

Health Resources and Management in Korea : Development in the Past, Current Issues and Perspectives

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I . Introduction

Korea has achieved great economic, cultural and social developments during the last four decades. As the trends in these developments accelerated in the 1980's, social welfare and justice were promoted significantly and the health sector showed rapid growth and profound improvement. Especially owing to economic growth, the health sector has undergone a major change in structure and scale since the latter half of the 1970's.

The application of the compulsory health insurance scheme all to the wage earners in 1977 brought a dramatic change in the structure of demand and supply of health services. Furthermore, the government decided to expand the health insurance system to the entire rural and urban residents from 1988 and 1989 respectively, giving a shock to the health care delivery system in Korea.

The precondition of a national health insurance system for the entire population is to provide accessibility to comprehensive quality medical care that is affordable to its beneficiaries. Accordingly, emphasis should be placed on the equitable distribution of health resources, establishment of a reasonable health care delivery system, increment of efficiency and reduction of medical cost.

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We are presently in a situation to develop alternatives and strategies to achieve the ultimate goals of the national health insurance within the restrictions of limited health resources compared to high demand, the narrow experience in health insurance service for the past a decade and the low income level not exceeding \$ 3,000, per capita.

At this historical turning point of the health care delivery system, Korea Institute for Population and Health has conducted a study on Health Resources and Management with financial supports from the Ministry of Health and Social Affairs(MOHSA) in 1987. The purpose of this study was to review the causes and effects of the changes in health policies and achievements for the past three decades, define current issues and problems, examine the problems and policy issues that will arise in the process of expanding the national health insurance, and identify further studies, through the analysis of health resources.

The term, health resources used here, refers to the various inputs which go into the provision of health services for a community or a country. These are grouped into human resources, physical resources and health expenditures.

Human resource is very important to health service because it is a labor intensive industry, including physicians, nurses, dentists, oriental medical doctors, pharmacists, medical technicians, assistants, and other related personnel. Physical resources include hospitals, clinics, health centers, sub-health centers, primary health posts and other medical facilities. Financing or health expenditures include all costs relating to health service programs and medical spendings.

The health resources are the most important factors that determine the success of the health insurance system in terms of supplying the health services. Accordingly, it should be supplied and managed on the basis of equity and efficiency. This paper describes briefly the cause and effect of changes and development in the past, current issues and problems, and policy directions to solve the problems in the future.

II . Socio-Economic Changes

1. Economic Changes

Korea has had remarkable socio-economic development for the last three decades. In the 1950's her per capita income was only US \$ 70 and 47 percent of GNP depended on the primary industry. In the 1960's the government established a five-year economic development plan. The strategy of the economic development plan focused on the upbringing of the basic industry and the consumer goods' industry. Her per capita income was US \$ 83 in 1961 and US \$ 125 in 1966. Unemployment rate was 8.2 percent in 1963 and 7.1 percent in 1966. Export was US \$ 41 million in 1961 and US \$ 250 million in 1966.

In those days, the national economy heavily depended upon the foreign aids. Nevertheless, remarkable economic development and enlargement of the infrastructure was achieved during this decade.

In the 1970's, based on the steady growth and social development the government aimed at achieving a self-supporting economy, independent military defense, and self sufficiency of grain through the advancement of the agricultural community. Per capita income increased to US \$ 800 in 1976 and the primary industry's portion decreased to 24 percent. There was no need to depend on foreign aid, since the domestic savings reached a 20 percent level. People became interested in social development and tried to solve the phenomena of the big gap among the classes in view of the realization of equality. Thus health insurance, which was led by the government and national medical aid program for the poor, has been adopted during this period.

The economic strategy of the government in the 1980's is the improvement of the people's living standard in quality and development of regional community by ways of striving for the national prosperity and enlargement of a balanced development of the infrastructure. The economic plan stressed vivid social development and promotion of public welfare. Per capita GNP, export and domestic-savings rose to US \$ 2,032, US \$ 30.3 billion and 26 percent respectively in 1985. And in 1986, trade surplus was achieved for the first time in our history. The primary industry/to GNP ratio decreased to 13.8 percent but the ratio of secondary industry changed

to 29.6 percent and the tertiary industry increased to 56.6 percent. It can be said that Korea ranks among the upper middle-income countries. In 2000, per capita GNP is expected to become US\$ 5,016 and the ratio of primary, secondary and tertiary industry will be 7.5 percent, 33.0 percent and 59.5 percent respectively.

2. Population Changes

The population of Korea in 1949 was 20,167,000. That was doubled to 40,467,000 by 1985. Crude birth rates per 1,000 were reduced from 39.2 in 1949 to 19.7 in 1985. During the same period crude death rates per 1,000 were reduced from 20.2 to 6.2.

Ratio of population aged 65 or more was only 3.3 percent in 1960 and 4.2 percent in 1985. However, these figures showed differences between areas of residence : that is 2.2 percent in urban areas and 3.7 percent in rural areas in 1960 ; 2.9 percent in urban , 6.4 percent in rural in 1985.

Urbanization was also rapidly made in this period. The share of urban population out of the total population has increased from 28 percent in 1960 to 65 percent in 1985.

Family planning was established and has been promoted strongly by the government since 1962. The current practicing rate of family planning and experience of abortion for eligible married women aged 15-44 has increased significantly from 34 percent to 68 percent in 1985 which is shown in the following table.

	1973	1976	1979	1982	1985
Family Planning (%)					
Total	36.0	44.2	54.5	57.7	70.4
Urban	39.1	47.8	55.1	58.7	71.5
Rural	34.0	40.2	53.6	55.7	67.7
Abortion (%)					
Total	30.0	39.0	48.0	50.0	53.0
Urban	37.0	46.0	53.0	52.0	54.8
Rural	24.0	29.0	40.0	44.0	48.4

This data indicates that there are no significant differences of these figures between areas of residence in 1985.

Family planning policy to reduce fertility will be continued until the population reaches a stable level. It is expected that the total population will be stable at 52,574,000 in 2023. After that, the depopulation phenomena will happen. Estimated population will be 43,601,000 in 1990, 48,017,000 in 2000 and 52,566,000 in 2025. The ratios of population aged 65 and over out of the total population are estimated to 4.7 percent in 1990, 6.2 percent in 2000 and 13.7 percent in 2025. However, the ratios will be noticeably different between regions. For example, in the year of 2000 the figure will be 4.9 percent in urban, but much higher in rural areas showing 10.2 percent. So the problem of the aged in rural areas must be considered as one of the major issue of health policy.

III. Health Policy and Health Status

1. Health Policy

The changes in Korea's health policies can be traced in the major policies, its priority and strategies in relation with the five-year economic development plans.

Before the first five-year economic development plan prepared, health care was not priority area of concern. The health budget during the 1954-1960 period did not exceed 0.97 percent of the central government's total annual budget. Government finance during this period was characterized by heavy reliance on foreign aids. The amount of aids from abroad accounted for 57 percent of the total government budget in 1954. This figure showed somewhat a decreasing trend and fell to 45.4 percent in 1960.

The following is the priority order of the allocation of the health budget during the period of 1954-1960.

- 1) leprosy control (30 percent)
- 2) tuberculosis control (17.6 percent)

Therefore, leprosy and tuberculosis control was treated as the most urgent health care problems.

In 1956, the 'Health Center Law' was promulgated, and the Law required to establish one health center per every 200,000 people or in every city, county, or district of Seoul. By 1960, 100 among the 180 required health center were established, almost all of which were built by aids from abroad.

In the first five-year economic development plan (1962-1966), the health sector plan was included, but only 0.6 percent of the total investment was assigned to the sector. The main projects in that health sector plan are as follows :

- 1) obliteration of about 600 doctorless areas in rural areas
- 2) prevention of the concentration of health personnel in urban areas
- 3) mass production of vaccines and prevention of communicable diseases
- 4) strengthening TB and leprosy control
- 5) promotion of domestic production of medicines
- 6) encouragement of family planning

But diseases such as tuberculosis, leprosy and other acute communicable diseases were not very ameliorated. The deployment of physicians to doctorless rural areas had been one of the main policy issues until the placement of public health physicians to doctorless areas was fully accomplished in 1983.

Hereby, after the revision of the 'Health Center Law' in 1962, a health center was established in every city, county and district of Seoul and the number of health centers amounted to 180. Family planning program was introduced within the health center network.

Emphases of health programs during the second five-year economic development plan (1967-1971) were placed on :

- 1) curative and preventive care
- 2) maternal and child care including family planning
- 3) enlargement of national health care network

But, the health budget took only 0.8 percent of the total investment budget. The compositions of the health care investment were as follows : 1) 32 percent for family planning, 2) 16 percent for TB control, 3) 12 percent for construction and supply of new equipment of sub-health centers, 4) 3.9 percent for operation and supply of new equipments of health center. Thus, the first priority of the health projects was family planning, the second priority was TB control followed

by the expansion of sub-health centers.

According to the evaluation of the second economic development plan, the health sector plan contributed somewhat to preventive care as well as the enlargement of health facilities, but it was also pointed out the lack of health facilities, maldistribution of hospital beds, shortage of health facilities in rural areas, and insufficient preventive care as well as maternal and child care were still major health problems.

For the first time, the health planning team organized by MOHSA participated in the health planning of the 3rd economic development plan (1972-1976). The policy issues of that plan were as follows :

- 1) enlargement of health care facilities and training of health personnel
- 2) strengthening of curative and preventive care
- 3) enhancement of maternal and child health care
- 4) continuous operation of the family planning program

Health investment took 0.9 percent of total investment ; among health budgets, the share for tap water supply and pumped well for rural people occupied 37 percent, and family planning including MCH, establishment of health care network and communicable diseases control occupied 23 percent respectively. Especially in expansion of medical facilities, emphasis was placed on increase of hospital beds for mentally disordered patients.

It was appreciated that health service was much enhanced for the past first to third 5-year economic planning period, as health resources such as personnel and hospital beds increased. The prevalence rates of tuberculosis and parasite and infant mortality rate were remarkably decreased during that period.

But the rapid increase of medical fee, city-entered maldistribution of health resources and environmental pollution were suggested as problems to be solved. Major policies for these were:

- 1) introducing low-cost health care delivery system
- 2) accentuating public health service
- 3) improving educational system for health personnel
- 4) improving environmental sanitation
- 5) prevention of pollution
- 6) strengthening of family planning

7) introducing compulsory health insurance scheme.

Accordingly, establishment of public health care delivery system for rural residents and introduction of concept of catchment area of medical care with considering population, traffic, and particularly health resources were enforced in this period.

Inducement of physicians in private sector to rural areas, application of new treatment in tuberculosis control, increase of physician, dentist and nurse supply, decrease of pharmacist and execution of compulsory health insurance were the important projects to be achieved during this period.

It was during the period that effective approaches to medically disadvantage group were put into practice on the basis of equity. Also the ALMA-ATA Declaration clarified the philosophy and strategies of the primary health care and proposed the phrase of "health for all by 2000". Since then, these have become the central issues of the health policy in Korea.

In the fifth planning from 1982 to 1986, the name itself was received as the plan for socio-economic development, which revealed increasing political concerns on social sector. Although the level of health care was overallly improved during the past planning period, several important problems were indicated such as the maldistribution of health resources in urban areas, unsettlement of health care delivery system, ineffective use of health resources, rapid increase of health expenditure and its burden and so on.

Therefore, the policy direction was heading for restraining the health demand through preventive care, establishing the reasonable health care delivery system, consolidating the efficient health care system, alleviating the health expenditure burden, and so forth. Under such policies, the goal of equal access to health care was set up.

During the period, the network of national health care and the consolidation of health care delivery system were initiated with a view to possessing the optimal health resources and increasing the efficiency of resources.

In addition to these, two thousands of community health practitioners were posted in remote rural areas and public health physicians were deployed to sub-health centers, thus doctorless areas were completely disappeared in rural areas. On the other hand, the public benefits of medical care was stressed. The number of health personnel was increased and the measured for health for the elderly were initiated.

The development of the health service for 25 years covering the first to fifth plan was conspicuous. In many cases, policy statements exist in the development plans. But policy that is not implemented is not useful. Partly the reason can be attributed to the fact that health care problem itself needs too much resources for the long periods and is difficult in nature to be solved. However, what is more important is the philosophy of social policy on the health service remains unchanged.

Socio-economic sector has developed conspicuously but the health sector has not done so. The actual ratio of health budget to the central government budget was 1.08 percent in 1955, 0.98 percent in 1960, 0.94 percent in 1965, 0.97 percent in 1970, 0.75 percent in 1975, 1.00 percent in 1980, 1.15 percent in 1985 and 1.13 percent in 1987. That is, in terms of budget allocation, priority order of the health sector has never been changed. The fact that public sector expenditure accounted for only small portion of the budget would be mainly due to the depressed public investment in medical facilities. The public investment in hospitals, public health institutions, and medical equipments and instruments has been restrained and the responsibility for meeting the increasing needs on medical service has been ascribed to the private sector.

In the past the public (national and provincial) hospitals occupied large proportion, but now the health care delivery system has been turned to be led by the private sector. In 1961, public hospitals accounted for 50 percent of total general hospitals (18 hospitals), 59 percent of their total general hospital beds (3,198 beds); 31 percent of total hospitals (142 hospitals) and 51 percent of their total hospital beds (7,443 beds). But in 1987, the hospitals share was only 11 percent of total hospitals.

During the past three decades, health service in the private sector has developed without receiving any strict control on medical fee schedule, centering around the residence of payable population. On the other hand, the role of the public sector has been mainly confined to providing the health services of relief and charity for the poor.

Consequently, a gap of health benefits among regional groups and among social classes has enlarged. The consumers of health service preferred the private sector and turned away from the public sector which was regarded as providing low quality service. As a result, the public sector could not play its intended role.

But, fortunately, in the 1980's the public sector has taken a concrete and effective step for increasing the access to health service in rural areas. In 1987, 48 percent of the health expenditure

of MOHSA's budget was allocated to the support of health centers, sub-health centers, primary health posts and hospitals in rural areas. Such health expenditure had accounted for only 11 percent in 1976 and 28 percent in 1981.

National Health Insurance program covering the entire population will be implemented in 1989. In terms of equity and efficiency, access, continuity, quality, comprehensiveness and cost in health service should be guaranteed. Such problem cannot be resolved until it is recognized that the health service is not a commodity traded in commercial market but a kind of social right which requires deliberate scheme.

It is not meaningful to divide the health care delivery system to be driven by the insurance premium collected from whole population, into the public sector and the private sector in respect of its function. In this viewpoint, a solution to the problems in the supply of health service should be found.

2. Health Status

There is not a single health indicator. Therefore, we analyse the health status during 1960-1985 by the several indicators : first, patterns of death and disease as an objective one, second, self-evaluated health status and morbidity, and third, use of health services. Here we also discuss the changes in health status based on the three models of health and disease suggested by Hexel and others.

1) Pattern and causes of death

In official statistics, crude death rate decreased to 6.2 in 1985 in comparison with 14.0 in 1960. Infant mortality rate also decreased to 30 in 1985 in comparison with 61 in 1960. On the other hand, life expectancy at birth increased to 64.9 for male and 71.3 for female in 1985 compared with 51.1 for male and 53.7 for female in 1960.

Communicable diseases were the highest death cause until 1967. But malignant tumor and cardiovascular disease were the highest death cause after 1974. In 1985, the proportion of chronic degenerative disease is 56 percent of total death causes ; that of accidents and poisoning are

11.6 percent ; that of the remaining causes are only 32.7 percent. The first order of death cause by the age group are as follows : congenital malformation and pneumonia among infants aged under one ; various accidents in the age group of one to four ; various accidents in the age group of five to fourteen ; respiratory disease, cardiovascular disease and various accidents in the age group of fifteen to forty four ; chronic degenerative diseases in the age group of forty five and over.

2) Objective data : morbidity

Communicable disease :

Acute communicable diseases such as cholera, bacteric dysentery, typhoid, small pox, typhus, scarlet fever, diphtheria, polomyelitis, and encephalitis have decreased remarkably. The incidence rate of these communicable diseases decreased from 104.32 in the period of 1940-44 to 1.92 per 100,000 persons during 1980-1985. There has been no case report of small pox since 1961 ; typhus since 1968 ; malaria since 1980 ; poliomyelitis since 1984. There has been no case report of a relapsing fever and trachoma as well.

Tuberculosis :

TB. prevalence (radiologically active Tb.) rate of population aged five and over detected by X-ray is 5.1 percent in 1965, 4.2 percent in 1970, 3.3 percent in 1975, 2.5 percent in 1980 and 2.2 percent in 1985 (2.1 percent in urban ad 2.3 percent in rural in 1985). The prevalence rate has decreased by 2.9 percent point for the past two decades. The prevalence rate of bacteriologically confirmed Tb is 0.94 percent in 1965, 0.74 percent in 1970 and 0.44 percent in 1985 (0.39 percent in urban areas and 0.54 percent in rural areas in 1985).

Parasite infection :

Infection rate having at least one parasite was 84.3 percent in 1971 (83 percent in urban areas and 84.7 percent in rural areas), 63.2 percent in 1976 (56.8 percent in urban areas and 67.7 percent in rural areas), 41.1 percent in 1981 (35.1 percent in the urban areas and 49.6 percent in the rural areas), and 12.9 percent in 1986 (7.0 percent in urban areas and 22.8 percent in rural areas).

Health examination :

As a result of health examination for the insured for health insurance for the government and the private school employees, the prevalence rate having at least one of selected chronic diseases examined was 5.3 percent in 1981 and 11.3 percent in 1984. The high prevalence of disease was shown in liver disease (3.99 percent), cardiovascular disease (3.65 percent) and tuberculosis (1.38 percent) in 1984.

3) Self-evaluated health status and medical need

Self-evaluated health is an important variable in determining whether to visit a physician or not. The 1987 household survey shows 13 percent of city residents, 18 percent of town residents, 19 percent of rural (myon areas) residents, and 20 percent of remote rural residents recognize that they are not healthy. In 1981, the survey showed its rate was 17 percent in remote rural areas.

Generally females rather than males tend to think that they perceive unhealthy. 34 percent of the residents aged over 45 in remote rural areas perceive that they are not healthy. MOHSA's survey data (1987) state perceived morbidity rate is 238.35 per 1,000 residents (216.75 of males and 259.95 of females). 35 percent of the residents aged over 45 perceive they are unhealthy. The three major morbid conditions are respiratory disease, gastro-intestinal disease, and musculoskeletal disease. The three diseases occupy 71 percent of total morbid conditions and injuries.

There are regional differences in patterns of morbid conditions, gastro-intestinal disease, musculo-skeletal and connective tissue disease, injury, and poisoning occur much more frequent in rural than in urban areas. Especially morbidity of musculoskeletal and connective tissue disease among women in rural areas is much higher than that in urban areas. The morbidity rate in rural areas is 124.64 per 1,000 women aged 45-54 and 163.98 per 1,000 women aged 55-64.

Medical need can be defined as observed utilization of health services and perceived need for medical care. The medical needs are 35 percent both in 1981 and in 1987 in urban, 31 percent in 1981 and 34 percent in 1987 in town, 30 percent in 1981 and 35 percent in 1987 in rural (myon areas) and 21 percent in 1981 and 34 percent in 1987 in remote-rural areas.

The medical needs in rural areas increased in 1987 in comparison with that in 1981. As a

result, there is little gap of medical needs between areas of residence in 1987.

4) Utilization of health services

Curative care :

There are some data concerning the utilization of health services which are collected from household interview surveys using the small sized samples since 1960.

But, it is hard to get useful information from them because of the difference of methodology including interview method and sampling. Therefore, there are many difficulties in time-series analysis of the utilization of health services.

But, if we see data during 1963-1976, the utilization patterns of health services for both residents in urban and in rural areas were greatly depended upon pharmacy or druggist rather than physician service to get health service. This means self-treatment without prescription is popular among the people. The use of pharmacy is more advantageous than physician care in aspects of traveling time, cost, and satisfaction with the result of treatment. Thus pharmacist or druggist actually substituted for the role of physicians.

KIPH (1981, 1987) survey data state that the gap of use of health services among regional groups has decreased during 1981-1987, because the residents in rural areas can access to physician services rendered by clinic, dentist, office, health center, and sub-health center since 1981.

In 1987, the frequency of annual visits to physician and dentist is 4.72 in urban, 4.27 in town, 2.88 in rural (myon areas) and 2.41 in remote rural areas. But the gap of use of physician services between the insured and the non-insured is noticeable even though they live in the same area.

During 1981-1987, annual hospital admission rate per 1,000 population and length of hospital stay per person increased throughout the nation, especially in rural areas. As a result, there is only a little gap of use of hospital service among regional groups in 1987. In 1987, admission rates are 52 in urban, 53 in town, 45 in rural and 45 in remote-rural areas.

New disposition of public health physician, public health dentist and community health practitioner since 1981 has resulted in this improvement of utilization of physician services in rural areas. However, 49-51 percent of patients in rural areas went out to hospitals or clinics located in urban areas for seeking care. This phenomenon was caused by dissatisfaction with existing

primary health facilities or lack of primary care supply in rural areas.

Safe delivery of birth :

Statistics on institutional delivery have been gathered by household interview surveys since 1965. The rates of institutional delivery per 100 births increased remarkably in rural and in urban areas altogether during 1965-1985. The rates increased from 16 percent to 84 percent in urban areas, whereas from 0.1 percent to 51 percent in rural areas during the same period. But the difference of the institutional delivery by regional groups is wide as before.

Immunization :

Immunization has been enforced by the government as an epidemic preventive control program since 1960. Accordingly the immunization rate is very high. In 1982, immunization rates are as follows : 80 percent for DPT (83 percent in urban areas, 76 percent in rural areas), 81 percent for poliomyelitis (82 percent in urban areas, 78 percent in rural areas), and 55 percent for measles (58 percent in urban areas, 50 percent in rural areas). BCG immunization rate increased to 80 percent in 1985 (80 percent in urban areas, 81 percent in rural areas) from 26 percent in 1965. Therefore immunization rates are at high level equally in all the regional groups.

5) Inequalities in health and disease, 1960-1985.

In relation to the changes of health and disease during 1960-1985 period, real inequality of health condition can be explained on the basis of the three models such as the traditional medical, the epidemiological as well as the socio-political model which were presented by Hexel. P. C. and others (1986).

In the traditional medical model, disease is conceived as the absence of health and the conception of health is considered very narrowly. Individual curative interventions are the core and the relationship between doctor and patient is important. The utilization of these facilities depends upon the income of the patient and the education level of the patient. The poor and illiterate are alienated from the medical treatment.

Subsequently inequalities in health and in the access to the health service are still in existence. In many industrialized countries, the health delivery system have developed according to this conception. Most of developing countries adopt this traditional model. Also it can be said that

this conception has dominated until the early of 1970's in Korea.

The epidemiological model approaches the phenomena of diseases not on the level of the individual case, but with statistical analysis. In studying the distribution of diseases, epidemiological analysis aims at the discovery of the cause-effect relationship. In this regard vaccination for the prevention of disease and other measures of preventive medicine are emphasized. The regional health differences may also explain the differences of health resources and socio-economic resources. High risk groups become the main target for the implementation of such differences. High morbidity and low health status in rural and poor areas are caused by unbalanced distribution of medical resources. Therefore adequate distribution of medical resources is required for the compensation of the inequalities. It can be stated this model explains the health and medical phenomena from the latter of 1970 until now in Korea.

In the socio-political model, health and disease are discussed in a social historical perspective. In this case the epidemiological situation as well as the health delivery system are determined by the formation and the internal power of the society. Tuberculosis and other epidemics were typical worker's diseases in early capitalism and on the other hand heart diseases, cancer and other chronic degenerative diseases are typical for the maturity of capitalism. Social security schemes are also a result of mature state of capitalism.

For that reason inequalities in health can be resulted from the socio-economic inequalities. Therefore emphasis is put rather on social alteration than on medical prevention. Disease causations are believed from social determining factors than natural determinants. So strategies against health inequalities can be derived from inequalities in respect to social relation. It can be interpreted Korea is at this stage from the latter of 1970 but it is still at the initial stage now.

6) Long-term outlook of health and disease

In the process of establishing strategy for achievement of health for all by 2000, WHO suggested three scenarios which were considered in relation to the possible transformation of social environment and social value. They are Traditional Scenario, Technical Scenario and Ecological Scenario. Enlargement of disease-oriented medical service is expected at the Traditional and Technical Scenario. Ecological Scenario is based on the positive concept of health as well as on the responsi-

lity of individual and society.

The reason for paying a special attention to Ecological Senario is that it stresses well-being rather than disease, health rather than disorder, individual responsibility for health namely the spirit of self-help and mutual aid. It imposes duties to prepare good environment for the promotion of health upon society. Therefore health education and changes of life style as well as nature and care are highly appreciated.

If epidemiology will be changed like advanced countries, chronic degenerative diseases and various kinds of accidents will be constituted as an important health problem in Korea. These changes derive mostly from social reason rather than natural reason. Based on the Ecological Senario it is recommended to try to change life style and to put input into health education in order to enhance the efficient use of health resource.

IV. Health Resources

1. Human Resources

Health personnel include physician, dentist, oriental medical doctor, midwife, nurse, medical technician and nursing aide. Health personnel increased remarkably in the 1970's by the plan of health manpower production. Registered doctors are 29,596, dentists are 5,436, nurses are 59,104 and pharmacists are 29,866 in 1985. Those numbered to 4,375, 740, 1,549 and 1,003 respectively in 1949. Health personnel per 10,000 population during the period of 1949 to 1985 increased to 3.3 times in doctors, 3.3 times in dentists, 18.3 times in nurses and 14.8 times in pharmacists. Number of active health personnel per 10,000 population is more than that in developing countries, but less than that in advanced countries, except density of pharmacists which is much more than that in advanced countries. As compared with the manpower structure by type of developed countries, the proportions of pharmacists and nursing aides are higher, on the contrary that of nurse and medical technicians are lower. It means health manpower structures of Korea is ineffective because of the low proportion of middle-level personnel.

The ratio of health personnel among total economically active population is only 0.8 percent in 1984, which is less than 2.3 percent in seven European countries in 1970. There is a great difference in the volume of health personnel between in Korea and in advanced countries. 90 percent of physicians, 73 percent of pharmacists and 55 percent of nurses are active in health field. As above, particularly employment rate of nurses is very low because nurses' posts are frequently substituted by nursing aides. Manpower mixture of a doctor and a nursing aide is prevalent in the physician office and nursing aides occupy most nurses' posts in sub-health centers.

The maldistribution of health personnel is a serious problem in Korea. 87 percent of active physicians, 85 percent of nurses and 84 percent of pharmacists are distributed in urban areas. In the private sector, 84 percent of doctors working in clinics, who are provider of primary care, are in urban areas. However, 75 percent of doctors and 59 percent of nurses in the public sector are deployed in health centers, sub-health centers and primary health posts in rural areas. These improvements are resulted from the deployment of public health physicians and community health practitioners by government since 1981.

In 2,004, physicians, nurses and pharmacists in number will be 68,200 (2.4 times of physicians in 1984), 160,000 (3.4 times of nurses in 1984) and 43,400 (1.7 times of pharmacists in 1984) respectively on the assumption of a baseline projection which government will not change current volume of manpower production. And then, population per physician will be 782, population per nurse 543, and population per pharmacist 1,235 in 2004. Physician density is expected somewhat poorer than that 600-680 per physician in the countries whose per capita income was \$ 5,000-7,000 like Canada, France, and U. S. A. However these advanced countries are currently suffering from the increase of medical cost caused by surplus of doctors.

If we assume length of hospital stay will slowly increase and annual physician visits will be at the maximum of 10, estimated demands for physician are 58,900 in 2004. On the other hand, supply of physician (active) on the baseline projection is estimated to 63,200 in 2004. So there is no more need of increasing in current volume of doctors production. However, we can expect that there can be a temporary lack of physicians in the following five years after implementation of national health insurance for entire population in 1989. Therefore it is recommended to develop alternatives to this problem.

In the light of changes in health demand, development of medical technology and efficiency,

there will be more demand for a new type of manpower such as medical technician in pathology and in radiology, mental health personnel, health educator, health service manager, health planning personnel, hospital manager, health system specialist, computer personnel, statistician and sports medicine.

In response to national health insurance for entire population in 1989, management of health personnel is more important subject than production of health personnel. Especially equal distribution of health personnel as well as the training of primary care provider is important for the equal access to medical care.

Specialists in 22 special fields of medicine, account for 50 percent of the total registered physicians in 1985. 52 percent of them are employed in clinics or run their own clinics. Specialization of medicine contributed to a better standard of treatment and care for the patient by maximizing their medical abilities on each part of body and function. However, in reality, physicians who provide a total care of human first are more needed. Therefore, the tendency of specialization and increase of specialist, which are not based on the realistic demand, are waste of health resources.

2. Physical Resources

Hospitals, clinics and hospital beds increased remarkably during 1955-1985. The number of general hospital increased to 183 from 42 (2.4 times improvement from 0.2 to 0.45 per 100,000 residents); that of hospitals increased to 317 from 90 (1.9 times improvement from 0.42 to 0.78); that of clinics increased to 8,069 from 2,800 (1.5 times improvement from 13.0 to 19.9). Total hospital beds increased to 74,365 from 9,894. Hospital beds per 100,000 has become 181.1 from 49.4 (3.7 times more than before). The increase has been affected by the application of compulsory health insurance scheme in 1977. But it remains in poor situation compared with other countries. We can compare number of beds per 100,000 with those in other countries: 17.4 in Korea, 116.3 in Japan, 40.6 in U. S. A., 74.6 in U. K., 40.6 in Singapore and 114.9 in West Germany.

To make matters worse, the utilization of already existing beds is so poor and there is also a waste of physical resources. The rate of occupied beds is no more than 60.3 percent. The

rate of occupied psychiatric beds is 94.3 percents ; but that of occupied general beds is 61.0 percents. The demand for hospitalization is very low in Korea, because people don't want to be hospitalized, clinics provide a substitute of hospital care and burden of hospital fee is very heavy.

The other problems related to hospital and clinic are as follows.

- 1) The proportion of hospitals operated by public sector decreased rapidly. It decreased to 11 percent in 1987 whereas 47 percent in 1961 and 34 percent in 1977.
- 2) Increase of hospitals in terms of institution and its density per 100,000 residents is higher than that of clinics. Health insurance statistics indicated that the proportion of amounts paid to hospitals appears increasing tendency compared with clinics every year. This means that hospitals oriented health delivery system become more strengthened than clinic system. It is more desirable to put stress on the function of primary care institution, namely clinic, in respect of efficiency and effective use of resources.
- 3) The portion of small-sized hospital is high and functions of hospital is not diversified. Hospitals less than 100 beds among total hospitals are 64 percent and hospitals over 400 beds are only 11 percent. In an aspect of scale of economics, small-sized hospital is disadvantageous in management and confronts with functional conflict between large scale hospital and speciality-run-clinic.
- 4) Concentration of the patients to large scale hospitals and malfunction of referral system can damage not only the efficient utilization of resources and provision of proper service by the function of each medical institution, but also teaching and research function of the hospitals. Therefore it can interfere with the whole health delivery system and the development of medical science.
- 5) Hospitals and clinics have concentrated in urban areas. Especially only 16 percent of clinics are distributed in rural areas. The increasing supply of physicians could not improve the maldistribution of resources.
- 6) High costly medical equipments, which act as one of the main factors of increasing medical cost and waste of resources, are introduced in regarding competition between hospitals without calculating their efficiency. MOHSA permitted to import 1,365 high costly special equipments including 762 ultrasonic scanner (56.8 percent), 285 automatic chemolyser (21 percent). 119

C-T scanner and 2 Extra Corporeal Shock Wave Lithotripter are currently installed and additionally two Shock Wave Lithotripter are expected to be imported.

Primary health facilities in public sector include health center, sub-health center, primary health post and MCH center. Health center was set up at each administrative unit. 225 health centers are established in 1985 (189 in 1965). The density of health center per 100,000 residents is 0.55 in 1985 (0.65 in 1965). There are 1,303 sub-health centers, 1,640 primary health posts and 89 MCH centers in Korea. Among them, 139 health centers, 1,303 sub-health centers, 83 MCH center, and 1,640 primary health posts are located in rural areas.

However, the utilization and the credibility of rural people toward health center are very low except primary health post. The clinical abilities of physicians, equipment and instruments, motivations to work and morale in health center are also very low. As a consequence, the health facilities in public sector could share only 43 percent of a total of physician service demand and the remaining 57 percent are met by private sector in rural and urban areas.

Medical resources are characterized by dominance of private sector in Korea. The functional division between public and private hospitals is not clear. There are some criticism about the meaning of existence of public hospitals in the light of its number and role and function.

Equal distribution of health facilities in proportion to the medical demand and the regionalization will become important issues. Regionalization might be various depending on distribution of resources, control over patient flow, voluntary of enforcing cooperation in health care delivery units, and reasonable channeling in financial support. But anyway we should realize the necessity of regionalization of health facilities.

We should try to minimize obstructive factor such as bureaucratization of health service, the increasing specialization and high medical technology application which can produce a wide gap between the vulnerable groups such as the poor and the aged and health care delivery system.

3. Health Expenditure

In recent years one of the main issues of health policy is how they can reduce the soaring health expenditures in advanced countries. Health expenditures are rising rapidly and account for high rates of health care share of GNP. This tendency aggravates burdens of individual health

expenditure. However the health status has not improved as much as the increased health expenditures. So adequate control over health expenditure and improvement of efficiency become main subjects in national health policy.

Health expenditures cover all kinds of current and capital expense on health-enhancing activities. These include not only health care cost spent by individual, enterprise and government but also health insurance cost and other expenses of health research, development and health facilities.

National health expenditure in Korea has also increased rapidly for the last ten years. In 1985, health expenditure increased twelve times as much as the figure in 1975 while GNP increased only seven times. It shows that health expenditure increases more rapidly than the speed of enlargement in economic development. In other words, the other sector should be comparatively shrunken by the reason of highly increasing health expenses.

In 1985, the health care share of GNP is 4.8 percent (Won 85,749 per capita). This proportion is comparatively higher than that of the country whose per capita income is about, \$2,000. The health care share of GNP in several countries are as below ;

Country	Year			
	1960	1970	1980	1983
West-Germany	4.8 %	5.6 %	8.0 %	—
U.K.	3.9	4.5	5.8	6.1
Canada	5.6	7.3	7.5	—
U.S.A.	5.3	7.6	9.4	10.8
Japan	3.1	4.6	6.4	6.8

The health expenditure also increased more rapidly than the rising trend of the average wage index. The annual increase rate of the nominal health expenditure, calculated on compound interest, is 28 percent. Analysing the factors that caused the increase, price-up factor and actual increase of the expenditures occupied 48.7 percent and 51.3 percent respectively. The execution of the Health Insurance System is closely related to the rising of health expenditures.

Investment expenses had increased notably from 1979 to 1984. If we investigate the com-

position of health expenditure except investment expenses, the component ratio of private sector in the financial resources is overwhelming but the ratio shows decreasing trend ; 84 percent in 1975 decreased to 63 percent in 1985. On the other hand health insurance cost increased rapidly to 23 percent in 1985. Therefore the main reason in the expansion of health expenditures lies on the enlargement of health insurance.

The increase rate of health expenditure against the increase rate of income is called income elasticity of health expenditure. The elasticity rate during 1975-1985 is 1.85 (2.4 during 1981-1983). This figure is similar to the figure 1.9 during 1960-1975 in the United States. The medium rate of several leading countries is 1.4. Health expenditure is projected to be 6.4 percent among GNP in 1990, which is changeable by variable such as the adjustment of medical fee schedule.

Increase of health expenditure is desirable phenomena in itself because it can contribute to the improvement of people's health. Income level of our country is quite lower than that of advanced countries. But the trend of increasing health expenditure is similar to that of U.S.A. who is in anguish due to the increase of health expenditure.

As resources are limited in use, the increased portion of health expenditure makes it difficult to use the other sector. This eventually leads to waste of resources and inefficiency.

The proportion of health expenditure in Korea is high compared with her per capita income, which will result in inefficiency of resources. When national health insurance is implemented in 1989, increase of health expenditure will be inevitable. For the success of national health insurance, containment of health expenditure and efficiency of resources become most important policy issues.

Therefore it is requested to bear in mind the acuteness of increasing health expenditure. And all of individual, health personnel, and government should try to control the health expenditure harmoniously.

V. Health Insurance and Payment-Reimbursement System

1. Health Insurance

Health Insurance Law was enacted in 1963 and on the basis of this law, voluntary demonstration health insurance program was carried into effect in the form of a demonstration project. This law was reformed into a compulsory application method and was put into operation. The scope of application expanded from a working place with 500 or more employees in 1977 to a working place with 300 or more in 1979 and 100 or more in 1981 and 16 or more in 1982. Health insurance for public servants and teachers was enforced in 1979. On the other hand, regional health insurance for rural residents was put into operation in three Gun areas in 1981 and in three areas of a city and two Guns in 1982. Due to the expansion of population to whom this kind of health insurance was applied, 45.6 percent of total population have become the beneficiary of health insurance in 1986.

Also, national medical aid system for the low income people was carried into effect in the form of free treatment during the period of 1961 to 1976 first and Medical Aid Law was enacted in 1977 which made it possible for this project to be executed in earnest. Thus, medical aid program was newly established, and in 1986 10.5 percent of total population was entitled to medical aid. Therefore, 57.1 percent out of total population are beneficiaries of either health insurance scheme or medical aid program.

In the case of industrial establishment, government employees and private school employees, premium of insurance are 3-8 percent of their monthly salary and are beared evenly between employer and employees, and for the other type of health insurance for the remaining regional people and the self-employed, the premium is decided by their income level.

Benefits are categorized into medical benefits, delivery benefits and additional benefit. These are applied equally in all types of health insurance, except for health insurance for government and private school employees in which routinely medical check up is also added. Methods of designating institution for rendering medical benefits to the insured are different by type of the insurers. The insurer of the regional health insurance designates primary institution within the

administrative area (for example, gun area) and secondary institution located in city areas. However, other health insurers designate all medical institutions throughout the nation and encourage the patients to use medical institutions in the area of province or special city.

The implementation of health care insurance and medical aid programs has attributed to the growth of utilization of medical care on year to year basis. In 1981, per capita use rate for medical aid was 0.93 ; 2.09 for industrial establishment insurance ; 2.21 for health insurance for government and private school employees ; and 1.04 for regional health insurance. In 1985 it shows that they increased to 1.40, 2.86, 3.14 and 1.62, respectively. However it shows a decrease of somewhat due to a system of co-paying fixed cost by the patient to the physician enforced in 1986. In insurance for industrial establishment the usage rate decreased to 2.70 and in insurance for government and private school employees decreased to 3.00. However, it showed an increase to 1.71 in regional health insurance despite the enforcement of above co-payment system.

There is a large difference in the usage rates among the types of insurance. The usage rates for regional health insurance that included farming and fishing population showed low and also the low income people showed low usage rate of medical aid.

There are differential usage of medical institution. Use of hospitals, especially general hospitals, showed a rise but usage of clinics on the other hand showed a decline during the past ten years. In rural areas where regional health insurance was executed the usage rates of health center and sub-health center showed a decline trend. This phenomenon of patients preferring hospitals and expensive medical care has passed the limits of appropriate medical care and could bring about the abuse of medical care and waste of resources.

In summary health insurance system has made huge accomplishments in the sense that it has increased the number of people receiving such privilege and usage rate of medical care in a short period of time and can be also expected to have the effects of redistributing income.

However, health insurance cost has gone up suddenly and 34-41 percent of this rise can be attributed to the volume of service per visit and change in the demand pattern. It has caused people to feel the need for containment of medical cost. In other hand, the fixed fee that a patient has to pay from his/her pocket money when using health facility is 20 percent at hospitals and 30-55 percent at clinics, but the fee is too high for the low income people and is a huge barrier in using medical institutions. Raising the insurance fee may be proper for fairness.

Health insurance coverage will be expanded to all the rural residents in 1988 and to all non-insured population in city areas in 1989 using social insurance scheme. Health service is a public goods and should be restructured in this nature. Health insurance system should be looked at from the view point of dispersion of danger, stabilization of finance, redistribution of income, national solidarity and reform of current payment-reimbursement system (*fee-for-service system*). Accordingly, current health system and management system should be reorganized in response to directions of the expected future changes.

In 1989, enforcement of national health insurance system will be put into operation under limitations such as GNP per capita below \$3,000, short history of health insurance, and limited medical resources (personnel and facilities). Furthermore, the remaining non-beneficiaries who will receive this insurance benefits are almost low income people and they will be applied with form of regional health insurance. The usage rate of medical care for these people will rise abruptly and insurance finance will be a problem: Whether it is raising the insurance premium or government's financial support with subsidies or a combination of these, only calling for rise in people's burden will solve this problem.

2. Payment-Reimbursement System

Payment-reimbursement system refers to the system of paying the services of physicians by their clients (method of payment) and the method by which physicians receive their incomes (method of remuneration). As methods of remuneration, there are *fee-for-service (FFS)*, *capitation*, *salary*, *case payment* or a combination of these. *Fee-for-service system* as method of remuneration is currently practiced in Korea.

Current health insurance system applies *fee-for-service* scheme and a principle that patient can freely choose his physician. The former is lucrative to physician on the point that economically he is in a advantageous position and independently he can provide his service. The latter is very important to patient as well as to physician. Therefore both methods were set up in providing good service in medical care. And providers and consumers can equally satisfy themselves with these methods.

Payment-remuneration method acts as a main factor to determine the flow of health care

delivery system. It, in the short term, affects the providers, especially physicians and patient behaviour. And in the long term, it also affects the distribution of health personnel and facilities, quality and quantity of health care as well as national health expenditure. On the assumption that national health insurance will be practiced on the whole country, payment-remuneration method must be reappraised by considering economic efficiency, consumers expense, financial condition, quality and so on.

Current fee-for-service scheme of Korea is fundamentally similar to that of Japan. Basically actual medical service and its content, materials as well as medicine prescribed for a patient are subdivided by items, by manufacturers and by unit production price. Each unit price is fixed beforehand then total unit prices make actual fee for medical care.

“Standard price tables of medical fee in health insurance” and “Standard price tables of medicine in health insurance” published by the government in 1986 (Korea Medical Association) show the number of basic payable unit. That has totaled to 5,800 items among which numbers of medical service fee are about 1,600 and that of medicine are about 4,200. When we count the number of special materials whose purchase price can be remunerated, total payable units become about 7,000 items. This system keeps its merits in the fact that health care fee can theoretically be decided with reasonable objectivity. But it is said that excessive subdivision results in the increase of paper work and brings about dispute between the providers of service and the insurer.

In order to minimize excessive care and excessive medications which appear as the demerits of this system, two kinds of specific methods have been adopted.

- 1) Medical service is divided into materials (staff and medicines) and technics (skill of medical care). By applying the price of materials as prime costs, even though volumes of medical service are great quantities, medical institutions cannot acquire profits from materials. Furthermore, prescription charge is paid only once even if various kinds of materials are prescribed at the same medical care. By doing so, it tries to minimize excessive medications.
- 2) In order to control the quantity of medical care service, successive diminution rate is adopted in the calculation of limited price. This method aims to get adequate medical care and efficient supply by controlling unnecessary care and excessive treatment.

But this fee-for-service scheme itself involves several problems in respect of excessive medical

care, increase of medical service fee, irrationality and inefficiency.

1) The scheme has high possibility to induce excessive medical care and to increase medical cost. Medical care price is becoming expensive because the total amount of respective medical care and medicine unit as well as material unit become payable price.

There is safety device to prevent excessive medical care but it induces excessive medications with which providers pursue profit. Therefore currently applied fee-for-service has no effect to control excessive medical care.

2) There is no clear distinction of interrelation between medical care fee and prime cost. Also there is no cost accounting for each medical care

3) Medical care fee schedule is unreasonable as the same fees are paid at same medical service. Regardless of medical institution and region medical practice fees are somewhat differently applied to each institution : 4 percent to clinic, 10 percent to hospital and 20 percent to general hospital, but this attributes to concentration of patients to the general hospital.

4) Relativity of medical fee level is unequal among medical fee in the schedule. This causes patient to pay excessive medical fee and also causes medical institution to achieve more income. The providers relatively choose high medical service, which may obstruct appropriate care and consequently increase medical care fee.

5) The procedures in claiming and inspection of medical care fee are quite complicated and inefficient. There are two stages to claim medical care fee by the medical institutions. At first stage, total medical care fee could be calculated by adding unit of medical fee schedule, and then, among them, the portion patient must pay will be claimed to him (exception in case of fixed fee paid by patient when he receive medical care from clinic). At second stage, a bill is delivered to the insurer. In that bill, personal details, contents of medical care, total medical care fee, patient payable amount and claiming amount are filled up. Because of their complexity in calculation and claim process, the inaccurate bill could be charged patient and sometimes medical care fee claim to the insurer would be delayed for 2-3 months. The insurer judges the bill one by one, but due to the excessive volume to be examined, the necessary time in judging a case is no more than 29 seconds averagely in 1984. So it is deficient to judge the propriety and adequacy of medical care.

On the other hand, payment-reimbursement system greatly affects the access to health care

delivery system or health service as well as comprehensiveness of care. Supposing money makes the health care delivery system to drive, the current reimbursement system interferes with the patient's flow in the health care delivery system. A referral system is difficult to be happened between primary and secondary medical institutions.

Additionally current reimbursement system cannot induce the equal distribution of health resources such as manpower and facilities by regional groups. Under the current system, the patient payment system interferes with the utilization of medical care for low income people.

Eventually the equity between distribution of health resources and medical care utilization will be lost. More medical treatment than preventive care will make comprehensive care difficult so that there is less effect in the health promotion. Therefore in preparation for the implementation of national health insurance, the payment-reimbursement system must be improved to the following directions. After taking into account the people's economical ability to pay ;

- 1) enhancing the efficiency of health services
- 2) enlargement of the health resources
- 3) equal distribution by the regional groups
- 4) consolidation of function among the medical institutions
- 5) strengthening of preventive service
- 6) improvement of productivity
- 7) establishment of the health care delivery system
- 8) improvement of equity in health service
- 9) maintenance of health care quality.

This actually means the necessity for resolute innovation in the payment-reimbursement system ; namely it is required to convert to the prospective reimbursement method.

VI. Major Policy Issues

As discussed hitherto, the health care delivery system in Korea has reached a turning point in its historical perspectives. Now the major issues and problems have been revealed before us.

The national health insurance will cover all the people throughout the nation by 1989. In this respect, we can see that there are many problems unsolved before the national health insurance is carried into effect.

The health resource can be supplied unplanly and also without equity and efficiency. In this respect we are afraid that we cannot reach the final goal of the health insurance. There are many issues and problems which should be discussed. Among them we took some important policy issues. They are as follows :

1. Concensus on the Rising Health Expenditure

Is the share of health expenditure of GNP desirable or not? And what is the tendency of the rising medical cost? Should we cut down the health expenditure positively?

2. The Equity and Efficiency of Health Service

There still exist gaps of usage of medical service between regions and facilities, even though they become narrower. The medical needs are little different among regions. But the utilization of primary care is different among regions. Especially the difference of health benefit between the regional health insurance and the other types of insurance schemes is very big.

The rural residents and the urban low-income people will be completely covered by the regional health insurance by 1989. Is the difference of benefit covered by each type of health insurance scheme unavoidable or, should we made it equitable?

3. The Role of Hospital and Clinic

In the health insurance benefits report we can see that the hospital cost increases more rapidly than the primary care cost. Should the hospital-based system get on?

Should the primary care be wholly conducted by primary care institutions and the hospitals fulfill only their peculiar role (treatment of refered cases, education, research)? Or should these two systems be mixed?

4. Priority of Primary Care

When we think of equity and efficiency, we should put priority on primary care. What did the provision of inequity in primary care make? Is the primary care resources including human and physical resources distributed equally in regions? Is it from the specialization of medical care? Is it due to the fact the patient cannot choose the hospitals or clinics freely with type of health insurance scheme? Or is it from the payment-reimbursement system?

5. Health Care Delivery System for the Rural People

Nowadays rural area has richly been invested with public facilities such as health center, sub-health center and primary health post. So these public sectors take much part in primary care. We also have good results. But it is not enough for the achieving of equity in primary care. It is due to the low efficiency of delivering health service. If we invest richly in the sub-health center, can we achieve the equitable access to primary care, continuity and comprehensiveness of care? Or is only a temporary remedy?

Is it more effective that the sub-health center in rural areas should be run by others like insurance associations or individuals after it has richly been invested with human and physical resources according to its size of population? Is it possible that the existing health care delivery system can get equitable access to primary care for about 400,000 residents on 516 scattered islands?

6. Hospitals in Rural Areas

When we build hospitals for secondary care service in rural, are we based on the medical demand of the district? And how many beds should we have in these hospitals?

7. Health Care Delivery System

What interferes with the establishment and function of the health care delivery system? And

when we deal with this matter, should we go with the voluntary participation in the each unit in the health care delivery system or with the compulsory one resulting from the reasonable utilization of resources and the necessity of the delivery system control? Or should we find it out from the reform of payment-reimbursement system?

8. Payment-Reimbursement Scheme

Does the current fee-for-service lose more than gain? It loses the equity and efficiency and results in the rapid increase of medical fee. But it get doctor's freedom of care, patient's choice, and high quality of medical care. If we need another innovative payment-reimbursement system, should we find it out from the retrospective method like fee-for-service or from the prospective method?

9. Financial Input by the Government

In response to the national health insurance the increase of health expenditure is inevitable. The insured should bear the burden of the increasing health expenditure. And the government should input much more. Otherwise the coverage of medical benefits will be reduced.

Among these three alternatives, the financial input by the government is most practical one. Is it effective approach that the government should make up a deficit afterward? Or is it more effective that the government should input in the public facilities and reinforce deliberately the primary care based on the preestablished strategies and planning.

10. Reinforcement of Primary Care

For the equitable access to primary care, should capitation scheme be enforced as a method of the payment-remuneration of the primary care and national G.P organization as a new third party payer which is funded from each insurer be established. Is this proposal practical and effective?

11. Changes in Disease Patterns and the Measure for These

With the increase of the aged population and the advance in health condition, the chronic degenerative disease is the most important cause of death. And the accidents rank second. Is there any practical method which could make everyone take care of his health and the consumption of medical care by reasonable? To take care of the chronic degenerative disease, should the specialized hospital be established? And is nursing home necessary? And when a patient is held in his own home, can the pharmacy be useful under the prescription of a doctor, in the view points of utilization of existing resources?

우리나라의 醫療資源과 管理體系 — 歷史的 發展, 懸案問題, 將來展望 —

宋 建 鏞*

本 論文은 1989년 全國民 醫療保險의 실시를 전제로 하여 예견되는 醫療서비스 供給上 問題를 醫療資源을 중심으로 記述하고 있다.

醫療資源은 의료서비스의 공급면에서 전국민 의료보험의 성공을 결정짓는 중요한 要素이다. 따라서 우리나라의 醫療資源 및 그 管理의 歷史的 發展을 검토하고, 현재의 주요한 懸案問題를 도출 및 定義하고, 이에 기초를 둔 將來 展望이 필요하게 된다.

이러한 구상에 따라 本 論文은 1948년 정부 수립이후 현재까지의 社會·經濟, 人口의 變化를 분석하고, 將來 人口推計 및 人口構造上의 問題를 제시하고, 保健政策의 변화와 국민의 健康狀態를 기술하고 있다.

한편 醫療資源과 管理는 人的資源(의사, 간호사, 약사 등), 物的資源(病院, 醫院, 公共保健機關 등), 國民醫療費, 그리고 醫療保障制度和 醫療費支拂報償制度 등으로 구분하며 과거의 問題, 등을 분석·기술하고 있다.

이와 같은 分析·記述에 기초를 두어, 전국민의료보험하에서 모든 국민에게 기본적인 의료서비스를 效果, 技術의 效率, 均霑 등의 실현이란 관점에서 예견되는 주요한 政策과제로서 ① 의료자원의 적정공급과 管理, ② 의료수요증가에 대응하는 의료공급, ③ 의료비의 증가억제, ④ 건강증진대책 등이 제시되고 있다.

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