	21.2	21.2	21.2	43.8
Jeonbuk	190.5	67.9	24.7	24.2	23.7	50.1
Jeonnam	175.8	58.5	20.2	17.0	31.8	48.1
Gyeongbuk	154.3	51.8	18.9	21.0	21.3	41.3
Gyeongnam	145.0	53.3	21.8	20.9	13.0	35.8
Jeju	158.4	56.9	26.4	21.8	11.5	41.6

[Figure 2-11] Regional distribution of number of health care institutions per 100,000 people



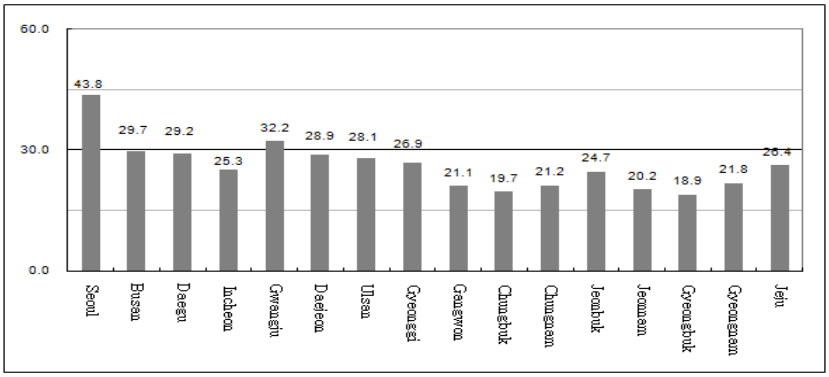
There were 60.1 hospitals and clinics per 100,000 people in Korea. Seoul had the most with 73.2 institutions per 100,000 people and Gangwon the least with 50.7 institutions.

[Figure 2-12] Regional distribution of number of hospitals and clinics per 100,000 people



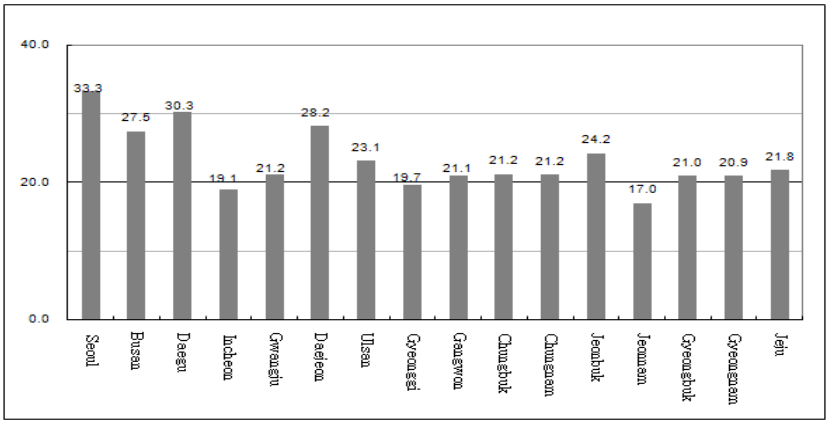
In the case of dental hospitals and clinics, there were 29.2 institutions per 100,000 people. Chungbuk and Gyeongbuk areas had the least with 19.7 and 18.9 institutions, respectively. There were 43.8 institutions in Seoul, the largest figure and 2.3 times higher than the smallest figure.

[Figure 2-13] Regional distribution of number of dental hospitals and clinics per 100,000 people



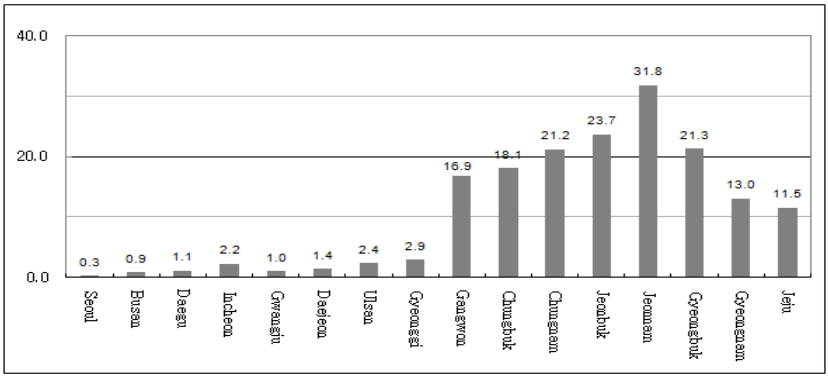
Oriental medicine hospitals and clinics amounted to 24.3 institutions per 100,000 people, Jeonnam having the least with 17.0 institutions and Seoul the most with 33.3 institutions.

[Figure 2-14] Regional distribution of number of oriental medicine hospitals and clinics per 100,000 people



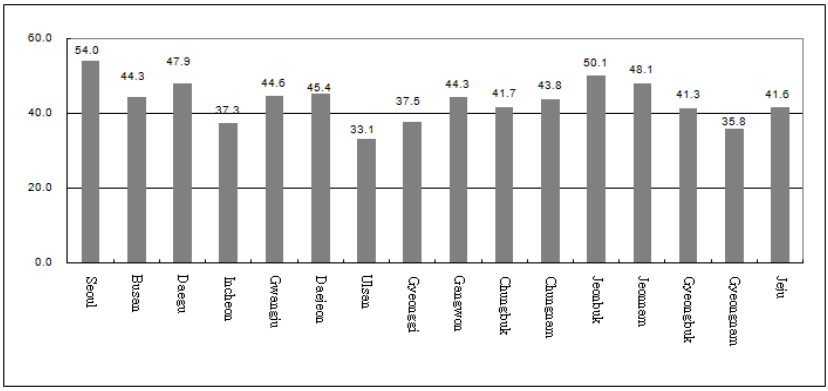
There were 7.1 health service institutions per 100,000 people, the number is highest in Jeonnam and Jeonbuk areas with 31.8 and 23.7 institutions, respectively.

[Figure 2-15] Regional distribution of number of health service institutions per 100,000 people



The number of pharmacies per 100,000 people was the highest in Seoul at 54.0, followed by Jeonbuk at 50.1. Ulsan was found to have the least number of pharmacies at 33.1.

[Figure 2-16] Regional distribution of number of pharmacies per 100,000 people



B. Regional distribution of number of medical fields practiced per 100,000 people

Out of 26 western medical fields, the two most widely practiced fields per 100,000 people was Internal Medicine

with 40.1 institutions and Pediatrics and Adolescents with 27.5 institutions. There were 24.7 institutions practicing Dermatology, 19.2 Otorhinoloryngology, 17.3 Orthopaedic Surgery, 17.1 General Surgery and 16.1 Urology. Primary medical care fields, composing of Internal Medicine, General Surgery, Obstetrics and Gynecology and Family Medicine, amounted to 77.2 fields per 100,000 people. While Jeonnam had the most with 118.3 institutions, Ulsan had the least of 60.7. Jeonbuk ranked second with 108.4 institutions practicing, which is a small gap compared to Jeonnam. Emergency Medicine, which provides compulsory medical services, was also the highest in Jeonnam with 1.4 institutions per 100,000 people and 2.8 times higher than Ulsan and Busan with the least number of 0.5 institutions.

〈Table 2-14〉 Regional distribution of medical fields practiced in hospitals and clinics per 100,000 people

Region	Internal Medicine	Neurology	Psychiatry	General Surgery	Orthopaedic Surgery	Neurosurgery	Thoracic & Cardiovascular Surgery	Plastic & Reconstructive Surgery	Anesthesiology & Pain Medicine
Total	40.1	6.2	4.3	17.1	17.3	9.0	1.6	5.8	6.5
Seoul	36.8	6.3	5.4	15.5	15.7	7.9	1.4	10.1	6.1
Busan	37.7	7.3	4.1	16.9	17.5	10.4	1.5	6.1	7.7
Daegu	37.6	6.8	3.4	12.8	14.9	10.0	0.9	5.2	8.8
Incheon	34.7	5.1	3.4	16.5	17.3	9.7	1.3	5.0	4.6
Gwangju	38.2	9.0	6.9	21.1	19.2	10.9	2.9	8.5	9.4
Daejeon	39.6	9.2	6.3	16.8	17.7	7.9	2.0	5.3	6.2
Ulsan	33.3	6.0	2.8	12.9	13.4	7.6	1.7	4.3	6.9
Gyeonggi	32.0	4.6	3.7	14.0	14.6	7.5	1.2	4.7	4.8
Gangwon	43.2	3.9	2.8	16.5	18.0	7.9	1.4	2.3	6.0
Chungbuk	50.3	6.9	4.5	20.0	19.9	10.1	2.0	3.4	6.7
Chungnam	54.1	7.5	4.4	22.9	22.6	9.7	2.3	3.9	7.0
Jeonbuk	56.8	7.2	5.2	21.8	22.7	13.6	2.1	3.4	7.5
Jeonnam	63.6	6.4	4.0	30.5	26.6	13.2	2.7	4.7	9.9
Gyeongbuk	50.8	6.5	3.0	19.0	18.3	8.3	1.8	2.9	7.7
Gyeongnam	46.6	7.8	3.9	20.6	19.7	10.8	1.9	4.8	7.9
Jeju	41.0	6.4	4.6	17.6	18.9	8.1	1.5	3.3	5.5

Region	Obstetrics & Gynecology	Pediatrics & Adolescents	Ophthalmology	Otorhinolaryngology	Dermatology	Urology	Radiology	Radiological Oncology	Pathology
Total	7.8	27.5	7.3	19.2	24.7	16.1	6.8	0.2	1.4
Seoul	10.0	27.8	7.8	19.6	28.0	16.2	7.4	0.3	1.4
Busan	8.8	27.9	5.5	17.3	27.2	18.0	7.8	0.3	1.7
Daegu	8.2	29.5	9.3	21.4	22.6	13.7	8.5	0.2	2.6
Incheon	6.5	27.9	5.6	18.3	22.3	17.0	6.3	0.2	1.1
Gwangju	10.5	29.3	10.6	21.5	28.2	19.4	15.5	0.3	3.9
Daejeon	7.1	29.7	6.3	20.6	26.8	15.1	5.4	0.3	1.1
Ulsan	6.6	24.8	5.8	17.9	24.0	16.6	5.7	0.1	1.5
Gyeonggi	6.0	25.7	5.8	17.7	21.3	13.9	5.0	0.1	0.8
Gangwon	6.3	22.9	5.6	15.4	17.6	13.8	5.5	0.2	1.1
Chungbuk	7.3	27.4	6.9	19.0	23.5	15.9	4.6	0.1	0.9
Chungnam	6.6	28.3	7.1	18.5	26.0	17.5	5.9	0.1	0.6
Jeonbuk	8.1	29.1	10.6	20.7	26.2	18.8	5.2	0.2	1.2
Jeonnam	9.8	34.3	11.4	25.3	31.1	22.8	12.7	0.1	2.6
Gyeongbuk	6.3	25.2	8.6	19.5	22.0	14.9	5.7	0.1	1.8
Gyeongnam	7.3	29.1	8.6	21.5	27.6	18.8	7.1	0.2	1.9
Jeju	8.1	26.9	7.9	16.8	20.0	12.6	4.2	0.4	1.3

Region	Diagnostic Laboratory Medicine	Tuberculosis	Rehabilitation Medicine	Nuclear Medicine	Family Medicine	Emergency Medicine	Occupational & Environmental Medicine	Preventive Medicine
Total	3.4	0.6	7.8	0.2	12.2	0.8	0.4	0.4
Seoul	3.6	0.7	8.2	0.3	14.1	0.7	0.3	0.2
Busan	4.5	1.1	8.2	0.2	13.3	0.5	0.3	0.4
Daegu	7.1	0.2	7.8	0.3	11.6	0.7	0.2	0.4
Incheon	2.1	0.5	7.5	0.1	11.3	0.9	0.6	0.3
Gwangju	11.7	1.2	13.6	0.4	13.9	1.0	0.7	1.0
Daejeon	2.3	0.5	11.4	0.4	14.3	0.8	0.5	0.6
Ulsan	1.7	0.5	6.9	0.2	7.9	0.5	0.6	0.6
Gyeonggi	1.8	0.5	6.2	0.1	9.4	0.6	0.4	0.3
Gangwon	2.1	0.4	5.2	0.1	8.2	0.8	0.6	0.3
Chungbuk	1.6	0.9	8.4	0.1	13.0	1.0	0.5	0.7
Chungnam	1.9	0.4	9.4	0.1	13.8	0.9	0.7	0.7
Jeonbuk	2.5	0.7	7.7	0.3	21.7	1.0	0.3	0.4
Jeonnam	7.9	0.5	13.0	-	14.4	1.4	0.6	1.0
Gyeongbuk	3.5	0.7	6.1	0.1	11.6	0.9	0.6	0.7
Gyeongnam	3.2	0.7	6.7	0.2	11.5	0.7	0.6	0.8
Jeju	2.4	0.4	6.6	0.4	9.0	0.9	0.5	0.5

Among 11 dental medical fields, the most-practiced fields per a population of 100,000 people were in the order of Orthodontics, Conservative Dentistry, Periodontology and Preventive Dentistry with 19.6, 19,5, 19.4 and 19.3 institutions, respectively. Pediatric Dentistry, Oral & Maxillofacial Surgery, Oral Medicine and Oral & Maxillofacial Radiology came next with approximately 17.9 to 19.1 institutions per 100,000 people.

〈Table 2-15〉 Regional distribution of fields practiced by dental hospitals and clinics per 100,000 people

Classification	General Dentistry	Oral & Maxillofacial Surgery	Dental Proathetics	Orthodontics	Pediatric Dentistry	Periodontology	Conservative Dentistry	Oral Medicine	Oral & Maxillofacial Radiology	Oral Pathology	Preventive Dentistry
Total	17.3	18.5	19.6	16.9	19.1	19.4	19.5	18.3	17.9	15.6	19.3
Seoul	22.4	27.6	29.1	25.7	28.1	28.8	29.1	27.3	26.7	23.7	28.4
Busan	14.5	17.0	17.8	15.5	17.5	17.6	17.7	16.7	16.5	14.6	17.4
Daegu	15.3	19.6	20.6	17.5	20.0	20.3	20.4	19.4	19.2	16.8	20.2
Incheon	10.2	17.4	18.2	16.2	17.8	18.2	18.1	17.1	16.9	14.6	18.3
Gwangju	18.4	22.1	23.3	21.1	23.2	23.0	23.5	22.5	21.9	19.4	23.1
Daejeon	18.5	19.7	21.6	18.4	20.7	21.2	21.3	20.2	19.3	17.5	21.2
Ulsan	15.9	15.7	17.6	14.8	16.9	17.4	17.3	16.2	15.7	13.8	17.3
Gyeonggi	15.0	17.1	18.0	15.8	17.7	17.9	18.0	16.8	16.5	14.2	17.8
Gangwon	20.8	12.1	13.0	9.6	13.0	12.7	12.9	12.3	11.4	8.9	13.3
Chungbuk	15.1	13.2	13.1	11.6	13.2	13.0	13.2	13.0	12.6	10.5	13.4
Chungnam	19.3	14.1	15.4	11.9	14.9	15.3	15.3	13.8	13.5	10.8	15.1
Jeonbuk	17.1	17.8	18.6	16.2	18.3	18.6	18.7	18.0	17.3	16.4	19.0
Jeonnam	20.7	12.7	13.6	11.6	13.6	13.3	13.2	11.9	11.7	9.0	12.6
Gyeongbuk	16.3	12.2	12.9	10.2	12.6	12.6	12.6	12.4	12.1	10.4	12.8
Gyeongnam	16.9	12.0	13.4	11.0	13.1	13.3	13.4	12.6	12.2	10.5	13.6
Jeju	18.7	15.2	16.3	12.8	16.1	16.5	16.1	15.4	14.5	12.4	16.5

Oriental Internal Medicine, Acupuncture and Oriental Obstetrics & Gynecology were most widely practiced among 10 oriental medical fields, with 22 institutions per 100,000 people. Approximately 21 institutions per 100,000 people practiced the fields of Oriental Pediatrics, Oriental Ophtalmology, Otorhinolaryngology & Dermatology and Oriental Neuropsychiatry.

〈Table 2-16〉 Regional distribution of fields practiced by oriental medicine hospitals and clinics per 100,000 people

Classification	General Oriental Medicine	Oriental Internal Medicine	Oriental Obstetrics & Gynecology	Oriental Pediatrics	Oriental Ophtalmology, Otorhinolaryngology & Dermatology	Oriental Neuropsychiatry	Acupuncture	Oriental Rehabilitation Medicine	Sasang Constitutional Medicine	Oriental Emergency Medicine
Overall	11.4	22.4	21.8	21.6	21.5	21.1	22.1	19.3	18.5	13.4
Seoul	11.8	29.8	29.6	29.5	29.3	29.2	29.7	27.6	27.3	20.6
Busan	10.1	24.0	23.5	23.2	23.2	22.3	23.9	20.7	19.0	14.3
Daegu	12.4	28.5	28.2	28.0	27.9	27.8	28.3	25.5	24.8	20.0
Incheon	7.1	18.0	17.5	17.4	17.4	17.1	17.7	15.9	15.7	11.6
Gwangju	8.5	20.7	19.8	19.9	20.0	18.8	20.8	16.4	14.6	5.2
Daejeon	15.7	26.5	25.4	25.5	24.9	24.6	25.6	23.0	21.0	14.9
Ulsan	9.4	22.8	21.4	21.2	20.7	20.5	22.3	17.2	16.2	7.8
Gyeonggi	8.4	17.7	17.5	17.4	17.4	17.1	17.6	16.0	15.4	12.9
Gangwon	15.6	19.1	18.1	18.0	18.1	17.0	18.5	15.7	14.3	10.8
Chungbuk	12.6	20.0	19.0	18.9	18.8	18.0	19.5	15.8	13.9	10.9
Chungnam	17.1	20.8	19.0	18.9	18.6	18.4	19.3	16.2	14.8	8.1
Jeonbuk	12.8	23.8	22.2	22.1	21.5	21.3	22.9	20.0	18.8	11.6
Jeonnam	16.3	17.4	16.2	15.7	15.3	14.7	16.8	12.3	11.2	4.2
Gyeongbuk	14.4	20.1	18.6	18.2	17.8	17.3	19.5	14.2	13.8	8.9
Gyeongnam	12.0	20.3	19.7	19.2	19.1	18.6	19.8	15.4	14.7	9.0
Jeju	15.2	18.9	18.5	18.3	18.9	17.6	18.7	15.9	14.5	9.0

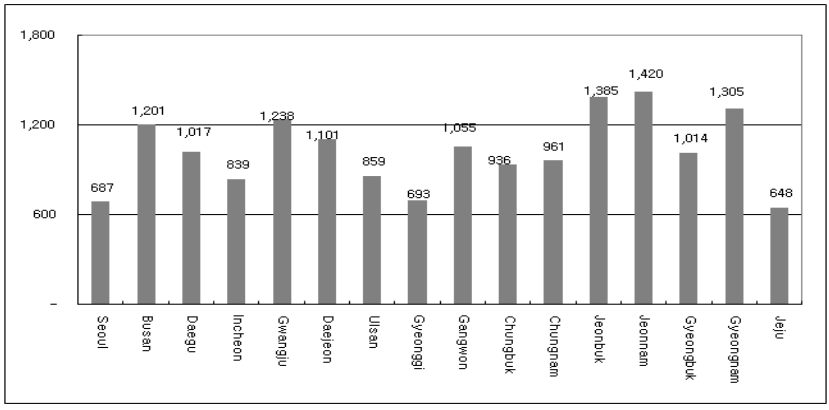
C. Number of beds per 100,000 people by region

There were 921 inpatient beds per 100,000 people in Korea. Jeonnam had the most number of 1,420 beds per 100,000 people, twice that of Jeju with 648 beds, the least nationwide. Large numbers of high-class beds were in Gwangju, Busan and Daejeon with 299, 282 and 241 beds per 100,000 people, respectively. Gyeonggi and Chungnam areas had the least number of high-class beds with 132 and 130 beds, respectively.

〈Table 2-17〉 Regional distribution of number of inpatients' rooms and beds per 100,000 people

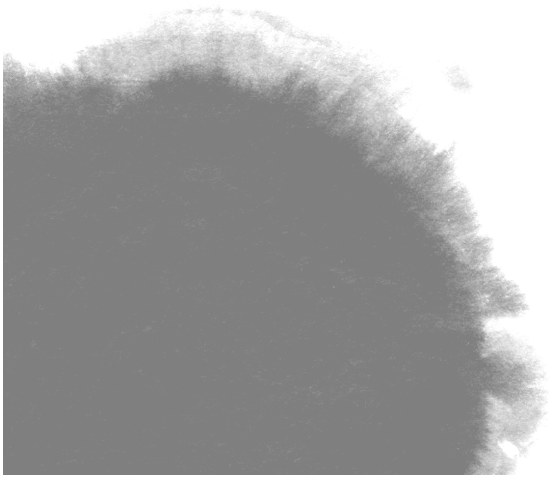
Classification	Total number of inpatient beds	High-class inpatient beds	Standard inpatient beds
Total	921	181	740
Seoul	687	195	492
Busan	1,201	282	919
Daegu	1,017	172	845
Incheon	839	161	678
Gwangju	1,238	299	939
Daejeon	1,101	241	860
Ulsan	859	178	681
Gyeonggi	693	132	561
Gangwon	1,055	141	914
Chungbuk	936	158	779
Chungnam	961	130	831
Jeonbuk	1,385	179	1,205
Jeonnam	1,420	220	1,199
Gyeongbuk	1,014	141	873
Gyeongnam	1,305	218	1,087
Jeju	648	167	481

〔Figure 2-17〕 Number of inpatient beds per 100,000 people by region



03

Status of Medical Personnel



CHAPTER 3
Status of Medical Personnel

Section 1. Regional distribution of health care personnel

1. Regional distribution of health care personnel

The following table is the regional distribution of health care personnel including doctors and pharmacists. As of June 30, 2009, personnel working in Korea's health care institutions included 81,324 doctors, 20,474 dentists, 15,564 oriental doctors, 124,025 nurses and 115,981 nursing assistants. Number of pharmacists were 32,071 in total, comprising of those working in hospitals or running independent pharmacies.

〈Table 3-1〉 Regional distribution of health care personnel

Region		Doctor	Dentist	Oriental doctor	Nurse	Nursing assistant	Pharmacist	Clinical pathologist
Seoul	Headcount	24,681	6,255	4,160	33,632	23,740	8,524	4,832
	%	30.3	30.6	26.7	27.1	20.5	26.6	28.1
Busan	Headcount	6,311	1,407	1,190	9,358	10,486	2,321	1,314
	%	7.8	6.9	7.6	7.5	9.0	7.2	7.6
Daegu	Headcount	4,760	1,062	838	7,206	6,005	1,770	1,111
	%	5.9	5.2	5.4	5.8	5.2	5.5	6.5
Incheon	Headcount	3,420	919	666	5,059	5,848	1,468	670
	%	4.2	4.5	4.3	4.1	5.0	4.6	3.9
Gwangju	Headcount	2,782	788	415	4,805	3,555	1,022	662
	%	3.4	3.8	2.7	3.9	3.1	3.2	3.8
Daejeon	Headcount	2,957	590	535	4,241	4,176	1,068	602
	%	3.6	2.9	3.4	3.4	3.6	3.3	3.5
Ulsan	Headcount	1,342	389	306	2,587	2,593	575	349
	%	1.7	1.9	2.0	2.1	2.2	1.8	2.0
Gyeonggi	Headcount	14,586	4,058	2,840	21,438	22,514	6,594	2,832
	%	17.9	19.8	18.2	17.3	19.4	20.6	16.5
Gangwon	Headcount	2,190	583	492	3,912	3,261	899	435
	%	2.7	2.8	3.2	3.2	2.8	2.8	2.5
Chungbuk	Headcount	2,051	437	472	2,817	3,850	905	417
	%	2.5	2.1	3.0	2.3	3.3	2.8	2.4
Chungnam	Headcount	2,679	772	622	3,522	5,372	1,171	526
	%	3.3	3.8	4.0	2.8	4.6	3.7	3.1
Jeonbuk	Headcount	2,729	724	690	4,059	4,938	1,226	727
	%	3.4	3.5	4.4	3.3	4.3	3.8	4.2
Jeonnam	Headcount	2,687	628	555	5,836	4,974	1,160	702
	%	3.3	3.1	3.6	4.7	4.3	3.6	4.1
Gyeongbuk	Headcount	3,216	745	770	6,221	5,911	1,408	779
	%	4.0	3.6	4.9	5.0	5.1	4.4	4.5
Gyeongnam	Headcount	4,124	940	868	7,611	7,802	1,648	1,052
	%	5.1	4.6	5.6	6.1	6.7	5.1	6.1
Jeju	Headcount	809	177	145	1,721	956	312	191
	%	1.0	0.9	0.9	1.4	0.8	1.0	1.1
Total	Headcount	81,324	20,474	15,564	124,025	115,981	32,071	17,201
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

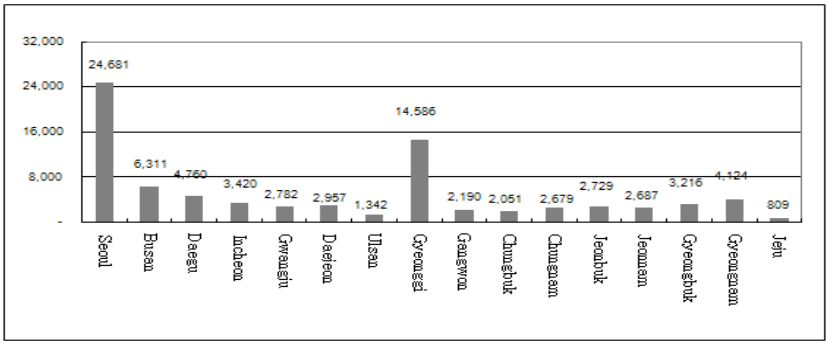
Region		Radiologist	Physical therapist	Occupational therapist	Dental technician	Dental hygienist	Medical records technician	Nutritionist	Cook
Seoul	Headcount	4,559	3,724	444	649	6,689	830	647	696
	%	26.2	17.5	20.5	26.6	28.7	24.0	14.7	12.0
Busan	Headcount	1,297.0	1,431.0	149.0	181.0	921.0	321.0	395.0	538.0
	%	7.4	6.7	6.9	7.4	4.0	9.3	9.0	9.3
Daegu	Headcount	1,087.0	1,026.0	133.0	189.0	1,392.0	204.0	264.0	438.0
	%	6.2	4.8	6.2	7.8	6.0	5.9	6.0	7.6
Incheon	Headcount	837.0	1,150.0	128.0	74.0	797.0	119.0	149.0	201.0
	%	4.8	5.4	5.9	3.0	3.4	3.4	3.4	3.5
Gwangju	Headcount	601.0	684.0	63.0	98.0	1,058.0	107.0	182.0	249.0
	%	3.5	3.2	2.9	4.0	4.5	3.1	4.1	4.3
Daejeon	Headcount	621.0	766.0	104.0	88.0	757.0	192.0	150.0	240.0
	%	3.6	3.6	4.8	3.6	3.3	5.6	3.4	4.1
Ulsan	Headcount	286.0	395.0	20.0	57.0	425.0	56.0	119.0	162.0
	%	1.6	1.9	0.9	2.3	1.8	1.6	2.7	2.8
Gyeonggi	Headcount	3,268.0	4,491.0	660.0	408.0	4,662.0	548.0	827.0	1,093.0
	%	18.8	21.1	30.5	16.7	20.0	15.9	18.8	18.9
Gangwon	Headcount	449.0	586.0	30.0	47.0	572.0	78.0	116.0	158.0
	%	2.6	2.8	1.4	1.9	2.5	2.3	2.6	2.7
Chungbuk	Headcount	459.0	799.0	29.0	31.0	483.0	86.0	145.0	186.0
	%	2.6	3.8	1.3	1.3	2.1	2.5	3.3	3.2
Chungnam	Headcount	573.0	1,026.0	87.0	143.0	759.0	155.0	181.0	245.0
	%	3.3	4.8	4.0	5.9	3.3	4.5	4.1	4.2
Jeonbuk	Headcount	653.0	1,021.0	43.0	76.0	892.0	221.0	264.0	353.0
	%	3.7	4.8	2.0	3.1	3.8	6.4	6.0	6.1
Jeonnam	Headcount	638.0	1,299.0	70.0	86.0	807.0	110.0	264.0	254.0
	%	3.7	6.1	3.2	3.5	3.5	3.2	6.0	4.4
Gyeongbuk	Headcount	857.0	1,220.0	55.0	153.0	967.0	180.0	267.0	373.0
	%	4.9	5.7	2.5	6.3	4.2	5.2	6.1	6.4
Gyeongnam	Headcount	1,037.0	1,355.0	113.0	140.0	1,784.0	201.0	383.0	549.0
	%	6.0	6.4	5.2	5.7	7.7	5.8	8.7	9.5
Jeju	Headcount	195.0	300.0	34.0	16.0	324.0	47.0	49.0	63.0
	%	1.1	1.4	1.6	0.7	1.4	1.4	1.1	1.1
Total	Headcount	17,417.0	21,273.0	2,162.0	2,436.0	23,289.0	3,455.0	4,402.0	5,798.0
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Region		Social worker	Emergency medical technician-Level 1	Emergency medical technician-Level 2	Optician	Volunteers	Medical information (IT information)	General staff
Seoul	Headcount	323	105	19	200	1,434	977	29,503
	%	15.3	8.5	11.1	34.7	21.9	34.7	26.6
Busan	Headcount	153.0	38.0	5.0	64.0	801.0	221.0	8,552
	%	7.3	3.1	2.9	11.1	12.3	7.9	7.7
Daegu	Headcount	102.0	26.0	17.0	18.0	794.0	134.0	5,515
	%	4.8	2.1	9.9	3.1	12.1	4.8	5.0
Incheon	Headcount	98.0	88.0	3.0	34.0	541.0	59.0	4,359
	%	4.7	7.1	1.8	5.9	8.3	2.1	3.9
Gwangju	Headcount	103.0	121.0	10.0	8.0	171.0	126.0	3,797
	%	4.9	9.8	5.8	1.4	2.6	4.5	3.4
Daejeon	Headcount	74.0	19.0	6.0	36.0	31.0	60.0	3,828
	%	3.5	1.5	3.5	6.2	0.5	2.1	3.4
Ulsan	Headcount	37.0	39.0	9.0	21.0	6.0	58.0	2,693
	%	1.8	3.2	5.3	3.6	0.1	2.1	2.4
Gyeonggi	Headcount	408.0	174.0	29.0	81.0	1,220.0	389.0	17,350
	%	19.4	14.1	17.0	14.0	18.7	13.8	15.6
Gangwon	Headcount	55.0	17.0	6.0	10.0	11.0	67.0	3,260
	%	2.6	1.4	3.5	1.7	0.2	2.4	2.9
Chungbuk	Headcount	63.0	83.0	5.0	11.0	83.0	90.0	3,128
	%	3.0	6.7	2.9	1.9	1.3	3.2	2.8
Chungnam	Headcount	102.0	55.0	7.0	13.0	393.0	85.0	4,599
	%	4.8	4.5	4.1	2.3	6.0	3.0	4.1
Jeonbuk	Headcount	119.0	34.0	10.0	30.0	152.0	61.0	4,960
	%	5.7	2.8	5.8	5.2	2.3	2.2	4.5
Jeonnam	Headcount	143.0	123.0	8.0	10.0	57.0	113.0	4,537
	%	6.8	10.0	4.7	1.7	0.9	4.0	4.1
Gyeongbuk	Headcount	127.0	71.0	12.0	9.0	279.0	151.0	6,052
	%	6.0	5.7	7.0	1.6	4.3	5.4	5.5
Gyeongnam	Headcount	163.0	146.0	20.0	27.0	564.0	205.0	7,731
	%	7.7	11.8	11.7	4.7	8.6	7.3	7.0
Jeju	Headcount	35.0	96.0	5.0	5.0	-	19.0	1,133
	%	1.7	7.8	2.9	0.9	-	0.7	1.0
Total	Headcount	2,105.0	1,235.0	171.0	577.0	6,537.0	2,815.0	110,997
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Most personnel were concentrated in Seoul, Gyeonggi-do and Busan. Regional distribution of doctors in 2009 illustrated that 24,681 or approximately 30% of doctors were in Seoul. Gyeonggi-do followed with 14,586 or 18%,

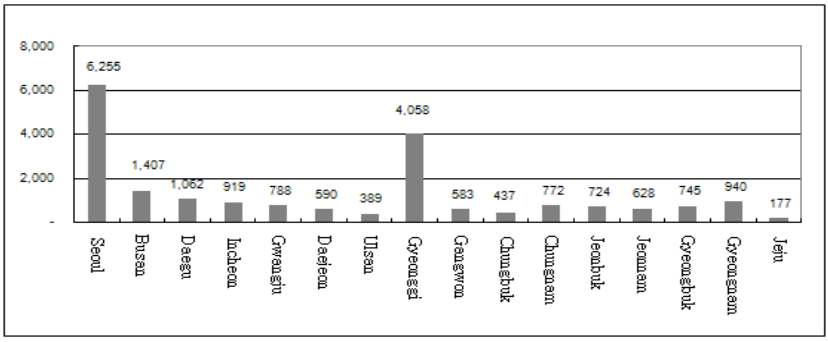
presenting the fact that almost 50% of doctors were in Seoul and Gyeonggi-do. Apart from Jeju (1.0%), Ulsan had the least of number (1,342 or 1.7%) of doctors. The rest of the regions had between 2,000 to 6,000 doctors distributed relatively evenly.

[Figure 3-1] Regional distribution of doctors



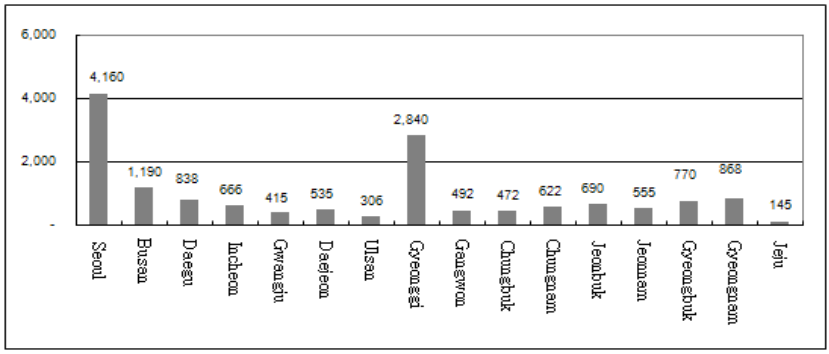
Among 20,474 dentists in total, 6,255 (about 31%) were working in Seoul and 4,058 (about 20%) in Gyeonggi-do, more than 50% of dentists in the two regions. Beside Jeju (0.9%), only 389 dentists (about 2%) were in Ulsan.

[Figure 3-2] Regional distribution of dentists



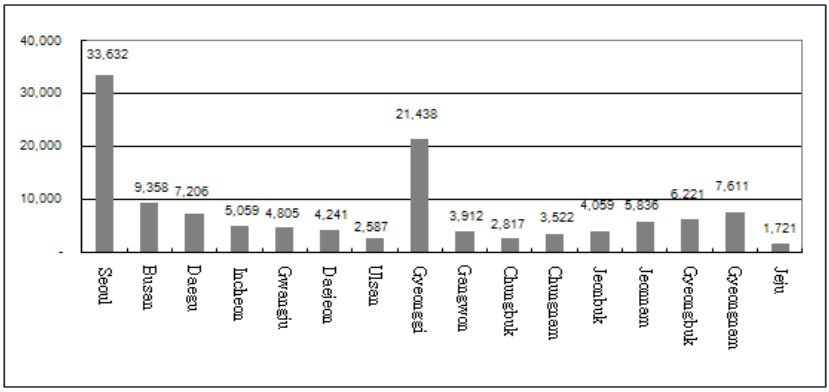
There were a total of 15,564 oriental doctors, among which, 4,160 (about 27%) were in Seoul. Gyeonggi-do had 2,840 (about 18%) oriental doctors, where the proportion of the two areas amounted to 45%. There were 305 or approximately 2% of oriental doctors working in Ulsan besides the least ratio of 0.9% in Jeju. Proportion of Seoul was nearly 13 times higher than that of Ulsan.

[Figure 3-3] Regional distribution of oriental doctors

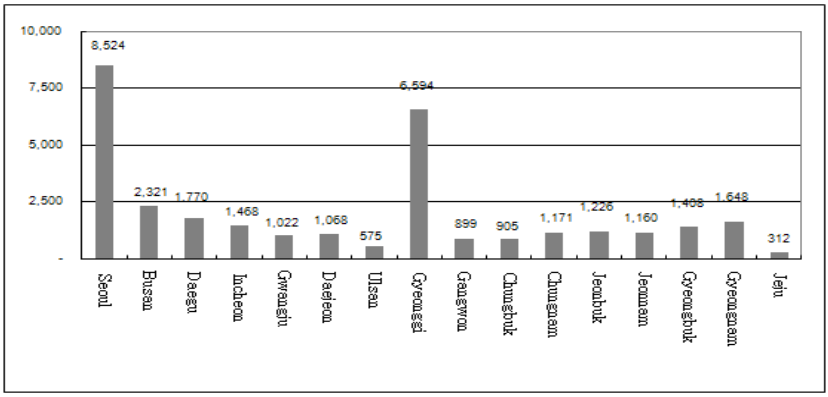


A total of 124,025 people were nursing professionals, also mostly working in Seoul and Gyeonggi-do as seen in the figure below. Seoul had 33,632 nursing professionals (27%) and Gyeonggi-do had 21,438 (17%). Ratio of these areas sum up to 44%, the issue of concentration being clear in the case of nursing professionals as well. Apart from these two areas, proportion of most regions were relatively even between 1.4% and 7.5%. Ulsan had the smallest number of 2,587 (2.1%) apart from Jeju (1.4%). The difference between Ulsan and Seoul was over eightfold.

[Figure 3-4] Regional distribution of nurses



[Figure 3-5] Regional distribution of pharmacists



2. Regional distribution of health care personnel against the number of population

The table below depicts the status of health care personnel per 100,000 people. Specifically, there were 166.8 doctors, 42.0 dentists and 31.9 oriental doctors per 100,000 people. Assisting health care personnel per 100,000 people consisted of 254.4 nurses, 65.8 pharmacists (including

hospital pharmacists and retail pharmacists), 237.9 nursing assistants, 35.3 clinical pathologists, 35.7 radiologists, 43.6 physical therapists, 4.4 occupational therapists, 5.0 dental technicians and 47.8 dental hygienists.

〈Table 3-2〉 Regional distribution of health care personnel per 100,000 people

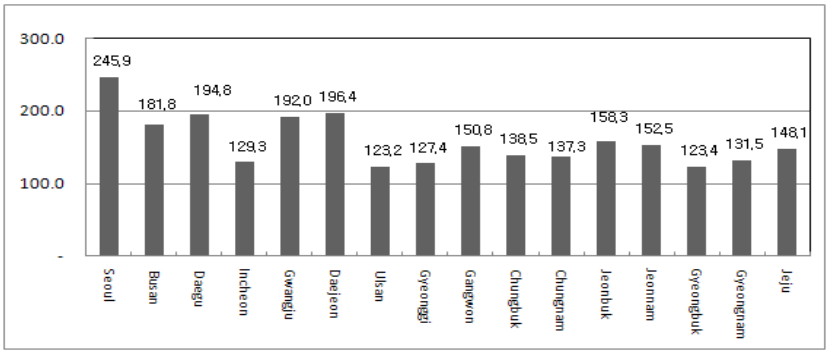
Overall	Doctor	Dentist	Oriental doctor	Nurse	Nursing assistant	Pharmacists in total	Clinical pathologist	Radiologist	Physical therapist
Total	166.8	42.0	31.9	254.4	237.9	65.8	35.3	35.7	43.6
Seoul	245.9	62.3	41.4	335.1	236.5	84.9	48.1	45.4	37.1
Busan	181.8	40.5	34.3	269.6	302.1	66.9	37.9	37.4	41.2
Daegu	194.8	43.5	34.3	294.8	245.7	72.4	45.5	44.5	42.0
Incheon	129.3	34.7	25.2	191.3	221.1	55.5	25.3	31.6	43.5
Gwangju	192.0	54.4	28.6	331.6	245.4	70.5	45.7	41.5	47.2
Daejeon	196.4	39.2	35.5	281.6	277.3	70.9	40.0	41.2	50.9
Ulsan	123.2	35.7	28.1	237.5	238.0	52.8	32.0	26.3	36.3
Gyeonggi	127.4	35.5	24.8	187.3	196.7	57.6	24.7	28.5	39.2
Gangwon	150.8	40.1	33.9	269.4	224.6	61.9	30.0	30.9	40.4
Chungbuk	138.5	29.5	31.9	190.3	260.0	61.1	28.2	31.0	54.0
Chungnam	137.3	39.6	31.9	180.5	275.3	60.0	27.0	29.4	52.6
Jeonbuk	158.3	42.0	40.0	235.4	286.4	71.1	42.2	37.9	59.2
Jeonnam	152.5	35.6	31.5	331.2	282.3	65.8	39.8	36.2	73.7
Gyeongbuk	123.4	28.6	29.5	238.7	226.8	54.0	29.9	32.9	46.8
Gyeongnam	131.5	30.0	27.7	242.6	248.7	52.5	33.5	33.1	43.2
Jeju	148.1	32.4	26.5	315.1	175.0	57.1	35.0	35.7	54.9

Overall	Occupational therapist	Dental technician	Dental hygienist	Medical records technician	Nutritionist	Cook	Social worker
Total	4.4	5.0	47.8	7.1	9.0	11.9	4.3
Seoul	4.4	6.5	66.6	8.3	6.4	6.9	3.2
Busan	4.3	5.2	26.5	9.2	11.4	15.5	4.4
Daegu	5.4	7.7	57.0	8.3	10.8	17.9	4.2
Incheon	4.8	2.8	30.1	4.5	5.6	7.6	3.7
Gwangju	4.3	6.8	73.0	7.4	12.6	17.2	7.1
Daejeon	6.9	5.8	50.3	12.7	10.0	15.9	4.9
Ulsan	1.8	5.2	39.0	5.1	10.9	14.9	3.4
Gyeonggi	5.8	3.6	40.7	4.8	7.2	9.5	3.6
Gangwon	2.1	3.2	39.4	5.4	8.0	10.9	3.8
Chungbuk	2.0	2.1	32.6	5.8	9.8	12.6	4.3
Chungnam	4.5	7.3	38.9	7.9	9.3	12.6	5.2
Jeonbuk	2.5	4.4	51.7	12.8	15.3	20.5	6.9
Jeonnam	4.0	4.9	45.8	6.2	15.0	14.4	8.1
Gyeongbuk	2.1	5.9	37.1	6.9	10.2	14.3	4.9
Gyeongnam	3.6	4.5	56.9	6.4	12.2	17.5	5.2
Jeju	6.2	2.9	59.3	8.6	9.0	11.5	6.4

Overall	Emergency medical technician - Level 1	Emergency medical technician - Level 2	Optician	Volunteer	Medical information (IT information)	General post
Total	2.5	0.4	1.2	13.4	5.8	227.7
Seoul	1.0	0.2	2.0	14.3	9.7	294.0
Busan	1.1	0.1	1.8	23.1	6.4	246.4
Daegu	1.1	0.7	0.7	32.5	5.5	225.7
Incheon	3.3	0.1	1.3	20.5	2.2	164.8
Gwangju	8.4	0.7	0.6	11.8	8.7	262.1
Daejeon	1.3	0.4	2.4	2.1	4.0	254.2
Ulsan	3.6	0.8	1.9	0.6	5.3	247.2
Gyeonggi	1.5	0.3	0.7	10.7	3.4	151.6
Gangwon	1.2	0.4	0.7	0.8	4.6	224.5
Chungbuk	5.6	0.3	0.7	5.6	6.1	211.3
Chungnam	2.8	0.4	0.7	20.1	4.4	235.7
Jeonbuk	2.0	0.6	1.7	8.8	3.5	287.7
Jeonnam	7.0	0.5	0.6	3.2	6.4	257.5
Gyeongbuk	2.7	0.5	0.3	10.7	5.8	232.2
Gyeongnam	4.7	0.6	0.9	18.0	6.5	246.5
Jeju	17.6	0.9	0.9	-	3.5	207.4

By region, Seoul had the most number of doctors per 100,000 people with 245.9 doctors, Daejeon and Daegu had 196.4 and 194.8 doctors, respectively. Ulsan had the least with 123.2 doctors, the gap with Seoul twofold.

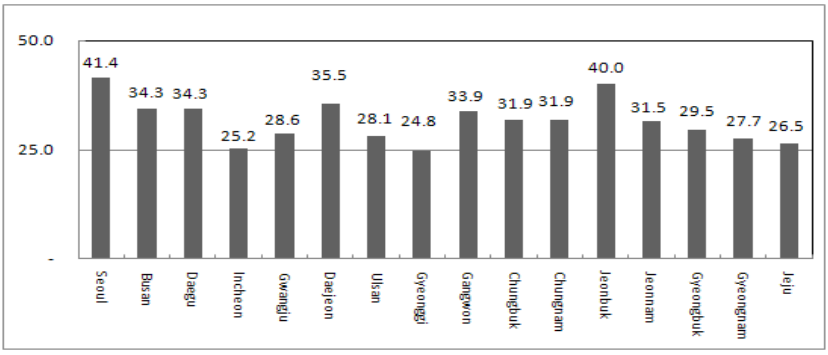
[Figure 3-6] Regional distribution of doctors per 100,000 people



The highest number of oriental doctors were in Seoul and Jeonbuk, 41.4 and 40.0 oriental doctors, respectively. Followed by 35.5 in Daejeon, the difference among the regions was relatively small. The least number of oriental doctors were 24.8 in Gyeonggi-do and 25.2 in Incheon, the

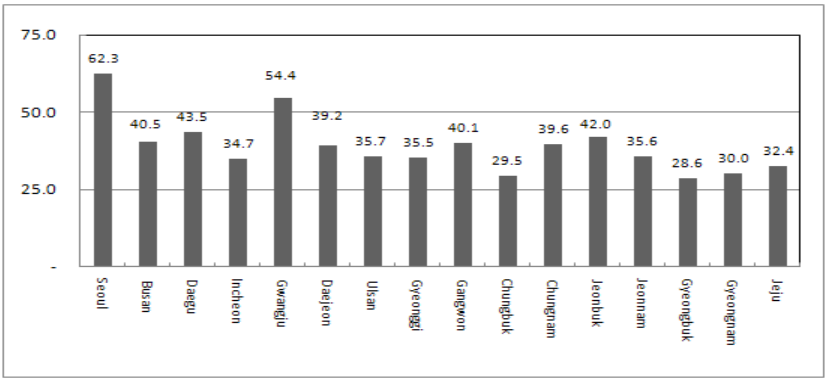
difference small between lowest ranking regions as well. Seoul had approximately 1.7 times more oriental doctors than Gyeonggi-do. The gap of the number of oriental doctors per 100,000 people was small among regions compared to other health care personnel.

[Figure 3-7] Regional distribution of oriental doctors per 100,000 people



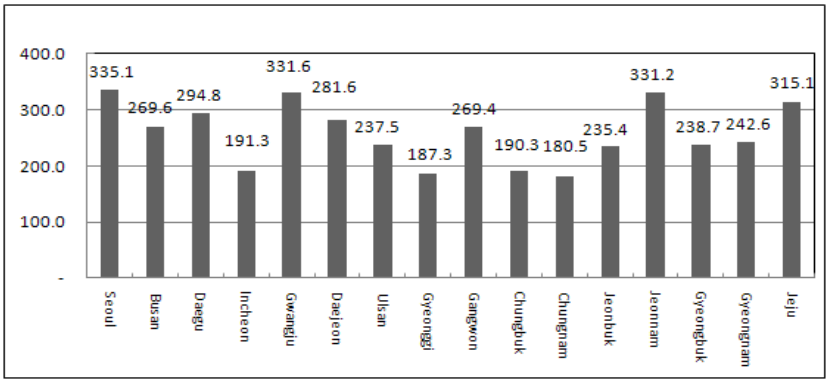
In the case of dentists, Seoul and Gwangju topped the list with 62.3 and 54.4, respectively. Apart from 28.6 in Gyeongbuk and 29.5 in Chungbuk, other regions had relatively even number of dentists working, between 30 and 43.

[Figure 3-8] Regional distribution of dentists per 100,000 people



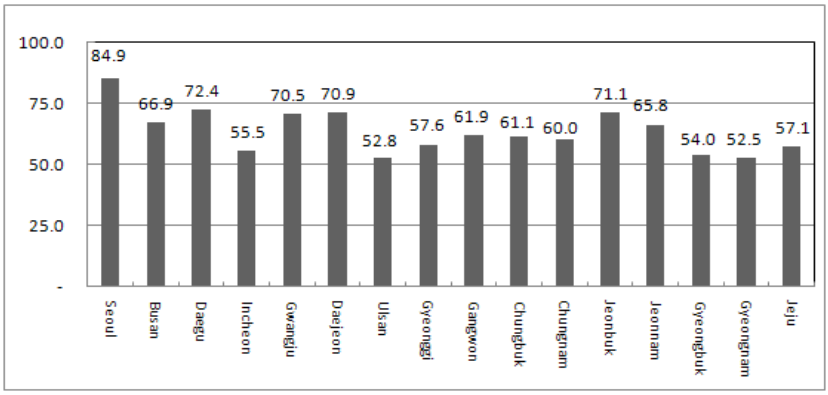
While Seoul had 335.1 nurses, Chungbuk had the least number of 180.5. There were 302.1 nursing assistants in Busan in contrast with 175.0 in Jeju.

[Figure 3-9] Regional distribution of nursing professionals per 100,000 people



Seoul ranked first in the number of pharmacists with 84.9 and Daegu next with 72.4. Gyeongnam had the least with 52.5 pharmacists. Compared to other health care personnel, pharmacists were relatively evenly distributed throughout the regions.

[Figure 3-10] Regional distribution of pharmacists per 100,000 people



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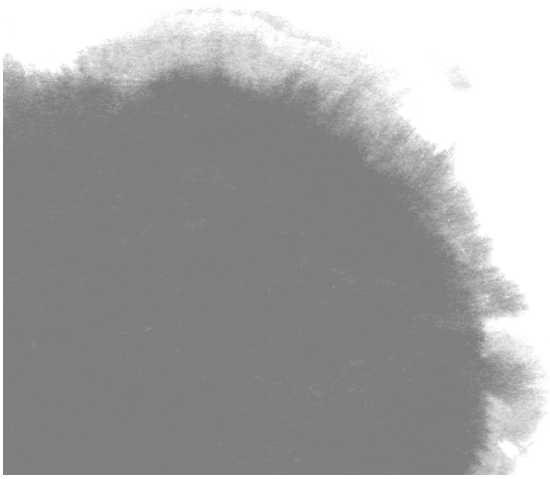
04

Status of Expensive Medical Equipments



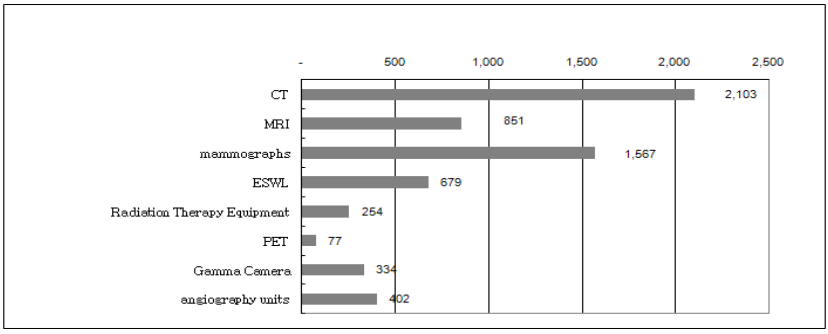
CHAPTER 4
Status of Expensive Medical Equipments

Section 1. Regional distribution of health care equipments

1. Regional distribution of expensive medical equipments

In terms of expensive medical equipments, a total of 9 types including 5 in OECD statistics were analyzed. These equipments were mostly in Seoul, Gyeonggi-do and large cities where most health care institutions were located. In detail, there were 402 angiography units (ANGIO), 334 gamma cameras, 77 positron emission tomography systems (PET), 2,103 computed tomography systems (CT), 851 magnetic resonance imaging systems (MRI), 679 extracorporeal shock wave lithotripsy systems (ESWL), 1,567 mammographs[1] and 254 radiation therapy equipments.

[Figure 4-1] Status of expensive medical equipments in Korea



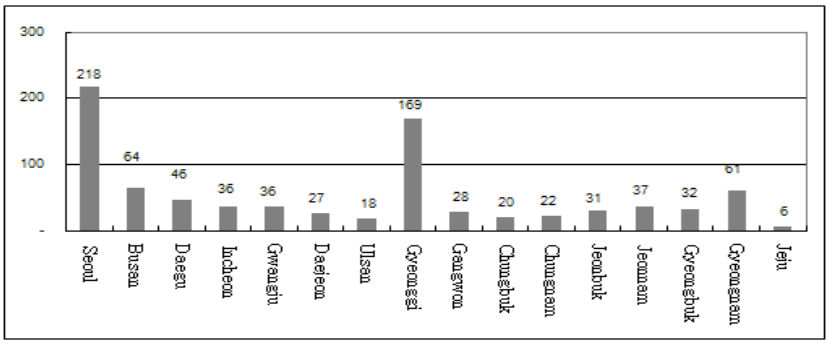
1) In the 2008 study, tomography was included in mammographs.

〈Table 4-1〉 Regional distribution of expensive medical equipments

Region		Computed Tomography System (CT)	Magnetic Resonance Imaging system (MRI)	Mammographs	Extracorporeal Shock Wave Lithotripsy (ESWL)	Radiation Therapy Equipment	Positron Emission Tomography system (PET)	Gamma Camera	Angiography units
Seoul	Units	384	218	283	140	83	33	124	130
	%	18.3	25.6	18.1	20.6	32.7	42.9	37.1	32.3
Busan	Units	165	64	93	55	20	4	23	41
	%	7.8	7.5	5.9	8.1	7.9	5.2	6.9	10.2
Daegu	Units	144	46	82	45	16	5	19	19
	%	6.8	5.4	5.2	6.6	6.3	6.5	5.7	4.7
Incheon	Units	80	36	68	25	10	3	10	15
	%	3.8	4.2	4.3	3.7	3.9	3.9	3.0	3.7
Gwangju	Units	88	36	77	25	8	1	11	12
	%	4.2	4.2	4.9	3.7	3.1	1.3	3.3	3.0
Daejeon	Units	68	27	66	23	13	3	16	16
	%	3.2	3.2	4.2	3.4	5.1	3.9	4.8	4.0
Ulsan	Units	48	18	33	16	3	1	5	5
	%	2.3	2.1	2.1	2.4	1.2	1.3	1.5	1.2
Gyeonggi	Units	379	169	299	138	43	15	52	73
	%	18.0	19.9	19.1	20.3	16.9	19.5	15.6	18.2
Gangwon	Units	67	28	66	20	3	1	13	12
	%	3.2	3.3	4.2	2.9	1.2	1.3	3.9	3.0
Chungbuk	Units	65	20	42	17	6	2	7	9
	%	3.1	2.4	2.7	2.5	2.4	2.6	2.1	2.2
Chungnam	Units	89	22	68	29	7	1	4	11
	%	4.2	2.6	4.3	4.3	2.8	1.3	1.2	2.7
Jeonbuk	Units	104	31	56	24	13	2	18	8
	%	4.9	3.6	3.6	3.5	5.1	2.6	5.4	2.0
Jeonnam	Units	99	37	89	29	8	4	6	11
	%	4.7	4.3	5.7	4.3	3.1	5.2	1.8	2.7
Gyeongbuk	Units	118	32	83	29	7	1	13	15
	%	5.6	3.8	5.3	4.3	2.8	1.3	3.9	3.7
Gyeongnam	Units	186	61	144	58	9	-	11	21
	%	8.8	7.2	9.2	8.5	3.5	-	3.3	5.2
Jeju	Units	19	6	18	6	5	1	2	4
	%	0.9	0.7	1.1	0.9	2.0	1.3	0.6	1.0
Total	Units	2,103	851	1,567	679	254	77	334	402
	%	100	100	100	100	100	100	100	100

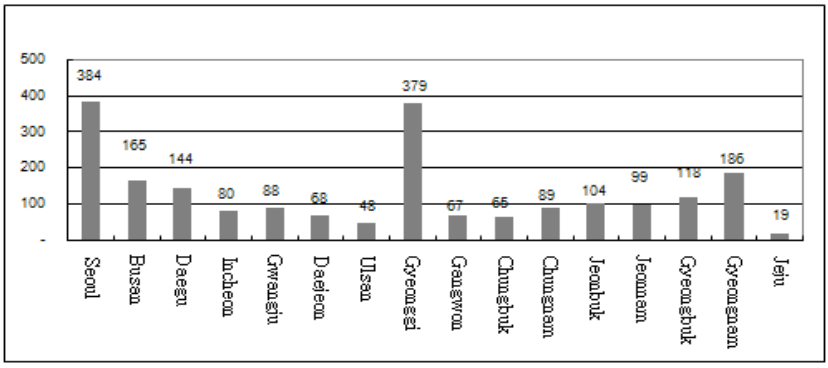
The total number of MRI units were 851, of which 218 units were in Seoul and 169 in Gyeonggi-do, a total of 45.5% concentration.

[Figure 4-2] Regional distribution of MRI units



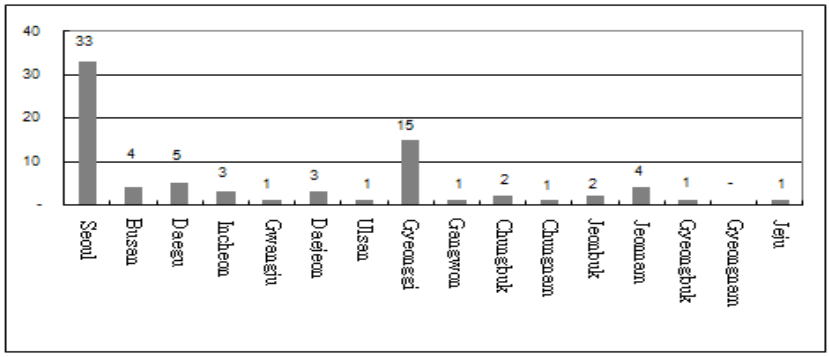
Out of a total 2,103 CT systems, 384 units (18.3%) were in Seoul and 379 (18%) in Gyeonggi-do. Gyeongnam, Busan and Daegu followed with 186, 165 and 144 units respectively. Ulsan and Jeju were at the bottom of the list with 48 and 19 units each.

[Figure 4-3] Regional distribution of CT systems



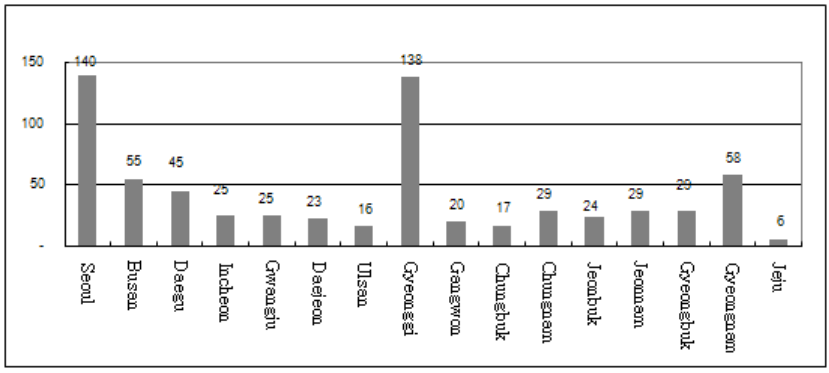
There were 77 PET units nationwide with 62.4% in Seoul and Gyeonggi areas, 33 (42.9%) and 15 (19.5%), respectively. Other regions had 1 to 3 units with the exception of none in Gyeongnam. Deviation in the number of PET units was the highest from region to region among the equipments surveyed.

[Figure 4-4] Regional distribution of PET units



There were 679 ESWL units throughout the country. Half of the units were in Seoul and Gyeonggi-do with 140 (20.6%) and 138 (20.3%) units each. There were 58 (8.5%) units in Gyeongnam and 55 (8.1%) in Busan, relatively high figures compared to other regions. Ulsan and Chungbuk had small number of units with 16 (2.4%) and 17 (2.5%) each and Jeju had the least with 6 units (0.9%).

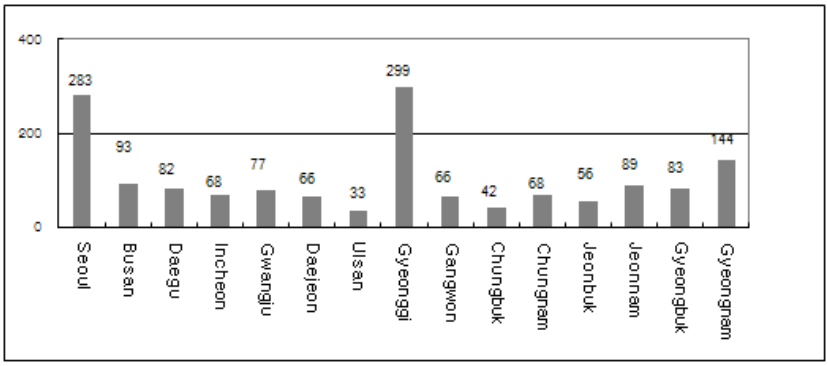
[Figure 4-5] Regional distribution of ESWL units



As with most equipments, mammographs were also concentrated in Seoul and Gyeonggi areas but Gyeonggi-do had more with 299 units compared to 283 of Seoul.

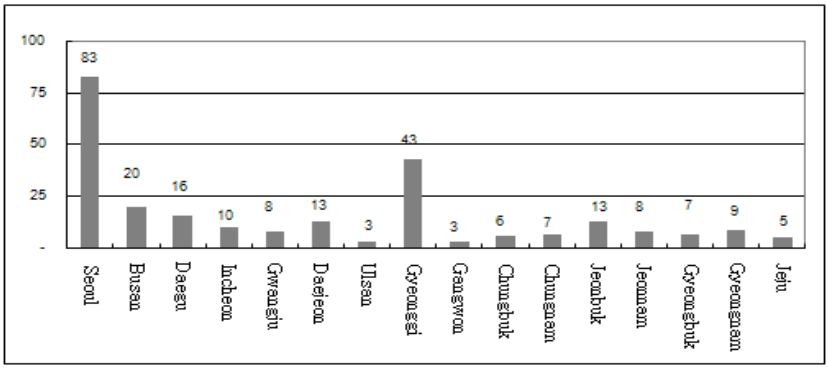
Gyeongnam came third with 144 units and Ulsan came last with 33 units. Apart from Gyeonggi-do, Seoul and Gyeongnam, 33 to 93 units were evenly distributed throughout other regions.

[Figure 4-6] Regional distribution of mammographs



Number of radiation therapy equipments is calculated by summing the numbers of cobalt therapy units, linear accelerators, after loading systems, iridium therapy units and blood irradiation units.

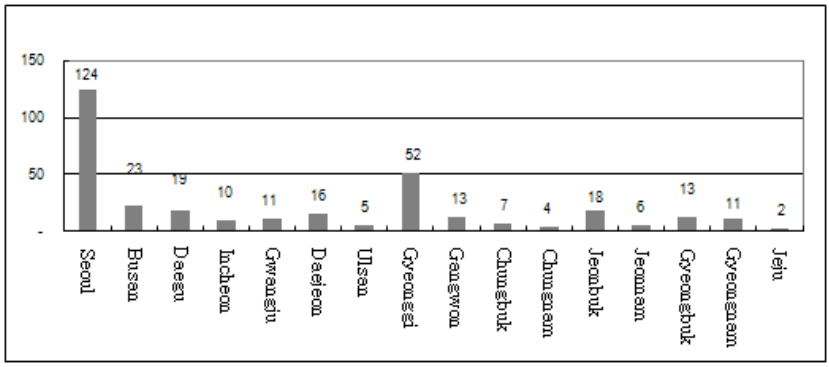
[Figure 4-7] Regional distribution of radiation therapy equipments



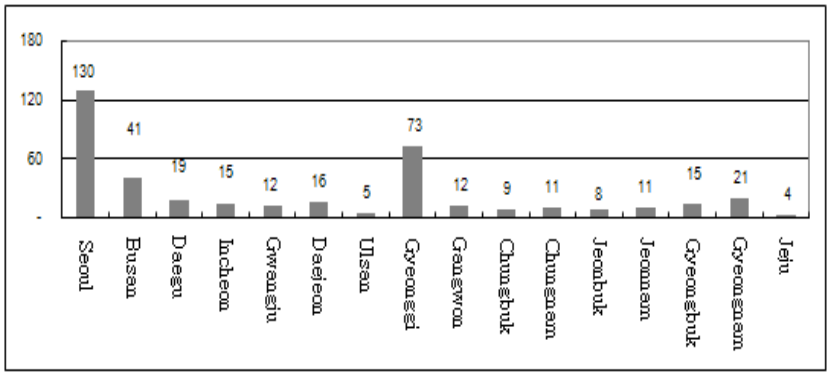
There were 254 radiation therapy equipments with 83 units (32.7%) in Seoul and 43 (16.9%) in Gyeonggi-do. The proportion of these two regions accounted for 49.6%, the highest nationwide. Ulsan and Gangwon had 3 units or 1.2% each.

The following figures present the status of remaining two equipments (gamma cameras and ANGIO units). As seen below, regions other than Seoul and Gyeonggi-do have low number of units and the deviation was large among regions.

[Figure 4-8] Regional distribution of gamma cameras



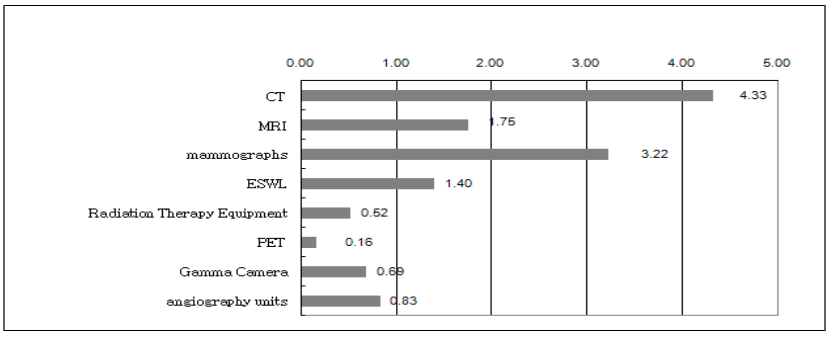
[Figure 4-9] Regional distribution of ANGIO units



2. Regional distribution of expensive medical equipments against the number of population

The number of expensive medical equipments per 100,000 people broke down into 0.83 ANGIO, 0.69 gamma cameras, 0.16 PET, 4.33 CT, 1.75 MRI, 1.40 ESWL, 3.22 mammographs and 0.52 radiation therapy equipments.

[Figure 4-10] Status of expensive medical equipments per 100,000 people

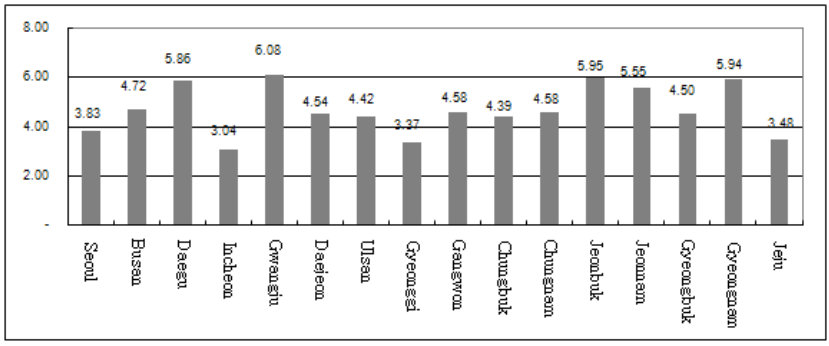


〈Table 4-2〉 Regional distribution of expensive medical equipments per 100,000 people

Region	CT	MRI	Mammo graphs	ESWL	Radiation Therapy Equipment	PET	Gamma Camera	Angiography units
Seoul	3.83	2.17	2.82	1.40	0.83	0.33	1.24	1.30
Busan	4.72	1.83	2.66	1.57	0.57	0.11	0.66	1.17
Daegu	5.86	1.87	3.34	1.83	0.65	0.20	0.77	0.77
Incheon	3.04	1.37	2.59	0.95	0.38	0.11	0.38	0.57
Gwangju	6.08	2.49	5.32	1.73	0.55	0.07	0.76	0.83
Daejeon	4.54	1.80	4.41	1.54	0.87	0.20	1.07	1.07
Ulsan	4.42	1.66	3.04	1.47	0.28	0.09	0.46	0.46
Gyeonggi	3.37	1.50	2.66	1.23	0.38	0.13	0.46	0.65
Gangwon	4.58	1.92	4.52	1.37	0.21	0.07	0.89	0.82
Chungbuk	4.39	1.35	2.83	1.15	0.40	0.13	0.47	0.61
Chungnam	4.58	1.13	3.50	1.49	0.36	0.05	0.21	0.57
Jeonbuk	5.95	1.77	3.21	1.37	0.74	0.11	1.03	0.46
Jeonnam	5.55	2.07	4.99	1.63	0.45	0.22	0.34	0.62
Gyeongbuk	4.50	1.22	3.17	1.11	0.27	0.04	0.50	0.57
Gyeongnam	5.94	1.95	4.60	1.85	0.29	0.00	0.35	0.67
Jeju	3.48	1.10	3.30	1.10	0.92	0.18	0.37	0.73
전체	4.33	1.75	3.22	1.40	0.52	0.16	0.69	0.83

By region, Gwangju had the highest number of 6.08 CT units per 100,000 people, followed by 5.95 in Jeonbuk, 5.94 in Gyeongnam and 5.86 in Daegu. The lowest in the list were Incheon, Gyeonggi and Jeju with 3.04, 3.37 and 3.48 units each.

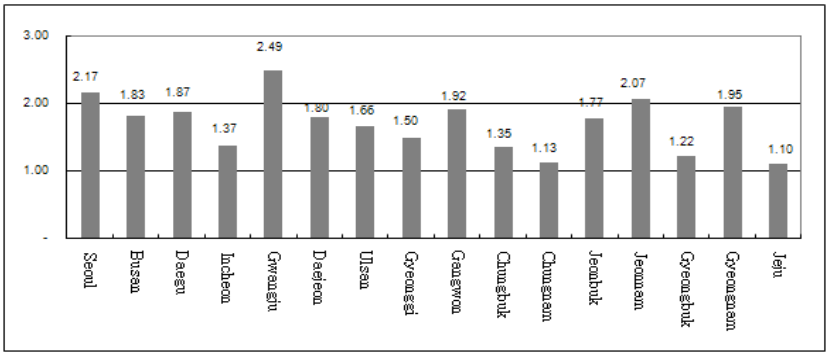
[Figure 4-11] Regional distribution of CT units per 100,000 people



A noticeable point was that, the concentration of equipments in Seoul and Gyeonggi-do, represented in simple regional comparison, was not especially serious when the number of population was considered. Here, other regions had more number of equipments than Seoul and Gyeonggi-do. The equipments were relatively evenly distributed, rather than being concentrated in specific regions. Even the proportion of Ulsan and Jeju where the absolute numbers were almost always low, did not fall behind other regions considering the number of population.

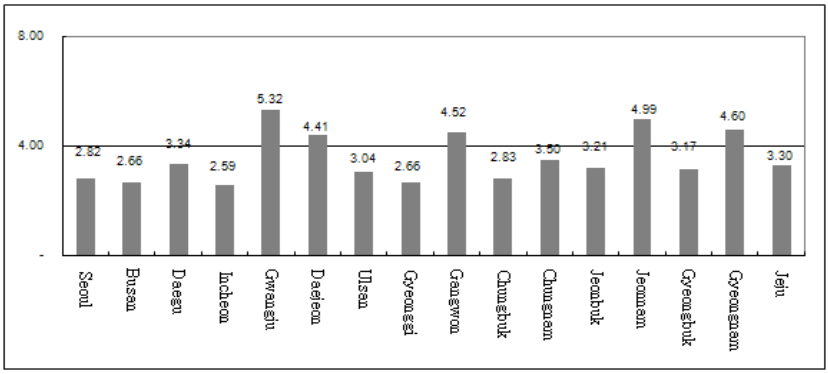
There were 2.49 MRI units per 100,000 in Gwangju, the highest with a large gap with the numbers of Seoul (2.17 units) and Jeonnam (2.07 units). The difference in the highest and lowest number was approximately twofold. Although regional deviation exists, it was not as large as seen in simple regional comparison.

[Figure 4-12] Regional distribution of MRI units per 100,000 people



Gwangju also had the most mammographs with 5.32 units per 100,000 people, while Incheon had the least with 2.59 units. As with other equipments above, regional distribution against the number of population was mostly even, apart from several regions including Gwangju, Jeonnam and Gyeongnam.

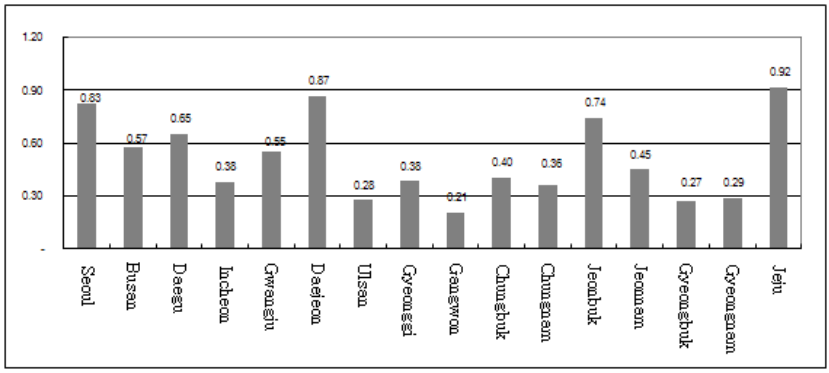
[Figure 4-13] Regional distribution of mammographs per 100,000 people



The highest number of radiation therapy equipments per 100,000 people were in Jeju with 0.92 units while Gangwon had the least of 0.21 units. Regional gap was large, the highest had more than quadruple the lowest. Deviation among

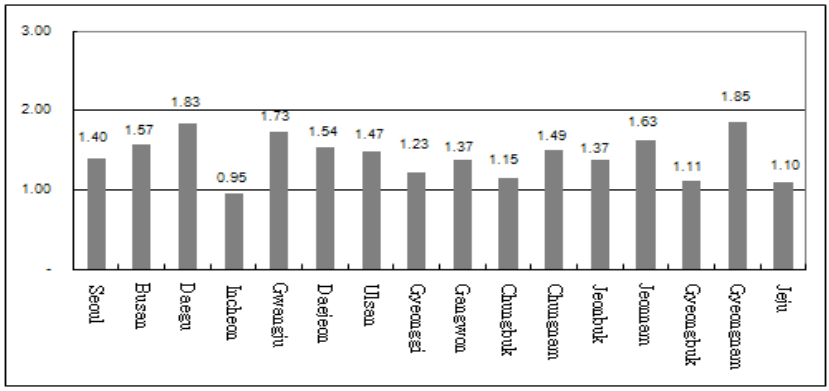
other regions was also large between 0.27 to 0.87 units.

[Figure 4-14] Regional distribution of radiation therapy equipments per 100,000 people



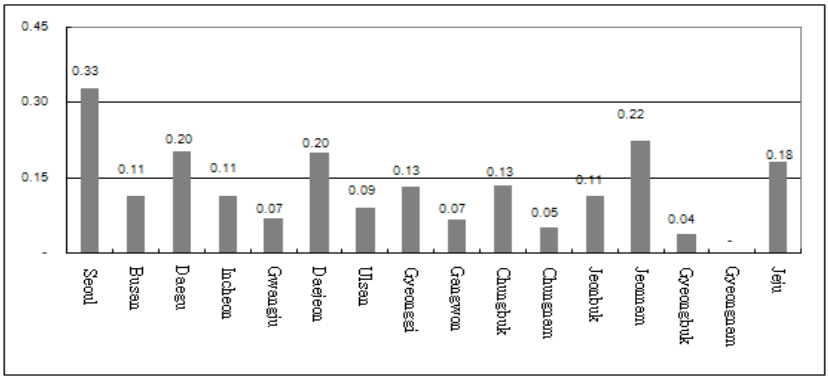
ESWL units were located the most in Gyeongnam with 1.85 units and Daegu with 1.83 units. Incheon had the least at 0.95 units. Apart from Incheon, Gyeongbuk (1.11 units) and Jeju (1.10 units), where there were small number of ESWL units, regional deviation was relatively small between 1.15 and 1.85 units. The highest number was merely twofold the lowest, the difference being minimal.

[Figure 4-15] Regional distribution of ESWL units per 100,000 people

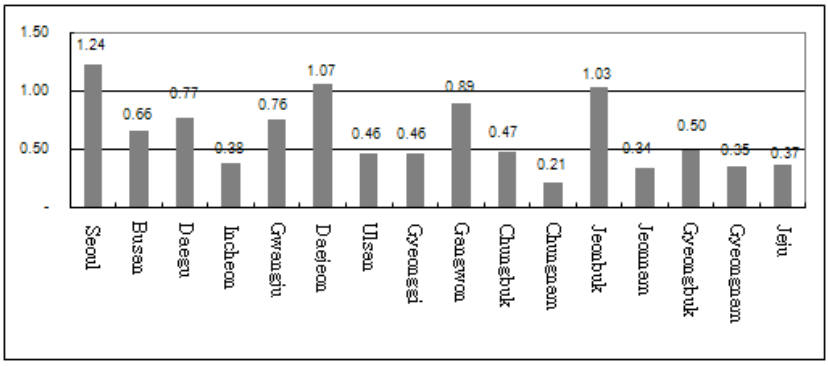


On comparing the distribution of equipments against the number of population, regional gap was largest in PET units. The following figure shows that Seoul has 0.33 units while Gyeongnam had none. On the other hand, however, this may be because PET units are rare. Overall, there are 77 PET units and the number of units per 100,000 people is merely 0.16 units, suggesting that the gap may not be from regional deviation. Regional distribution of gamma cameras and ANGIO units are depicted in the following figures.

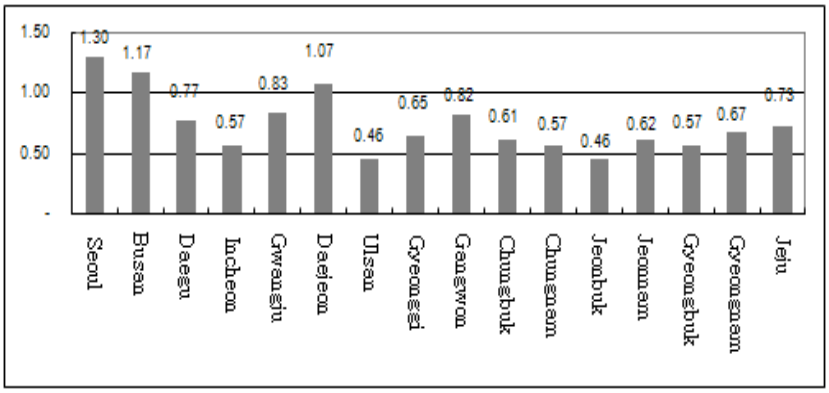
[Figure 4-16] Regional distribution of PET units per 100,000 people



[Figure 4-17] Regional distribution of gamma cameras per 100,000 people



[Figure 4-18] Regional distribution of ANGIO units per 100,000 people



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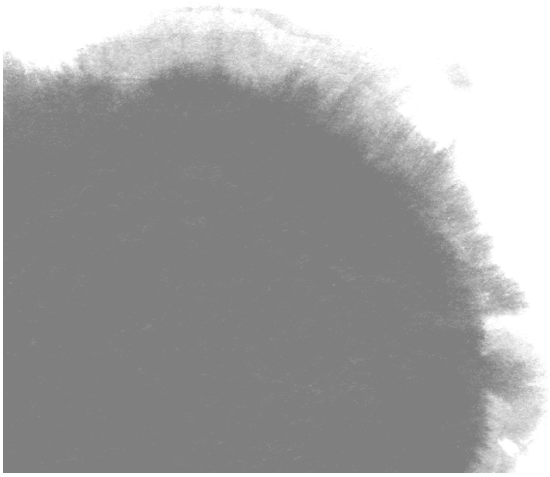
05

Comparison of Health Care Resources of Major Countries



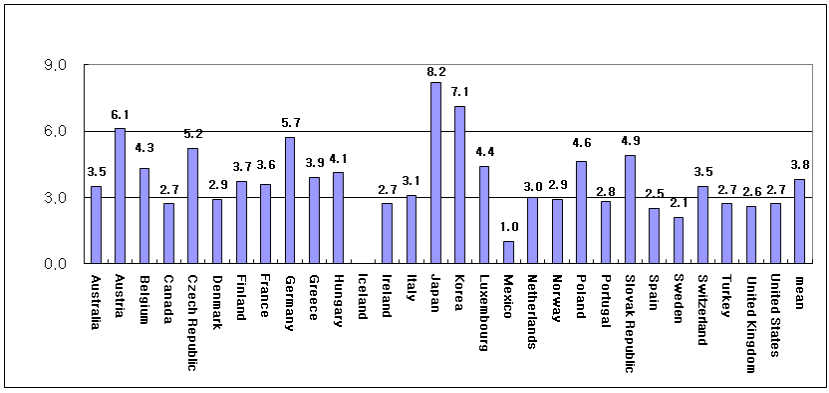
CHAPTER 5

Comparison of Health Care Resources of Major Countries

Section 1. Comparison of Health Care Institutions

In terms of beds, acute care and long-term care[2] beds were compared. In 2007, there were 7.1 acute care beds per 1,000 people, 1.87 times higher than 2007 OECD average of 3.8 beds. The number was lower than Japan's but 2.6 times higher than the US (2.7 beds) and 2.7 more than the UK (2.6 beds).

[Figure 5-1] Number of acute care beds per 1,000 people in OECD countries



2) Acute and long-term care beds in Korea was applied with 2006 statistics presented in 2008 OECD statistics.

〈Table 5-1〉 Number of acute beds in OECD countries

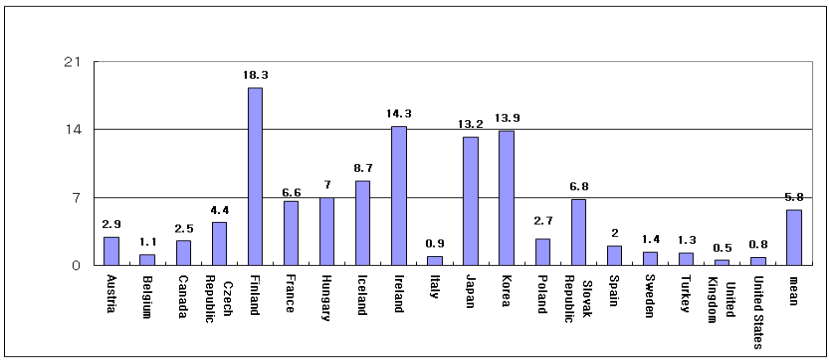
(Unit: Number of beds per 1,000 people)

Countries	1980	1985	1990	1995	2000	2005	2006	2007
Australia	6.4	5.3		4.1	3.6	3.5	3.5	
Austria			7.5	6.8	6.3	6.1	6.1	6.1
Belgium			5.2	5	4.7	4.4	4.3	4.3
Canada	4.6	4.4	4	3.9	3.2	2.8	2.7	
Czech Republic	8.1	8.2	8.1	6.9	5.7	5.3	5.3	5.2
Denmark	5.3	4.7	4.1	3.9	3.5	3.1	3	2.9
Finland	4.9	4.8	4.3	4.1	4	3.9	3.8	3.7
France	6.2	5.7	5.2	4.6	4.1	3.7	3.7	3.6
Germany				6.9	6.4	5.9	5.7	5.7
Greece	4.9	4.3		3.9	3.8	3.9	3.9	
Hungary	6.6	6.8	7.1	6.5	5.8	5.5	5.5	4.1
Iceland								
Ireland	4.3	4.1	3.2	3.1	2.8	2.8	2.7	2.7
Italy	8	7	6.2	5.6	4.1	3.3	3.3	3.1
Japan				12	9.6	8.2	8.2	8.2
Korea			2.7	3.8	5.2	6.6	6.8	7.1
Luxembourg						4.6	4.5	4.4
Mexico			1	1.1	1	1	1	1
Netherlands	5.2	4.7	4.3	3.8	3.5	3.1	3	3
New Zealand								
Norway	5.2	4.7	3.8	3.3	3.1	3	3	2.9
Poland	5.6	5.7	6.3	5.8	5.2	4.7	4.7	4.6
Portugal	4.1	3.5	3.4	3.3	3.2	3	2.9	2.8
Slovak Republic					5.8	5	4.9	4.9
Spain	3.8	3.7	3.6	3.5	2.8	2.5	2.5	
Sweden	5.1	4.6	4.1	3	2.4	2.2	2.2	2.1
Switzerland	7.2	6.8	6.5	5.5	4.1	3.6	3.5	3.5
Turkey	1.5	1.6	2	2.1	2.2	2.5	2.5	2.7
United Kingdom					3	2.9	2.8	2.6
United States	4.4	4.2	3.7	3.4	2.9	2.7	2.7	

Source: OECD (2009). HEALTH DATA.

In terms of long-term care beds, there were 13.9 beds per 1,000 people aged 65 or older, 2.4 times more than OECD average of 5.8 beds. While the supply of acute beds in OECD countries showed a decreasing trend or a standstill, Korea saw a constant increase in the number. Long-term care beds also showed a steep increase from 2005 with the adoption of long-term care insurance for the elderly in 2007.

〔Figure 5-2〕 Number of long-term care beds per 1,000 people in OECD countries



〈Table 5-2〉 Number of long-term care beds in OECD countries

(Unit: Number of long-term care beds per 1,000 people aged 65 or over)

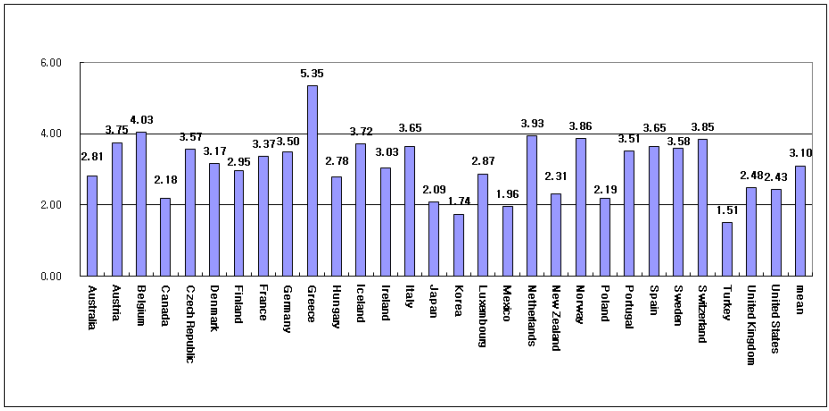
Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia								
Austria			3	2.7	2.7	2.8	2.8	2.9
Belgium			3.3	1.1	1.1	1.1	1	1.1
Canada	22.7	22.7	17.2	2.6	1.7	1.8	2.5	
Czech Republic				0.3	3.4	4.7	4.6	4.4
Denmark								
Finland				28	23.5	20	19.7	18.3
France	5.1	7.7	8.5	9.1	8.8	7.2	6.7	6.6
Germany								
Greece								
Hungary				4.7	4.5	4.8	4.9	7
Iceland			28.3	23	13.5	9.8	10	8.7
Ireland			18.3	16.9	16.3	15	14.3	
Italy					1	0.9	0.9	0.9
Japan					12	14.9	14	13.2
Korea						5.8	9.5	13.9
Luxembourg								
Mexico								
Netherlands						0	0	0
New Zealand								
Norway								
Poland						3	2.8	2.7
Portugal								
Slovak Republic					10	8.1	6.9	6.8
Spain		2.3	2.3	2.1	1.9	2	2	
Sweden			7.6	3.3	2.1	1.5	1.5	1.4
Switzerland								
Turkey						1.5	1.5	1.3
United Kingdom					0.7	0.5	0.5	0.5
United States				1	0.9	0.8	0.8	

Source: OECD (2009). HEALTH DATA.

Section 2. Comparison of health care personnel

Comparison of health care personnel was based on the 2008 survey results for Korea and 2006 statistics from the 2008 OECD statistics data for OECD countries. Number of doctors including oriental doctors in Korea was 1.74, lower than the OECD average. Average number of doctors in OECD countries was 3.10, which is 1.8 times the number in Korea.

[Figure 5-3] Number of doctors practicing per 1,000 people in OECD countries



〈Table 5-3〉 Number of doctors practicing in OECD countries

(Unit: Number of doctors practicing per 1,000 people)

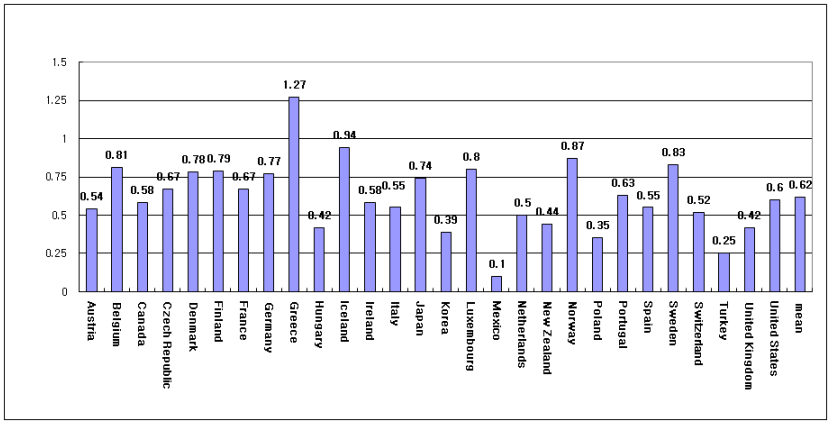
Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia	1.85	1.91	2.17	2.47	2.47	2.75	2.81	
Austria	1.66	1.88	2.21	2.66	3.12	3.54	3.66	3.75
Belgium	2.31	2.84	3.27	3.54	3.86	4.02	4.02	4.03
Canada	1.77	1.97	2.09	2.09	2.06	2.14	2.15	2.18
Czech Republic	2.26	2.58	2.71	3	3.37	3.56	3.57	3.57
Denmark				2.5	2.7	3.09	3.17	
Finland				2.21	2.67	2.91	2.95	
France	2.01	2.77	3.09	3.26	3.32	3.4	3.39	3.37
Germany				3.07	3.26	3.41	3.45	3.5
Greece	2.43	2.93	3.4	3.86	4.33	5	5.35	
Hungary	2.29	2.51	2.8	2.96	3.13	2.78	3.04	2.78
Iceland	2.14	2.59	2.85	3.03	3.44	3.73	3.68	3.72
Ireland				2.1	2.23	2.77	2.93	3.03
Italy				3.89	4.14	3.82	3.69	3.65

Country	1980	1985	1990	1995	2000	2005	2006	2007
Japan	1.27	1.47	1.65		1.93		2.09	
Korea		0.61	0.83	1.12	1.3	1.63	1.69	1.74
Luxembourg	1.7	1.81	1.99	2.21	2.15	2.43	2.73	2.87
Mexico			0.97	1.65	1.63	1.79	1.92	1.96
Netherlands	1.91	2.22	2.51		3.19	3.71	3.82	3.93
New Zealand	1.55	1.7	1.88	2.05	2.23	2.12	2.28	2.31
Norway	1.97	2.21		2.79	2.85	3.68	3.75	3.86
Poland	1.79	1.97	2.15	2.34	2.22	2.14	2.18	2.19
Portugal	1.91	2.4	2.77	2.9	3.1	3.35	3.42	3.51
Slovak Republic					3.14			
Spain				2.46	3.16	3.77	3.63	3.65
Sweden	2.2	2.59	2.87	2.89	3.08	3.49	3.58	
Switzerland	2.47	2.73	2.98	3.16	3.51	3.8	3.85	3.85
Turkey	0.61	0.72	0.9	1.12	1.26	1.48	1.43	1.51
United Kingdom	1.32	1.43	1.62	1.75	1.94	2.38	2.44	2.48
United States				2.19	2.29	2.43	2.42	2.43

Source: OECD (2009). HEALTH DATA.

In the case of dentists, Korea had 0.39 doctors per 1,000 people, lower than most OECD countries apart from Mexico, Turkey and Poland. OECD countries had an average number of 0.62 dentists per 1,000 people, which is 1.59 times higher than Korea.

[Figure 5-4] Number of dentists per 1,000 people in OECD countries



〈Table 5-4〉 Number of dentists practicing in OECD countries

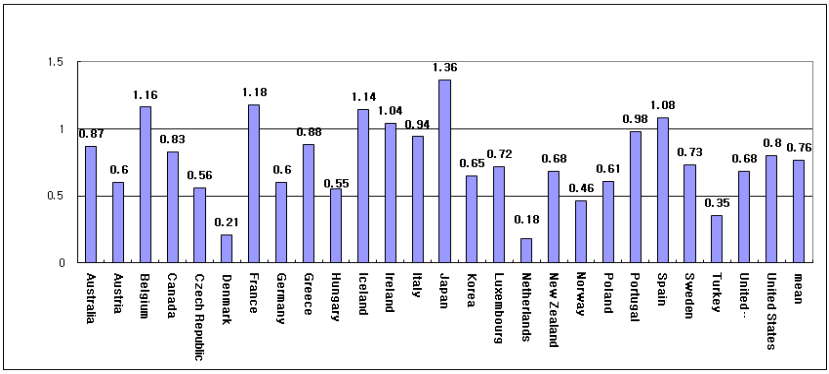
(Unit: Number of dentists practicing per 1,000 people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia	0.43	0.43	0.42	0.43	0.47	0.49		
Austria	0.41	0.41	0.43	0.46	0.46	0.51	0.54	0.54
Belgium	0.44	0.63	0.72	0.77	0.83	0.83	0.83	0.81
Canada	0.45	0.5	0.52	0.53	0.56	0.58	0.58	0.58
Czech Republic	0.46	0.52	0.54	0.6	0.65	0.68	0.68	0.67
Denmark				0.79	0.79	0.79	0.78	
Finland			0.85	0.81	0.82	0.81	0.79	
France	0.59	0.63	0.67	0.68	0.68	0.68	0.68	0.67
Germany				0.71	0.73	0.76	0.76	0.77
Greece	0.79	0.88	0.99	1	1.13	1.21	1.27	
Hungary	0.22	0.26	0.37	0.4	0.46	0.45	0.5	0.42
Iceland	0.74	0.82	0.9	1.01	1.01	0.98	0.94	0.94
Ireland	0.3	0.33	0.37	0.44	0.5	0.56	0.57	0.58
Italy				0.41	0.56	0.6	0.63	0.55
Japan	0.44	0.53	0.58		0.7		0.74	
Korea		0.11	0.18	0.25	0.31	0.37	0.38	0.39
Luxembourg	0.36	0.46	0.52	0.54	0.6	0.71	0.78	0.8
Mexico			0.05	0.1	0.1	0.1	0.1	0.1
Netherlands	0.4	0.49	0.5	0.47	0.46	0.49	0.49	0.5
New Zealand	0.36	0.36	0.36	0.37	0.41	0.4	0.41	0.44
Norway		0.82	0.82	0.82	0.8	0.84	0.88	0.87
Poland	0.47	0.47	0.48	0.47	0.31	0.32	0.33	0.35
Portugal	0.11	0.13	0.17	0.26	0.43	0.58	0.62	0.63
Slovak Republic					0.51			
Spain	0.11	0.13	0.27	0.36	0.44	0.51	0.53	0.55
Sweden	0.99	1.06	1.04	0.87	0.81	0.82	0.83	
Switzerland	0.45	0.48	0.49	0.49	0.48	0.51	0.52	0.52
Turkey	0.16	0.17	0.19	0.19	0.24	0.26	0.25	0.25
United Kingdom								0.42
United States	0.54	0.56	0.59	0.6	0.59	0.6	0.6	

Source: OECD (2009). HEALTH DATA.

In Korea, there were 0.65 pharmacists per 1,000 people. The number was higher than Turkey, Norway, Hungary, Denmark and Germany but lower than Japan, Belgium and France. Although the gap may not be so large, there was a difference with the average number of 0.76 pharmacists in OECD countries.

〔Figure 5-5〕 Number of pharmacists practicing per 1,000 people in OECD countries



〈Table 5-5〉 Number of pharmacists practicing in OECD countries

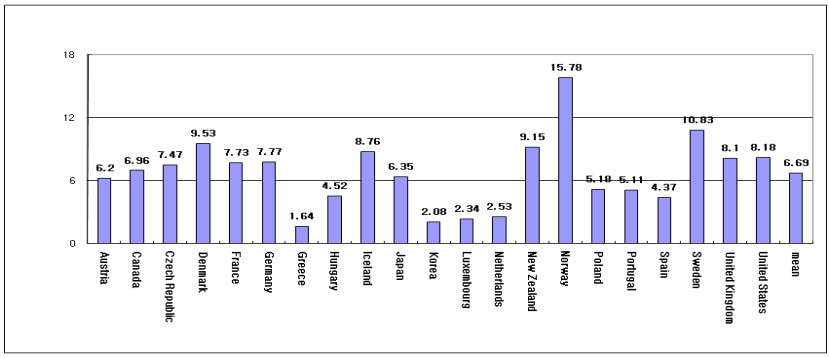
(Unit: Number of pharmacists practicing per 1,000 people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia			0.53	0.59	0.8	0.73	0.79	0.87
Austria	0.39	0.41	0.45	0.51	0.56	0.62	0.6	
Belgium	0.98	1.09	1.24	0.99	1.05	1.13	1.15	1.16
Canada		0.62	0.68	0.7	0.77	0.79	0.81	0.83
Czech Republic	0.38	0.39	0.38	0.36	0.49	0.56	0.57	0.56
Denmark				0.23	0.22	0.21	0.21	
Finland					0.96	1.03	1.05	
France	0.73	0.86	0.93	1.02	1.11	1.16	1.16	1.18
Germany				0.55	0.58	0.58	0.59	0.6
Greece	0.54	0.6	0.74	0.79	0.82	0.86	0.88	
Hungary	0.32	0.33	0.33	0.33	0.48	0.53	0.53	0.55
Iceland	0.66	0.74	0.88	1.1	0.96	1.12	1.12	1.14
Ireland	0.61	0.58	0.62	0.68	0.8	0.92	0.97	1.04
Italy	0.76	0.9	0.97	1.02	1.1	0.86	0.75	0.94
Japan	0.54	0.63	0.73		1.13		1.36	
Korea						0.64	0.65	0.65
Luxembourg	0.61	0.69	0.8	0.57	0.64	0.71	0.72	0.72
Mexico								
Netherlands	0.11	0.13	0.15	0.17	0.17	0.17	0.17	0.18
New Zealand		1	1.03	0.96	0.98	0.67	0.67	0.68
Norway						0.41	0.44	0.46
Poland	0.43	0.43	0.4	0.51	0.58	0.58	0.59	0.61
Portugal	0.49	0.48	0.55	0.67	0.79	0.91	0.94	0.98
Slovak Republic					0.36			
Spain				0.63	0.81	0.95	0.94	1.08
Sweden	0.48	0.49	0.59	0.67		0.73	0.73	
Switzerland	0.4		0.54		0.55			
Turkey	0.27	0.24	0.28	0.31	0.35		0.34	0.35
United Kingdom			0.58	0.63		0.65	0.68	
United States					0.75	0.78	0.8	

Source: OECD (2009). HEALTH DATA.

Number of nurses per 1,000 people amounted to 2.08 in Korea, which is 3.2 times less than the average of 6.69 nurses in OECD countries. This number was the lowest besides Greece and Norway having 7.6 times more nurses than Korea.

[Figure 5-6] Number of nurses practicing per 1,000 people in OECD countries



〈Table 5-6〉 Number of nurses practicing in OECD countries

(Unit: Number of nurses practicing per 1,000 people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia					7.81	7.64		
Austria	2.94	3.52	4	5.06	5.7	5.99	6.13	6.2
Belgium								
Canada	6.33	7.52	8.09	8.13	7.75	6.78	6.84	6.96
Czech Republic						7.54	7.48	7.47
Denmark				8.55	9.33	9.66	9.53	
Finland								
France	4.63	5.32	5.43	5.94	6.73	7.69	7.88	7.73
Germany					7.3	7.59	7.7	7.77
Greece					1.29	1.59	1.64	
Hungary			4.18	4.21	3.77	4.47	4.72	4.52
Iceland	5.09	6.48	7.04	7.61	7.96	8.61	8.43	8.76
Ireland								
Italy								
Japan							6.35	
Korea				1.15	1.38	1.9	1.99	2.08
Luxembourg				1.65	1.66	2.33	2.34	
Mexico								
Netherlands						2.81	2.56	2.53
New Zealand					8.57	9.18	9.05	9.15
Norway					10.27	15.28	15.65	15.78
Poland	4.41	4.83	5.46	5.53	4.96	5.09	5.09	5.18
Portugal	2.26	2.46	2.8	3.41	3.68	4.57	4.83	5.11

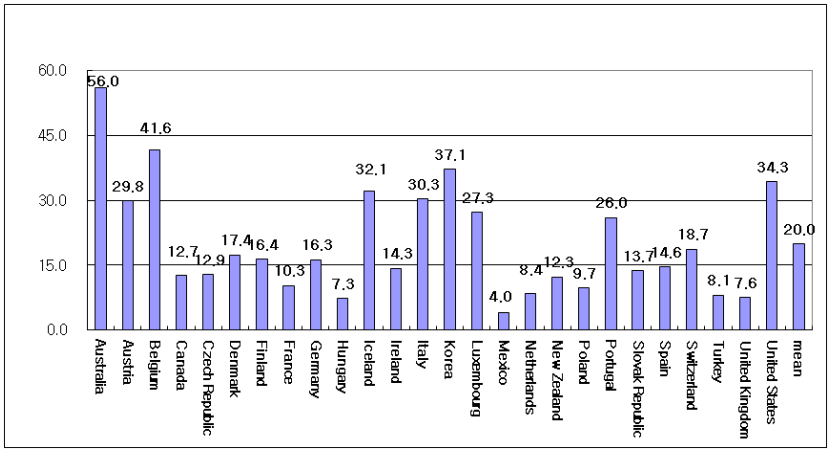
Country	1980	1985	1990	1995	2000	2005	2006	2007
Slovak Republic								
Spain				2.96	3.57	4.18	4.09	4.37
Sweden	7.02	8.67	9.17	9.66	9.92	10.69	10.83	
Switzerland								
Turkey								
United Kingdom					7.03	8.14	8.05	8.1
United States	5.6	6.46	7.17	7.95	7.76	8	8.09	8.18

Source: OECD (2009). HEALTH DATA.

Section 3 Comparison of major medical equipments

Comparison of Korea's major high-price medical equipments survey results in 2008 and the most recent data of OECD countries (as of 2006) show that Korea has 37.1 CT units per 1 million people, the highest number apart from Belgium and Australia and approximately 1.86 times larger than the OECD average of 20.0 units.

[Figure 5-7] Number of CT units in OECD countries



〈Table 5-7〉 Number of CT units in OECD countries

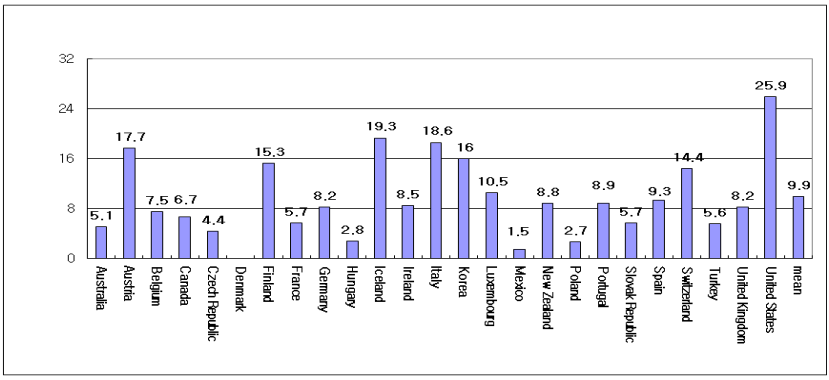
(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia	0.7	8.2	13.8	20.5	26.1	51	56	
Austria					25.8	29.6	29.8	29.8
Belgium			16.1		21.8	38.7	39.8	41.6
Canada			7.1	8		11.5	12	12.7
Czech Republic				6.7	9.6	12.3	13.1	12.9
Denmark	0.2	1.6	4.3	7.3	11.4	13.8	15.8	17.4
Finland	1.5	5.3	9.8	11.7	13.5	14.7	14.8	16.4
France		2.3	6.7	9.2	9.5	9.8	10	10.3
Germany				8.6	12.2	15.4	15.8	16.3
Greece	0.6	1.5	6.5			25.8		
Hungary	0.3	0.3	1.9	4.6	5.7	7.1	7.2	7.3
Iceland	0	8.3	11.8	18.7	21.3	23.7	26.3	32.1
Ireland			4.3			10.6	12.8	14.3
Italy			6		21	27.7	29.1	30.3
Japan			55.2					
Korea				15.5	28.4	32.3	33.7	37.1
Luxembourg	2.7	5.4	5.2	26.6	25.2	28.2	27.7	27.3
Mexico						3.3	3.4	4
Netherlands			7.3			8.2	8.4	
New Zealand			3.6		8.8			12.3
Norway								
Poland					4.4	7.9	9.2	9.7
Portugal			4.6			26.2	25.8	26
Slovak Republic						11.3	12.1	13.7
Spain				8.3	12	13.5	13.9	14.6
Sweden	1.9	4.9	10.5					
Switzerland					18.5	18.2	18.7	18.7
Turkey			1.6				7.8	8.1
United Kingdom					4.5	7.5	7.6	
United States							34	34.3

Source: OECD (2009). HEALTH DATA.

There were 16 MRI units in Korea per 1 million people, which was about 1.6 times more than the OECD average of 9.9 units and the highest in OECD countries after the 25.9 units of the US, 19.3 of Ireland, 18.6 of Italy and 17.7 of Austria.

[Figure 5-8] Number of MRI units in OECD countries



〈Table 5-8〉 Number of MRI units in OECD countries

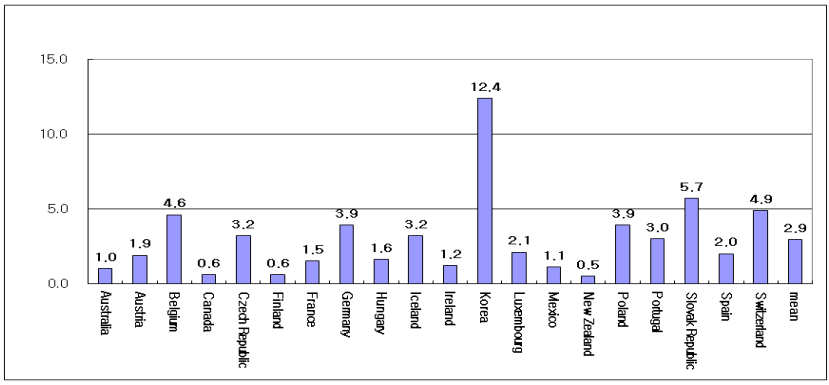
(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia			0.6	2.9	3.5	4.2	4.8	5.1
Austria					10.9	16.2	16.8	17.7
Belgium			2	3.3	6	7	7.1	7.5
Canada		0.2	0.7	1.4	2.5	5.7	6.2	6.7
Czech Republic				1	1.7	3.1	3.8	4.4
Denmark			2.5		5.4			
Finland		0.4	1.8	4.3	9.9	14.7	15.2	15.3
France			0.8	2.1	2.6	4.7	5.3	5.7
Germany				2.3	4.9	7.1	7.7	8.2
Greece			0.4			13.2		
Hungary		0.1	0.1	1	1.8	2.6	2.6	2.8
Iceland			3.9	7.5	10.7	20.3	19.7	19.3
Ireland							8	8.5
Italy			1.3		7.7	15	16.9	18.6
Japan			6.1			40.1		
Korea				3.9	5.4	12.1	13.6	16
Luxembourg			2.6	2.4	2.3	10.8	10.7	10.5
Mexico						1.3	1.4	1.5
Netherlands			0.9	3.9		6.6		
New Zealand								8.8
Norway								
Poland						2	1.9	2.7
Portugal			0.8				5.8	8.9
Slovak Republic						4.3	4.5	5.7
Spain				2.7	4.8	8.1	8.8	9.3
Sweden		0.2	1.5	6.8				
Switzerland					12.9	14.4	14	14.4
Turkey							3.5	5.6
United Kingdom					4.7	5.4	5.6	8.2
United States				12.3			26.5	25.9

Source: OECD (2009). HEALTH DATA.

In the case of ESWL units, Korea had the highest number at 12.4 units per 1 million people, which was over 4 times larger than the average of 2.9 units in OECD countries. Slovakia ranked second with 5.7 units but the difference compared to Korea was over twofold. There were even countries that did not have ESWL units at all, namely Canada, Finland and New Zealand.

[Figure 5-9] Number of ESWL units in OECD countries



〈Table 5-9〉 Number of ESWL units in OECD countries

(Unit: Number of units per 1 million people)

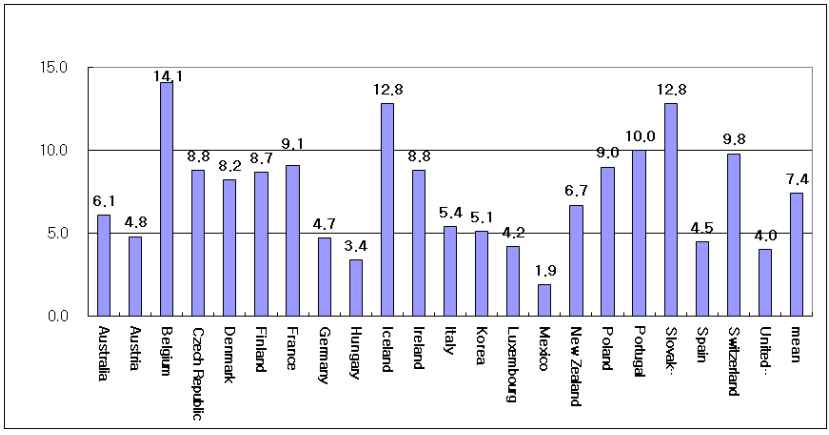
Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia			0.3	1	1.3	1.1	1	
Austria					1.7	1.9	1.9	1.9
Belgium					4.8	4.7	4.6	4.6
Canada		0	0.4	0.4		0.5	0.5	0.6
Czech Republic				2.4	2.8	3.1	3.3	3.2
Denmark								
Finland			0.2	0.2	0.4	0.4	0.6	0.6
France		0.1	0.7	0.8	0.9	0.8	1.2	1.5
Germany				1.9	3	3.7	3.8	3.9
Greece						1.4		
Hungary			0.3	0.7	0.9	1.1	1.1	1.6
Iceland					3.6	3.4	3.3	3.2
Ireland						1.7	1.7	1.2
Italy			1.7	2.4				
Japan			2.5			7.1		
Korea				3.5	4.4	9.2	10.7	12.4

Country	1980	1985	1990	1995	2000	2005	2006	2007
Luxembourg				2.4	2.3	2.2	2.1	2.1
Mexico						1.3	1.2	1.1
Netherlands								
New Zealand								0.5
Norway								
Poland						3.3	3.5	3.9
Portugal						2.2	2.2	3
Slovak Republic						5.6	5.2	5.7
Spain				1.7	1.8	1.9	2.1	2
Sweden								
Switzerland					4.5	4.7	4.9	4.9
Turkey				0				
United Kingdom								
United States								

Source: OECD (2009). HEALTH DATA.

Korea had 5.1 radiation therapy equipments per 1 million people, a relatively low number compared to an average of 7.4 units in OECD countries. Other countries that had less number of radiation therapy equipments included Hungary, Luxemburg, Mexico, Spain and the US. There were about 5 to 10 units in the rest of the countries.

[Figure 5-10] Number of radiation therapy equipments in OECD countries



〈Table 5-10〉 Number of radiation therapy equipments in OECD countries

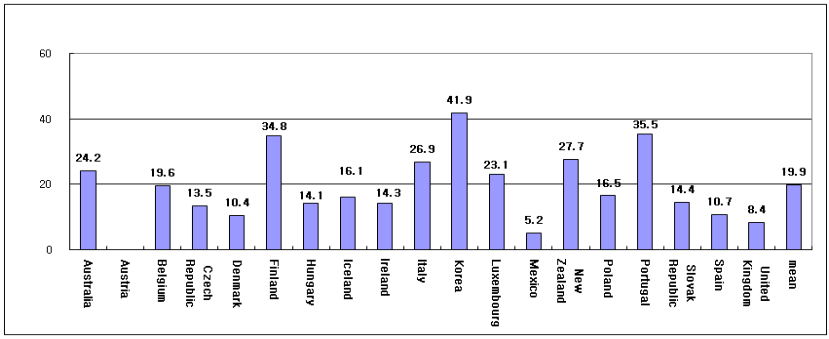
(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia		2.5	2.9	4.4	5.2	6	6.1	
Austria					4.2	4.6	4.8	4.8
Belgium				6.1	12.5	12.8	12.8	14.1
Canada				6.9				
Czech Republic				4.9	8.5	8.6	9	8.8
Denmark					5.4	6.8	7.7	8.2
Finland	11.3	10	10	8.6	8.7	8.8	8.9	8.7
France	5.7	5.9	6	6.2	6.1	14.9	8.9	9.1
Germany				4.5	4.8	4.7	4.7	4.7
Greece			5.4	5.7				
Hungary	0.7	1	1.5		2.3	2.7	2.8	3.4
Iceland	17.5	16.6	23.5	15	14.2	13.5	13.1	12.8
Ireland						7	8	8.8
Italy			1.3		3.7	5	5.2	5.4
Japan						6.8		
Korea				4.1	5.3	4.5	4.7	5.1
Luxembourg					4.6	4.3	4.3	4.2
Mexico						1.3	1.3	1.9
Netherlands				7.1				
New Zealand					9.9		6.7	
Norway								
Poland							7	9
Portugal						6	6.2	10
Slovak Republic						9.8	10.2	12.8
Spain				3.3	3.7	4.2	4.3	4.5
Sweden								
Switzerland					10.4	9.8	10.2	9.8
Turkey								
United Kingdom						4.1	4	4
United States								

Source: OECD (2009). HEALTH DATA.

Number of mammographs in Korea was the highest with 41.9 units compared to 2006 statistics of OECD countries, over 2.1 times larger than the average of 19.9 units. Other countries exceeding the average were Finland, Australia, Italy, Luxemburg, New Zealand and Portugal. The rest fell far short of the average, suggesting the fact that deviation among countries is large for mammographs.

[Figure 5-11] Number of mammographs in OECD countries



〈Table 5-11〉 Number of mammographs in OECD countries

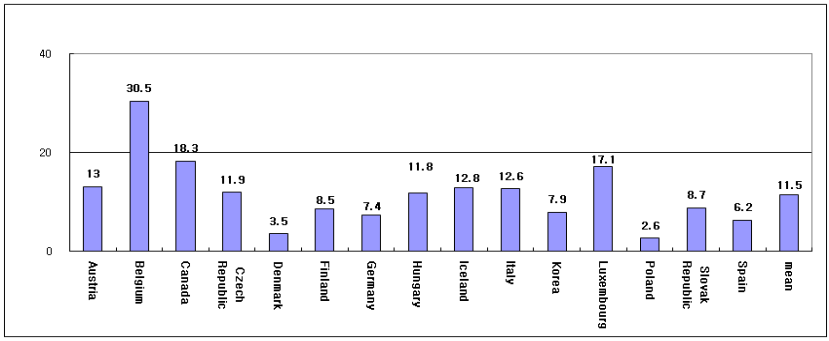
(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia						25	24.4	24.2
Austria								
Belgium						20.6	19.4	19.6
Canada						21.3		
Czech Republic				8.4	10.6	14.1	14.3	13.5
Denmark						10	10.5	10.4
Finland			29.3	37.6		37.7	38.5	34.8
France	5.7		23.8	42	42.5			
Germany								
Greece						36.5		
Hungary					9.4	13.1	13.4	14.1
Iceland	4.4	4.1	15.7	18.7	17.8	16.9	16.4	16.1
Ireland						12.6	13.9	14.3
Italy								26.9
Japan								
Korea					13.3	28.8	34.1	41.9
Luxembourg				24.2	22.9	21.7	21.3	23.1
Mexico						4.5	5.1	5.2
Netherlands						3.9		
New Zealand								27.7
Norway								
Poland					11	15.9	15.3	16.5
Portugal						34.6	35.2	35.5
Slovak Republic						13.6	12.8	14.4
Spain							9.3	10.7
Sweden								
Switzerland								
Turkey								
United Kingdom				5	6.1	8.4	8.4	8.4
United States								

Source: OECD (2009). HEALTH DATA.

Except for radiation therapy equipments, Korea had more units per 1 million people than the OECD average in four of the five expensive medical equipments, specifically CT, MRI, ESWL and mammographs.

[Figure 5-12] Number of gamma cameras in OECD countries



〈Table 5-12〉 Number of gamma cameras in OECD countries

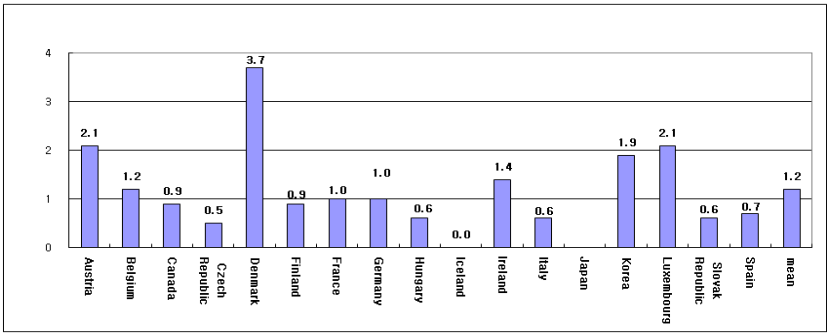
(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia								
Austria						13.4	13	
Belgium					28.5	32	30.8	30.5
Canada						19.3	18.8	18.3
Czech Republic					9.5	11.6	12.3	11.9
Denmark								3.5
Finland							8.5	
France								
Germany						7.4	7.4	7.4
Greece								
Hungary					8.2	10.2	10.7	11.8
Iceland					14.2	13.5	13.1	12.8
Ireland								
Italy					15.3	12.6	12.7	12.6
Japan						21.9		
Korea						5.7	5.9	7.9
Luxembourg					11.5	15.2	17.1	
Mexico								
Netherlands								
New Zealand								
Norway								
Poland						2.3	2.6	2.6
Portugal								
Slovak Republic					6.5	8.4	8.3	8.7

Country	1980	1985	1990	1995	2000	2005	2006	2007
Spain				4.6	5.3	5.3	5.9	6.2
Sweden								
Switzerland								
Turkey								
United Kingdom			5.5					
United States								

Source: OECD (2009). HEALTH DATA.

[Figure 5-13] Number of PET units in OECD countries



〈Table 5-13〉 Number of PET units in OECD countries

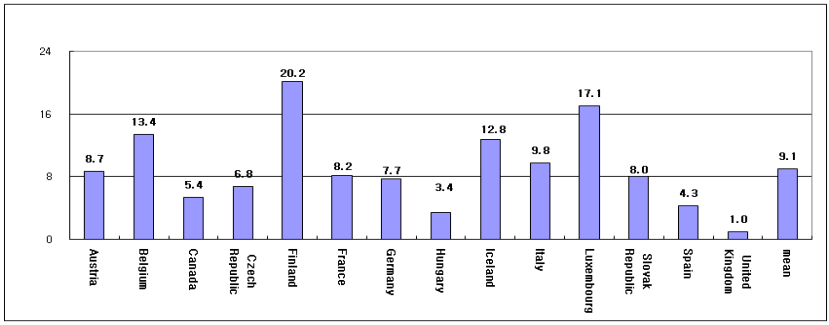
(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia								
Austria						2.2	2.1	
Belgium						1.2	1.2	
Canada						0.6	0.8	0.9
Czech Republic					0.1	0.5	0.5	0.5
Denmark						4.1		3.7
Finland					0.4	1	0.9	
France						0.8	0.9	1
Germany					0.5	0.8	0.9	1
Greece								
Hungary					0.1	0.5	0.6	0.6
Iceland					0	0	0	0
Ireland								1.4
Italy								0.6
Japan						2.2		
Korea						0.7	1.3	1.9
Luxembourg					0	2.2	2.1	2.1
Mexico								
Netherlands						1		
New Zealand								
Norway								
Poland								
Portugal								

Country	1980	1985	1990	1995	2000	2005	2006	2007
Slovak Republic					0.2	0.6	0.6	0.6
Spain							0.6	0.7
Sweden								
Switzerland								
Turkey								
United Kingdom						0.5		
United States								

Source: OECD (2009). HEALTH DATA.

[Figure 5-14] Number of angiography units in OECD countries



〈Table 5-14〉 Number of angiography units in OECD countries

(Unit: Number of units per 1 million people)

Country	1980	1985	1990	1995	2000	2005	2006	2007
Australia								
Austria						8.7	8.7	
Belgium						14	13.8	13.4
Canada						5.5	5.4	5.4
Czech Republic					4.6	5.8	6.3	6.8
Denmark								
Finland								20.2
France						8	8	8.2
Germany						7.2	7.6	7.7
Greece								
Hungary					2.3	2.9	3.1	3.4
Iceland					14.2	13.5	13.1	12.8
Ireland								
Italy								9.8
Japan								
Korea								
Luxembourg					11.5	10.8	17.1	
Mexico								
Netherlands								
New Zealand								
Norway								

Country	1980	1985	1990	1995	2000	2005	2006	2007
Poland								
Portugal								
Slovak Republic					5.6	7.8	7.2	8
Spain					3.7	4.2	4.3	4.3
Sweden								
Switzerland								
Turkey								
United Kingdom							0.7	1
United States								

Source: OECD (2009). HEALTH DATA.

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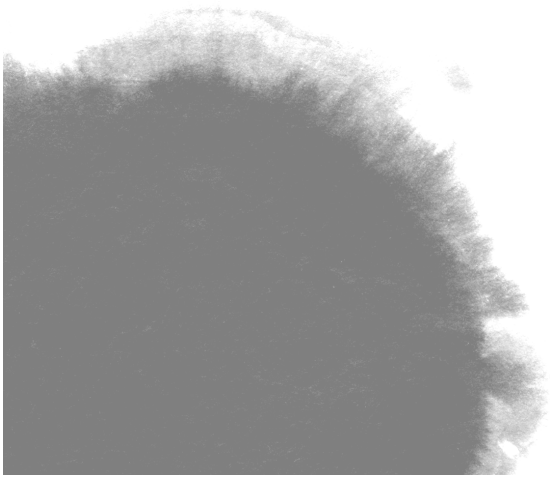
06

Summary and Policy Directions



CHAPTER 6
Summary and Policy Directions

Section 1. Summary

1. Status of health care institutions by region

A. Distribution of health care institution types

As of June 2009, there were 80,161 health care institutions in Korea, of which the number of hospitals, clinics and pharmacies were highest. Hospitals and clinics accounted for 36.5% or 29,279 and pharmacies 26.6% or 21,351. Dental hospitals and clinics followed with 17.7% or 14,215 of the total, oriental medicine hospitals and clinics 14.8% or 11,855 and health service institutions 4.3% or 3,461. There were 164.5 health care institutions per 100,000 people, specifically 60.1 hospitals and clinics, 29.2 dental hospitals and clinics, 24.3 oriental medicine hospitals and clinics, 7.1 health service institutions and 43.8 pharmacies. Seoul had the most number of hospitals against the number of population with 204.6 institutions and Incheon had the least with 137.0 institutions.

Most health care institutions were located in Seoul (25.6%) and Gyeonggi-do (19.8%). Regional distribution of health

care institutions showed that hospitals and clinics tended to concentrate in metropolitan areas with 7,351 institutions in Seoul, 5,889 in Gyeonggi-do and 2,285 in Busan. Jeju recorded the lowest with 1.1% (311) of hospitals and clinics. Likewise, 4,394 dental hospitals and clinics were located in Seoul and 3,084 in Geyonggi-do. Seoul had the highest number of hospitals and clinics per 100,000 people with 73.2 institutions and Gangwon had the least with 50.7 institutions. In the case of dental hospitals and clinics, there were 43.8 institutions per 100,000 people in Seoul while Chungbuk and Gyeongbuk areas have the least with 19.7 and 18.9 institutions, respectively. There were 33.3 oriental medicine hospitals and clinics in Seoul per 100,000 people and the least in Jeonnam with 17.0 institutions.

B. Distribution of medical fields

A total of 26 medical fields including Internal Medicine and Pediatrics were practiced by 119,335 hospitals and clinics nationwide. Among these fields, Internal Medicine was most widely practiced, by 19,545 hospitals and clinics (16.4%), followed by Pediatrics and Adolescents (13,419 or 11.2%). Primary medical care fields, composing of Internal Medicine, General Surgery, Obstetrics and Gynecology and Family Medicine, amounted to 77.2 institutions per 100,000 people. While Jeonnam had the most with 118.3 institutions practicing, Ulsan had the least of 60.7 institutions. Jeonbuk ranked second with 108.4 institutions practicing the fields, which is a small gap compared to Jeonnam. Emergency Medicine was also the highest in Jeonnam with 1.4

institutions per 100,000 people compared to Busan with the least number of 0.5 institutions.

There were 11 dental medical fields (including Oral & Maxillofacial Surgery) practiced by 98,117 dental institutions with 29,799 institutions or 30.37% of the total practiced in Seoul and 21,154 or 21.56% in Gyeonggi-do, over 50% located in Seoul and Gyeonggi areas. For the 10 oriental medical fields including Oriental Internal Medicine, Seoul accounted for 28% (or 26,531 institutions) practicing, and Gyeonggi 19.1% (18,018 institutions), which amounted to approximately 47% in these two areas.

C. Regional distribution of beds

In Korea, there were 448,604 beds for inpatients, among which, Gyeonggi-do had the most with 79,515 inpatient beds (17.7%) and Seoul next with 68,955 (15.4%). Jeonnam had 1,420 beds per 100,000 people compared to Jeju with 648 beds, the least nationwide.

2. Status of health care personnel by region

A. Health care personnel by region

As of June 30, 2009, personnel working in Korea's health care institutions (including part-time personnel) included 81,324 doctors, 20,474 dentists, 15,564 oriental doctors, 124,025 nurses and 115,981 nursing assistants. Number of pharmacists totaled 32,071, comprising of those working in hospitals or running independent pharmacies. There were

166.8 doctors, 42.0 dentists and 31.9 oriental doctors per 100,000 people. By region, Seoul had the most number of doctors per 100,000 people with 245.9 doctors, Daejeon and Daegu had 196.4 and 194.8 doctors, respectively. Ulsan had the least with 123.2 doctors. The highest number of oriental medicine doctors were in Seoul and Jeonbuk, 41.4 and 40.0, respectively. In the case of dentists, Seoul topped the list with 62.3 and Gyeongbuk was lowest with 28.6 dentists.

Assisting health care personnel per 100,000 people consisted of 254.4 nurses, 65.8 pharmacists (including hospital pharmacists and retail pharmacists), 237.9 nursing assistants, 35.3 clinical pathologists, 35.7 radiologists, 43.6 physical therapists, 4.4 occupational therapists, 5.0 dental technicians and 47.8 dental hygienists. While Seoul had 335.1 nurses per 100,000 people, Chungnam had the least at 180.5. There were 302.1 nursing assistants in Busan, in contrast with 175.0 in Jeju.

3. Regional distribution of health care equipments

A. Regional distribution of expensive medical equipments

There were 402 angiography units (ANGIO), 334 gamma cameras, 77 positron emission tomography systems (PET), 2,103 computed tomography systems (CT), 851 magnetic resonance imaging systems (MRI), 679 extracorporeal shock wave lithotripsy systems (ESWL), 1,567 mammographs and 254 radiation therapy equipments. By region, there were 219 units in Seoul and 169 in Gyeonggi-do, both cities accounting for 45.6% of the total. There were 384 CT units

in Seoul and Gyeonggi-do and Gyeongnam following with 379 and 186 units each. Approximately 60% of PET units concentrated in Seoul and Gyeonggi-do with 33 and 15 units, respectively. Seoul and Gyeonggi-do also had the most number of ESWL with 140 and 138 units each. There were 58 ESWL units in Gyeongnam and 55 in Busan, relatively higher than other regions.

B. Regional distribution of expensive medical equipments per 100,000 people

Number of expensive medical equipments per 100,000 people could be broken down into 0.83 ANGIO, 0.69 gamma cameras, 0.16 PET, 4.33 CT, 1.75 MRI, 1.40 ESWL, 3.22 mammographs and 0.52 radiation therapy equipments. In terms of regional distribution per 100,000 people, Gwangju had the highest number of 6.08 CT units and Incheon the least with 3.04 units. There were 2.49 MRI units in Jeonnam and Gwangju, whereas Jeju only had 1.10 units. The number of mammographs was highest in Jeonnam and Gwangju with 5.32 units and lowest in Incheon with 2.59 units. Jeju topped the list for the number of radiation therapy equipments with 0.92 units and Gangwon the least with 0.21 units. While there were 1.85 ESWL units in Gyeongnam, Incheon merely had 0.95 units.

4. Comparison of health care resources of major countries

A. Comparison of health care facilities

In 2007, there were 7.1 acute care beds per 1,000 people, 1.87 times higher than 2007 OECD average of 3.8 beds. The number was lower than Japan's but 2.6 times higher than the US and 2.7 times than that of the UK. In terms of long-term care beds, there were 13.9 beds per 1,000 people aged 65 or older, 2.4 times more than the OECD average of 5.8 beds. While the supply of acute beds in OECD countries showed a decreasing trend or a standstill, Korea saw a constant rise in the number. Long-term care beds also showed a steep increase from 2005 with expectations to the adoption of long-term care insurance for the elderly in 2007.

B. Comparison of health care personnel

Number of doctors including oriental doctors in Korea was 1.74, lower than the OECD average. Average number of doctors in OECD countries was 3.10, 1.8 times the number of Korea. In the case of dentists, Korea had 0.39 doctors per 1,000 people, lower than most OECD countries apart from Mexico, Turkey and Poland. OECD countries had an average number of 0.62 dentists per 1,000 people, which is 1.59 times higher than Korea. There were 0.65 pharmacists per 1,000 people in Korea, the difference not large compared to OECD average of 0.76 pharmacists. Number of nurses per 1,000 people amounted to 2.08 in Korea, falling far short of

average 6.69 nurses in OECD countries.

C. Comparison of major medical equipments

In the case of CT units, Korea had 37.1 units per 1 million people, almost twofold compared to the average of 20.0 units in OECD countries. Korea had 16 MRI units per 1 million people, 1.6 times higher than average 9.9 units in OECD countries. Number of ESWL units in Korea was highest with 12.4 units per 1 million people, four times the OECD average. Number of radiation therapy equipments was relatively low with 5.1 units per 1 million people compared to OECD average of 7.4 units. Mammographs were over 2.1 times larger, with 41.9 units, than average 19.9 units in OECD countries. Except for radiation therapy equipments, Korea had more units per 1 million people than average OECD countries for four of the five representative high price medical equipments, specifically CT, MRI, ESWL and mammographs.

Section 2. Policy Directions

1. Adjustment of acute and long-term care bed supply

While the number of acute beds decreased or was in a standstill in OECD countries, it constantly rose in Korea with 7.1 beds per 1,000 people in 2007, 1.87 times higher than 2007 OECD average of 3.8 beds. Although the number of long-term care beds was lower than OECD countries for

some time, it steeply increased since 2005 with expectations to the adoption of long-term care insurance for the elderly in 2007. The number rose to 13.9 beds per 1,000 people aged 65 or over, more than 2.4 times higher compared to average 5.8 beds in OECD countries. Thus, policies regarding the demand and supply of beds in Korea should be revisited. It is also necessary to come up with measures to respond to new demands for health care and to resolve regional demand and supply issues.

2. Revision of health insurance benefit policies for reasonable supply of health care equipments

Apart from radiation therapy equipments, Korea had more units per 1 million people than the average OECD for four of the five representative expensive medical equipments, specifically CT, MRI, ESWL and mammographs. Oversupply of high price medical equipments may worsen supply induced demand, leading to higher possibilities of increased medical expenses. Under the current private medical supplier oriented system where the medical delivery structure is not established and the decision-making process decentralized, there are limitations to enforcing policies to restrict the introduction and use of expensive medical equipments. Severe restrictions on expensive medical equipments may cause the equipments to become privileges in itself or the institutions with such equipments to have vested rights. Thus, the most reasonable way to control high price medical equipments is to link with health insurance benefit policies. The policy directions regarding these equipments should be to regulate

supplies through price adjustment and quantity control.

3. Resolving regional imbalance of health care personnel

Regional imbalance of health care personnel in Korea must be resolved based on the equitable use of medical services. Short-term policies, however, are ineffective for resolving the issues in a country like Korea where the private sector is allowed to lead free medical practice and to supply most medical equipments. It is thus considered that a reasonable health care personnel allocation policy should be established for the long-term. Regarding health care, a system should be developed to constantly monitor regional health care supply and demand, supported by principle and methods for reasonably allocating resources to meet the needs of each region. Resources allocation policies should be established considering medical personnel restructuring through increased number of primary medical care personnel, production of the resources allocation formula, revision of self-sufficient medical service rights and stronger policies regarding public health care services. Meanwhile, policy objectives as appropriate criteria for medical personnel by region should be established and applied for the time being.