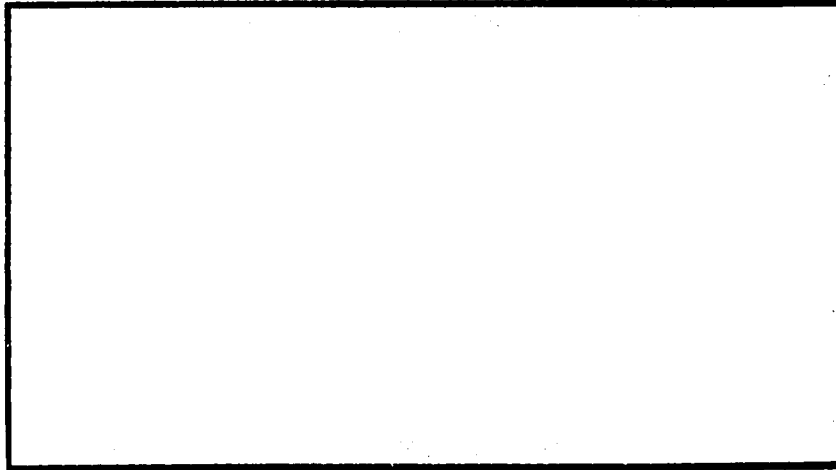


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A REVIEW OF THE KHDI HEALTH INSURANCE
PILOT PROJECT IN OKGU COUNTY, SOUTH KOREA

A Report Prepared By:
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I. INTRODUCTION

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With the assistance of the Agency for International Development (AID), the Korea Health Development Institute (KHDI) has been implementing demonstration projects in rural counties in Korea. One of its aims has been to determine whether the shortage and maldistribution of Western medical facilities in rural areas can be corrected by strengthening and, where needed, establishing primary care units that use the advance payment system of Health Maintenance Organizations (HMOs). KHDI and AID decided to pilot-test a health insurance program in Okgu County, one of the demonstration sites. The program was conceived as a model for the nationwide financing of rural medical care and as a source of cost and use data and other information.

Shortly after the proposal to conduct a health insurance study was accepted, Korea passed the Medical Insurance Act of 1976. That act made health insurance compulsory for all workers in enterprises with more than 500 employees (the number has since been reduced to 300) and for those located in industrial parks. The compulsory-insured (Class I-insured) were to organize medical health insurance societies. The rest of the population (including persons in rural areas) was invited to form voluntary health insurance societies (Class II-insured). The members of these societies were to serve as health insurance carriers (i.e., collect contributions and pay benefits).

Following passage of this act, the planners of the Okgu health insurance project decided not to institute a compulsory system. They established instead a voluntary medical health insurance society, the Okgu Medical Insurance Cooperative (a Class II health insurance carrier).

The Okgu Medical Insurance Cooperative was founded in September 1979. For this reason, the consultant was able to study only the first six months of the project. Few data were available and few could be secured from county ("Gun") authorities. Given these obstacles, the consultant reached no definite conclusions. Nonetheless, he obtained sufficient material to respond (if tentatively) to the questions posed and suggested possible topics for future research. Such research should be possible when the system reaches maturity in two or three years.

KHDI staff cooperated by providing the reports in their possession, securing requested data from Okgu authorities, and answering questions during meetings with top officials. The Korean Development Institute (KDI), which had made one interim evaluation of the Okgu health insurance program and was preparing a second, supplied much of the information conveyed in this report. The KDI officials in charge of the project attended various meetings with KHDI staff. The Department of Preventive Medicine and Public Health, Yonsei University College of Medicine, provided information on a similar experiment the school had initiated. The information obtained during interviews and from a review of the documents provided by Korean agencies, AID, APHA, and the former director of the KHDI, Dr. Park, is the basis for this report.

II. OBSERVATIONS AND FINDINGS

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Problems and Objectives

Poorly equipped Western medical facilities, a shortage of doctors and hospitals in rural areas, health care costs, and the reluctance of some segments of the rural population to use medical resources suggested the need for primary health care facilities that offered both public health and related programs, as well as simple curative assistance, and that could screen more serious cases and refer them to physicians and hospitals. One objective of the KHDI demonstration project was to strengthen existing facilities and to establish others that would provide such services. KHDI health planners attempted to upgrade the skills of paramedical personnel in various facilities through intensive training and to increase the rural population's awareness of the services these workers provide by setting up primary care installations in their communities.

The Organization of Primary Care

The organizational structure of primary care is described below. A distinction between primary and secondary care and between out-patient and in-hospital care is made.

The primary care organization rests on two installations: the strategically placed primary health units (PHUs) and the community health centers (CHCs). Community health practitioners, nurses who have completed one year of special training, head the PHUs. They are assisted by a small staff that includes a midwife. CHCs are directed by a government physician (a general practitioner) with the assistance of appropriate staff. Especially difficult cases are referred to specialists, usually private doctors, who may operate clinics and hospitals with more than 20 beds. Serious cases can also be referred to general hospitals with more than 80 beds.

Both PHUs and CHCs charge fees. They are financed by the central and local government and supported by the KHDI. Their main purpose is to provide access to modern medical care where none is available, or available only at great cost and distance. Their charges are a fraction of those levied by physicians and hospital out-patient services. Demand can be controlled because primary health care facilities are located in specific areas, but use of the referral system and of secondary health providers ensures that patients who require attention are seen.

The fee charged by a PHU is 33.8 percent of the fee a physician requests. Costs at CHCs are 56.4 percent of a physician's fee. Use of these primary health facilities has reportedly more than doubled since

the KHDI demonstration project began. The case load (28.9 per 1,000 per year) for hospitalization in Okgu County fell below the level (35.3 percent) reported for the same period by the Class I medical insurance program. This is a remarkable achievement, despite the sharp increase in Class I use rates and the lack of rural health centers.

With increased use of less expensive primary care and reduced use of higher cost secondary care, total health expenditures have fallen. The KHDI estimates that the total outlay for all types of health care (with the exception of hospitalization costs) for the insured population in Okgu County was 9.5 percent lower than that for the previous (uninsured) year. This estimate is based on data collected during the first four months and on the assumption that 2.6 visits are made each year. The KHDI estimate takes into account the shift in use from secondary to primary care facilities; it is not affected by health insurance and does not reflect the subsequent rise in prices, which might indicate an even higher rate of savings.

The Voluntary Health Insurance Component

Health Maintenance Organizations (HMOs) use an advance payment system. With this in mind, KHDI and AID staff decided to add to the Okgu primary health care demonstration project a voluntary health insurance component. The establishment of the voluntary Okgu Medical Insurance Cooperative was a natural outcome of the Medical Insurance Act, which required Class II insurance. Only eight voluntary medical health insurance societies have been formed since the 1976 law went into effect; 600 or more compulsory Class I societies have been established.

The Okgu experiment has achieved some status as a model for financing rural medical care. The only other similar experiment, one conducted by Yonsei University, failed to achieve Class II status. The outcome of the pilot program will prove or disprove the feasibility of using this mechanism to finance rural medical expenditures. The program is expected to yield data that will be useful in the nationwide application of the Class II concept.

Outline of the KHDI Health Insurance Program

Initially, KHDI health insurance was available in only one subdivision of Okgu County, the Daeya Myon. Subscribers now pay ₩ 400 capita a month. The typical five-person household pays ₩ 24,000 per year. The Okgu Medical Insurance Cooperative assumes 60 percent of the costs of all primary and secondary care and pays the heirs of a deceased member ₩ 10,000 (a funeral grant).

A. Benefits

As a Class II voluntary health insurance carrier, the OKGU Medical Insurance Cooperative can determine the benefits it will provide and the contributions it will make or require. The Ministry of Health and Social Affairs (MOHSA) is considering an amendment to the national Medical Insurance Act. If passed, this legislation would abolish voluntary Class II associations by extending compulsory coverage to the entire Korean labor force. With this in mind, it may be useful to compare the benefits and contributions of the KDI health insurance project with those of the compulsory-insured (Class I)

Benefits differ in three major ways. The constitution of the health insurance carrier stipulates that the benefits period be limited to 90 days; Class I nationwide protection extends to six months. There is a 40 percent coinsurance provision. The compulsory Class I-insured have to pay only 30 percent of the costs if they are out-patients (in hospitals with more than 20 beds, the figure is now 50 percent) and 20 percent if they are hospitalized. The compulsory-insured do not have to pay for certain kinds of medical examinations, drugs, prosthetics, and nursing and dental care. None of these items are mentioned specifically in the Okgu Constitution.

B. Present Contributions

The contribution exacted from Class I workers is about 1.5 percent of the payroll, to a ceiling of ₩ 600,000. The Okgu contribution amounts to approximately 1.1 percent of total earnings. In 1976, the average per capita earnings of urban workers exceeded those of rural-insured by less than 1 percent. The premium for Class I workers now also covers dependents. Thus, the compulsory scheme may offer better benefits than the Okgu program, although the insured make approximately the same contribution. However, Class I-insured benefits include an equal contribution from employers. The contributions of self-employed farmers would not, of course, be matched; therefore, the Okgu contribution is appropriate, given the lower benefits for the underserved medical supply system.

If Okgu and national benefits can be made comparable, the conversion from voluntary to nationwide compulsory coverage would be less difficult and the premium could be increased. Additional improved and well distributed health care resources are needed before benefits and benefit coverage can be made uniform.

The insured now realizes considerable gains. He pays only ₩ 360, instead of ₩ 900, when he visits a PHU, and ₩ 600, instead of ₩ 1,500, when he visits a CHC and receives the same service. As an out-patient of a private specialist, the insured pays ₩ 1,064, instead of ₩ 2,660, and only 40 percent of the cost for in-patient hospital care (estimated at ₩ 91,068 per case, or ₩ 13.198 per day). The Okgu Medical Insurance Cooperative pays the remaining 60 percent of the bill.

Physicians and hospitals are remunerated on a fee-for-service schedule (a point system) which the MOHSA sets for the national Medical Insurance Program. Providers receive 60 percent of the customary and reasonable fees they charge non-insured patients. The schedule, one of the outstanding features of the Okgu system, is revised periodically to reflect adjusted prices.

C. Coverage

Daeya Myon has a population of 16,900. Its indigent and near-poor population (approximately 5 percent) receive free or concessionary medical care under the national Medical Assistance Act. Government workers, teachers, and others are compulsory-insured (Class 1) under the national Medical Insurance Program. Those remaining--approximately 10,590 persons--are the target population of the Okgu program.

By April 15, 1980, 4,557 persons (44 percent of the target population in Daeya Myon) had joined the Okgu Medical Insurance Cooperative. Given the attitude of many citizens in Okgu County, this is an impressive figure. The need for and purchase of insurance are not well understood in rural Korea. Many rice farmers do not see any advantage in prepaying for health care while they are healthy. Others prefer family remedies to prescribed medicines and some rely only on a pharmacist's or herbalist's advice. Frequently, rural citizens will delay seeing a doctor or seeking hospital admittance until it is too late.

Interestingly, rural health statistics indicate that the health of persons in rural areas has improved considerably, regardless of the reason--better nutrition or the avoidance of professional help. The 44 percent participation rate contrasts well with the 20 percent rate reported by the Yonsei University Kangwha Health Insurance Project. Only 3,000 persons in the whole of Okgu County enrolled in the now defunct Korea Blue Cross insurance plan, which offered subscriber benefits in only one hospital, Segrave.

A small sample survey of representatives of community organizations was made before the Okgu Medical Insurance Cooperative was formed. The survey results can be discounted because interviewees were not obligated to take any action, although 78 percent said they would join the program and make some contribution.

There is some concern that the 44 percent participation rate was artificially derived. Some wonder if Okgu medical insurance is truly voluntary. Others question the cooperative's close ties to the central and local government (the government may subsidize the primary health care facilities; the chief county executive may be appointed chairman of the cooperative; or dues may be collected three months in advance) and local government efforts

to "persuade" citizens to enroll in the insurance program. Even more questionable is the KHDI's assumption of 50 percent of the contribution for 51 percent of the insured. It has never been clear whether this subsidy was granted to accelerate the project or to enable the poorer members of the target population to join the program. No information on the selection of the insured is available. The effect of a gradual reduction of the subsidy on the participation rate has not been determined. And the result of withholding the subsidy once AID financing ends is not known.

A study of these issues would be useful. The results could become the basis for a decision by the Korean Government to continue the Okgu program in the interest of offering continuous protection to the population at risk and of securing reliable research data.

Fears that the elimination of the subsidy would precipitate a reduction in the participation rate may be exaggerated. The project is only a few months old and the community has not had time to evaluate its benefits.

Community support has been gained using traditional methods. Leaflets have been distributed and support has been sought through agricultural cooperatives, village development movement ("Saemaul Undong") schools, and other local organizations. These efforts may have to be repeated continuously. Radio (100 percent ownership) and television (58 percent ownership) advertisements about the program may be needed. These would have to emphasize that the health insurance project is not a short-lived research experiment but the forerunner of a social movement supported by community leaders and serving the interests of all Koreans.

Korean society is changing rapidly. Reliance on traditional social attitudes is no longer recommended. It may be useful to survey the target population that is not insured to determine why these persons did not join the program and to identify special target groups that could be reached through intensified educational efforts.

In November 1979, Mr. Shim Seong Taek, county chief and leader of the Okgu Medical Insurance Cooperative, opened up membership in the health insurance project to other subdivisions in Okgu County. The constitution of the cooperative permits other "neighboring residents" to become members. Mr. Taek's action added 2,735 persons in 690 households to the membership rolls, which listed 6,949 persons by April 15, 1980. Increasing the insured at-risk population, spreading the overhead, and strengthening the project financially to serve the membership would be desirable.

Given the number of existing medical facilities, extension of the health insurance project to the entire county and initiation of a primary care demonstration project would increase the significance of the research findings. Quadrupling the size of the sample population reduces (by half) the risk of unreliable data.

One hundred percent coverage, which would be desirable in this experiment, can only be achieved through compulsory coverage. The MOHSA is now considering a recommendation on compulsory coverage.

D. Size of Future Contributions

Contributions to a voluntary health insurance program are assessed using data on and projections of program costs, use rates, morbidity rates, and the income distribution (ability to pay) of the target population. This information does not exist. Reporting of some data has never been required. Other data have never been collected. Furthermore, the size of the reserve fund, usually set when a project is first designed, has not been specified. This is hardly surprising. The insurance project was attached to another entirely different project. Neither social security experts, economists, nor statisticians were consulted when the experiment was first designed. Evaluation and analysis are impossible, given these conditions.

To arrive at a cost figure and to determine the size of the reserve fund, total cost must be reduced by eliminating the costs of non-curative functions (i.e., preventive health expenditures), which should not be charged to the insured. Only 60 percent of the curative cost can be used in the calculation. The insured carries the 40 percent coinsurance premium. All subsidies for PHUs and CHCs, the central government's subsidy (₩ 70 per contribution), and other grants must be added to derive a cost figure for the Okgu program that is comparable to those of other organizations, including Class I medical insurance societies. Some assumptions on future use rates, population, age distribution, morbidity rates, changes in provider costs, and inflation must be made to derive a reasonable estimate not affected by inflation. A relative value expressed as a percentage of rural per capita income may be preferable to a fixed rate.

KHDI staff estimate that a 50 percent increase in the present monthly per capita rate to ₩ 600 would cover the cost of the program. This claim can neither be analyzed nor disproved. Staff base this estimate on the present use rate, which is not stable.

A rough estimate of the ratio of the present contribution (₩ 400) per month and per capita to per capita income was made using data provided by Okgu County. If the data are applied to Daeva Myon, where the figures may differ, the result would be 1.1 percent.

Health insurance is beneficial. For example, it reduces per capita total health expenditures. In 1979, the non-insured Okgu County resident spent approximately 3.6 percent of his income on health care. The insured spent only 2.2 percent of his income.

A 50 percent increase in contributions would be acceptable since it would still benefit the insured (assuming income and medical costs (coinsurance) remain on a par).

Data on the typical five-person household were analyzed, and averages obtained. The results do not indicate how the health insurance contribution affects individuals and households with very low incomes. A schedule showing the distribution among the insured of income per capita and per family household would indicate how many subscribers are unable to carry the present premium without a KHDI subsidy, how many are likely to drop out of the program if the contribution were increased 50 percent, and how many would drop out

if all subsidies were eliminated. The results might confirm the need for a progressive rather than a uniform premium. The contribution could be based, for instance, on last year's tax returns or proof of substantial income loss. Any shortfall in revenues--the result of decreased contributions of poorer members--could be covered by the contributions of the more affluent insured workers or by the government.

Financing Okgu Medical Insurance

The medical insurance program is financed with per capita contributions, KHDI subsidies, and government support.

The local government sends out bills three months in advance. Premiums are paid to a Medical Insurance Cooperative employee stationed in a government building. The cooperative follows-up deficient subscribers by making house calls. Some premiums cannot be paid on time because rice farmers receive cash only after a crop is harvested. Some people do not pay because they are trying to withdraw from the scheme. The collection rate, 87.6 percent, and the attrition rate, 8 per 1,000 are quite acceptable.

AID finances 75 percent of the cost of the KHDI primary care demonstration program. The remaining 25 percent is carried by the central government. Both the central and local governments subsidize primary health care facilities because income from fees and some KHDI payments does not cover all service costs. To be viable, a PHU must serve at least 2,300 persons.

A question about the ability and willingness of the central government to assume AID's role once AID support ends has been raised. The KHDI assumes that the government will take over AID's role and that the 50 percent subsidy will be reduced. A study of income distribution in Daeya Myon would be useful in discussions on the subsidy.

It is likely that the Okgu health insurance project will continue. If the project were terminated, most Koreans would lose faith in social security.

This experiment is expected to yield useful information on health insurance programs for rural areas. Much research on the subject is needed. Research projects should be initiated within the next two to three years, when the pilot program stabilizes.

III. RECOMMENDATIONS

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The following action is recommended:

- o A voluntary health insurance project is feasible. To ensure that it becomes a basis for analysis and evaluation, it should be designed carefully. Subsidization should be kept to the minimum and gradually reduced until eliminated.
- o Medical resources for medical insurance programs are limited, as a study of Okgu benefits shows. As more resources become available, the scope, level, and duration of benefits could be extended until they are comparable to those offered to the compulsory-insured under the Medical Insurance Act.
- o The fees paid to physicians and hospitals by the Okgu Medical Insurance Cooperative are determined by the Ministry of Health and Social Affairs. A fee-for-service point schedule is used. This schedule applies nationwide and covers voluntary (Class II) medical insurance societies.
- o The 44 percent participation rate of voluntary subscriptions compares favorably with that of other similar insurance companies. This rate can be increased by intensifying information dissemination efforts, concentrating on suitable target groups, and using the media (radio and television) more. Target groups could be identified by surveying the non-participating population to determine why they have dropped out of programs or failed to pay their contributions.
- o The use of the KHDI's 50 percent subsidy raises questions about the public's attitude toward health insurance. Studies of the criteria KHDI uses to select subscribers for financial assistance should be made. The results would be useful in determining the type and magnitude of effort required to continue the health insurance program once AID funding ends. The effects of reducing or eliminating subsidies should also be determined. If studies shows that the public is wary of accepting insurance, a continuous, intensive educational campaign should be undertaken.
- o The project should be continued for at least two or three years to establish the data base for an analysis of the cost of health insurance in rural areas. The first steps--disaggregating costs and adding the value of subsidies--could be taken now. The costs of maintaining a reserve fund should be estimated. Data are needed to determine the size of contributions. To assess the ability of the membership to carry the cost, a study of the income distribution of subscribers should be made. If income differentials are great, a progressive contribution schedule should be prepared, regardless of government support of the system.

Appendix A
LIST OF CONTACTS IN KOREA

Appendix A

LIST OF CONTACTS IN KOREA

<u>Name</u>	<u>Title</u>
Younghat Ryu	President, Korea Health Development Institute (KHDI)
Chong Myun Chung	Secretary General, KHDI
Chu Hwan Kim	Chief, Planning and Research, KHDI
Joon Ik Park	Assistant Minister for Planning and Management, Ministry of Health and Social Affairs (MOHSA)
Doo-Ho Rhee	Director General, Bureau of Social Welfare Affairs (MOHSA)
Sung-Tae Youn	Director General, Bureau of Social Insurance (MOHSA)
Il Soon Kim	Yonsei University, Department of Preventive Medicine and Public Health, University College of Medicine
Chong Kee Park	Director of Research, Korea Development Institute (KDI)
Ha Chrong Yeon	Senior Economist, KDI
Yaesung Min	Chief, Health Planning and Policy Division, KDI

Appendix B
CORRESPONDENCE

UNITED STATES GOVERNMENT

Memorandum

TO : DS/HEA, Donald Ferguson

DATE: March 21, 1980

FROM : ASIA/TR/HPN, Donald MacCorquodale, M.D. *DMC*

SUBJECT: APHA consultants, KHDI project

I. If Dr. Paul Fisher, 7024 Bybrook Lane, Chevy Chase, Md. 20015, is an APHA consultant, please ask APHA to send him to Korea in April, 1980 for two-three weeks in association with the KHDI project. The scope of work is as follows:

1. To review methods to secure more participants under the voluntary health insurance scheme.
2. Recommend organizations to be responsible for the voluntary scheme.
3. Recommend the level of contribution per capita.
4. Recommend benefits to be provided under the voluntary scheme.
5. Review operation of the medical fee payment system, and
6. Recommend ways to secure financial support for sound operation of voluntary scheme.

Appendix C

**NOTES ON THE ORGANIZATION
OF THE OKGU HEALTH INSURANCE PROJECT**

Appendix C

NOTES ON THE ORGANIZATION OF THE OKGU HEALTH INSURANCE PROJECT

Medical Insurance Cooperative

There is little cause for or chance of replacing the Okgu Medical Insurance Cooperative. No urgent request to do so has been made. Nor has a viable substitute been recommended. To succeed, a carrier must establish a good relationship with local government, which, with central government assistance, subsidizes primary health care facilities and assists in the collection of premiums. The Okgu Medical Insurance Cooperative has strengthened its ties to the local government by making the county chief its own representative. To replace the cooperative, the basic structure of the system would have to be changed first. At this early stage of program development, this could be counterproductive.

KHDI

The Korea Health Development Institute is not well equipped to administer and analyze a health insurance scheme. The KDI has greater expertise in this field; KHDI should be encouraged to make better use of KHDI staff, since the staff of the MOHSA lack experience with and interest in voluntary health insurance programs in rural areas. It would be impossible to replace KHDI's leadership. This organization receives central government funds through the MOHSA. These funds will become more important when AID funds are no longer available. KHDI was chosen to implement the entire three-country primary care demonstration program. The health insurance project is only an addition to the larger program. No change in its organization should be permitted to endanger the entire AID financial program.