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Final Report of Observations, Activities,  
and Recommendations Concerning

THE COLLEGE OF MEDICINE  
SEOUL NATIONAL UNIVERSITY  
SEOUL, KOREA

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### Acknowledgement

Thank you very much for the privilege of having been able to work with and for a people who have given so much for democracy, who have shown so much dignity in adversity, whose elders appreciate wisdom, whose children still revere their parents and whose learned men prefer to be gentlemen and scholars.

## Introduction

This report reflects the progress achieved at the Seoul National University College of Medicine and University Hospital during the period July 9, 1958 to October 9, 1959 as part of a program to strengthen medical education and research in Korea. The technical assistance here reported upon is supported by a contract between the University of Minnesota and the International Cooperation Administration.

The assistance to the Seoul National University College of Medicine, the center of medical education in Korea, has been threefold: through exchange of faculty, procurement of essential equipment, and rehabilitation of the physical plant. Under the various advisers, this program followed the outline and recommendations established by Dr. William F. Maloney<sup>1</sup>, Assistant Dean of the University of Minnesota's College of Medical Sciences.

The history, organization, and development of education in Medicine in Korea during the past sixty years, as well as its tribulations during the recent Korean conflagration, have been adequately described in previous reports.<sup>2,3,4,5,6</sup> Thus the writer will only mention pertinent points to acquaint the reader with the past material.

The College of Medicine was founded by the last Korean King in 1899. During the next sixty years the College was reorganized three times under Japanese occupation. Eventually medical education was consolidated into two institutions: the Seoul Junior Medical College established in 1916, and reorganized as a four-year course in 1927, and at Keijo Imperial University, established in 1926, where medical education was established as a six year course. The latter institution had research facilities and a postgraduate school. It was the only university in Korea to grant advanced degrees in medical sciences. After liberation in 1945 the two colleges were unified as Seoul National University College of Medicine.

The Keijo Imperial University, by standards prior to World War II, was at a high level educationally. Nevertheless, as a transplanted institution, run by an occupying power, it had in some aspects a deleterious effect upon the later development of Seoul National University. Some of the consequences can be summarized as follows:

Medical teaching under Japanese control was patterned after Central European practices. Didactic lecturing prevailed. As an autocratic nation the Japanese discouraged critical evaluation and logical observation beyond the limits of medical diagnosis and treatment. This tendency is obvious from some of the past research conducted at this institution. The system of collecting statistical data and measuring of assorted values prevailed, rather than experimental research based on sound logical observation.

During the Japanese occupation only a limited number of Koreans received medical training at Keijo Imperial University. Koreans constituted less than 25% of graduating classes. Though they received a training equal to that given Japanese students, those academically inclined were not advanced beyond the level of instructor and were not allowed to assume any significant

responsibility or to progress in the College of Medicine or Hospital.

Seoul National University was organized in 1946. Predominantly Keijo Imperial University graduates were considered for staff appointments. The number of eligible men was limited and choice was made difficult by fierce disagreement. Reasons for selection were diverse. Anti-Japanese attitudes, seniority, family relationship and previous research experience were considered. The added professorial prestige was coveted. Retrospectively, the selection of staff strictly from their own graduates has been an error. This strong feeling of solidarity is still present. This feeling, however commendable, has caused considerable inbreeding as well as pride and prejudice.

Many Koreans, some in leading positions, emotionally still identify Seoul National University in its roots as a Japanese institution. This attitude is not always discernible, though one may sense this acutely at times during contacts with graduates of other universities. It has been used to discriminate against Seoul National University. Such an atmosphere has caused isolation at a time when integration has been most called for.

The administrative organization of the College of Medicine vaguely resembles that of European institutions. In order to preserve their long fought for independence, the faculty retains the power, while the Dean, and under some circumstances, even the Chairmen of Departments, are changed periodically. The Deanship of the College of Medicine at Seoul National University is rotated every four years. Considering the dynamic changes required for progress, this practice has a retarding effect on the up-grading of medical education in the college.

On the other hand, the tendency to retain administrative authority in the Korean Government Ministries, authority which rightfully should rest with the University administration, has often made the order of business complicated. This has also slowed progress towards establishing the Dean and other key officials in firm control of their departments. This state of affairs has encouraged College and Hospital officials to forage independently from other government agencies, agencies with which they should not directly be concerned. Ultimately a strong President, a strong Dean, both in permanent positions supported by strong Heads of Departments should be the ideal solution to this problem.

The College of Medicine has endeavored since its establishment in 1946 to be the medical center in Korea. Its development was greatly disrupted by the war. Under the ICA/University of Minnesota Contract the objectives are to help repair and improve the physical plant, and to assist in modernizing and improving methods of teaching, research and administration inherited from the Japanese predecessors.

Medical education is a constantly growing and dynamic process. Any university must be organized to facilitate this process at advanced intellectual levels. There is no single master plan of medical education capable of application in every part of the world. Any transplanted method of teaching or institutional organization and administration must be assimilated or it will eventually retard development. There is no sense in copying through these years the

rigid didactic methods of the past.

There is a growing unrest in university circles, particularly in England and the United States, indicating rising criticism over the inadequacies of existing systems. Thus one may justifiably ask what is the present purpose and state of medical education.

The primary purpose of medical education is to train the student's powers of observation and of critical judgement in fields relevant to medicine. The achievement of this purpose requires a drastic reorganization of the medical course and a revolution in the attitude of most teachers. Here in Korea, Seoul National University College of Medicine must evolve its own method, depending upon its traditions, its educational system, its cultural background, and its own requirements.

#### Major Interests.

After arrival on July 9, 1958 in Korea, I served during the next 15 months as Adviser in Surgery. Additional duties as Adviser to the College of Medicine were assumed on November 8, 1958. I will leave Korea on October 7, 1959.

My main interests were in the clinical departments, particularly general and thoracic surgery. Pulmonary and cardiovascular diagnostic problems made it essential to establish working relationships with such key departments as Internal Medicine, Respiratory Diseases, Cardiology, Pediatrics and Radiology.

While establishing the Cardiac Catheterization Laboratory, further inter-departmental relations were established with the Departments of Physiology and Biochemistry.

The administrative aspects of my job as Adviser to the College of Medicine and Hospital consisted of carrying on with the overall rehabilitation plans, the foundation of which was so ably laid by my predecessors. In addition to this I have devoted most of my time to the following problems:

1. The organization of a Division of Thoracic and Cardiovascular Surgery.
2. The establishment of a Cardiac Catheterization Laboratory and its use as a diagnostic aid as well as the training of necessary personnel to use the technical equipment.
3. Emphasis on methods of teaching using consultations, conferences, seminars, ward-rounds, outpatient clinics and most particularly bedside teaching.
4. The demonstration of new surgical procedures, as well as the pre-operative evaluation of the patient and post-operative treatment.
5. Assistance to other clinical and basic science departments in their specific problems as requested.

6. The strengthening and support of research.
7. The support of clinical nursing and the establishment of the department of Nursing.

### The Minnesota Assistance Program

The assistance program to the Seoul National University College of Medicine and the University Hospital has been in operation for five years. As pointed out in the introductory remarks, the Minnesota Contract has been faced with a dual task. These were to assist in the repair of damage sustained by Seoul National University physical facilities during the Korean war and to encourage changes in methods of teaching, research and administration. The program has been divided into three parts: Exchange of faculty, supplying of equipment, and rehabilitation of the physical plant.

Exchange of Staff: Since the inception of the contract in September of 1954, forty members of the Seoul National University staff in Medicine have spent one or more years at the University of Minnesota. These opportunities to review recent medical progress and to see modern Western medical educational methods in operation have had a decisive influence on the College of Medicine. They have also greatly enhanced the advisory effectiveness of the Minnesota staff.

Thirty-eight of this first group have returned and are continuing their work at the College of Medicine; two are continuing their studies abroad.

One of the participants in Anatomy and another in Bacteriology received Ph.D. degrees at the University of Minnesota. The participants in Pharmacology, Physiology and Surgery have received Master's degrees from Minnesota.

Realizing the great value of the exchange of staff, another group of participants were selected under the proposed two-year extension of the Minnesota Contract. This group consists of forty persons. In addition to participants in the basic science and clinical fields, staff of the newly created School of Public Health, Department of Nursing, Hospital Nursing Service and Hospital Administration were included. Twenty-two of these departed for Minnesota in the latter part of August 1959, and it is planned that the remainder will leave in January and July, 1960. (Table 1)

In 1957, with the arrival in Korea of additional members of the Minnesota medical staff, the second phase of the exchange program was given impetus. To date nine University of Minnesota faculty members have served as advisers to Seoul National University in medical fields. In the beginning emphasis appropriately was placed on assistance to the College of Medicine, hospital administration, the financial system, nursing education, new equipment, and the development of a School of Public Health.

At a later date, individual disciplines such as Physiology, Internal Medicine, Surgery and Pediatrics were assisted by advisers. Particular attention has been given to the newly established schools and departments, and to areas

where staff members have returned from studies abroad or for which new diagnostic, teaching and research equipment has been acquired:

The result of staff exchange is reflected in all areas of the College and Hospital. The most important developments are summarised as follows:

Four new departments or divisions have been established. These are: Anesthesia, Clinical Pathology, Neuro-surgery, and Thoracic Surgery. All chiefs of these services are Minnesota trained specialists.

Through reorganization, by July 1959, all heads (with the exception of one) of basic science and clinical departments have spent one or more years at the University of Minnesota or other Medical Centers abroad. The present Heads of Departments have been encouraged to take firm control of administrative and teaching responsibilities for their Departments.

Several of the exchanged staff have been promoted to instructor, and to assistant, associate or full professor. Others, previously on the special staff, have been appointed to the regular staff. Thus participants returning from the University of Minnesota have been able to take an increasingly important share of the teaching of students, internes and residents, and in addition have been able to contribute with their working concepts to the overall rehabilitation of the College of Medicine and Hospital.

The medical curriculum has been revised to emphasize the value of observation and actual participation in diagnosis and patient care. This has been done by stressing the importance of laboratory exercises, ward rounds, outpatient clinics, and bedside teaching. Research activities in all departments have been encouraged.

Rotating and straight internships have been established and plans for residency training programs are currently being prepared.

A new School of Public Health has been established.

On the administrative level, practically every facet of Hospital Administration has been revised. The importance of Hospital Administration has been finally recognized and the status of personnel with administrative skills elevated. At the Seoul National University Hospital, for easier administration and improved patient care the following services have been created and are now functioning entities: Central Supply Room, Post-anesthesia Room, Admission Office and Patient Self-Registration Center. Management needs, medical records, the financial system and construction projects have been discussed and planned for.

The upgrading of nursing education and hospital nursing service have been considered among the most important aspects of the Minnesota Contract assistance. The curriculum of the School of Nursing has been revised. Laboratory exercises and the teaching of student nurses in the wards have been introduced.

Plans for elevating the School of Nursing to collegiate level have been worked out and placed in effect. Construction of a new nursing education

building has been accomplished, and plans for the a building of a new nurses dormitory have been prepared and will soon be carried out.

Recommendations on Exchange of Staff.  
Participants From Seoul National University Faculty

1. Any unobligated time budgeted under the 1960-1961 participant program should be used to extend the training of those Seoul National University Staff members who have shown exceptional promise in their Graduate School work at the University of Minnesota.
2. If further participant time can be made available it should be allocated to additional nursing participants, particularly to those from the Department of Nursing, for the further preparation of future staff. These candidates must be eligible to undertake programs leading to the Master's degree.
3. In preparation for a School of Medical Technology, qualified participants should be selected and the possibilities of training them in the United States explored.

Minnesota Faculty for Korea

In addition to an overall medical adviser for the proposed two-year extension of the contract, the following specialty advisers are recommended in Medicine at Seoul National University:

1. An adviser for Hospital Administration, 12 months. The work of Mr. Glenn R. Mitchell must be continued along the outlines suggested in his report. Two primary needs in this area are: 1) Elevation of Hospital Administration as an independent unit with well organized departments and lines of responsibility and authority. 2) Sound business management, especially now that liberalized private practice for staff doctors and an independent accounting system will apparently be introduced in all National University Hospitals.
2. An adviser for the School of Public Health, 12 months. The preparation of future staff as well as assistance with the preparation of curriculum content and teaching methods necessitates continuing help.
3. An adviser for the Department of Nursing and Hospital Nursing Service, 24 months. (Miss D. Joan Williams, present Nursing Adviser, is preparing her own recommendations and the reader is referred to that source.)
4. An adviser for Clinical Pathology, 12 months. The Clinical Laboratory is a new department and should have help in setting up certain standard procedures for blood chemistry and hematology. The same adviser could help in the establishment and organization of a School of Medical Technology.

5. An adviser for Cardiology and Isotopes, 12 months. No member of the Division of Cardiology has had an opportunity to study at the University of Minnesota. This division needs upgrading. The adviser in Cardiology probably could be used also for the Isotope Laboratory. Members of the International Atomic Energy Association surveyed the College of Medicine and Hospital to determine its potentialities for Isotope or Atomic Energy research. They have been sympathetic enough to donate laboratory equipment, to the amount of \$12,000 to \$15,000. The question of a specially trained investigator or adviser in these fields has been raised; the College is requesting help in this field.
6. An adviser in Tuberculosis, 12 months. The problem of Tuberculosis will be commented upon in a separate section. Tuberculosis is widespread in Korea. The socio-economic conditions are contributing factors here as elsewhere; nevertheless, neither government nor the teaching institutions have taken a definite or sound approach to this problem.
7. An adviser in Obstetrics and Gynecology, 12 months. Institutional delivery is now gaining popularity in Korea. The number of deliveries averages 50 a month at Seoul National University Hospital. An adviser in this field has been requested by the Head of the Department. Birth control will be another aspect which eventually must be explored in Korea. With the arrival of radium, advice as to its proper gynecological use is warranted.

#### Equipment

During the Korean conflict the College of Medicine and Hospital lost all of their equipment. Another principal aspect of the Cooperative Project has been reviewing the need for and assisting with the procurement of new equipment.

In the beginning top priority was given to equipment for teaching laboratories as well as to equipment essential for diagnosis and patient care. In the years 1955-1958 \$691,300 was allocated through the Minnesota Contract for equipment and supplies for Seoul National University. With the exception of a few thousand dollars this sum has already been obligated. Approximately \$400,000 of the equipment ordered has been received.

As a result, the level of work which is carried on in the student teaching laboratories is remarkably good. It is recognized that more equipment is needed so that students can work in smaller groups. In the teaching laboratories of the Department of Physiology the individual groups now consist of 9 students. Dr. E.B. Brown, Adviser in Physiology, has reviewed teaching practices and problems, as well as the further needs of the teaching laboratories of the basic science departments and has given his recommendations. The equipment requests being compiled for the basic science departments closely follow his suggestions.

The hospital facilities concerning diagnosis and treatment are in functioning order. The central laboratory performs most of the standard clinical tests with reasonable accuracy. Some of the blood chemistry tests which need

more elaborate equipment, as well as constant temperature and humidity levels, are now being set up and are expected to be available in the near future. The X-Ray Department is reasonably well equipped and the quality of professional service is among the best in the hospital. The operating room facilities are sound. Recently arrived instruments, operating tables and lights make it possible to carry on with at least two major operative procedures concomitantly. The operative load is heavy and is expected to double with the opening of the rehabilitated wards. The services given by the Department of Anesthesia and the Blood Bank are comparable to standards in the United States.

With the progress of rehabilitation of the hospital, particularly reallocation of beds and remodeling of the wards, the daily inpatient census is now above 250. A considerable amount of the nursing and patient care equipment and supplies ordered early in the contract have been received. It is evident now that with the opening of the hospital to its full capacity, 450-480 beds, more general hospital supplies must be made available. During the extension of the contract top priority should be given to this area.

For the fiscal year 1959, approximately \$50,000 has been made available for equipment for the basic science departments and the hospital. With the return of most of the participants and the impending rehabilitation of the clinical research laboratories, a part of this sum has been planned for the procurement of laboratory equipment, which in addition to its regular use as teaching and diagnostic aids, could be used in research.

#### Recommendations on Equipment

1. In future equipment requests from the hospital, top priority should be given to such general hospital equipment and supplies for the wards, patient care and the nursing stations, that standards acceptable to a teaching hospital can be attained.
2. In requests for the central clinical laboratory, emphasis should be placed on such additional, accessory, or complementary equipment that would enable technicians to perform any standard test required in connection with progressive teaching, diagnosis and conscientious patient care.
3. Further requests for the clinical research laboratories must show individual or departmental long-range planning or needs. Particularly the research which is planned should be discussed with the Dean and his advisers or the postgraduate research committee.
4. In requests from the basic science departments, top priority should be given to items having regular use in both teaching and research laboratories.
5. It is reasonable that a limited amount of special research equipment should be procured for those investigators who have shown exceptional determination to undertake experimental or clinical inquiries in spite of adverse conditions in the past, or to those who have shown unusual investigative abilities and results during their stay at the University of

Minnesota. This will also encourage younger staff members.

6. There should be more willingness on the part of established investigators to share equipment with other less fortunate departments and divisions, or with younger associates who need specialized research apparatus often confined behind locked doors.

### Rehabilitation of the Physical Plant

The physical plant has been described in previous reports by Maloney, Matthews, Mitchell and Brown. The buildings pertaining to the College, Basic Science Departments, and Hospital are adequate in size, design and layout. They are soundly constructed and surrounded by a somewhat neglected, nevertheless beautifully landscaped, campus.

In the beginning the entire complex had two major difficulties. After the war the buildings were found in an exceedingly poor state of repair; the rehabilitation of the physical facilities has progressed satisfactorily but more slowly than planned, secondly the hospital is expansive and the budget for operation allowed by the government has not permitted the heating of the entire hospital during the winter months.

The rehabilitation of the Medical College and the Hospital has been consolidated into a master plan. During the years 1955-1958 the sum of \$786,200 was allocated for rehabilitation of the physical plant. The rehabilitation projects of 1955 and 1956 are finished. A considerable part of the 1957 projects are completed or in progress. A number of 1958 projects are partly finished or under way. As a result of the rehabilitation program, the roofing, terrazo flooring, room reallocation, extensive rehabilitation of the wards, plumbing, toilets, sewerage and heating systems are completed in the entire hospital. All the wards will be ready to receive general hospital equipment by October, 1959, and patients could be moved into the unoccupied wings of the hospital if the financial situation of the winter of 1959-1960 allows heating the entire plant.

Major projects of the hospital planned but not started as of the present date are rehabilitation of the entire electrical system of the hospital and campus, installation of the hot water system and high pressure steam pipes, remodeling and air conditioning of the operating room suite, remodeling of the clinical research laboratories and the paving of roads.

Similarly rehabilitation of the basic science buildings are in progress. Roofs and the exterior of buildings have been repaired. The electrical system in individual departments, plumbing, toilets and sewerage system as well as heating system have been rehabilitated. Work on 1957 and 1958 projects is in progress.

Installation of the hot water heater and pipes, as well as the gas producing apparatus, has not been started.

Under the extension of the Minnesota contract a number of additional physical plant repair and improvement projects have been planned. These are mostly to repair, remodel or reconstruct existing facilities, which until now have not

been rehabilitated. These projects are important for the functioning of the College of Medicine and Hospital.

With the opening of the Hospital to full capacity, the increased intern and residence training program, expansion of the Department of Nursing and the introduction of private practice, the present kitchen and laundry are totally inadequate. New construction for these facilities with the help of ICA funds is imperative.

#### Recommendations for Rehabilitation

1. Top priority should be given to the construction of a new kitchen and laundry.
2. Additional installations of the hot water system extending over the entire hospital must be considered.
3. Room allocation for the School of Public Health, repair of auditoriums and student laboratories in the College of Medicine area are needed.
4. The additional repair of floors, laying of linoleum, installation of screens, and repair of maintenance shops and other facilities are continuing needs.

#### Major Administrative Developments in the Period of July 9, 1958-October 9, 1959

My primary responsibilities were clinical, but there were administrative duties to be performed. Credit for the important administrative developments in my period of service should go to the cooperative efforts of the Dean of the Medical College, the Superintendent of the Hospital and the previous Minnesota advisers.

#### School of Public Health

The new School of Public Health opened on 1 April, 1959 after approval by the National Assembly and the promulgation of the necessary Presidential decree on January 14, 1959. The School of Public Health operates as a one-year course and will give a Master of Public Health degree through the Post Graduate School of Seoul National University. Seventeen students were admitted to the first course. (addendum I)

In March of 1959 the Minister of Education approved the curriculum which includes the following main subjects: Public Health Administration, Environmental Sanitation, Epidemiology, Public Health Statistics, Maternal and Child Health, Physiological Hygiene, Health Education and Public Health Nursing.

Any of the above subjects can be selected as a major, although three additional subjects are required. For example, if Public Health Administration is

selected as the principal discipline then; in addition, Environmental Sanitation, Epidemiology and Statistics must be taken. There are a number of combinations in the required subjects. Required subjects carry 15 credits towards the 24 necessary for the Master of Public Health Degree.

The remaining 9 credits can be accumulated from about 12 elective subjects. These are Parasitology, Entomology, Microbiology, School Hygiene, Industrial Hygiene, Mental Hygiene, Nutrition, Tuberculosis Control, Leprosy Control, V.D. Control, Regulations on Medical Care, and Medical Sociology.

Graduates from various colleges such as medical, engineering, veterinary medicine, pharmacy, dental school, business administration, natural sciences and nursing may apply. It has been suggested to concentrate in the beginning on a small number of highly trained individuals. Ultimately the school will graduate about 40 students per year.

The creation of this school has uncovered old feuds between the Ministry of Education and Ministry of Health and Social Affairs. The Ministry of Health has its own training course in Public Health. The Ministry of Health did not so much object to the school itself, but to the failure of the Ministry of Education to consult the Ministry of Health about curriculum content and teaching staff, as well as practical training. The obstacles to essential cooperation are not insurmountable, and at present a number of Public Health experts from the Ministry of Health are lecturers at the new school.

Four participants from the School of Public Health have been selected under the extension of the Contract to study at Minnesota in the following subjects: Public Health Administration, Medical Statistics, Health Education and Experimental Epidemiology. Three of these future staff members left in August, 1959, and the fourth will leave in July, 1960.

A Minnesota adviser for the new School of Public Health was requested prior to the date of this report. He should have first priority.

#### School of Nursing

The same Presidential decree which created the School of Public Health elevated the Technical High School for Nurses to collegiate level. Thus Seoul National University's Medical College now includes a Department of Nursing.

The Technical High School for Nurses is now phasing out and will graduate its last class in March, 1961. With the establishment of the Department of Nursing in 1959, nursing education at Seoul National University received its rightful position to contribute to the development of the country. A number of future staff has been sent to study nursing education at the University of Minnesota under the proposed extension of the Minnesota Contract.

The construction of a nursing education building was completed in 1958 and the building occupied with the opening of the second semester in February, 1959. Plans for the new nurses' dormitory have been approved by the Ministry of Education and construction is expected to begin this fall.

## Procurement of Anatomical and Pathological Specimens

In the past, because of religious and cultural tabus, the preserving of pathological specimens and teaching and research have been seriously jeopardised by the difficulty of obtaining bodies for anatomical dissection and post-mortem examination.

Seoul National University's College of Medicine, supported by other medical schools, has drafted a law permitting the legal use of bodies under a number of circumstances for the above purposes. The law also specifies under whose jurisdiction and what circumstances the government, hospital or the physician may insist on the performance of an autopsy.

## Physicians' Private Practice System

One of the most pressing problems of the College of Medicine, and particularly of the Hospital, is financing. The Korean government considers all the University Hospitals as a source of revenue. This is abysmally wrong and in the light of the teaching, research and public service commitments of the University or any teaching institution such a conception is intolerable.

In order to improve the financial situation of the Hospital a special law has been drafted to permit the hospital to keep 20%-50% of the income which is earned by the private practice of staff members. A Presidential Order outlining the physicians' private practice system is expected to be signed soon. In the section on staff exchange this problem has been commented upon. The presence of an Adviser in Hospital Administration during the period this order is instituted would be very desirable.

## Recommendations for the School of Public Health

1. Proper liaison with the Ministry of Health and Social Affairs must be established and maintained. It is reasonable that this Ministry should participate in matters of curriculum, practical training, and qualifications of teaching staff as well as relative to standards of examination.
2. The Minnesota Contract, during the proposed extension, should support this school by providing an adviser in Public Health, as well as assisting to assure the allocation of funds for equipment and relocation of offices, laboratories, and teaching facilities.
3. With the cooperation of other agencies involved the School of Public Health must develop sources of practical training, such as demonstrations, laboratory work, field work, inservice work in various public health institutions, participation in campaigns against actual epidemics, inquiries and investigations in biostatistical data, factories, nutrition of population and medical needs, and health protection of the population.
4. The School of Public Health should give a 2-month training course during the medical internship. Thus a better comprehension of the aids and

methods in preventive medical services would spread more rapidly with the help of young physicians. This training should be essentially practical and include field work, visiting health agencies, prenatal clinics, well baby clinics, factories, schools, and water supplies. The benefits of mass vaccination against smallpox, diphtheria, tetanus and typhoid fever must be demonstrated. The importance of early BCG immunization against tuberculosis must be stressed.

5. The School of Public Health should develop measures to introduce medical service to doctorless areas. The logical start seems to me through Public Health Nursing. There should be a progressively closer association of the Department of Nursing and the School of Public Health to cover future needs.

#### Recommendations for the Department of Nursing.

1. Beyond the offerings of the Minnesota Contract the Department of Nursing must secure more opportunities for post graduate training for future staff members. Connections with international agencies, religious groups and foundations must be established for this purpose.
2. The medical staff of the College of Medicine must recognize that they will be responsible for teaching to staff nurses and nursing students the new concepts of patient care.

#### Chest Surgery.

There is a great backlog in thoracic surgical pathology. The most pressing problem is far-advanced tuberculosis. Other prevalent conditions are chronic empyema, lung abscess, bronchogenic carcinoma, lye stricture of the esophagus and cancer of the esophagus and cardia. Cardio-vascular pathology is virtually untapped.

Previous attempts at lung surgery were mostly limited to emergency procedures, occasional resections and thoracoplasties. Because of the great number of lye strictures, a retrosternal esophagojejunostomy or colon interposition is done, with more skill than when similar operations are performed by the average Western surgeon. Decortication, resection of lung abscess and pneumonectomy for carcinoma of the lung have not been done successfully before at Seoul National University. With the exception of pericardiectomy no other cardiac surgical procedure has been performed.

The reasons for unsatisfactory results in chest surgery were poor selection, incomplete diagnostic work up, technical difficulties during operative procedures and poor post-operative treatment. Thus the reluctance of the internist to refer patients, and the fear of the prospective patients concerning protracted post-operative complications was quite understandable.

Reviewing the situation with the medical men, anesthesiologist and the surgical staff, a combined effort was made to start an active chest surgical service. The first months were critical. With the initial success the

confidence of the internist was gained and an increasing number of patients were referred for surgery.

Presently the patients for surgery are selected by a combined medical, surgical, and radiology conference. The discussions usually cover a wide variety of subjects: pathologic anatomy, diagnostic problems, x-ray interpretation, medical and surgical treatment, cardiorespiratory changes, post-operative complications, economic status, administrative problems and cultural mores of the Koreans. The conferences are quite informal and popular and are very suitable to step over departmental boundaries as well as to treat the patient as a whole and not just as an x-ray picture.

As a result of these conferences close to 100 patients have been operated on during the past 12 months. Presently there is a sizable waiting list.

About thirty of the above procedures were essentially demonstration operations, including the heart surgery. The surgical technics have been discussed step by step and the pitfalls elucidated. This of course was time consuming but it had its effects. After about six months Korean counterparts proceeded on their own with very satisfactory results.

During the post-operative period patients have been carefully observed. The major problem in pulmonary surgery is the re-expansion of the remaining lung tissue. This is done by a continuous negative suction. Break down of the suction may seriously endanger the patient. Another grave complication is a mucous plug occluding the bronchial tree in the immediate post-operative period, because of the inability or the reluctance of the patient to cough. A patient may be lost within minutes if expert care is not immediately instituted. The results of round-the-clock vigilance were very gratifying. The post-operative complications rate dropped to 8% and none of the pulmonary resections were lost.

Successful heart surgery is only possible when a correct diagnosis is established. The routine work up of the patient is done by cardiac catheterization. This involves measuring pressures as well as the oxygen content and saturation of the blood inside the heart chambers. Changes in these values are indicative of the type of pathology. With the help of Dr. E. B. Brown, Adviser in Physiology, we established such a diagnostic laboratory by training selected staff from the Departments of Pediatrics, Cardiology, Radiology and the Central Clinical Laboratories. By now more than 25 catheterizations have been performed. A number of these patients have been operated on by the staff of Seoul National University Division of Thoracic Surgery. The laboratory equipment, of course, is used in routine diagnostic work as well as research. A number of papers have been presented as the result of these activities.

### Teaching

Different approaches have been used to introduce a basic change in teaching and the presentation of material at the Medical College. As pointed out in the introduction, the primary purpose of the undergraduate medical course of the University is to train the students' powers of observation and of critical judgement in the fields relevant to medicine. It is the training of the student's mind that equips him to collect and verify facts concerning health and disease

in man, and consequently form a balanced judgment on issues that affect both individuals and groups.

The basic difficulty of medical education is the enormous amount of material, the overwhelming number of facts and data, and their rigidity and disorder.

During my fifteen months' stay at Seoul National University I have observed and participated in teaching. The preferred form of lecturing at Seoul National University is the formal presentation of material before large classes of 100 to 120 students. I used this form of lecturing for one semester covering Thoracic Surgery. In spite of recent criticism it is a good method to indoctrinate the basic facts of a subject. Unfortunately it fails to stimulate the participation of the student.

Selected chapters of Surgical Physiology were presented to the same class in the next semester. Surgical Physiology did not figure previously in the curriculum and there are no text books covering this subject in Korea. To encourage student participation much of the presentation of the material was done by discussion using the students' knowledge of physiology. Unfortunately, the class was large, thus not everybody could be reached. In this form of teaching the language barrier could be overcome more easily. If one of the students could not understand the issue the next student furnished the translation. It is my feeling that this type of teaching, although more tiresome, reaches the student more readily. If a good translator is available he should be used, even though the translation takes away much of the essential drama and flavor of a discussion.

The most favored presentations were, however, the seminars on cardiac surgery. These seminars were attended by medical, surgical, radiology and pediatric staff members as well as by students interested in the subject. Most of those present had not previously been in contact with the material. We started out with embryology, followed by clinical symptoms and signs, and then shifted to the diagnostic work up. This whole subject involves much of cardiorespiratory physiology, laboratory, EKG, EEG, x-ray findings, blood gas analysis and pH measurements. Since the writer of this report is fond of drawing, this method was constantly used as a visual aid. By actual simple animation and ad hoc drawing of the essential defects with the changed pressure and fluid dynamic effects, this difficult subject aroused lively discussion which often necessarily proceeded in the Korean language and could not be followed. Nevertheless, the essential purpose was accomplished.

The cardiac surgical seminars were often followed by practical applications such as cardiac catheterization and the interpretation of collected diagnostic material. This has been followed by the experimental and clinical use of a pump-oxygenator. It is my opinion that much of the material was retained once its clinical importance was demonstrated.

All senior surgical staff members have one day a week assigned at the out-patient clinic. My day was Friday morning, from 10 to 12 o'clock. Here the senior member supervises the follow-up of post-operative patients, minor surgical procedures, as well as seeing all new patients or diagnostic problems referred from other departments. They also instruct junior students in the

taking of histories and performing physical diagnoses. The attendance of the clinic is good and the pathology seen is varied. The outpatient department supplies good teaching material. Often the patients dislike to be examined by students but the presence of a senior staff member always should make it possible for the students to use what they have learned from books or previous lectures.

The emphasis during these outpatient sessions was on sound observation and the possible conclusions drawn from observations. They also served to test the students', internes' or residents' actual knowledge.

Bedside teaching is the most valuable mainstay of Western medical education. It is unfortunately not used to full advantage at Seoul National University's College of Medicine. I have used thoracic surgical patients for demonstrating the value of this method. The clinical years must be improved by clerkships, wardrounds, and small groups in teaching and laboratory experience. This can be done only by more intimate contact with the faculty. The professors must not only be accessible, but unavoidable on the wards, in operating rooms, in outpatient clinics and sometimes, if necessary, in their own sanctuary, their study, or private laboratory.

#### Recommendations on Teaching

1. Students should be stimulated to read original papers or prepare material for their teachers to correct. Such material should not be taken from textbooks but from scientific journals and should have some reference to the disease of patients on the wards.
2. There should be a recommended list of selected papers in every department. Students should read these papers as part of their assignments.
3. There should be no lecturing out of books calling attention to page and paragraph. Instead, patients should be presented and living pathology demonstrated.
4. Training of the student must be conducted in such a way as to arouse his curiosity, improve his observation and help him to arrange and interpret facts more logically. It is not always necessary to dwell lengthily on the historical development of a certain disease.
5. Examination primarily should be designed to test the student's capacity to observe and discriminate. It should not be designed to result in the reproduction of material learned from textbooks or notes of lecturers.
6. Only a revolutionary change of attitude on the part of teachers will improve the clinical years. Such improvement can be attained by more bedside teaching, ward rounds, small groups in teaching and more laboratory exercises.
7. Clinical clerkships in all major departments must be introduced. Opposition of the patient can only be overcome when members of the senior staff are present to explain to the patient his role in medical education. The

teacher is also there to coach the student through his initial efforts.

8. In any clinical department, division or section the patient should be seen every day by the same senior staff member in order to preserve continuity. Staff members could rotate every 2 or 3 months in the different sections or wards.
9. The supervision of Pediatric Surgery should be assigned to one responsible surgeon for the period of not less than two years. A two-year rotation schedule should be established eventually. Closer correlation with the Department of Pediatrics is recommended.
10. The ENT service should actively follow tuberculosis and other chest conditions because of their interest in bronchoscopy and esophagoscopy.

#### Research.

Dr. E. B. Brown has reviewed the state of research at the College of Medicine, as well as pointing out major difficulties involved. Currently there is a limitation in funds, materials and technical assistance for research.

Rehabilitation of the clinical research building will soon start. Basic equipment for this research building will be procured by Fiscal Year 1959 funds. Additional material can be requested later.

The writer has been interested in research. An experimental cardiovascular surgical laboratory has been established and a number of projects followed. An artificial heart and lung have been tested thoroughly on dogs. This machine is now in operational condition and may be used on clinical patients. The first openheart procedure in Korea utilizing an artificial heart and lung on a human patient was performed at Seoul National University. Coronary bloodflow studies were done in collaboration with the Department of Physiology and Anesthesiology.

Experimental cardiac arrhythmias, particularly atrio-ventricular dissociation has been produced by cutting the bundle of His. The effects of ventricular dissociation have been studied.

There are a number of interesting clinical problems in Korea with an abundance of clinical material. Some of the aspects of these diseases should be examined by an experimental and statistical approach. I will mention only a few problems, mostly surgical: carcinoma of the esophagus and stomach and its possible connection with chronic dietary irritants; carcinoma of the colon and rectum caused by similar mechanisms; cirrhosis of the liver, portal hypertension and hypersplenism; Buerger's disease and its possible relationship with chronic ergot poisoning, or other factors.

It is realized that the above propositions cover a tremendous territory and that a great amount of work has been done elsewhere to investigate the causes or relationships of these conditions. Nevertheless, their clinical prevalence in Korea warrants investigation to recognize local factors.

## References

1. Maloney, William F.: Report of Observations as Adviser in Medicine, July 1, 1956.
2. Flink, Edmund B.: Report and Recommendations On Teaching and Research in Internal Medicine, February 1, 1958.
3. Brown, E. B.: Report of Observations and Activities as Adviser in Medicine, January 24, 1959.
4. Mitchell, Glenn R.: Report on the Seoul National University Hospital, November 6, 1958.
5. Low, Margery: Interim Report on School of Nursing, March 15, 1958.
6. Matthews, James H.: Final Report of Observations and Recommendations, November 7, 1958.

Table 1: Foreign Study of College of Medicine Faculty  
(Data supplied by Dean's Office)

Department	Total Full-time Staff	Study Abroad				Total Full-time Non-Paid Ass't	Study Abroad			
		No.	% Project	ICA	Other Support		No.	% Project	ICA	Other Support
Anatomy	5	5	100	5	0	2	0	0	0	0
Physiology	5	5	100	3	2	2	0	0	0	0
Biochemistry	4	4	100	4	0	4	0	0	0	0
Pharmacology	3	3	100	3	0	2	1	50	1	0
Pathology	5	5	100	2	3	4	2	50	2	0
Microbiology	4	4	100	2	2	3	1	33	1	0
Parasitology	1	1	100	1	0	1	1	100	1	0
Prev. Medicine	4	4	100	1	3	4	3	75	3	0
Med. History	2	2	100	0	2	0	0	0	0	0
Phys. Training	1	0	0	0	0	0	0	0	0	0
Intern Med	17	11	65	7	4	14	1	7	1	0
Surgery	11	8	73	7	1	20	1	5	1	0
Anesthesiology	1	1	100	1	0	1	1	100	1	0
Pediatrics	5	2	40	2	0	6	1	16	0	1
Dermatology	3	2	66	2	0	4	0	0	0	0
Urology	3	2	66	1	1	3	1	33	1	0
Ob-Gy.	5	2	40	1	1	13	0	0	0	0
E.N.T.	3	2	66	2	0	5	0	0	0	0
Ophthalmology	4	2	50	2	0	4	0	0	0	0
Radiology	2	2	100	1	1	3	0	0	0	0
Psychiatry	3	3	100	3	0	3	0	0	0	0
Dentistry	4	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>95</b>	<b>70</b>	<b>73</b>	<b>50</b>	<b>20</b>	<b>98</b>	<b>13</b>	<b>13</b>	<b>12</b>	<b>1</b>

## Addendum I: School of Public Health

### 1) High-lights on the Development of the School of Public Health:

- Oct. 1958 : Application for the institution of the School of Public Health was submitted to the Ministry of Education.
- Jan. 13th 1959: Some changes of the regulation of the National University Institution were promulgated by the Presidential Order #143 in which the provision for establishment of the School of Public Health, Seoul National University was inserted.
- March 16th 1959: The Regulations of the School of Public Health were approved by the Ministry of Education.
- March 31st 1959: The Entrance Examination of the School of Public Health was given and seventeen successful candidates were announced on April 3, 1959.
- April 9th 1959: The first meeting of the Committee on the School of Public Health was convened and administrative problems of the School discussed. The four courses consisting of Public Health Administration, Environmental Medicine, Public Health Statistics and Public Health Education would be selected this year from the regular courses listed in the following:
1. P.H. Administration
  2. Environmental Medicine
  3. Epidemiology
  4. P.H. Statistics
  5. Maternal and Child Health
  6. Physiological Hygiene
  7. P.H. Education
  8. P.H. Nursing

### 2) Lecturer and Staff:

- i. Dr. Choo Wan Myung, Dean, College of Medicine, has been appointed to Dean of the School of Public Health and Dr. In Dal Kim, to Academic Dean.
- ii. 35 lecturers have been appointed.
- iii. Regular staff will be appointed in coming year.

### 3) Students' Undergraduate background:

Medical College Graduates	: 2	Dental College Graduates	: 2
Veterinary " "	: 1	Education " "	: 1
Nursing " "	: 1	Liberal Arts " "	: 3
Pharmacy " "	: 2	Engineering " "	: 3
		Law " "	: 2

4) Curriculum:

1st Semester	hrs/w.	2nd Semester	hrs/w.
Public Health Statistics	6	Public Health Administration	4
Epidemiology	6	Epidemiology	4
Public Health Administration	6	Environmental Medicine	4
Legal Medicine	2		
Environmental Medicine	5		
Health Education	3		
		Total	12

Above courses are required for all students.

Above courses are required for all students.

Epidemiology	4
Public Health Administration	4
Environmental Medicine	2
Special Subject	2
Statics Lab.	9
Administration Lab.	9
Sanitation Lab.	9
Education Lab.	9
Epidemiology Lab.	9

Above courses are elective subjects for completion of required credits for MPH degree.

\* 1st Semester is composed of 16 weeks

5) Degree:

To be awarded MPH Degree, 1 academic year course is required with successful grades.

(Data supplied by Dean's Office)

Addendum II: Interesting Data Concerning SNU  
 College of Medicine and Medicine in Korea  
 (Data supplied by Dean's Office)  
 Staff of College of Medicine

(1) Regular Staff

	Prof.	Assoc. Prof.	Assist. Prof.	Inst.	Assist.	Resident	Intern	Non-paid Assist.
Basic Science	9	7	6	6	7			
Clinic	14	8	10	9	11	16	25	100
	23	15	16	15	18	16	25	100
Total... 228								

(2) Lecturers

School of Public Health.....	35
Nursing Department	9
	44

(3) Special and Clinical Staff

	Prof.	Assoc. Prof.	Assist. Prof.	Inst.
Special		6	3	
Clinical	5	4	15	6
	5	10	18	6
Total... 39				

Grand Total..... 311

Distribution of College of Medicine Staff

Department	Assoc. Prof.		Assist. Prof.		Inst.	Assist.	Special	Clinical	Total
	Prof.	Prof.	Prof.	Inst.					
Anatomy	2		1	1		1			5
Physiology	1	2	1			1			5
Biochemistry	1	1		1		1			4
Pharmacology	1	1	1			1			4
Pathology	1		1	1		2		1	6
Microbiology	1	2				1		1	5
Preventive Med.	1	1	1	1				6	10
Parasitology			1						1
Med. History	1			1					2
Physical Training				1					1
Internal Medicine	5	3	4	2		2	1	6	23
Surgery	2	2	2	3		1	2	6	18
Ob-Gy.	1	1		2		1		3	8
Pediatrics	2		1			1	1	1	6
Neuro-Psychiatry	1	1				1			3
Urology	1					1	1	2	5
Dermatology	1					1	1		3
E.N.T.			1			1	1	2	5
Radiology				1			1	1	3
Ophthalmology		1	1			1	1	1	5
Dentistry	1		1	1		1			4
<b>Total</b>	<b>23</b>	<b>15</b>	<b>16</b>	<b>15</b>		<b>18</b>	<b>9</b>	<b>30</b>	<b>126</b>

Number of Students in College of Medicine

	<u>Medical Students</u>			<u>Nursing</u>	<u>Public Health</u>		
	Male	Female	Total	Female	Male	Female	Total
Freshman	134	5	139	42	16	1	17
Sophomore	123	4	127				
Junior	132	3	135				
Senior	137	7	144				
<hr/>							
Total	526	19	545	42	16	1	17

Grand Total... 604

Scholarships

<u>Name of Scholarship</u>	<u>No. of Students Receiving</u>
National Scholarship	6
SNU Scholarship	3
Wounded Soldier Scholarship	4
Chung Nam Provincial Scholarship	1
Vilac Scholarship	1
Medical College Scholarship	34
Doctorless-area Scholarship	11
<hr/>	
Total	60

## Curriculum for Medical Students

### Freshman

No.	Subject	1st Semester			2nd Semester				
		cr.	hrs of lect. per week	hrs of lab./w.	No.	Subject	cr.	hrs of lect. per week	hrs of lab./w.
101	Anatomy	7	6		102	Anatomy	6	4	
151	Anatomy			6	152	Anatomy			6
103	Histology	4	4		104	Histology	4	3	
153	Histology			3	154	Histology			3
					106	Embryology	1	2	
107	Physiology	4	3		108	Physiology	4	5	
157	Physiology			3	158	Physiology			4
109	Biochemistry	4	4		110	Biochemist.	4	3	
159	Biochemistry			3	160	Biochemistry			4
111	Med. history	1	1		112	Med. history	1	1	
	Total	20	18	15			20	18	17

Sophomore

1st Semester				2nd Semester				
No. Subject	hrs of lect. cr. per week	hrs of lab./w.	No. Subject	hrs of lect. cr. per week	hrs of lab./w.	No. Subject	hrs of lect. cr. per week	hrs of lab./w.
201 Pathology	7	5	202 Pathology	6	4			
251 Pathology			6	252 Pathology				6
203 Microbiology	4	4	204 Microbiology	4	3			
253 Microbiology			3	253 Microbiology				3
205 Pharmacology	4	3	206 Pharmacology	4	3			
255 Pharmacology			3	256 Pharmacology				3
207 Preventive med.	3	2	208 Prev. med.	3	2			
257 Prev. med.			3	258 Prev. med.				3
209 Parasitology	0.5	1	210 Parasitology	1	1			
				260 Parasitology				3
211 Surg. Anatomy	0.5	1						
213 Diagnostics	0.5	1	214 Diagnostics	1.5	2			
			264 Diagnostics					1
215 General Surgery	0.5	1	216 General Surg.	0.5	1			
Total	20	18		20	16			19

Junior

1st Semester				2nd Semester			
No. Subject	hrs of lect. cr. per week	hrs of lab./w.	No. Subject	hrs of lect. cr. per week	hrs of lab./w.		
301 Int. medicine	6		302 Int. med.	4	4		
351 Int. med.		40	352 Int. med.			36	
			304 Neurology	1	1		
			354 Neurology			18	
			306 Inf. Dis.	1			
			356 Inf. Dis.			18	
307 Surgery	5	5	308 Surgery	4			
357 Surgery		30	358 Surgery			54	
311 Dermatology	1	1	312 Dermatology	1	1		
361 Dermatology		10	362 Dermatology			18	
313 Urology	1	1	314 Urology	1	1		
363 Urology		10	364 Urology			18	
315 Pediatrics	1	2	315 Pediatrics	1	1		
365 Pediatrics		10	366 Pediatrics			28	
317 E.N.T.	1	1	318 E.N.T.	1	1		
367 E.N.T.		10	368 E.N.T.			18	
319 Ophthalmology	1	1	320 Ophthalmo.	1	1		
369 Ophthalmology		10	370 Ophthalmo.			18	
321 Ob-Gy.	2	2	322 Ob-Gy.	2	2		
371 Ob-Gy.		10	372 Ob-Gy.			18	
323 Psychiatry	1	1	324 Psychiatry	1	1		
373 Psychiatry		10	374 Psychiatry			18	
325 Radiology	0.5	1	326 Radiology	1	1		
			376 Radiology			18	
327 Clin.Pathology							
	1	1					
377 Clin.Pathology		10	378 Clin.Path.	0.5			18
			330 Clin.Pharm.	0.5	1		
			330 Dentistry	0.5	1		
			382 Dentistry			18	
333 Prev.medicine	0.5	1	334 Prev.med.	0.5	1		
335 C.P.C.		1	336 C.P.C.		1		
	21	24		21	23		306
			ward round				policlin.

Senior

1st Semester				2nd Semester			
No.	Subject	hrs of lect. cr. per week	hrs of lab./w.	No.	Subject	hrs of lect. cr. per week	hrs of lab./w.
401	Int. medicine	4		402	Int. med.	6	4
451	Int. med.		36	452	Int. med.		36
403	Neurology	1		454	Neurology	0.5	18
452	Neurology		18	456	Inf. Dis.	0.5	18
405	Infect. Disease			408	Surgery	4	4
		1		458	Surgery		54
455	Infect. Disease		18				
407	Surgery	4	3				
457	Surgery		54				
409	Anesthesiology						
		0.5	1				
411	Dermatology	1	1	462	Dermatology	0.5	18
461	Dermatology		18	464	Urology	0.5	18
413	Urology	1	1	416	Pediatrics	1	1
463	Urology		18	466	Pediatrics		18
415	Pediatrics	1	1	418	E.N.T.	1	1
465	Pediatrics		18	468	E.N.T.		18
417	E.N.T.	1	1	470	Ophthalmology	0.5	18
467	E.N.T.		18	422	Ob-Gy.	2	2
419	Ophthalmology	1	1	472	Ob-Gy.		18
469	Ophthalmology		18	424	Psychiatry	1	1
421	Ob-Gy.	2	2	474	Psychiatry		18
471	Ob-Gy.		18				
423	Psychiatry	1	1				
473	Psychiatry		18				
425	Radiology	1	1				
475	Radiology		18				
477	Clin. Pathology			478	Clin. path.	0.5	18
		0.5	18	430	Publ. Health	0.5	1
429	Public Health	0.5	1	432	Pharmaceut.	0.25	1
				434	Forensic med.	0.25	1
435	Legal medicine	0.5	1	438	C.P.C.		1
437	C.P.C.		1				
Total		21	22	Total		19	17
		288				270	
		Policin.				Ward round	

Number of Graduates

Keijo Medical College	1036
Dept. of Medicine, Keijo Imperial Univ.	310
Dept. of Medicine, Kyung-sung Univ.	34
College of Medicine, S.N.U.	1569
	<hr/>
Total	2949

National Budget

Regular Salary	HW 64,340,000
Miscellaneous Salary	4,480,000
Travel Fee	12,000
Transportation Fee	500,000
Communication Fee	4,000
Public Supply	4,400,000
Printing Fee	320,000
Repairing Fee	220,000
Expendable Material	4,110,000
Equipment	3,000
	<hr/>
Total	HW 78,389,000
Official Exchange Rate .....	HW 500 to \$1.00

## Library

Total number of kinds of western medical journals	509
Total number of kinds of oriental medical journals	155
Total number of volumes of medical journals	17,590
Total number of textbooks	4,116

### Through the Cooperation Project:

Medical journals	157 kinds	(FY 1956-,58)
	161 kinds	(FY 1959-,61)
Textbooks	513	

### Through the China Medical Board:

Medical journals	30 kinds	(FY 1954-,61)
Textbooks	23	(FY 1958-,59)
Textbooks	\$500.00	(FY 1960-,61)
	(not received)	

### Equipment through ICA Project

	FY 55, 56	FY 57	FY 58	Total
Purchase Order	308,419.10	60,008.65	79,959.40	448,387.15
Received	308,419.10	50,274.53	55,581.63	414,275.26
Not Received	0	9,734.12	24,377.77	34,111.89

As of 31 July, 1959

Rehabilitation through ICA Project

	FY 55	FY 56	FY 57	FY 58	FY 59 Plan
College of Medicine	\$10,560.83	\$75,000.00			\$85,560.83
	HW 20,646,800	HW 83,681,000	HW 49,277,000	HW 32,159,000	HW 185,163,800
	Roofing	Heating system water supply system	Reading room Animal house	Constant temp. room Gas apparatus etc.	Repairing of main audi- torium
University	\$72,733.00	\$107,000.00	\$225,770.27	\$52,700.00	\$458,203.27
Hospital	HW 48,180,200	HW 75,596,000	HW 104,946,000	HW 166,835,000	HW 395,557,200
	Additional build. of Ob-Gy & Eye clinic Corridor of Out- patient clinic building	Heating system water tank Roofing	Electricity Screening Corridor rep- airing	Fence Corridor of ward Roofing Pavement Additional build. for operating room & X-Ray	Animal house Clinical res- earch room
Nursing		\$100,000.00		\$50,000.00	\$150,000.00
School		HW 101,506,000		HW 200,002,000	HW 301,508,000
		Nursing school building		Dormitory Furnitures	
Total	\$83,293.83	\$282,000.00	\$225,770.27	\$102,700.00	\$693,764.10
	HW 68,827,000	HW 260,783,000	HW 154,223,000	HW 398,996,000	HW 882,829,000

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Miscellaneous Figures as of 1957 in Korea

- 1) Registered Number of Licensed Physicians..... 6,782  
per 10,000..... 3.2
- 2) Registered Number of Licensed Dentists..... 1,125  
per 10,000..... 0.5
- 3) Registered Number of Licensed Herb-doctors..... 2,373  
per 10,000..... 1.1
- 4) Registered Number of Licensed Midwives..... 2,878  
per 10,000..... 1.4
- 5) Registered Number of Licensed Nurse..... 2,962  
per 10,000..... 1.4

6) Distribution of Medical Facilities

General Hospital.....	50	Health Center.....	22
Speciality Hospital.....	96	Relief Dispensary.....	513
Clinic.....	2,626	Midwife Practice.....	1,202
Dental Hospital and Clinic..	551		
Herb-clinic.....	1,275		
Sanatorium			
TB.....	4		
Leprosy.....	42		