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JOINT AID/ROKG
Mid-Term Review

of the
Korea Health Demonstration Project

(AID Loan No. 489-U-092)

July 20-28, 1978

Consultant Contractor:
The America Public Health Association
Washington, D.C.

Korea Health Development Institute
Seoul, Korea

FOREWORD

On September 13, 1975, a LOAN AGREEMENT (AID Loan No. 489-U-092, Project No. 489-22-590-710) was signed between the GOVERNMENT OF KOREA and the UNITED STATES OF AMERICA, acting through the AGENCY FOR INTERNATIONAL DEVELOPMENT.

Under the terms of this loan, A.I.D. agreed to lend to the ROKG, pursuant to the Foreign Assistance Act of 1961, as amended, an amount of not to exceed Five Million United States Dollars ($5,000,000), to assist in financing the reasonable foreign exchange costs and up to 75 percent of the reasonable local currency costs of certain goods and services required to carry out this HEALTH DEMONSTRATION PROJECT.

It was agreed further that the "Health Demonstration Project" shall consist of(i) the establishment of a Korea Health Development Institute to plan, conduct and evaluate low-cost health delivery systems directed primarily toward low-income Korean families and (ii) the mounting and operation of a multi-gun (county), low-cost integrated health delivery demonstration and evaluation system.

Pursuant to the USAID/Korea Mission Evaluation Plan, the Ministry of Health and Social Affairs, the Korea Health Development Institute, and the AID Representative in Korea, proposed convening a team of experts (U.S. and Korean) to carry out a mid-term evaluation of the Health Demonstration Project. It was proposed that the team would make an in-depth analysis of KHDI activities to date, and would prepare a set of critical comments and/or recommendation for project direction during the remaining life of loan activity.

The President, Korea Health Development Institute, and the AID Representative, USAID/Korea, are grateful for the diligence and integrity of the participants in this Mid-term Review, whose names are listed on page 17 of this report. All participants worked long and arduous hours observing project activities, and discussing and compiling this report. We are especially grateful to the U.S. team of experts who took time from busy schedules, and who traveled such great distances to participate, and to their Korean counterparts, whose expertise and experience proved to be invaluable.

H. J. Park

Hyung Jong Park, M.D.
President
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William E. Paupe
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ACKNOWLEDGEMENTS

The Consultant team wishes to thank the Minister of Health and Social Affairs, the Honorable Mr. Shin, Hyon Hwack, for receiving the team with courtesy and for endorsing and supporting the midterm review of KHDI, and to thank Dr. Chang, Kyong Shik, Director General, Bureau of Medical Affairs, MOHSA, who participated actively in the review schedule.

In recognition of the significant effort which was required to organize an assessment, prepare background documents, and to arrange appointments and travel, the team extends its sincere appreciation to KHDI President Park, Hyung Jong, and to the able staff of KHDI. Without their intense effort and consistent responsiveness in providing project detail, it would have been difficult for the team to obtain an adequate understanding of the program.

The team recognizes the valuable contribution of Korean participants representing the National Health Council (Dr. Yang, Jae Mo), National Health Secretariat (Dr. Park, Chong Kee), Dr. Kwon, E. Hyock, and other members of the KHDI Board of Directors, the Universities, and other representatives of the Korean Health Professions. Also the team wishes to thank Mr. Park, Jin Ku, Director of the Saemaul Planning Division of the Ministry of Home Affairs who participated in the review and was helpful in increasing our understanding of the Saemaul Movement and its potential as a vehicle for future development of primary health care, in collaboration with KHDI.

By no means least, the team wishes to thank the County Chiefs in Hongchon and Gunee who cordially received the team, and for the field workers in each Gun who provided the team with valuable insight. We only regret that time did not permit us to visit the third demonstration area - Okgu - where we understand the projects are being pursued with equal vigor by the County Chief and the health workers.

We are pleased to acknowledge the participation of the World Health Organization at the review through the Resident Representative Dr. A. Rankin, and by K.S. Lee, who represented the Western Pacific Regional Office in Manila. The team is also pleased to acknowledge the participation of UNICEF in the KHDI demonstration projects, and the involvement in the review of Mr. Michael Park, representing Mr. Alan McBain, the Country Representative of UNICEF. Finally, the team thanks Mr. William E. Paupe, AID Representative in Korea, Mr. Kenneth F. Smith, Project Advisor, Mr. Neboysha Brashich, Program

Officer and Mr. Lee,Yong Hwan, Technical Assistant of the USAID/Korea Mission for their participation and support.

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REVIEW REPORT OUTLINE

GLOSSARY OF TERMS

KHDI	Korea Health Development Institute
KDI	Korea Development Institute
MOHSA	Ministry of Health and Social Affairs
MOHA	Ministry of Home Affairs
EPB	Economic Planning Board
NHC	National Health Council
NHS	National Health Secretariat
ROKG	Government of the Republic of Korea
KMA	Korean Medical Association
Gun	The administrative unit between Do (Province) and Myon or Eup, equivalent to a county
Myon	The administrative unit which consists of several Ris, equivalent to a township.
Ri	The lowest administrative unit which consists of several villages.
Ban	Sub-division of Ri.
Saemaul Undong	New village movement
Maul-Geon-Gang-Saup	The Korean phrase for "community health project"
CD	Community Development.
CP	Community Physician
CHP	Community Health Practitioner
CHA	Community Health Aide
VHA	Village Health Agent
VHC	Village Health Communicator
CHC	Community Health Center
PHU	Primary Health Unit
PHP	Primary Health Post
Won(₩)	Unit of Republic of Korea Currency (1978) US$1.00 = ₩485
DPT	Immunization for Diphtheria, Pertussis, Tetanus
BCG	Immunization for Tuberculosis (Bacillus Calmette-Guerin)
MCH	Maternal & Child Health
ADB	Asian Development Bank
IBRD	International Bank for Reconstruction and Development
UHSPH	University of Hawaii, School of Public Health
APHA	American Public Health Association
UNICEF	United Nations Children's Fund
WHO	World Health Organization

I. SUMMARY OF PRINCIPAL RECOMMENDATIONS

"It is inherent in success
that it demands greater effort."

Whitman

The Review Team considers that, in general, KHDI has made excellent progress in organizing its staff to develop and implement three different models of project activities in widely different, geographically separated areas of Korea.

The Team commends KHDI for its decision to implement these demonstration models through (and in close coordination with) the local "Gun" authorities, rather than as separate "pilot" projects administered and operated directly by KHDI. While the demonstration effect might possibly have been accelerated by a "pilot" project, the long term prospects for replicability should be enhanced by KHDI's approach in integrating the demonstration model with the existing government structure. Progress in the two areas that we visited (Hongchon and Gunee) is greater than we would have expected under these circumstances, based on our experiences in other health programs and projects in developing countries.

As in any complex social service development program of this nature and magnitude, there are some areas which still need concentrated attention and/or strengthening. These areas were not unknown to the Korean Government, KHDI or its advisors before our visit; however, through intensive discussion with the review team by all participants the spotlight has now been thrown upon them. The Team therefore submits the following broad recommendations which have emerged from this catalytic process, as a constructive contribution to Korea's future efforts in developing primary health care delivery systems for its rural areas.

OVERALL PROGRAM DIRECTION

1. Project Purpose

Although the project purpose will remain consistent with the original loan agreement, namely to plan, conduct, and evaluate low-cost integrated health delivery projects directed towards low income families and to demonstrate successfully a multi-gun, low-cost integrated health delivery system that is replicable, assessment of the achievement of these goals should be based on an analysis of the effect of

selected project components (such as the role of specific category of health workers) rather than a comparison of the comparative efficiency of each of the demonstration projects.

2. Service

Primary attention in the project should be redirected from curative medical care to individuals, and focussed upon providing preventive health services to the community. Specific Maternal & Child Health (MCH) activities should be undertaken for individuals in rural areas by trained Community Health Aides.

3. Coverage

The key indicator proposed for evaluating impact from these projects is percent of population reached by specific services or coverage. Present services and data are focussed primarily on curative activities. This should be totally reversed with primary attention to getting complete preventive coverage, especially with maternal services and child care through a deliberate extension service to homes.

4. Priority Target Population

Concentrated attention should be given to the poor, and their major health problems; particularly those problems which could be alleviated by appropriate preventive measures. In this regard, we recommend a major focus on preventive measures for women of child-bearing age, mothers, infants and children.

5. Community Participation

Increase community participation through the Saemaul Undong. This represents one of the greatest potential strengths of these projects.

INSTITUTIONAL DEVELOPMENT (KHDI)

6. Internal Organization

The internal organization of KHDI should be retained essentially in its present form for the purposes of loan project implementation.

7. National Health Planning & Evaluation

Beyond the current scope of work, KHDI offers an important potential for national health planning in Korea. In view of the

rapidly changing economic conditions and the need to propose viable health systems which can reach the population majority, efficiency requires that the Republic of Korea establish a health planning and evaluation unit with the capability to recommend appropriate technical and economic solutions within the context of national development. For this purpose, KHDI should receive careful consideration as the nucleus of a national health planning organization which permits assessment of health options in relation to all socio-economic development trends.

8. National Linkages

KHDI should continue to expand and strengthen its linkages with the Economic Planning Board, the Korean Development Institute, the Ministry of Home Affairs, Provincial Governments, National public and private institutes, and professional associations in order to understand and assess the full range of alternatives to improve national health levels.

9. International Linkages

One of the most constructive future roles of KHDI will be to serve as an international center for health planning, research and training. Possibilities should be explored for international support for expanding KHDI's capability to fill this important regional role.

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Further detailed recommendations on specific aspects of the development loan project are contained in Section IV of the body of the report.

II. INTRODUCTION

Since the turmoil of the Korean War, Korea has been able to produce excellent medical specialists and construct high quality hospital facilities. These, however, are currently accessible only to a minority of economically advantaged Koreans in major urban areas. In the rural areas, it is estimated that only 15-20% of all persons have access to hospitals or clinics; about 45% obtain their primary curative services from pharmacies or drug stores and 10% from herb doctors, while 30% receive no treatment.

Several surveys and a capstone study by Family Health Care, Inc., in June 1974 ("Steps Toward a National Health Strategy for Korea"), led to a joint determination between the Government of the Republic of Korea (ROKG) and the United States Agency for International Development (USAID) that the ROKG needed to develop a national health initiative and program which would expand health services to those citizens who are now excluded from the system.

Subsequently, a joint five-year health demonstration project was established under a $5 million USAID loan (counterparted with $1.7 million from the ROKG) which was signed in September 1975. This has recently been supplemented by a $558,600 grant from UNICEF. The current termination date of the project is September 30, 1980. The overall goal of this undertaking is to create and institutionalize a process which gives effective access to basic promotive, preventive and curative health services to low-income citizens at a cost affordable by the Government. The specific project purposes were to:

- Establish the capability within the ROKG to plan, conduct and evaluate low-cost integrated health delivery projects directed primarily toward low-income families; and

- Demonstrate successfully a multi-Gun (county) low-cost integrated health delivery system that is replicable in other parts of Korea.

It was anticipated that the following accomplishments would result through the successful implementation of this project:

1. A new semi-autonomous unit - Korea Health Development Institute (KHDI) - chartered, staffed and functioning.

2. The creation of a National Health Council to advise the KHDI, and to engage Korean multi-sectoral decision-makers in the formulation of national health policy.

3. The establishment of a National Health Secretariat under the aegis of the Economic Planning Board (EPB) to perform staff functions for the Council, conduct health research and planning, evaluate the programmatic experiences of KHDI, and distill policy-relevant materials from the KHDI and similar demonstration projects for the Council.

4. Initiation by the KHDI of several Gun-level (and at least one multi-Gun) health care delivery projects capable of demonstrating innovations which enhance accessibility to primary health care for low-income populations.

5. A program for training, deployment, and utilization of primary health care workers throughout demonstration areas.

6. Assessment of health care programs and on-going programs, and dissemination of findings through seminars, workshops, newsletters, and scholary publications.

7. Research on topics important to the development of national health policy relating to improvement in access and equitability for low-income populations.

III. MID TERM REVIEW

Evaluation is becoming an increasingly important aspect of international development projects supported by the ADB, IBRD, USAID and other donor organizations. Thus, when the workplan for the US/ROK loan agreement was prepared in January 1977, it was agreed that regular periodic reviews of the project would be held by AID with the Korean Government to assess progress in implementation, and to make helpful recommendations for further development.

The first such review was scheduled for February 1978, and annually thereafter. However, AID was unable to assemble a suitable team of consultants until July 1978. Nevertheless, this was still timely since it coincided with the completion of the Preparation Phase and the beginning of the Field Implementation phase of the project.

Purpose of Evaluation

In any project, reviewing what actually occurred compared to what was intended, is an important aspect of the project management cycle of "Planning, Implementation and Evaluation."

Evaluation enables us to highlight both the strong and weak points, and reach conclusions about whether the project achieved its purpose. This is necessary to determine whether further activity is desirable, and if so, of what sort. If successful, the project may be used as a model for replication elsewhere, while the experiences gained can provide the basis for formulating action program guidelines. Even when the project is deemed unsuccessful, evaluation is still useful by creating an awareness of the hazards likely to be encountered and the pitfalls to be avoided or overcome if the project (or something similar) is to be attempted again. This awareness in the form of "Lessons Learned" is an invaluable component of any institutional "memory".

Evaluation usually takes place after the project has terminated, when all the available facts, figures, experiences and opinions can be assembled, shared and assimilated. Although this is a useful process, the utility of evaluation can be enhanced by carrying it beyond the confines of the traditional "Post Mortem" stage, and conducting an earlier interim "check-up" on the project's operational well-being.

An outside objective viewpoint is particularly useful in complex projects for social change where multiple variables are involved and dynamic development may occur through interaction as the project unfolds. Although the participants actually involved in the project

are undoubtedly the most knowledgeable about the situation and its problems, often times, in the effort to implement (with the daily struggle of give-and-take) the objective may be lost sight of. Furthermore conditions of society sometimes change so that the original objective which everyone is so industriously striving to attain may no longer be appropriate. Under these circumstances, an external evaluation of "How Goes It?" by outsiders isolated from the daily turmoil (even with partial data and impressions) can be extremely useful. Such a periodic check can be conducted in a relatively short time by a team of professionals with experience from similar activities elsewhere. Their fresh viewpoint and timely diagnosis may help avoid premature project failure, and help assure that the young and still growing project attains full growth and maturity as most appropriate, obviating an "Unsuccessful" postmortem finding.

The review can provide reassurance to the project staff and others on those aspects where things are going well and need little if any change; give recognition to those involved for their efforts; while highlighting other aspects where timely changes or corrective action may be appropriate to the project's long run objective.

Formal evaluation can also serve as the means for generating and incorporating new initiatives required because of events which were unforseen at the time of project formulation, and for which no provision has been made under the existing guidelines.

Due to competing demands on their time, many of the individuals external to the immediate project (but with overall coordinative responsibility and/or authority) tend to lose touch with what is actually happening during implementation and their initial support and commitment may dwindle. By holding an intensive interim evaluation, and focussing upon the project's objectives and its continuing needs, both technical and administrative, this interest may be rekindled.

This review assesses the status of the KHDI project in terms of its original stated purpose and goals, timeliness and technical adequacy: and draws upon the joint experiences of the team to make some recommendations for change in technical concept and administrative support. We hope these comments will be accepted in the spirit of cooperative assistance which is intended and will be helpful to the Korean Government in future efforts to implement the concept of a replicable low cost health delivery system for Korea as envisaged under the Joint US/Korean Loan Agreement.

On July 20, 22 and 24, 1978, the Team met with AID/Korea and at KHDI with President Hyung Jong Park and his full staff, representatives

from EPB, the Ministry of Home Affairs, KDI, MOHSA and external consultants from Korean universities and professional associations.

In addition, field trips were made to two project sites - Hongchon, on 21 July, and Gunee on 25 July, - followed by intensive review and discussion at the Dogo Conference Center from 26 - 28 July.

The detailed list of participants, and program schedule for the review was as follows:

THE FIRST MID-TERM REVIEW MEETING OF HEALTH PROJECT
PROGRAM SCHEDULE

July 20 (Thursday)

10:00 Leave Hyatt Hotel

10:30 Meeting at AID

Attendees: Dr. Howard, Lee
Dr. Taylor, Carl
Dr. Wallace, Helen
Mr. Paupe, William E.
Mr. Smith, Kenneth F.
Dr. Park, Hyung Jong
Mr. Chung, Chong Myon
Mr. Brashich, Neboysha R.

12:15 Lunch at the Hartell House

Host: Mr. Paupe, William E., AID Representative

14:00 Meeting at AID to discuss Health Planning

Attendees: Mr. Paupe
Dr. Howard
Dr. Park, Hyung Jong
Dr. Huh, Jong
Dr. Chang, Kyong Shik

14:30 Hongchon Field Trip (Separately arranged)

July 21 (Friday)

20:30 Field Trip Return to Seoul (Hyatt Hotel)

July 22 (Saturday) — Briefings at KHDI

09:00-09:50	KHDI Project Rationale: An alternative for meeting basic health needs *Dr. Ahn, Sung Kyu Chief, Health Project Div., KHDI Dr. Lee Ge Yong, KHDI
09:50-10:50	Overview of Demonstration Project: *Dr. Lee, Sung Woo, KHDI Mr. Kim, Yeon Yeong, KHDI
10:50-11:50	Development of CHP Program Introduction: *Mr. Yoone, Kil Byoung Chief, Manpower Div., KHDI Training: *Mr. Nam, Chul Hyun, KHDI *Mrs. Kim, Jin Soon, KHDI
12:00-13:30	Lunch
13:30-14:00	Community Involvement *Mr. Yoone, Kil Byoung Chief, Manpower Division, KHDI
14:00-15:00	"Daedong Hoe" Cooperative *Mr. Kim, Kong Hyun, KHDI Mr. Kim, Soo Choon, KHDI

July 24 (Monday)

09:00-09:50	Major Findings of Baseline Survey *Mr. Song, Kun Yong Mr. Kim, Ung Suck
09:50-10:40	Other Development Activities, Seminars & Workshops including MCH Activities *Dr. Joo, Shyn Il, KHDI Dr. Han, Kyu Ho, KHDI
10:40-11:00	Coffee Break

July 24 (Monday) (Cont'd)

11:00	Leave KHDI for the Ministry of Health and Social Affairs
11:30	Courtesy call on the Minister, Mr. Shin, Hyon Hwack
12:00-13:00	Lunch at the Scandinavian Club Host: The Minister
15:30	Gunee Field Trip (Separately Arranged)

July 25 (Tuesday)

14:00	Leave KHDI for Dogo by AID bus
16:00	Arrive in Dogo and registration at the Lobby
19:30	Reception (Garden Party) Host: Dr. Park, Hyung Jong Mr. Paupe, William E.

July 26 (Wednesday)

09:00-10:30	KHDI Evaluation Plan and MIS Mr. Song, Kun Yong, KHDI
10:30-12:00	NHS External Evaluation Dr. Yeon, Ha Cheong, KDI/NHS
12:00-13:00	Lunch
13:30-14:00	Government Policy for Health Service *Mr. Chun, Byung Hoon Policy Coordinator, MOHSA
14:00-14:30	Role of NHS *Mr. Min, Jae Sung, KDI/NHS

July 26 (Wednesday) (Cont'd)

14:30-15:30	Health Insurance Scheme Dr. Kim, Joo Hwan Chief, Planning & Research Division, KHDI
15:30-15:50	Coffee Break
15:50-17:20	Presentation of Issues & Problems Mr. Chung, Chong Myon Secretary-General, KHDI Mr. Smith, Kenneth F., AID Project Advisor
19:00-20:00	Dinner hosted by the Governor, Mr. Chung, Suck Mo, Chungchong Namdo Province
20:00-20:25	Slide Briefing on the Saemaul Movement Mr. Park, Jin Ku Director, Saemaul Planning Div., MOHA
20:30-22:30	Discussion on Proposed Report Outline of Responsibilities

July 27 (Thursday)

09:00-12:00	Discussions on issues & problems
12:00-13:00	Lunch
13:30-17:00	Draft Recommendation for Final Report by the Consultants Team **Team Coordinators: AID: Mr. Smith, Kenneth F. KHDI: Dr. Ahn, Sung Kyu
18:30-20:00	Dinner
20:00-24:00	Draft Recommendations, continued

July 28 (Friday)

09:00-10:30	Draft Recommendations, continued

July 28 (Friday) (Cont'd)

13:30-17:00	Summary Discussion by Review Team on their appraisal and future direction of the project (All consultants and participants)
17:00	Leave Dogo for Seoul (On the way to Seoul, observe Saemaul Undong (New Village Movement) Project sponsored by the Ministry of Home Affairs at Buksoo-Ri)

Itinerary of Field Trip
for
AID Review Team

(Hongchon)

Party: Dr. Howard, Lee, AID/W
Dr. Taylor, Carl, Johns Hopkins University
Dr. Wallace, Helen, Univ. of California at Berkeley
Dr. Voulgaropoulos, Emmanuel, UHSPH/Hawaii
Mr. Smith, Kenneth F., AID/K

Dr. Park, Hyung Jong, KHDI
Dr. Ahn, Sung Kyu, KHDI
Dr. Lee, Ge Yong, KHDI
Dr. Joo, Shyn Il, KHDI

Dr. Yeon, Ha Cheong, KDI/NHS

Date & Time		Place & Activity
July 20 (Thursday)		
P.M. 14:00	Leave	Hyatt Regency Hotel, Seoul
14:10	Arrive	KHDI, Seoul
14:20		Overall Briefing on KHDI Demonstration Project
15:30	Leave	KHDI, Seoul
17:30	Arrive	Chunchon, Gangwon Province
18:00-18:30		Courtesy Call on the Vice-Governor
18:40		Check in the Saejong Hotel, Chunchon Stay overnight, Chunchon
July 21 (Friday)		
A.M. 08:30	Leave	Chunchon
09:00	Arrive	Hongchon Courtesy Call to the Gun Chief and Briefing on the Demonstration Project

July 21 (Friday) (Cont'd)

A.M.	10:30	Leave	Hongchon Gun Office
	10:35	Arrive	Gun Health Center
	11:35	Leave	Gun Health Center
P.M.	12:00	Arrive	Yeok Jon-pyong Primary Health Unit
	12:30	Leave	Yeok Jon-pyong Primary Health Unit
	13:00-14:00	Arrive	Hongchon & Lunch
	14:00	Leave	Hongchon
	15:00	Arrive	Moolgeoli Primary Health Unit
	16:00	Leave	Moolgeoli Primary Health Unit
	17:00	Arrive	Hongchon
	17:30	Leave	Hongchon
	20:30	Arrive	Seoul Hyatt Regency Hotel

Itinerary of Field Trip for AID Review Team

(Gunee)

Party: Dr. Howard, Lee, AID/W
Dr. Taylor, Carl, Johns Hopkins University
Dr. Wallace, Helen, University of California at Berkeley
Dr. Voulgaropoulos, Emmanuel, UHSPH/Hawaii
Dr. Kessler, Susie, American Public Health Association
Mr. Smith, Kenneth F, AID/K
Mr. Brashich, Neboysha R., AID/K

Dr. Park, Hyung Jong, KHDI
Dr. Lee, Sung Woo, KHDI

Dr. Yeon, Ha Cheong, KDI/NHS

Dr. Rankin, A.M., WHO/K
Dr. Lee, Kyung Shik, WHO/Manila

Date & Time		Place & Activity
July 24 (Monday)		
P.M.	16:00	Leave for Taegu
	20:30	Arrive Taegu Check in the Geumho Hotel, Taegu
July 25 (Tuesday)		
A.M.	08:30	Leave Taegu
	09:30	Arrive Gunee, Gyeongsang Buk Province
	09:30-10:10	Courtesy call to the Gun Chief and Briefing on the Gunee Demonstration Project
		Visit Herb Doctor en route to Gun Health Center

July 25 (Tuesday) (Cont'd)

	10:50	Arrive	Gun Health Center
	11:15	Leave	Gun Health Center
	11:30	Arrive	Hyoryong Primary Health Unit
	12:00	Leave	Hyoryong Primary Health Unit
P.M.	12:30-14:00	Arrive	Gunee, and Lunch
	14:50	Arrive	Buge Community Health Center
	15:20	Leave	Buge Community Health Center
	15:40	Arrive	Daeyul Primary Health Post
	15:50	Leave	Daeyul Primary Health Post
	20:00	Arrive	Dogo Hotel

PARTICIPANTS FOR REVIEW MEETING OF HEALTH PROJECT

Participants

Dr. Kim, Jae Ik

Dr. Chang, Kyong Shik

Mr. Park, Jin Ku

Dr. Huh, Jong

Dr. Chun, San Cho

Dr. Koo, Yun Chul

Dr. Yang, Jae Mo

Dr. Kim, Il Soon

Dr. Park, Chong Kee

Dr. Park, Hyung Jong

Mr. Paupe, William E., AID/K

Dr. Howard, Lee, AID/W

Dr. Taylor, Carl, Johns Hopkins Univ.

Dr. Voulgaropoulos, Emmanuel, UHSPH/Hawaii

Dr. Kessler, Susi, APHA/W

Dr. Wallace, Helen, Univ. of California at Berkeley

Mr. Brashich, Neboysha R., AID/K

Mr. Wight, Leon, AID/K

Team Coordinators

Mr. Smith, Kenneth F., AID/K

Dr. Ahn, Sung Kyu, KHDI

* * * * * * * * * * * * * * * * *

Observers

WHO

Dr. Rankin, Alexander M.

Dr. Lee, Kyung Shik

UNICEF

Mr. Michael Park

MOHSA

Dr. Che, Ik Han

Mr. Chun, Byung Hoon

Mr. Moon, Chan Hong

KDI/NHS

Dr. Yeon, Ha Cheong

Mr. Min, Jae Sung

AID

Mr. Lee, Yong Hwan

KHDI

Mr. Chung, Chong Myon

Dr. Ahn, Sung Kyu

Dr. Kim, Joo Hwan

Mr. Yoone, Kil Byoung

Mr. Chung, Woo Tack

Dr. Lee, Sung Woo

Dr. Lee, Ge Yong

Dr. Joo, Shyn Il

Mr. Song, Kun Yong

IV. FINDINGS AND RECOMMENDATIONS

A. DEVELOPMENT AND ROLE OF KHDI

The 4th Five Year Plan of the Republic of Korea (1977 - 1981) has a social objective of providing "effective access to promotive, preventive and curative health services to low-income citizens at a cost affordable by the Republic of Korea". One of the two major goals of the 5 year USAID loan project to Korea in this time period is to establish KHDI, to provide the government with a means for planning, conducting and evaluating low-cost health delivery systems directed to attaining these ends.

The team reviewed KHDI's internal organization and staffing, as well as its external relationships to determine whether KHDI is providing an adequate institutional base in terms of achieving the loan project's objectives.

Internal Organization

The team endorses the current organizational components of KHDI - namely a Health Projects Division, a Manpower Development Division, and a Planning & Research Division, with a Supporting Administrative Division. Presently the four divisions tend to develop their various program activities independently of one another and there is little overall integration. Each of these divisions has clearly defined tasks, with relatively little overlap. However, the Team feels that some benefit could be gained by strengthening the authority of the Health Project Division vis-a-vis the others in KHDI, to coordinate and implement all of KHDI's activities, under the general management direction of the President (or Secretary General, in the President's absence).

The Team recognized that KHDI is exploring a new dimension in health services, and that the program is still at a relatively early stage. However, the Team felt that KHDI was effective, responsible and energetic in executing its role.

The Team was made aware of the fact that KHDI has recently been tasked to carry out additional responsibilities in health planning which impinge upon policy development. While this is a favorable indication that KHDI is being recognized by the Ministry of Health and Social Affairs to play a role in policy consultation, the added responsibilities will create an overload on an already fully occupied staff in developing, monitoring and evaluating the three demonstration

areas. In the short run, KHDI's consultant structure can be used to mobilize a wide spectrum of Korean and international expertise in Health Research, Planning and Evaluation, but for the long run, we recommend that the KHDI staff be strengthened with additional full-time expertise in these areas.

Staffing

KHDI has assembled an initial core of personnel with a wide variety of backgrounds appropriate to developing a technical training program and implementing health field projects in coordination with the Provincial and Gun Administrations. This staff has done an excellent job to date, but is now stretched to its capacity at this point both in terms of numbers and depth. Each of the divisions within KHDI need strengthening by additional personnel, and through further training (short, and long term) in each of the appropriate disciplines if KHDI is to acquire the reputation for national and international leadership in Health Research, Planning and Demonstration Project Implementation; which role, the government apparently envisaged by recently according KHDI permanent status.

External Relationships

The team was favorably impressed with KHDI's application of the concept that improvement in rural health is a consequence of many different national sectors such as economic development, community participation, education and political representation.

KHDI, through the Minister of Health is represented on the National Health Council with other key ROK Ministries and university representatives. Through the Council, KHDI maintains liaison with the National Health Secretariat which permits access to the economic development staff at the Korea Development Institute.

These formal linkages have the added advantage that KHDI experience may be readily brought to the attention of senior staff of KDI, the Economic Planning Board, and the Deputy Prime Minister who collectively influence national planning outcomes in many developmental sectors.

Of equal practical importance and as a measure of its institutional role, KHDI is effectively maintaining liaison with political representatives in the Provinces (Governors, and Gun Chiefs) to whom the operational authority for field project performance has been given. By retaining a sense of responsibility at the level of the Ministry of Home Affairs, the demonstration project is becoming of major interest

to the SAEMAUL UNDONG (New Village Movement) stimulating community participation which will be essential to a long range primary health care strategy.

In spite of many difficulties, from the favorable response of MOHA officials observed in Hongchon and Gunee Guns, the team considers the KHDI institutional structure and performance to be very satisfactory.

Finding

Because of wide differences in points of view within the ROK Government, university and private medical associations with respect to appropriate health systems; as well as marked maldistribution of health services and personnel in favor of urban areas; and wide variation and rapid changing rates of economic development between urban and rural areas, - there is a need for improved and sustained national capability for assessing health experience, developing, testing and evaluating appropriate systems, and formulating alternatives for use by the Government.

At present, the location for national health policy planning is scattered in a number of places. Within the Government, the Ministry of Health and Social Affairs has a planning unit. Through the MOHSA, the KHDI is now assessing the rural service dimension of planning. Policy alternatives are assessed by the Ministry of Health & Social Affairs, by the NHC and the EPB. The private sector, including the universities, is also exploring its own alternatives through a number of demonstration programs.

Future Potential Role

Given the inherent nature of national health levels as a multi-sectoral outcome, this diffusion of sources of study, evaluation, and even decision-making may not be a disadvantage. However, the rapidity of economic development and national sense of urgency to achieve social equality and self-reliance (e.g. Saemaul Undong) require, for national efficiency that the Government establish at least one permanent agency or institute to provide policy and planning guidance. Without a national institute to identify and evaluate ongoing Korean experience in health service, encourage additional experimentation where needed, assess the impact of economic change, and formulate national plans, the Government may be unable to resolve current problems of mal-distribution.

The team is pleased to learn that the MOHSA has accorded permanent status to KHDI. In the absence of details, however, the team strongly urges the Government to favorably consider the development

of KHDI as the permanent national health planning and evaluation institute for the MOHSA.

B. FIELD PROJECTS

1. Overall Program Direction

Even though actual field work in the three projects started just twelve (12) months ago and full implementation was not achieved until this month, the Review Team feels that sufficient progress has been made to indicate that there is good potential for success. An overall approach has been developed and field programs started which show great promise. The projects are already beginning to provide realistic coverage and innovative adaptation. While delays in getting started were unavoidable, the preparatory time seems to have been well used and a high momentum of useful activity is evident.

The projects have focused immediate attention on getting minimal services widely distributed with the intent that specific qualitative elements will be promoted later. A beginning has been made through establishing a Village Health Agent (VHA) in 35% of the villages of Hongchon. In Gunee Gun 177 Village Health Communicators (VHC) have also been recruited.

The original project design was set up to test three (3) different models of health care. For Hongchon, the model emphasized community involvement such as community health cooperatives and strengthening of the rural health infrastructure to support primary health care with an emphasis on primary health workers in the community at the village level. For Gunee the primary thrust was in reorganizing existing government health services into a three-tiered primary health care system with main emphasis on the improvement of maternal and child health. In the third area, Okgu, effort was concentrated on developing a health insurance scheme affordable to both the government and the community, and establishing outreach clinics for health care delivery to the rural areas and off-shore island population, with minor modifications to the existing government health network.

Two demonstration sites were visited, one in Hongchon Gun and the second in Gunee Gun. In the short time the project has been in operation in the field remarkable progress has been made in placing and training health personnel and providing health services. Some problems have developed that are affecting coverage of the target population and we feel that some actions can be taken to improve coverage with the planned services.

From our observations; a striking feature is that the Gun "models" seem to be converging spontaneously as service models evolve.

Final decisions are made by "Gun" and "Myon" (i.e. county and township) administrators. When officials hear about an innovation that seems to be a good idea they apparently want to implement it as soon as possible. For instance, Gunee has moved ahead with the concept of Village Health Agents even though it was not in their original plan. While this is desirable, such convergence and ad-hoc improvisation in project design will create difficulty in making clear comparisons between the three Gun models at the end of the project. Serious efforts to make comparative analyses should not be given up however, but rather shifted. Delays in starting the Okgu Gun project have been partly because the Ministry is starting to implement a national health insurance plan and it is not yet clear how the Okgu project activities might relate to the national program.

Another problem in evaluating the impact of any overall package is the rapid socio-economic development in Korea which is accelerating changes in numerous interacting variables. There is still a need for KHDI to evolve an overall package of rural health services but with flexibility in implementation depending on local needs. Therefore the general model which will evolve for national replication will have to be flexible rather than rigid.

It is the Review Team's consensus that to be most meaningful, an assessment of impact should be based on specific project components rather than a total "model". These components will have to be studied functionally, especially in terms of coverage by preventive services. Each component of services which have demonstrated their value will be adopted and implemented promptly in other areas.

These components should be analyzed in terms of specific cost effectiveness. Administrators will tend to choose among components and selectively implement a package of components which meets the needs of their own situation. (For instance, it seems likely that there will be rapid implementation in various provinces of the notion that CHA's need to be retrained to integrate family planning, MCH and Tb services. Also the possibility of using VHAs may be rapidly picked up by the Saemaul Undong. However, because of the need for extensive training, it may take longer to get effective implementation of the CHP and community physician components of services. This needs careful planning and coordination because of the need for supervising peripheral workers for them to produce the impact of which they are capable). This will necessitate a process of dynamic change within the project to stay ahead of government decision-makers.

2. Program Elements

a. Coverage

The principal objective of the project is to establish several gun-level community health care delivery systems to demonstrate innovations which would enhance accessibility to primary health care for low income populations.

The total number of people to be reached during the life of the project was originally estimated to be about 500,000.

KHDI estimates that the majority of the low income population lives in rural areas where only about 65% of the population currently has access to medical care (regardless of income level) and where only 10-15% of maternity patients are delivered by a trained person. Under these circumstances, most people obtain their treatment from drug stores, herbalists, and other sources outside the formal health system.

The "innovations" developed by KHDI to enhance accessibility to primary health care for low income population include:

(1) Physician extenders, i.e., community health practitioners supported by community health aides at the Myon level and by village health agents and village health communicators at the village level.

(2) Integrated public health services such as MCH, tuberculosis, nutrition and family planning at the Myon and village level.

(3) Coordinated community-wide efforts to improve environmental and personal sanitation.

(4) Public information and educational efforts to improve environmental and personal hygiene.

(5) Use of pre-payment scheme for health services

Although the population in an area can be quantified, and the means by which it is "reached" or "provided services" can be described qualitatively, the method for measuring the actual coverage has not yet been developed satisfactorily.

Various categories of health manpower have been developed to reach the target population with basic health services. At the village level, lay workers (Village Health Agents) are expected to provide information, screen for certain conditions and give simple treatment and/or referral. At the sub-myon and myon levels Community Health Aides and Community Health Practitioners provide specific limited

services at primary health posts and units and a wider range of curative services under the general supervision of the community health physician at the Community Health Center, at the Myon and/or Gun levels. (Initial planning called for one community health practitioner per 13 to 15,000 people and one community health aide for 2 - 4,000 population).

From the standpoint of providing curative care, in the narrowest sense, those patients actually receiving treatment at a health facility (or by a health worker) can obviously be included in the "covered" category. But for those residing in the area within walking distance of the facility, but who do not require (or do not avail themselves of) its direct services, the extent of the "coverage" is not as clear cut. Furthermore, merely having a health facility in a designated administrative area such as a Gun, Myon, or even Ri does not necessarily mean that it is accessible to all the residents of that area. As we saw in Hongchon, because of poor roads and lack of transportation, it is most unlikely that people living outside the immediate area in which the facility is located will go (i.e. walk) to it for medical assistance. For preventive service, the concept is even more difficult to define and measure. The general preventive aspects of health service delivery - such as sanitation and hygiene - are largely indirect and community oriented, rather than individualized preventive care and attention (such as maternal and child health) which could be measured in terms of contacts with health workers for examinations, vaccinations, etc.

At present it is estimated that the majority of persons coming to health facilities travel less than 4-6 Km. Since this represents in fact only 50% of the Gun population, it is evident that effective coverage will require more active outreach through village workers. Even persons who reach the CHCs and PHUs have to invest considerable time and effort in travel. As indicated in Tables 1 and 2, patients have to travel from 40 to 75 minutes, and many of them come on foot.

Table 1. Average Time to Reach Sources of Medical Treatment

	Mean (in minutes)
Hongchon	74.6
Gunee	73.1
Okgu	40.7

Table 2. How Medical Care Source is Reached

	On Foot only	Bus or Other Trans.
Hongchon	60.9%	30.1%
Gunee	47.3	52.7
Okgu	42.5	57.5

The closer the health worker is to the community being served both in distance and attitudes the more numerous the contacts with the population will be. In Hongchon, the VHA is the primary contact and in Gunee Gun it is Village Health Communicator (VHC). In order to maintain continuous contact with the population on health matters and motivate their participation in health effects, one VHA or VHC should be identified and trained for each Ban or natural village.

From this standpoint, it could (and has been) argued that total coverage of a sort has been attained when a Village Health Agent (VHA) has been established in each residential area, and the question is then no longer one of service coverage, but rather one of quality. However, it is the Team's judgement that designating an untrained part-time, unpaid, volunteer housewife in each residential area (ri or ban) as a Village Health Agent (VHA) as the lowest step in the tier for primary health service delivery - while a laudable first step - does not of itself provide the necessary basis for determining that coverage has been attained. For one might reasonably ask - "Coverage (or service) for What?". Thus, a careful review and discussion of the VHA's basic duties and responsibilities, including advocacy, health education, possible role in preventive services (MCH as well), and treatment services is called for. Only then could a plan be made for their training which would ensure adequate coverage.

The team therefore recommends that KHDI give immediate attention to developing and establishing some standardized criteria for measuring project coverage in and by various categories.

In examining this problem of measurement, coverage should be considered from two perspectives:

1. The number of persons to be reached (target population) in terms of their characteristics (i.e. age, sex, location, high risk); and

2. the types of health problems and conditions to be improved by specifically defined services and activities.

For example, from our discussions with the KHDI staff and others, we learned that about 85% of pregnant women received no professional pre- or post-natal care; about 80% of births are attended by relatives and neighbors, and relatively few attended by trained midwives or physicians. Thus, three high priority sub-populations (among others) for providing individualized preventive service should be "all women of child bearing age", "infants and pre-school children" and "high risk" individuals.

Our rank ordering of the health problems and conditions related to the corresponding health services to be provided at the Myon and village level are:

	PROBLEM		SERVICES
1.	High rate of common communicable diseases preventable by immunization.	1.	Immunizations, (DPT, Polio) 80% of target group
2.	Maternity care provided by untrained personnel with prenatal problems for mother and child including neonatal tetanus and other infections related to childbirth, birth trauma, and lack of care for delivery complications.	2.	a. Instruction and "delivery kit" to mothers and attendants. b. Increase access to prenatal and postnatal services. c. Increase availability of CHAs and nurse-midwives well trained in midwifery. d. Immunize mothers with tetanus toxoid.
3.	High incidence of waterborne diseases	3.	a. Enforce sanitation laws. b. Increase availability of potable water through Saemaul (New Village) Movement. c. Education efforts.
4.	Malnourishment	4.	a. Nutrition education b. Breast feeding instruction c. Weaning foods d. Child spacing e. Supplemental iron and folic acid.
5.	Unwanted pregnancy	5.	Family planning services

PROBLEM	SERVICES
6. Cost of professional health care.	6. a. Community health practitioner, CHA, VHA to care for common problems. b. Referral system to Gun Health Center for more complex problems. c. Develop an individual or community health insurance system. d. Preventive measures as major emphasis.
7. Emergency treatment	7. Establish first aid emergency referral centers (train members of women's clubs, new village movement leaders).

The services outlined above constitute key elements in a primary health care network being established in the demonstration areas.

Adequate identification of the high risk groups in the target population is essential to assure coverage. Although the preliminary household surveys have provided the first step in this direction a simple continuous reporting system needs to be further developed with regular surveillance for high priority conditions.

The system should be strengthened so that information of vital events (registration of live births, deaths, and fetal deaths) and services performed is identified and recorded promptly. Records of households and vital events should be kept in the home of the VHA or VHC in the Ban or natural village and reported regularly to local health facilities.

Systematic use of growth charts to ensure regular weighing of infants and children is a useful way of ensuring surveillance to reach individual households.

b. Curative/Preventive Balance

The long range improvement of health status of all the people, and especially the poorest, depends more on prevention than on curative activities. The major health problems identified in rural low income populations of Korea are (1) communicable diseases including those resulting from inadequate sanitation and safe water supplies (2)

neo-natal tetanus and other infections and problems related to child-birth (3) unwanted pregnancies (4) poor nutrition in women of the child bearing age, infants and children (5) high cost of medical care and difficult access to health system because of cost and transport (6) emergency medical care and (7) inadequate prenatal, delivery, and postpartum care. Solutions to these problems are primarily in preventive, educational and promotive activities. This concept is the basis of the Maul-Geon-Gang-Saup project. Accordingly, the health services and activities to be conducted by the project should be primarily preventive in nature and should focus on women of child bearing age, infants and pre-school children. The concept also highlights the need to provide services at the village (Ri and Ban) level and to involve both the public and private sectors in providing health care.

However, the current training program for the community health practitioner is mostly directed toward medical care. Partly as a consequence of this emphasis in training and also because of patient demand and transportation problems, the CHP has focused on providing curative services. The CHP has been limited in her supervisory efforts relating to the CHA, the VHA and VHC. Preventive measures do not produce immediate impact and usually require continuing community education, motivation and opportunities for real involvement in practical tasks. Training of health workers, supervisory activities and management of services need to reflect this important aspect of preventive measures.

We therefore recommend a major reorientation and that emphasis be given in the project's implementation to those aspects dealing with preventive and health promotive capabilities. The CHPs should be given additional training in these areas as well as MCH, and the VHA and VHC training programs should be strengthened to reflect a strong concern with preventive and health promotive aspects.

c. Staffing patterns

The basic staffing pattern for the project model is as follows:

1) The Community Physician (CP) - Mostly elderly doctors residing in the area, or recently graduated, but with no additional training in community health work. They are frequently recruited because of inducements other than a basic interest in community health work. Their primary work and interest have been largely in treatment of illness.

2) The Community Health Practitioner (CHP) - These are almost always nurses with considerable experience in hospital nursing who have had additional training at KHDI (one year) including field practice. Some have also had training in midwifery. The CHP is responsible for curative treatment as well as preventive work. A list of 50 drugs is available for their use, which include potent antibiotics.

3) The Community Health Aide (CHA) - These are usually nurse aides, who have been working in one of the vertical national programs in family planning, MCH or tuberculosis control. Their functions are now being combined into a multipurpose health worker (CHA). Considerable efforts are needed in re-training to broaden their previous limited approach and overcome natural resistance to such change. One of the strengths of the CHA is the focus on prevention. This group probably has the greatest potential to be trained as midwives.

4) The Village Health Agent (VHA) and Village Health Communicator (VHC) - These are older women, highly respected in their communities, who have established their position of leadership in such activities as women's clubs. They are part-time volunteers in the KHDI program, and as yet have not had adequate training. They are not fully carrying out such functions as record keeping, surveillance of households and families, or systematic health education on a regular schedule. In Hongchon Gun, they are provided with 6 simple drugs for distribution.

The Review Team itself is divided on the utility of such a lay-worker in delivering health care. Some feel that she should receive first-aid and home nursing training and serve as a resident health "communicator" with her village, to link with the health facility and health personnel assigned there. Others feel that although the VHA may serve a useful role in enlisting community support for health education activities, and health workers, the base level for providing service should be a full-time trained and qualified individual, and that a system based on part-time volunteer workers is unsuited to modern Korea. Therefore the VHA's potential for an expanded role should be studied experimentally and systematically, including the possibility of a domiciliary midwifery service, i.e., the provision of prenatal, delivery, and postpartum care by trained midwives, with delivery at home. The concept of setting criteria of high risk and

screening for high risk pregnant women should also be considered.

Of the various categories described above, the CHP has had the most formal education and most experience in community health work. This is quite appropriate because the CHP will be the key person in supervision of the CHA's, the VHA's and others in increasing community involvement in health care.

Other health providers in the private sector of the demonstration project have been identified by the preliminary health survey. Efforts are required to appropriately integrate private physicians, herbalists and other practitioners into the health care system being developed by the demonstration project.

d. Curriculum and Training

KHDI's manpower development division is to be congratulated on the extensive and generally well designed plans for training, retraining and upgrading the various levels of personnel in the new rural health delivery system. These are well outlined in the material provided to the team. A number of significant accomplishments have been achieved, particularly the development of the new CHP.

However, some important gaps are apparent. Fuller implementation of training plans, intensification of the training effort and some modifications of emphasis are required if the demonstration systems are to achieve their potential.

Major attention has thus far focused on the training of the new "physician extender" - the Community Health Practitioner (CHP).

Greater emphasis must now be given to the training programs for the other categories of personnel (CP, CHA and VHA), and developing a broader education and training effort to reach all involved individuals and groups in the community, in order to get their support for the system. This would include the community leadership; administrative, technical and support personnel of the subcenters, community centers, referral hospitals; and to the extent possible, personnel from local training institutions. The manpower division has already considered some approaches for accomplishing these objectives. More frequent conferences and seminars for different categories of personnel represent one

option. A roving training team deployed from KHDI is another possibility.

Development of the training programs by KHDI reflects a commendable interest in obtaining inputs from a wide spectrum of sources, notably the WHO, UNICEF and the "Lampang Project" in Thailand. The KHDI training staff itself includes two physicians, an educator/CD specialist, a nurse and a public health specialist. A task force was assembled to develop training materials for the CHP training effort, and teachers for the training program were recruited from numerous services and institutions. While some effort was made to provide orientation to the trainers, it appears that the training of trainers was not extensive.

For both the immediate and long term, the establishment of a trainer training team at KHDI is recommended. Attention should be given to training of these trainers, with particular emphasis on introducing more active teaching methods, use of audiovisual materials and more dynamic training approaches. This team would then assume the major responsibility for and methodological training of each of the recruited trainees.

To accomplish this the KHDI training team should be exposed to training orientation methodology skills through both participant training and short term technical consultation by educational technologists.

Training of the CHP

The framework for the training of the CHP has been well developed. The program (3 months classroom training, followed by 3 months clinical preceptorship followed by 6 months field practice) provides competency-based training with emphasis on practical skills. Although the curriculum covers curative, preventive and promotive health care, the balance quite definitely favors curative care. Of the six training modules developed, for example, none deals entirely with preventive and promotive activities and only one (vol. III) covers community health problems.

While we are aware that the emphasis on curative clinical problems reflect the fact that these are new skills to be acquired by the CHP, the training imbalance is reflected in the CHP's performance where major emphasis is placed on curative functions at the Primary Health Unit. Preventive and health promotional activities planned have also been limited because of transportation

difficulties and the load of medical care. Strengthening the preventive curriculum is absolutely necessary if the CHP is to have the desired community impact as a provider of comprehensive primary care.

Lack of transportation has limited the ability of primary health unit personnel (CHP, CHA) to systematically supervise and support VHA and VHC's as well as provide educational services to communities.

Another aspect of the CHP training which requires strengthening is the supervision of the field practice period. The CHP needs more field direction, either through more intensive involvement of the Community Physicians in the training period or through closer and more frequent contacts with the KHDI training team. The need for continued supervision of the CHP on completion of training is an extension of this problem.

Likewise strengthening of the preceptorship program is needed, by creating stronger links between the hospital, where tertiary care will be provided, and the demonstration project.

In addition, as the key person responsible for community health services the CHP should be trained to assume this role, as well as in supervisory techniques and administration in order to more effectively supervise the CHA and VHAs. These two categories of workers rely on the CHP for all their technical guidance and supervision. The currently allocated time in the curriculum accorded to this function is totally inadequate.

CHA Training

The functions of the CHA include:

- providing ante and post natal care, including assisting at normal deliveries
- treating minor injuries and illness
- administering immunizations
- providing nutritional guidance and education
- conducting health education including sanitation for VHA and residents
- assisting family planning services
- identifying and controlling TB patients

- collecting specimens

- supervising VHAs

In the absence of trained midwives, intensive midwifery training should be given every CHA because she has major responsibilities for MCH care in the community. This should be provided in a setting similar to that in which she will be expected to work.

In view of this rather extensive range of activities the team considers an 8 week training program entirely too short. Given the difficulties of freeing workers for longer periods of time from their ongoing responsibilities, repeated training programs with coverage of the necessary curriculum in stages is required.

Training of the CHA involves many of the same problems noted with regard to training the CHP - namely: the need for

- better supervision of field practice
- closer liaison with a clinical practice institution

- greater attention to training of trainers and training methodology

- more emphasis on links with the CHA

- training in maternal/child health

Since the CHP will be primarily responsible for the supervision and support of the CHA, she should also be involved in training the CHA. Continued on-the-job-training by the CHP and a roving training team should supplment the initial training effort.

Training of the VHA

KHDI training plans call for an initial 5 days training program followed by some regular monthly training at the Health Center and in the surrounding community. Training has been initiated for some 62 VHAs in Hongchon and some 99 VHCs in Gunee Gun, but it appears that these training activities are not yet as well developed as those of the CHP & CHA or even fully worked out. The expected duties of the VHA are also not well defined.

Project implementation during the coming period should give concerted efforts to defining and refining training, and supervising the VHA to perform these duties. The CHP and the CHA should be actively involved in these training efforts. Attention must also be

given to sustaining the motivation of the VHA. Fuller integration of the VHA with the Saemaul Undong may be a means for achieving this. Providing the VHA with a regular remuneration should also be considered.

Training of the CP

In theory the Community Practitioner(CP) assumes a central role as supporter, supervisor and director of the other personnel categories. The planned training program for the CP however, has not reflected this role. While the team recognizes the constraints faced by KHDI in involving in the program physicians over whom they exercise no technical or administrative control, we strongly recommend an attempt to intensify the training/orientation of the CP to involve him more intimately in the program. Continuing education and much longer and more intensive initial orientation efforts are required to encourage the Community Physician to take an active role in the planning and management of all aspects of the program, and assume greater supervisory responsibilities for the various community health workers. Transportation should be provided to facilitate supervisory and educational functions. The current two day orientation seminar can hardly be expected to foster major commitment by the physician particularly since a fairly fundamental reorientation to other personnel categories and services is required.

The leadership role of physicians in Korea should be channelled into the community health system through the community physician. To do this much greater attention will have to be paid to determining how best he can be involved in the system, what further training he needs, and what institutional mechanisms for doing so are required. This should be a project priority in the next phase.

Efforts to involve community organizations (i.e. mothers clubs, New Village Movement) are underway and should be encouraged, so that communities are actively involved in planning and implementing their own health service. Appropriate linkages with training institutions should be established.

The demonstration areas should be used for field training of various health personnel trainees. The projects can have a major role in future implementation by serving as major training bases for health workers. The mass production of new workers for general implementation should move away almost completely from a classroom didactic orientation. The greatest need is for field practice areas where workers

can learn what they should and can do. Institutional linkages should be developed between the Gun projects and training institutions to facilitate such training and provide models for all training institutions. KHDI should continue to actively refine and improve the curricula and develop appropriate training guidelines using more active training methods.

e. Supervision

Development of adequate supervisory mechanisms (both technical and administrative) for the various categories of community health personnel requires considerable strengthening and should be a priority during the next phase of project implementation. The supervision should be supportive from VHA to CHA to CHP to CP. Some training in supervisory techniques is required for all categories of personnel. While the project design theoretically calls for a supervisory structure from VHA to CHA, to CHP, to CP, to project field director, numerous constraints are at play rendering this supervisory chain relatively ineffective. These include:

- transportation difficulties
- inadequate training of all personnel in supervisory objectives and techniques
- inadequate orientation of physicians to project goals and activities
- resistance by some to new personnel categories
- inadequate attention to the logistics of performing supervision

The next phase of project implementation therefore must find solutions to these problems of supervision. Several recommendations have been made in the previous section for creating better supervisory mechanisms through training efforts.

Resolution of transportation difficulties is problematic. More vehicles are needed and full exploration of the feasibility of using bicycles, motor-bikes, etc. should also be made. Extensive collaboration with personnel from other development sectors (i.e. going out with agricultural or community development workers) should be undertaken to maximize the transport which is available. In addition, use of telephone, radio, and mail for supervision also need to be more fully exploited.

f. Cost Analysis

Data on costs are especially important in eventual judgements about what will be implementable in the national program. The review team has been impressed with the abundant and excellent documentation we have been provided. The following data have been distilled mainly to indicate the directions in which results are moving and the potentials for further evaluation.

The aggregate/costs in all Gun projects are indicated in Table 1.

Table 1. Comparative Costs for CHC and PHU in Demonstration Project per Month

	CHC	PHU
a. Physician (Salary and Benefit)	600,000	-
b. CHP (Salary and Benefit)	174,000	174,000
c. Assistant workers	240,000	87,000
d. Medical Supplies	250,000	150,000
e. Travel Expenses	40,000	15,000
f. Administration Cost	50,000	20,000
g. Utilities	60,000	24,000
Total	₩1,414,000	₩470,000
Average patients visits/daily	30	20
Average patients visits/monthly	900	500
Per Visit Cost	₩1,570	₩940

Salary by type of Health Worker

Physician	₩450,000/month
CHP	₩130,000
CHA	₩ 65,000
Administrator	₩ 65,000

Plus 400% Bonus per year

Monthly expenditures are estimated on the basis of the past few months experience. The greater unit cost suggests that physicians will have to provide three times as much benefit as a CHP to justify their employment for routine medical care.

A very rough comparison of projected expenses in the three Guns is provided in Table 2. The distribution of funds is of special interest because personnel costs are extremely low in comparison with most health systems. Medical supplies are strikingly high in Hongchon* while travel expenses in all Guns are low for this kind of rural service.

* This is due to two factors·

1. Based on a KHDI survey the incidence of disease appears to be higher in Hongchon for reasons as yet undetermined.
2. Hongchon is experimenting with a curative oriented Cooperative Health System. Therefore, additional medical supplies were provided to support this activity.

Table 2. Comparative Health Budgets of Local Health Services by Gun in 1978 (in thousands)

	Hongchon	Gunee	Okgu
TOTAL	126,344	125,795	109,665
1. Personnel Cost	39,322	67,606	74,428
2. Equipment	7,448	3,698	1,895
3. Medical Supply	32,400	12,600	14,814
4. Administration Cost	15,179	6,884	5,633
5. Travel Expense	2,734	3,886	3,165
6. Utility and Facility	4,895	4,558	3,594
7. Conference and Publication	7,086	6,533	6,136
8. Others	17,280	-	-
Population	112,000	66,000	116,000
Per Capita Cost	₩ 1,128	₩1,603	₩945

In Table 3 some interesting data are presented relating to average productivity of various kinds of workers. The estimates of number of patients seen suggest that the CHC physician is seeing the most cases, and CHPs are close to national averages for physicians.

Table 3. Average Productivity of Various Categories of Medical Care Workers in Specific Settings

	Average daily patient	Source
Whole Country	10 Visits/Physician	KMA Survey Result which was carried out in 1976
Demonstration Project Area		
Existing Private Practitioner	13 Visits/Physician	KHDI Survey Result 1977 - 1978
CHC	36 Visits/Physician	
PHU	10-20 Visits/CHP	

In Table 4 similar comparisons are made of costs per patient visit according to the source of care. The lower costs in the demonstration area are evident.

Table 4. Comparison of Medical Care Unit Costs According to Source of Care

	Outpatient	Inpatient
Private Practioner	Per Visit Cost	Per Case
Seoul area	₩3,902 *	
Middle size city	₩3,409 *	
Rural area	₩1,800 **	
Insurance	₩2,875 - 3,111 *	₩81,000 **
Public Sector		
Demonstration Project		
Physician	₩1,570	
CHP in PHU	940	

* Survey result which was carried out by KPC in 1978

** KHDI survey result

The greatest limitation in the information available thus far is that we have data only on curative services. This should certainly be changed in the future with much more attention to preventive care.

g. Data Gathering and Information Systems

As in most projects, there is great need for distinguishing clearly between data collection for project implementation and analytical purposes, and the development of an information system for national services. Nothing could be worse for subsequent implementation than adopting the common tendency of many other countries to use sophisticated evaluation forms for general implementation.

For continuing use the information system should be characterized mainly by simplicity and usefulness, including complete registration of births and deaths, performance and productivity of specific categories of workers in a form that will be most useful for economic planners. The project has done well in reducing the number and complexity of forms which have been used in government services. This process of review should continue.

Some items for monitoring service delivery activity are

Curative Services

Persons with sickdays (%) : person and volume
Persons bedfast (%) : person
No. of new/old outpatients seen per month by: -
- Age/Sex
- Complaint
- Physician contact
- C.H.P. contact
- Referral to hospital care
- Drugs used, injections and other treatment
- Distance of patient travel

Preventive Services

Personal preventive

No. of live births
No. of new infants registered
Infant contact (attendance by infants) for
- DPT contact
- BCG contact
- Oral polio-vaccine contact
- Nutrition contact (weight growth chart)

Maternity

No. of live births
No. of pregnant women registered
Maternity contact
Prenatal contact (attendance by pregnant women)
(or prenatal consultations)
Delivery contact (deliveries in the establishments)
(deliveries at home)

Postnatal contact

Other preventive

Family planning contact

No. of eligible couples for family planning
No. of acceptors for family planning
Motivation contact
Service contact (Drugs used and operation performed)
Follow-up contact

TB control contact

No. of TB patients under treatment
No. of Cases newly registered
Case detection contact
Case treatment contact
Follow-up contact

The most important criterion in decisions about data is whether they are actually used. If they are not used as the project continues, they should be dropped. Additional criteria are: how much trouble are specific items to collect,and do they represent reality. In most countries much of the data that are routinely reported are little more than extrapolations from past health records.

From our superficial review of the field records we have the following specific comments to make:

(1) The family folders were impressive, especially in Gunee Gun. They were filled out initially to get complete household identification. Like so many family folder systems the real test will be whether field workers continue to use them in their daily work and whether they are kept up to date.

The process of color-tagging special cases in family folders is useful if these are related to regular review for surveillance and identification of high risk.

(2) There seems to be particular need for feedback of information from VHAs to CHAs, and CHPs. At present this is supposed to happen spontaneously but simple records of VHA work should be made available for supervisory purposes. A regular program for recording visits to homes at specified time intervals - such as every 2 mos. - is especially desirable to ensure coverage.

(3) Family-retained growth cards in homes have been introduced but as yet they do not seem to be taken seriously. Their continuing use will depend partly on the prevalence of childhood malnutrition, but mostly on the interest and attention of field supervisors. If malnutrition proves to be increasingly rare perhaps a simpler record system may prove adequate to record items such as immunizations.

(4) Maternal care seems to us to be the greatest gap in present services. It is not surprising therefore that data are deficient on everything related to maternity. Maternity records are adapted to hospital practice and inpatient care in maternity centers rather than to home deliveries. Since most deliveries will continue to be in homes these should be adapted.

Data Gathering and Information Systems development is a highly specialized activity and should be undertaken by a team of specialists. The present staff of KHDI has limited experience in this area and has benefitted greatly from the USAID Advisor assigned to the project. However, in view of the impending departure of the USAID Advisor, we recommend that KHDI seek additional extended consultant assistance in refining their Infomation System for future implementation and evaluation.

h. Evaluation

Great stress has been placed by AID and KHDI on evaluating these projects because it has been recognized that for results to be useful and credible it will be necessary to document costs and benefits. To this end, a good balance between internal and external evaluation has already been initiated.

Evaluation indicators for the "output" levels of the AID Logical Framework (as outlined in the KHDI Evaluation Plan) are generally satisfactory for monitoring the administrative progress of the project. However, although useful as a guide, the "Log Frame" indicators in the Project Paper for the "Purpose" level are inadequate generalizations. Furthermore, the KHDI-developed evaluation plan indicators and procedures are technically insufficient, as there is not enough emphasis placed on measuring the preventive aspects of health delivery. Thus the data base and process for making a technical analysis is not yet well developed, and requires urgent attention. This is discussed more fully below.

(1) Internal Evaluation

Internal evaluation by KHDI includes both "continuing" evaluation based on feedback from service records, and "before and after" cross-sectional sample surveys. The continuing data evaluation process is to be introduced in August 1978. A promising format has been developed which will be modified and adapted as experience is gained in its use.

Our Team has a number of suggestions to make about specific aspects of this process. We urge that there be a shift in emphasis away from measuring service contacts as these place too much emphasis on curative care. Instead we recommend KHDI give much more attention to evaluating impact in total populations using community indicators such as "coverage" in various categories. This type of data can be obtained most efficiently by periodic random sample surveys.

A second major emphasis should be to obtain better worker performance data to develop comparative information on the productivity of various categories of workers. Here, in addition to counting the direct service activities performed, KHDI should also develop simple ways of recording administrative and supportive activities, such as time spent in supervision and teaching. There are probably many activities which could more appropriately and efficiently be performed by a less highly trained worker. Therefore, an indication should also be made of the proportion of time spent in less productive activities (such as routine paper work) and "dead" time (when nothing is being accomplished).

Developing a recording system that provides data on these elements does not need to be elaborate or expensive.

It does require imagination and sensitivity to overcome resistance within the system to collecting such information which could be considered threatening by some workers. KHDI could probably use some experienced consultants for a short term to develop this.

The baseline cross-sectional survey has been completed and seems to have been well done. Our impression is that a great deal of effort went into measuring morbidity by a rather elaborate process. The main value of the morbidity information will be to lead into data on utilization and cost. These analyses remain to be completed. Special attention should be given to Age-sex breakdown of data to help identify risk as a basis for continuing surveillance.

We are skeptical of the potential of morbidity data to show improvement in health status. The only exception is in relation to specific disease conditions for which targetted programs are set up that result in a sharply defined decline. General morbidity data are influenced so much by season, pressure of work and cultural variables that cross-sectional comparisons usually mean little. In fact, most studies have shown that with interventions, morbidity will increase because both workers and people are more likely to report illnesses and communicable diseases when something is being done for them and for which there are effective immunizing agents.

We therefore, suggest placing primary analytical emphasis on other activities such as patterns of utilization, cost to patients, knowledge and attitudes of patients, satisfaction with services, and cross-correlating them with environmental conditions and measurable indices such as parasite surveys of stools from school children, and data on mothers and children with low hemoglobin levels. Such data can be collected in the special surveys which are projected.

As indicated earlier, the Team sees no value in making comparisons between the three projects with the intent of identifying one package as better than another. Instead, the format for data collection and analysis should be changed to permit more sharply defined analyses relating inputs to performance and to costs, for long range planning.

(2) External evaluation

External evaluation was designed to provide objectivity and supplemental expertise in analyzing data in terms most useful to economic planners.

An impressive effort is being planned by the National Health Secretariat of KDI to apply relatively sophisticated econometric analytic methods to the data available and being produced. Economists from NHS are beginning to become involved in field work, and plan to gather much of their own data. Since the detailed field procedures have not yet been worked out we cannot comment upon specifics.

Appropriate emphasis is being placed by NHS on the need for cost data to get at issues of cost/effectiveness. As indicated earlier, a new approach will need to be developed to collect cost data, according to program components and expenditures related to specific categories of personnel. The Team feels that the prior approach of using aggregate data for whole Gun activities will be too crude to be meaningful.

In measuring effectiveness there is already recognition of the need to go beyond activity unit costs. To this end, KHDI and NHS have developed a significant and unique approach for measuring "Satisfaction". In estimating effectiveness and efficiency there should not, however, be exclusive reliance on "satisfaction", as this will exagerate the importance of curative elements in the program. Some kind of expert opinion may provide estimates of effectiveness if the experts base their judgements on the factors that will have the most impact on health status, giving due recognition to epidemiological data on prevention.

In conclusion, this whole area is so vital and so complex that some long term expert consultation by persons who have conducted this kind of evaluation of similar projects is recommended as an urgent requirement.

i. Health insurance

Prior to loan program development, the issue of health financing was recognized to be an important area for investigation. However, after loan signature (1975), the Republic of Korea passed a Medical Insurance Law (1976) which covered 1) employees and dependents of firms with 500 workers or more, and 2) voluntary

coverage of remainder of the population. Current participation of 10.8% of total population is anticipated to expand to 26.2% by 1981.

Okgu Gun and KHDI have discussed the prospect of implementing a new health insurance system for Okgu Self-Employed personnel (i.e. farmers and others not employed by corporations at regular salaries), with the Blue Cross Corporation administrating the program on behalf of KHDI. To this end, various schemes have been drafted, in consultation with both US and Japanese short term advisers, as well as other Korean experts in the field of health insurance. The Gun Chief is prepared to implement a new Health Insurance System for the Self-Employed, and use the persuasion of his office for premium collection if the National Government Ministries (Home Affairs, and Health & Social Affairs) will give their approval and agree to subsidize the project to the extent required. He is currently waiting for their decision. Indications to date are that the Ministry of Home Affairs is interested in a demonstration Health Insurance Program being implemented, but that the Ministry of Health & Social Affairs is evaluating the implications of increasing subsidies to a pilot program, and the replication effects that would be generated.

In view of the national ongoing effort, it does not seem wise for KHDI to continue health insurance experimentation without Government commitment to find specific ways to cover the rural poor. It is proposed that further experimentation on health insurance by KHDI be discontinued until the Government agrees to actively participate with KHDI in finding a rural solution.

j. Community Participation

One of the most exciting potential contributions of these projects to international understanding of primary health care is in relation to community participation. This theme dominates current thinking of WHO, UNICEF and AID but as yet there are few situations around the world in which practical programs of community involvement seem to be working.

Korea has made phenomenal progress in social development through the "Saemaul Undong". Under the Ministry of Home Affairs this national campaign has transformed the rural countryside and quality of life since 1970. A remarkable mobilization of national will and hard work is bringing a new life through 3 kinds of objectives: - Spiritual reform for "diligence, self-help and cooperation"; social development involving the cultural and social patterns of families and communities; and economic development concentrating on employment

and income to reduce gaps between urban and rural populations and the rich and poor.

Health status has been improved mainly by Saemaul programs for better housing, water supply, sanitation and drainage, general cleanliness and major support for family planning. The data on achievements in the past seven years, indicate that 40-60 percent of village homes now have benefitted from these environmental improvements.

One of the most impressive achievements of Saemaul has been the organization of committees and councils at all levels. In addition to the clear direction and pressure from above there apparently has also been good response and cooperation from the village people.

Our review leads us to enthusiastic endorsement of KHDI plans to capitalize on the achievements of Saemaul by working intensively to increase the health component of the movement. The enthusiasm in villagers for anything associated with Saemaul would have carry over from successful community involvement to health measures that might be difficult to promote by themselves. Preventive services can be greatly strengthened by being officially recognized as approved Saemaul activities. For instance, villages now get credit for meeting specific targets for housing, etc. It would be desirable to add other health indices to monitor and motivate community activity in reducing infant deaths and maternal care complications, increasing immunizations and maintaining growth cards on children. Measures to increase the health component of Saemaul educational programs should be readily implemented because village health agents are also usually leaders of women's associations.

Korea can assume a position of world leadership in showing how rural people can help themselves in introducing the really important changes in living habits that improve health.

k. Maternal & Child Health (MCH)

It is especially significant that in its 4th Five Year Economic Development Plan the Ministry of Health and Social Affairs in Korea has selected Maternal & Child Health Services (MCH) as one of its three priorities.

The Team strongly endorses this emphasis. In rural Korea, approximately 83% of the total rural population are either children or women of the child-bearing age. Yet 80% of the women deliver at home, without professional attendants, and there is little preventive

activity in pre - or post- natal care or child health.

Specific recommendations in this area are therefore that KHDI should: -

1. Organize and implement a basic maternal health program with prenatal, delivery, postpartum and family planning care by a trained nurse-midwife (to be added to KHDI's staff), including a domiciliary midwifery delivery program in at least one of its three areas.

2. Establish criteria for high risk maternity patients and newborn infants; then identify and provide special care for them.

3. Give all field health staff members (CHP, CHA, VHA) special training in child health care.

4. Include registration of births, fetal deaths, and deaths utilizing WHO definitions in the information system.

5. Conduct a community study of the outcome of pregnancy, infant, perinatal, childhood mortality.

6. Establish a facility located near a health center to provide day care to children and their mothers.

7. Use mothers clubs for health education in general, and MCH and family planning in particular.

8. Support the research and development of a locally produced protein food for infants.

Additional background supporting these recommendations and details for implementing them are attached as a separate annex to this report.

3. Process of Replication

Our Review Team is favorably impressed with the prospect for getting rapid and widespread replication of project findings. The time scale for implementation will probably be foreshortened because the whole climate of change and development in Korea has accelerated. The KHDI projects are going to have to run hard to keep ahead of

general forward movement in health services. The most obvious health improvements can be attributed to general socioeconomic development with per capita income having increased from $532 in 1975 when the project was planned, to $1,060 in 1978. In 1975, the total health ministry budget was $30 million; last year it was $120 million. There is now money to implement many measures which were impossible just a few years ago and the demonstration projects should adjust their sights accordingly. The most evident indication of the changing situation is the fact that the ministry has already decided to implement many of the measures that KHDI was established to test. This should not be taken to indicate that the projects were not necessary, because the changes may not have happened spontaneously. The reality is that the projects have often directly stimulated decisions to proceed with implementation.

The following list shows some of the changes which have occurred in Korea, and in ministry policy for which KHDI activities can be given partial credit.

a. Influence on medical and nursing education

Through a series of national seminars and workshops, medical and nursing educators have become interested in community health and this has resulted in many changes in educational program.

b. Several community health projects are being implemented by medical schools and hospitals. KHDI is in professional communication with more than 10 of these community projects by holding a national seminar at least once a year which provides an opportunity for exchange of idea and experiences.

c. Kyeongsang Buk Province already adopted the concept of a community health practitioner program and organized a training program for nurses (3 months courses), who are deployed to doctorless Myons in the Province.

d. Training materials developed by KHDI have been widely disseminated to other training institutions for their utilization.

e. Since the project started, the people concerned with the Saemaul Movement in the Ministry of Home Affairs have become very interested, and plans to integrate a strong health component into Saemaul are under discussion.

f. Experiences obtained through the project are fed back to the national program through formal as well as informal communication between the project and government officials concerned.

g. Educational effects toward the Medical Association, Hospital Association, Nursing Association as well as the general public are obvious.

As already mentioned, we see little indication that the projects will produce reliable evidence showing that one of the 3 Gun projects is more cost effective than the other two because

(1) The three projects are converging in their inputs partly because KHDI is not running the service and cannot maintain a pure design.

(2) The government seems to be implementing innovations as rapidly as KHDI gets an indication that results may be favorable.

(3) General socioeconomic change is creating new environmental situations and health improvements.

In spite of (or perhaps because of) these changes there is greater potential than ever for KHDI projects to influence national services. There is still need to show that a total rural health system can work. So much is being learned in an evolutionary way that an overall primary care package can be put together for implementation if the opportunity arises. Many gross deficiencies remain, especially in preventive and maternity services. Coverage is far from complete and a major concern is that the people who will benefit from general economic development are never the poorest. Special attention must be paid to the needs of the poor. If the opportunity for general implementation does emerge there will still be need for the projects to continue to provide feedback, to guide continuing change.

The projects need to convince economic planners and political decision makers that new patterns of services can contribute to general productivity by improving basic health indices. The demonstration should also increase a sense of well being and satisfaction stability by showing people that they and their children will live longer. They should also recognize that there is a future worth planning for, leading to greater entrepreneurship. This should have a positive impact on family planning programs since awareness of greater survival of children tends to increase the feeling of security among parents that limiting family size is reasonable.

4. Administrative/Management Issues

a. Funding Reimbursement

The team supports the need for flexibility in extension of the loan to Sept. 30, 1981 and in the cumbersome ROKG funding procedures. Nevertheless, external consultants are obliged to refer these issues to ROK and USAID/Korea since resolution requires modification of the existing loan agreement.

b. KHDI Office Building

With the granting of permanent status by the Government and with the potential for expansion to a new and unique role in health planning for Asia, the issue of suitable office facilities becomes one of importance. Assuming that the Government will provide the land, there is a question of construction funding estimated to require $650,000 by reprogramming.

While the team endorses the need for a permanent KHDI facility the issue is one which will require resolution between ROK and USAID. It is recommended that USAID favorably consider this request and participate with ROK and KHDI in a joint study of appropriate site and structure. It is particularly recommended that the design take into account potential utilization of the proposed building as an international training center for health policy and planning.

c. Transportation

Recognizing the importance of mobility in order to effect supervision and carry out training for peripheral field workers such as the CHA and VHA, an economically replicable pattern will have to be developed. The degree to which vehicles and other means of transportation are provided will depend entirely upon the economic and managerial feasibility of wide-scale use. In other words, vehicles in demonstration areas should not be used beyond the economic potential for application of that transportation on a national scale.

d. Technical Assistance

The AID direct hire technical advisor to KHDI is being transferred by AID in the near future, and no replacement has been programmed. Both KHDI and KDI/NHS have acknowledged the invaluable assistance that he has provided in both administrative and technical support during the first two years of project demonstration planning and development. However, the need for external assistance in management information and evaluation systems (the advisor's specialty)

will not terminate with his departure, as indicated in other sections of this report.

It is therefore recommended that AID take any appropriate action to extend the advisor's period of duty with KHDI for another year. Failing this, other long and short term consultants should be contracted to assist KHDI for this period.

e. Extension of Loan Time Period

Because of the delayed start in implementing the loan, coupled with unforseen time-consuming administrative steps, the time period for demonstration activity has been curtailed from the original plan.

The Team recognizes the difficulty of implementing complex social development programs under fixed time constraints, and therefore recommends that USAID grant KHDI a one year extension of the Loan Time Period, if it is administratively possible.

f. International Linkages for Health Planning and Health Services Research

KHDI has great potential as a regional center for planning, research and training. Few countries have Korea's record of success in both urban and rural development and actual field experience to demonstrate. There is great need for such teaching in the Western Pacific Region of WHO. The achievements and capabilities which are being brought together through KHDI should be made available to other countries. The present emphasis in the U.N. on technical cooperation between developing countries (TCDC) suggests the potential for a regional center for health planning, research and training located in Korea.

The institutional linkages to be promoted if KHDI becomes an international planning, research and training center should be both horizontal and vertical. KHDI could run training courses in health planning, conduct collaborative research projects, especially comparative international studies, and provide consultation and expertise in conjunction with other institutions in this region.

Preliminary discussions with WHO are already under way with the probability that KHDI will be designated a Collaborative Center for Health Services Research. Linkages could also be established with selected institutions in more developed countries to make available their experience and capability to further develop KHDI competence.

International agencies are supportive of this kind of development in general. It would be important to get involvement of multiple agencies and, if possible, donors from several countries. If requested by the Government of Korea, AID should be prepared to participate in an international team with WHO and other potential donors to study the feasibility of establishing such a center.

g. Internal Organization

In order to develop the type of structure which elicits the best confidence among the international health community, and in order to improve the potential for health planning and research in the future, it is important that senior officers of KHDI have recognized professional qualifications. Emphasis on provision of preventive health services should be clearly recognized not only from the President but from the division chiefs. It is suggested that the primarily administrative officers may be more effective in a supportive rather than in a supervisory position.