

REPORT OF OBSERVATIONS

AS

ADVISER IN MEDICINE

TO

COLLEGE OF MEDICINE

SEOUL NATIONAL UNIVERSITY

April 1 to July 1, 1956

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INTRODUCTION

The material contained in this report is based on personal observations during the three-months period (April 1 to July 1, 1956) in Korea, as Adviser in Medicine to Seoul National University College of Medicine under the contract of the University of Minnesota with the International Cooperation Administration of the United States Government for Seoul National University of Korea. Dean Kim Sung Chin of the College of Medicine devoted exceptional time and energy throughout this period to assisting in orientation not only to medical education, research and practice as it exists in present day Korea, but also to the cultural background and mores of the people. Some understanding of all these factors is essential to the planning of an appropriate program aimed at "strengthening and developing medical education and research" at Seoul National University.

During the early weeks a series of individual conferences was held, each with one or more representatives of the twenty departments and Dean Kim present. The purpose of these conferences was initial orientation to circumstances and problems in each department of the Medical College. Later this information was supplemented by informal contact with the majority of staff members in each department, with inspection of the various departments' physical facilities and with observation of the teaching activities in the lecture halls, in the laboratories and in the hospital wards and clinics.

There was also opportunity to participate in staff meetings of the Medical College faculty and of the Education Committee of the Korean Medical Association and in the creation of the Korean Medical Education Advisory Council, advisory to the Ministry of Education but also participated in by representatives of both the Ministry of Education and the Ministry of Health and Social Affairs.

Addresses were given to the general assembly at the Korean Medical Association annual meeting, to the Education Committee of the Korean Medical Association, to

the entering Freshman Medical Class of Seoul National University and to the faculty and student body of the School of Nursing.

In addition, during the period the majority of the medical installations and officials in and around Seoul City were visited. These included the Ministry of Education, Ministry of Health and Social Affairs, Ewha Women's University Medical College and Hospital, Severance Union Medical College and Hospital, Seoul Women's Medical College and Hospital, Holy Ghost Medical College and Hospital, Chosun Christian University, East Gate Hospital, Electric Company Hospital, Seoul City Hospital, Red Cross Hospital, Seoul Sanitarium and Hospital, Psychiatric Hospital, Capitol Army Hospital, Private Hospital of Dr. Kim, Sung Chin, The College of Oriental Medicine, Bone Setter's Hospital, Herbist, Acupuncture, Moxa Caution.

Also, of course, other Colleges of Seoul National University were toured including the pre-medical section of the College of Liberal Arts and Sciences, College of Dentistry, College of Pharmacy, and Veterinary College.

A ten-day extensive tour of the Republic of Korea was made with Dean Kim. This review of medical facilities in Korea with special emphasis on education provided excellent background for evaluation of Seoul National University's position in medical education in Korea today and in the future.

The Medical Conference of the Far East Air Force held May 6 to May 9 at Yamato Air Station near Tokyo, Japan, was attended. This gathering of medical men from twelve countries of the Far East served admirably to give knowledge of the situation of medical education in the Far East and to provide perspective on the situation of the Republic of Korea.

The report is divided into sections which consider the various functions, activities and facilities of the College of Medicine. Each section provides first a factual account of present circumstances. This is followed by a discussion and recommendation for possible alteration aimed at improvement in the total medical educational service which the College provides to its nation.

In the making of this evaluation a conscientious and scrupulous effort has been exerted to maintain objectivity in appraising the circumstances and making recommendations which relate to the Korean social structure and economy as well as to modern western educational techniques. The mutual understanding and respect which has characterized relationships during this period from its very beginning are sufficient to assure consideration of this report in its proper intent. This whole effort has as its sole purpose that of assisting the College of Medicine, its Dean and its faculty in strengthening and developing its rightful position of leadership in medical education in the Republic of Korea.

Finally, what usefulness this report may have is due in large measure to the splendid cooperation and friendship of the Dean and the faculty of the College of Medicine.

I. MEDICAL EDUCATION IN KOREA

There is in Korea today an insufficient number of adequately trained medical personnel. There are approximately 3500 licensed M.D.'s. The total population is approximately 22,000,000 people; thus there is a ratio of about one doctor to 6,000 individuals.

During the Japanese occupation of Korea for the greater part of the first half of this century, relatively few Koreans were given opportunity to receive professional education. Those few educated were not allowed to assume any significant responsibility or to progress in academic fields.

In addition as a result of the war between North and South Korea relatively soon after liberation there was great destruction of facilities and loss of faculty for the training of doctors and nurses. What educational effort was continued during the war resulted in the turning out of many doctors and nurses poorly equipped and trained to carry on the responsibilities of their profession.

Further, many physicians practicing are not graduates of accredited schools but obtained licensure by self-preparation of various sorts and passing a written

examination. Many people providing some sort of "medical care" are not physicians but various sorts of "healers" operating in unrestricted fashion under restricted licenses.

There are at present eight medical schools in the Republic of Korea. Four are national schools associated with universities and coeducational in character. These are Seoul National University at Seoul, Kyung-puk University Medical College, Taegu, Chon-nam Medical College at Kwangju, Pusan University Medical College at Pusan (new; now has a sophomore class). The other four schools are privately supported and all located in Seoul. These include Severance Union Medical College (Presbyterian and Methodist; coeducational), Ewha Women's University Medical College (Methodist; women only), Seoul Women's Medical College (private foundation; women only), Holy Ghost Medical College (Catholic; men only; new, now has a freshman class). Two, Ewha and Holy Ghost are components of universities; Seoul Women's and Severance Union are not.

As years after the war increase the numbers entering medical schools and thus the number graduated and gradually increasing. Approximately 450 doctors were graduated in the spring of 1956. When the two new schools are on a four-year basis the total will be around 600 per year.

Regardless of the source of support all medical schools are supervised by the Ministry of Education. The Ministry of Health and Social Affairs offers technical advice and grants various licenses.

All schools have a lower ratio of faculty to students and have fewer hospital beds available for teaching than American schools commonly have.

The selection of medical students is commonly made on admission to the pre-medical curriculum after high school (age 17-18). At that time an entrance examination must be passed and other screening is accomplished, such as health and personal references. The two-year pre-medical course requirements are not uniform and the content varies depending upon the caliber of the school. An examination at the end of pre-medical years for admission to the Medical School

is not required. Satisfactory achievement in the pre-medical curriculum is sufficient. In fact, Ministry of Education ruling guarantees a medical education to anyone accepted for pre-medical course who successfully matriculates. Additional screening at time of admission to Medical School is prohibited.

The medical course is four years in length and its method, caliber, and content vary appreciably from school to school. However, the basic science and clinical subjects are similar to those of western schools. A transition to western methods of medical education has begun but the emphasis still is on didactic work. Basic science laboratory work is relatively limited and simple in content. Clinical contact is brief and characterized more by observation than participation by the student in the patient's diagnosis and care.

Examinations are of varying types and frequency, though all schools utilize them and require the passing of some sort of an examination at least at the end of each year.

Medical preparation is primarily for general practice. Internship is not required but an increasing number of students are seeking this additional training for which there is no significant financial remuneration at the present time. Residency training of from one to five years is offered in most institutions. A small number of students are candidates for graduate degrees in the university affiliated schools. At the end of residency training a Board in the Ministry of Health and Social Affairs examines the qualifications of the applicant and reports to the Minister of Health who issues a Specialists Certificate.

License to practice, valid throughout the Republic of Korea, is the responsibility of the Ministries of Health and Social Affairs and of Education. A national written examination is the basis for licensure. Anyone may take the examination. Course work in an accredited medical school is not required. Internship is not required for admission to this examination.

In 1951 the Minister of Education approved the establishment of "The College of Oriental Medicine." This College trains students in herb medicine. About

this same time the National Assembly passed a licensing law for herbists, and such licenses are issued by the Ministry of Health and Social Affairs. (After liberation in 1946 under the Military Government licensing had been discontinued). Other types of healing arts practiced without license include acupuncture, moxa cautery, and bone setting. Such individuals treat more patients than do the medical doctors in Korea.

Discussion and recommendations.

After reviewing the situation of existing schools of medicine and nursing one cannot help but agree with the opinion of those experts who have studied the situation objectively that the upgrading of the present school should be accomplished before any attempt to increase the output of doctors and nurses. Although the ratio of one doctor to 6,000 people seems to indicate a need for physicians, actually there are sufficient numbers of doctors in accordance with the acceptance of the physicians by the general population. At present in total there are more patrons of the several practitioners of "healing arts" than of medical doctors.

Essential to the development of medical education is the establishment of minimum standards including requirements for admission and pre-medical and medical curricula as well as faculty, physical plant, teaching materials and clinical facilities of medical schools. Also essential are more strict requirements for licensure such as graduation from an accredited medical school and a one-year's internship. The recently established Medical Educational Advisory Council to the Ministry of Education with representation of the Ministry of Health and Social Affairs is a significant step forward. Through this Council clarification of Government responsibilities in medical education and in the development of a sound system of medical education and licensure can be achieved. Activities of the Medical Education Committee of the Korean Medical Association can be expected to exert a salutary influence also.

The use of well trained paramedical personnel such as laboratory technicians,

x-ray technicians, physical therapists, etc., can be of great assistance in the total medical effort. Education of such personnel can be regularized by establishing licensure procedures.

Centuries old beliefs and customs and almost total lack of health education of the population are common problems confronting all efforts at medical education and care in the Republic of Korea. These will require many years to change.

One other procedure of first order of importance which relates indirectly to medical education is the control of drugs. A system of drug control with a physician's order required for dispensing is absolutely imperative. Without this the present situation of self-treatment by the sick and of actual practice of medicine by pharmacists can only lead to medical chaos.

II. HISTORY OF SEOUL NATIONAL UNIVERSITY COLLEGE OF MEDICINE

"Seoul National University College of Medicine was organized in October 1945 under Act No. 102 of U.S. Military Government in Korea and utilized the buildings and equipment of the former Keijo Imperial University Faculty of Medicine left by the Japanese at the time of Liberation of Korea after World War II. This college forms one of 12 colleges of Seoul National University. The University is under the administration of the Minister of Education of the Republic of Korea Government.

"This college has endeavored to be the medical center of Korea since its establishment in October 1945. However, the Communist invasion in June 1950 to Seoul and South Korea forced this college to evacuate to Pusan, temporary capital of the Republic of Korea. The equipment and books were left in Seoul. Students and teaching staff were scattered throughout the country. The school discontinued operation for nearly one year and reopened in June 1951 in Pusan City. During this period many staff members volunteered for the military service as medical officers and their services were distinguished. As for the students, nearly 200 among 470 registered volunteered for military service.

"In the early phase of the Korean War until September 1950 the faculty was trapped in Seoul under the rule of Communist North Korea. Communist North Korea, retreating from Seoul in September 1950, arrested and took with them nearly 70 staff members of this college to compensate for their shortage of medical doctors. About 100 students were also abducted. Some of the staff members and students came back to this college when U. N. forces pushed through to the north of the 38th parallel. Many of them, including five professors, are still missing.

"This college returned to the original site of the school in Seoul after taking refuge in Pusan City for 3 years, in September 1953. At that time all school buildings including the University hospital were under use by the 5th

U. S. Air Force. The school continued in one corner of the College of Liberal Arts and Sciences buildings of this University until March 1954 when the 5th U. S. Air Force evacuated the College of Medicine buildings. This college removed to its original buildings in 1 March, 1954. All buildings were completely empty without a remnant of the equipment or furniture. Here the rehabilitation of the College began and it continues to the present.**

*(From a general statement in the Catalogue of Seoul National University, 1956-57)

III. PHYSICAL PLANT

The buildings of the College of Medicine (both basic science and Hospital) are located in the immediate area of the general University. The basic science group is composed of four buildings. A small building contains three separate lecture halls, one each for freshmen and sophomore medical students and for freshman nursing students. Another small building contains the storerooms and laboratories of the Department of Anatomy and an autopsy amphitheatre. A third building contains offices and laboratories for the Department of Biochemistry and space to be used by the School of Public Health. The offices of the College of Medicine and the other basic science departments and laboratories plus a large lecture hall (450 capacity) are contained in a large main building. Pre-clinical instruction for the first and second year classes is given in these basic science buildings where a total of nine departments are located.

The University Hospitals are composed of 15 buildings which are immediately adjacent to the basic science facilities and the general university. They include a main hospital building and four corridor attached ward buildings, an out-patient department building also corridor attached, a communicable disease hospital, mental hospital, kitchen, laundry, heating plant, generator house and storehouse. There is in addition a clinical research laboratory building not yet rehabilitated or equipped and thus unused and an adjacent animal house also not in use.

Classes for junior and senior students are held in two large amphitheatres in the main hospital building. Clinical instruction is given in the Hospital (450 bed capacity, plus 50 bassinets) and the attached Out-Patient Department

building. The offices and laboratories of the clinical departments are located in the main Hospital building.

There is in addition a 200-bed hospital belonging to Seoul National University located in a nearby section of Seoul City. This building is being used at present by the Republic of Korea Army as its Capitol Army Hospital. There is no plan for return of this facility to the University in the near future.

One 2-story building formerly used as an out-patient department and hospital for charity cases was destroyed by bombing. Otherwise, the buildings of the Medical School did not suffer war damage from bombing or fire. There were, however, no maintenance efforts over more than a three-year period. Thus the condition of roofs, walls, floors, etc., has been such as to require extensive repair and rehabilitation to put them into useful condition and to guard against further decay. In addition, as mentioned previously, all equipment and furniture had been removed.

The College was, however, in operation when the Minnesota contract began in September, 1954. After its return to its original buildings in March, 1954 the School had received beginning essential aid in the form of building materials, drugs and chemicals, clinical laboratory and pharmacy equipment, surgical and diagnostic instruments, hospital supplies (280 beds, mattresses, blankets, basins, etc.) plus a generator, x-ray unit and sterilizer. These were provided primarily by KCAC but also by CRIK. Their efforts made it possible for the School and Hospital to begin to operate once again and provided a foundation on which the Minnesota program could be built.

There are three separate heating plants for basic science, hospital and nursing school. These units have not functioned properly. Many pipes and radiators had been removed. Adequate fuel supply has been lacking and remains a chief problem. Water, aside from general short supply, has been inadequate because of worn-out pipe and removal of sinks and other facilities. Electrical power has been generally lacking but in addition wiring has been inadequate for needs. There has been no

gas supply.

The Hospital is not screened.

With funds provided both by the Republic of Korea government through the University budget and by OEC rehabilitation of the physical plant has been proceeding slowly. Leaking roofs have been repaired and much painting has been accomplished. Electrical and water supplies from the city sources have generally improved, but the supply of these utilities at the School and Hospitals is yet to be improved. Equipment and labor for further work on this project is included in the rehabilitation plans for fiscal year 1956-57.

Discussion and Recommendations.

Present building facilities (with the planned addition of a nursing classroom building and with the exception of Nursing School dormitories) appear adequate for space needs in the foreseeable future.

The plans for further rehabilitation are being prepared for fiscal year 1956-57. These logically place emphasis on further restoration of adequate heat and light and sewage disposal services. Certain other projects which are essential to optimum operation are already itemized in order of priority. Preparation of detailed plans for these should proceed even though money is not presently available. Naturally, the obtaining of financial assistance for such projects is much facilitated if concrete plans can be presented to those considering the request for funds.

Adequate screening of the Hospital is of first order of importance. To make this effective all personnel working in the Hospital must be impressed with the rationale and proper use of screens.

These things must be accomplished first, but in the future some consideration might be given to other improvements which would brighten the general atmosphere, particularly of the Hospital. These include more lighting, the painting of walls and woodwork with light colored oil base paints which are more durable and more easily maintained, and improvement of floor surfaces.

Rehabilitation of the central research laboratory building and animal house is properly being postponed until research activity is well under way. Space adjacent to various department offices is adequate for the present.

Adequate maintenance, of course, requires continuing effort. The Medical School and the Hospital each has its separate maintenance departments, which appear to need additional personnel and organization. Adequate funds and effort must be devoted to this activity to preserve what gains are made.

Equipment now on order through the Minnesota contract is expected to arrive by fall of 1956. This will provide adequate basic teaching aids, hospital and out-patient clinic technical facilities, and beginning equipment of research laboratories for faculty members in the various departments. Further ordering of equipment with rare exceptions should be delayed until that presently on order has arrived, is functioning, and has been integrated into the teaching and service functions of the School and Hospital. At such time further needs can best be judged.

Preparation must be made for the maintenance of scientific equipment in the college. Individual faculty members should have relatively intimate knowledge of the equipment they are using and thus be able to effect proper upkeep. However, the overall maintenance of scientific equipment would be greatly aided by having one additional skilled individual responsible for this function. Plans should be made to acquire such an employee. He will undoubtedly have to have additional on-the-job training. Availability of such a trained person would, of course, in no way remove the responsibility of the faculty for adequate care of the equipment in its charge.

IV. FINANCE

The total Seoul National University budget is approximately 530,500,000 Hw. (\$1,000,000) per year. Of this the College of Medicine receives approximately 54,000,000 Hw. (\$108,000) annually.

Financial support comes from two sources - the National Government through the Ministry of Education (with approval of the Ministry of Finance) and the Financial Support Organization. The cost of operation may be divided into two major categories, salaries and all other expense. The Government provides the major share of the money for other expenses and a small share for salaries. The Financial Support Organization provides the major share of salaries and a small amount for other expense. In terms of the total Medical College budget, about one-third comes from the Financial Support Organization and two-thirds from the Government.

Each student at any Government-supported University must have one sponsor (usually his parent). These sponsors make up the Financial Support Organization, and each contributes a uniform amount per student to the University over and above the tuition fee in support of education. The FSO determines its own self-assessment. Two delegates selected by the sponsors from among their ranks in a given college make up the central FSO committee. The amount of money to be devoted to salary support for the University faculty as a whole is decided by this central committee at its meeting at the beginning of each semester. Each staff rank in the University receives a set stipend. This is the same in all colleges for a given rank. Shares of the remaining sum are delegated to the individual colleges for supplementary support of the college's expenses.

Each college of the University also has its own FSO committee. In the College of Medicine a total of nine delegates, two from among the sponsors of each year's class plus one delegate at large, are chosen to constitute along with the Dean, the Dean of Students, the Registrar, the Secretary, and the Director of Hospitals, the Medical College FSO committee. This committee meets monthly and considers principally the use of the supplementary support funds provided by its organization to the College.

The Central Finance Office of the University gives each college a budget over and above salaries at the beginning of the year. The College must, however,

obtain approval of the central office for the uses to which it puts these funds.

At Seoul National University (similar in other Government universities) the average professor's salary is 63,000 Hwan (\$126) per month; the average instructor's salary is 40,000 Hwan (\$80) per month. Private colleges pay higher salaries to medical faculty; for example, an average of 100,000 Hwan (\$200) for a professor. Members of the Medical College clinical staff are permitted to carry on private practice of medicine to supplement their salaries.

Discussion and Recommendations.

Salaries are insufficient and make it necessary for many faculty members to engage in outside work or practice to provide a livelihood. This interferes with their efficiency and happiness in the carrying out of their educational responsibilities. Financial problems are serious throughout almost all phases of the economy but will change with the growth of the new Republic. With this improvement first attention should be given to the institutions of learning. The foundation for Korea's future is education.

V. ADMINISTRATION

GENERAL

Seoul National University, one of four (others at Taegu, Pusan and Kwangju), is the responsibility of the Ministry of Education. The University president's appointment must receive the approval not only of the University faculty but also the Minister of Education, and the President of the Republic of Korea. He is directly responsible to the Minister of Education.

The College of Medicine is one of twelve colleges comprising the University. The Dean of each is directly responsible to the University president. It has been customary for the Dean of Medicine to discuss matters frequently and fully with the President, especially those relating to personnel.

The College of Medicine has four sections, the Medical School, School of Nursing, School of Public Health and the University Hospitals. The Dean has

the assistance of a Registrar, a Dean of Students, and a chief secretary in carrying out the administrative functions of the College.

In most instances there is a dual responsibility of these officers and sections. The School of Public Health is also responsible to the Graduate School. The University Hospital is also responsible to the University Secretary General as is the College's chief secretary. The Dean of Students is responsible not only to the Dean of Medicine but to the University Dean of Students. And the Registrar is additionally responsible to the Dean of the Faculty.

The number and grade of Medical College faculty members is according to a Table of Organization, determined four years ago at the time of the reestablishment of Seoul National University at Seoul City. It was recommended by the University but required the approval of the Ministry of Education and the Ministry of Finance. The total number of faculty for each college and the total number of professors, associate professors, and other faculty grades is fixed by this Table of Organization. The University President has discretion to apportion the numbers of various grades to each college, within their fixed total. Within each college the faculty has the privilege through its Dean or otherwise of apportioning the faculty to the various departments within the College.

Discussion and Recommendations.

Actual working relationships modify greatly organization and structure as it appears on paper. It would be presumptuous to comment on the general administrative structure in relationship of the College to the University and to the Ministry of Education on the basis of the necessarily limited knowledge of actual working relationships which this brief exposure has afforded.

V. ADMINISTRATION

MEDICAL SCHOOL

The faculty as a whole has assumed relatively direct responsibility for the administration of the Medical School. A meeting of all the faculty is held once each month and all have equal voice in affairs. The majority attend

and decide all matters of policy as well as management of college affairs such as faculty hiring, promotions, etc.

The Dean of the College is elected every four years. He may be re-elected but such an occurrence is rare. This office has not exercised a significant degree of independent action in the past. Within the past few months Dean Kim has appointed three basic science faculty members and three clinical faculty members to serve as a steering committee to consider important matters relating to the College's rehabilitation, financial affairs and general policies. This committee in turn then makes recommendations on the basis of its special studies and considerations to the general faculty before this faculty votes the final decision.

There are twenty departments in the Medical School. A Departmental Chairman has been designated but this position carries essentially no authority or function. The Professors in any department are senior to the Department Chairman.

The Table of Organization allows 95 faculty positions in the Medical School. More than one-third of the faculty members have served in the Republic of Korea armed forces. There are approximately 20 faculty members still in the armed forces. The College has an obligation to rehire these returning veterans. The 95 faculty positions are more than filled at the present time.

Discussion and Recommendations.

As the development of the College continues the desirability of greater delegation of authority by faculty to duly elected representatives and of permission for exercise of greater initiative and assumption of responsibility by the Dean of the College will become increasingly apparent. The freedom of a capable Dean to give strong and far-sighted leadership and to carry out long range programs over several years can contribute greatly to the position of leadership which the College assumes. At the departmental level there is also advantage in giving real authority to one person to carry out the administrative functions of the department and see that the department works as a unit.

The College is at present fortunate in having a true leader as its Dean, Dr. Kim Sung Chin. He possesses understanding, integrity, and vision. He is a man of action, coupled with a deep sense of responsibility. A person of good humor, Dean Kim is well liked and respected by his faculty colleagues as well as ^{by} doctors and laymen throughout the Republic of Korea.

Many of the faculty in their fields of endeavor are leading personalities in the Republic of Korea. As a whole they are energetic, capable, eager to progress, possessed of individual initiative and a strong sense of loyalty to their College, the University and the Country.

Problems of staffing are particularly difficult during this period of rotation to the University of Minnesota for long periods and of obligatory military service of still uncertain duration. In a comparison of faculty to student ratios with the other Colleges of the University the College of Medicine appears better situated. However, medical teaching commonly requires a somewhat higher ratio of faculty to student. With approximately one-fourth of the faculty absent it is difficult to judge whether total faculty size according to the present table of organization is adequate or not. An additional problem is presented by some twenty staff members still in the Military service who will have to be accommodated when they are released.

Viewed in the restricted sense of an institution purely for training of general physicians for Korea the present faculty once at full strength is probably adequate. However, enlargement of staff will be appropriate as the School's position of leadership strengthens. Continued development of the School will make new demands on the faculty time. It would be hoped that the number of patients cared for by the clinical services will increase (badly needed for adequate teaching in the junior and senior years) and with it of course faculty requirements will increase. The direction of effort for the present would seem to be that of acquiring the means to maintain a core of full-time members (without private practice obligations) and to delay until

later the increased utilization of physicians also in private practice as additional clinical teachers on a part-time status.

The whole staff situation will be dynamic for at least the next two or three years. By then the great majority of staff members will have returned from training in the United States or from Army Service and will have had an opportunity to test their particular talents and to begin to work together as a team. It therefore seems wise to minimize permanent re-arrangements during this transition period. Methods should be sought to keep the situation flexible, such as requiring a probation period before tenure can begin to be accumulated and keeping channels open for the interchange of faculty with other Government schools.

In preparation for more permanent faculty plans it would be advisable to make a critical review and appraisal of the present Table of Organization. The number of faculty allowed some departments is not well apportioned.

The complexity and breadth of modern medicine no longer permits one individual, at least as a teacher, to comprehend enough medical knowledge in his lifetime to proceed independently in the general field of medicine. Instead on the one hand, one man's truly expert knowledge must be restricted to a special field and on the other, in order that his special knowledge be put in a proper perspective of total patient care and whole medical education, each man must maintain through constant broad associations a sound general background.

This is particularly true in large clinical departments, such as Medicine, Surgery and Pediatrics. Here this can best be achieved by having all physicians in the Department responsible for all types of problems. Three or four sections may be necessary within a large department. However, if one Senior staff member is to be continually in charge of the same section and several Junior staff members are to be limited to experience on only one section then no one section should be limited to one type of disease problem. At the same time, although a section contains all types of disease problems the special knowledge that one man possesses, for example as of gastrointestinal diseases, can be available to

all students, staff and patients. This can be achieved by having him see regularly on consultation rounds all the problems of that particular type on all sections.

This requires a high degree of cooperation among all Doctors in a department, but the patient and the medical student and the Doctor all benefit in better care, better teaching, and the increased judgment and value of opinion that comes from broader experience. In the more specialized disciplines isolated sections are not as likely to exist and the problem within the department is more easily dealt with, but these specialties serve to bring attention to the additional necessity for cooperation between departments. Frequent use of consultation from other departments and of inter-departmental conferences does much in accomplishing a full team approach in the teaching of medicine and the care of the patient.

These same principles of cooperation among individuals in a department and among departments apply as well to the basic sciences. Here particularly in modern day comprehensive teaching and understanding it is essential that the basic scientists aid one another and that the clinician and the basic scientist mutually assist one another. Frequent contacts in inter-departmental conferences are essential.

V. ADMINISTRATION

SCHOOL OF PUBLIC HEALTH

This School has until recently been an activity of the Ministry of Health and Social Affairs and not associated with Seoul National University. It had been initiated in September 1953 with support funds from the American-Korean Foundation. In the ensuing period a short course of nine weeks' duration composed principally of lectures was repeated five times to a total of 83 students. The faculty aside from the Director and one other member were visiting lecturers including various foreign health representatives in Korea as well as leaders of Korean health agencies. The students were physicians from Korean civilian health agencies and the Korean military organization.

Its transfer to Seoul National University and thus the jurisdiction of the

Ministry of Education was effected in March, 1956 with the termination of support funds from the American-Korean Foundation. The Director of the School, Dr. Hahn Bum Suk, joined Seoul National University's staff to continue as Director of the School. He has one additional faculty member and continues to utilize visiting lecturers.

The School as a part of the University is associated with both the College of Medicine and the Graduate School. It is distinct from the Department of Hygiene and Preventive Medicine in the Medical School. At present it has no separate physical facilities but uses office space in the Department of Hygiene and Preventive Medicine. It is planned that it will be quartered in the building which houses Biochemistry. Room space is available there. Some equipment and over 600 volumes of library books have not yet been released to the School by the Ministry of Health and Social Affairs.

As a part of the University its program has been expanded. The course as organized at present is principally didactic and requires a minimum of three semesters (one and one-half years) and a maximum of six semesters (three years) of work with satisfactory achievement for the Masters Degree in Public Health. Two semesters must be spent on the basic program and additional time is then spent in courses in the student's special field of choice. Programs of advanced study are offered in Public Health Administration, Epidemiology, Sanitation, School Health, Industrial Health, Hospital Administration, and Physiological Hygiene. There are nine graduate students who began work in April, 1956 enrolled at the present time.

Members of its faculty are also assisting the Department of Hygiene and Preventive Medicine by giving a series of lectures in Public Health to senior undergraduate medical students throughout the year.

The School looks forward to expanding its program to include instruction to other students in Public Health, including the Public Health nurses, Sanitation

Inspectors and Engineers, Statisticians and Nutritionists. Also hoped for is the creation of a demonstration Public Health Center on or in the area of the University campus. There is at present as noted in the section on Nursing in Korea, a school of Public Nursing under the Ministry of Health and Social Affairs and supported by outside funds.

Discussion and Recommendations.

As a natural outgrowth of Korea's centuries long history under a feudal system and occupation and rule by various foreign powers of Asia the Korean people have not been given the opportunity to develop the concept of public welfare. There is very strong loyalty and a sense of responsibility to one's family but little concept of the individual's obligation for community welfare. This includes not only people generally but many medical students. The School of Public Health and all Public Health effort suffers from this basic peculiarity.

Therefore, one of the principal efforts in teaching medical students is that of making them aware and gaining their acceptance of this principle. This effort is presently being done in the Public Health lectures of the senior year. However, this principle is so basic to the whole philosophy of medicine that conscious effort should be made to introduce it at the beginning of the freshman year and continue it as a foundation built through the entire four-year curriculum.

The teachings of the Department of Hygiene and Preventive Medicine and the School of Public Health might naturally duplicate each other to a fair degree; therefore, in order that there be no duplication of effort and waste of staff members' time the functions of these two sections must be carefully worked out. The School of Public Health is, of course, just getting under way. It has excellent leadership but lacks adequate personnel and facilities to offer a truly broad graduate degree program at the present time. The curriculum is ambitious and appears well planned but the dependence on one or two faculty members and/or on guest lecturers is not a desirable permanent situation for a Graduate School offering a Ph.D. degree program.

Badly needed, also, are facilities for practical experience. These never could nor should be provided in total at the University. A local health clinic might be feasible with, for example, a maternal and child health clinic operated by the Pediatrics and Obstetrics Departments, a chest clinic by Medicine, etc. The majority of such field facilities are those required and developed by the community as a part of its total Public Health program. Thus the development of the School must go hand in hand with the development of community facilities. There is an additional inter-dependence of school and community development. Relatively few positions are available for graduates of such a course at the present time so that enrollment will depend upon the creation of jobs through the Government public health program.

V. ADMINISTRATION

UNIVERSITY HOSPITALS

The Director of the Hospital is appointed by the President of the University on recommendation of the Dean of the College of Medicine from among the clinical faculty of the Medical School for a term of two years. Re-election is not common. The faculty member is obliged to carry on most of his regular departmental duties in addition to serving in the capacity of Director of Hospitals. The Acting Director has been the Professor of Radiology, Cho Choong Sam. Dr. Myung Choo Wan, Professor of Psychiatry, who has recently returned to the staff after Army service has been named the new Director of Hospitals.

Administratively responsible to the Director are a general secretary and the Chief of Nursing. Non-medical personnel under the general secretary included in five sections; business (including general administration and physical plant), finance (income and salaries), supply (including pharmacy, permanent equipment, and consumable supplies), and maintenance and engineering. None of these positions is filled by individuals that have had training in hospital administration.

In addition to these administrative assistants the Director is assisted by a committee composed of the professors in the clinical departments plus representatives of the Nursing Service. This committee meets weekly and decides matters of Hospital policy.

As would be expected the Director's position brings him into contact more than other Medical College officials with men of Government, especially the Ministry of Health and Social Affairs, men of business, patients' families, etc.

The Hospital is supported by funds from the National Government. Its budget is separate from that of the University and the College of Medicine. The Government determines a budget for a given year and the Hospital is obliged to make at least seventy percent of that. The total Hospital budget for fiscal year 1955-56 was 170,000,000 Hwan (\$340,000).

Hospital charges are 1,000 Hwan (\$2.00) per day for a single room and 300 Hwan (65¢) per day for multiple bed rooms. There is an additional charge for food of 800 Hwan (\$1.60) per day in a single room and 400 Hwan (80¢) in a multiple bed room. This charge in isolation rooms is also 400 Hwan. This is collected regardless of whether the patient's family brings food and cooks it in the room. Bedding and gowns are provided but usually supplemented in winter by bedding brought by the patient's family. The cost of drugs, special treatments, x-rays, laboratory work are extra, as is the physician's charge. The average cost to the patient is estimated at 1,000 Hwan (\$2.00) per day. This is about one-half the cost of care in private hospitals in this area. The cost per patient to the Hospital is estimated at approximately 1030 Hwan per day.

Admission is always through the Out-Patient Clinics except in emergencies. Clinics are open from nine to twelve each morning Monday through Friday. There is no general Medical Clinic. New patients are assigned to a special clinic by an admissions officer who is a layman and who makes the assignment according to his opinion of the patient's chief complaint. Admission after clinic hours or at night is by the Doctor on call. A charge of 500 Hwan (\$1.00) is made. An

emergency room is being arranged at the present time. All patients coming to the Out-Patient Department are pay patients. The registration fee is 85 Hwan (18¢). There is an additional charge for laboratory, x-ray, drugs, dressings, etc. A quota of not to exceed 20 percent of patients on any one in-patient service may be free. If Hospital admission is advisable the Doctor then makes the decision as to whether the patient is to be admitted as one of the 20 percent of free patients. There is no social service personnel which formally determines the patient's ability to pay. On some occasions a patient whose hospitalization becomes prolonged may be transferred to the free care status, though on admission he was judged capable of paying.

Patients are given a serial number on admission to the Clinics. If admitted to the Hospital a separate number is given on the individual ward. This may vary on readmission to the same or different services. There is no central record room. Current charts are kept on the ward and charts of patients discharged are kept by the individual service in its offices. X-rays are likewise kept on the ward or in the service office rather than in a central x-ray file. Supply is not centralized. Forms such as medication cards and procedures vary according to the preference of the professor in charge of a given ward.

Laboratory services have been centralized. Provision for some of the more important determinations awaits the arrival of equipment. Included in the planned new services by the Central Laboratories is a blood bank. One of the faculty members at present at Minnesota is preparing himself to administer this activity.

The Hospital bed capacity is 500 with an average census of 270. The average length of stay is one month, but this varies a great deal with the service. For example, two weeks average on Surgery, one month average on Medicine, two months average on Psychiatry. A total of approximately 1,000 major surgical cases in all specialties were operated upon last year. A total of 20 to 30 autopsies are performed per year.

The Out-Patient Clinic load averages 300 patients per day. The ratio of patients hospitalized to those seen in the clinics is very low. This is particularly true in obstetrics. Although 10 to 20 obstetrical patients per day are seen in the Out-Patient Department, there are only 4 or 5 deliveries in the Hospital per month.

Birth and death records are kept by the University Hospital. These are retained indefinitely although national law requires that they be retained for only five years. However, most records were lost during the recent war.

Internships are not offered at the Hospital at present.

Discussion and Recommendations.

The University Hospitals is a sufficiently large and important institution to require and merit the services of a full-time administrator who can devote his entire effort to this job. On the other hand in the present environment the Hospitals must be represented in outside contacts by a physician. If a physician cannot be found who will devote his time exclusively to the administration of the Hospital then the Doctor appointed as director should be obliged to serve only in such contacts and be provided with a full-time administrator to carry out all the other aspects of the job. The staff advisory committee should be continued to assist the administrator in matters of policy and maintain proper liaison between administration and medical and nursing staffs.

The Hospital lags somewhat behind the other phases of the Medical College transition. Several suggestions might be made toward improving the efficiency of operation of an institution of this size.

The keeping of all patient records in a central record room greatly facilitates the keeping of vital statistics by the Hospital, makes charts more readily available to all staff members and allows uniformity and completeness of recording to be effected. Also desirable and necessary in a central record room system is a uniform numbering system. Thus the patient is given one number on admission

to the Out-Patient Department or to the Hospital, whichever occurs first, by which he may be identified for all future time by any staff member.

Similarly, the availability of patients' x-rays to all the staff is improved and the assistance the X-ray Department can and should give to all of the various departments is significantly aided if all x-rays are kept on file in the X-Ray Department. Here also, the uniform numbering system using the patient's one Hospital number also as the x-ray number works to advantage.

The advantage of these centralization procedures also extends to the sterilization and supply of dressings, instruments and utility packs. A central supply room can effect simplification and economies of time and money, by providing throughout the Hospital uniform types of packs for specific common purposes. The adoption, where practical, of other uniform procedures, such as medication card forms, improves efficiency and reduces error.

Centralization of laboratory service has already been a very important improvement. The establishment recently of regular visiting hours is a significant step which will assist both medical and nursing staff in the performance of their functions.

At some future time it may become desirable to first examine all patients coming to the Out-Patient Clinic in a general new-patient clinic. Such a new-patient clinic might be supervised by the Department of Medicine. Also desirable in future planning is the development of facilities for Physical Medicine and Rehabilitation, not only for care of patients but with teaching functions also.

There is actually no official provision for acceptance of charity patients. The Hospital itself arranges this in an attempt to provide good teaching material. At some future date this concept of part charity care should have official Government recognition and support and the procedure should be regularized. In this regard, the Doctor's burden is greatly lightened by the use of Social Service personnel to determine the patient's ability to pay.

There exists a National Dispensary system which most hospitals have joined.

In return for providing care for all comers the Hospital receives some remuneration from the Government and is also eligible to receive material assistance from the United Nations aid agencies. Seoul National University Hospitals has not become a part of this system. It is felt that the University clinics would be deluged with minor illnesses and complaints and that the faculty is not sufficient to cope with such increased work load. However, once sufficient help is available to man such a clinic, it should aid materially in providing a source of additional in-patient teaching cases as well as a type of out-patient medical experience which the medical student should have.

Additional teaching cases are urgently needed. Little more than fifty percent of the beds in the University Hospitals are filled. It is said that patients are reluctant to enter the University Hospitals and criticize the lack of personalized care, qualities of food, and service, etc. The improvement of these factors will occur with general economic improvement but must also be accomplished through teamwork of nurses, doctors, and administration together to improve the methods of the Hospital and the attitudes of all employees and staff who care for sick people.

Reluctance of patients to submit to an examination by medical students is a real difficulty and one which, though it will require time, should improve with continued effort on the part of doctors to educate people to the need. In addition the medical student should be carefully oriented in the handling of patients. The staff and the student himself can do much to make this procedure more acceptable to the patient.

Consideration should be given to association for teaching purposes with other hospitals in the area. This would provide additional teaching material for students. Absolutely essential is some arrangement to provide medical students with increased practical experience in obstetrics.

The discouragingly low rate of autopsies is a result of several factors which will take many years to overcome. Religious beliefs do not allow the body

to be touched after death. Also spirit beliefs are responsible for many families taking the patient home to die. National law requires that bodies of those dying without known relatives be held undisturbed for a period of ninety days to give opportunity for the relatives to appear.

The Medical Education Advisory Council and other physicians' organizations should include as an important part of their program the gaining of understanding and support of the government in improving this situation. Medical education and medicine in general can never rest on a firm foundation without vital statistics of birth and death. A proof of cause of death is absolutely essential to the collection of vital statistics but more important to the whole practice of medicine.

V. ADMINISTRATION

LIBRARIES

The principal medical library is housed in the main Basic Science Building. It contains a total of 35,000 volumes of textbooks and journals. Most of these are pre-1945 and many are out-dated Japanese texts. Some texts and journals, post-1945, have been contributed by the Army Medical Library. One large room contains stacks which can be enlarged to accommodate a total of 80,000 volumes. An adjacent reading room for students and staff accommodates 50. It is open until 5:00 p.m.

In addition to this Medical Library there is a physically similar library and reading room in the main Hospital Building. Here, however, the reading room is open only to staff, not to students. This is meant to be equipped with text books and journals of more clinical interest. It has almost 20,000 volumes at the present, though most are old. Many of the newer library books reside in various departmental offices. The Library makes an effort to keep these centralized. There is a medical section in the main University Library which contains Chinese and Japanese works of historical interest and value.

600 textbooks have been purchased under the Minnesota plan but have not yet arrived. A total of 184 different journals have been subscribed to for the

College, 30 by the China Medical Board and 154 under the Minnesota contract. An effort is being made to procure back issues of the various journals. Dr. Kim Doo Jong, Professor of Medical History (the only medical historian in Korea today), is in charge of the Medical Libraries in the Basic Science Building. He is also a member of the University Library Board. He has for assistance one full-time employee who maintains the collection. Dr. Kong In Ho, Associate Professor in the Department of Ophthalmology, is in charge of the Hospital Library. He has two full-time employees to maintain that collection. None of these individuals has had special library training. There is no such individual in Korea today.

Discussion and Recommendations.

The maintenance of two physically separated libraries is a matter of policy. Certainly the availability of the reading room for staff in the Hospital is desirable, but equally desirable for students. However, with the limited number of journals and textbooks available, it appears uneconomical to attempt to divide the collection at this time. A few of the important current journals and a few of the basic reference books might be appropriate to a Hospital reading center, but the housing of back issues serving research purposes in two separate places seems unwise.

The collection in both Libraries is neatly kept and itemized. Some library training will soon be available to those in charge of these collections through the Librarian here from Minnesota as well as a library training program to be established through OEC. Once trained they can effect a transition to a standard cataloguing and classification system.

As increased numbers of books and journals become available use of the Library will undoubtedly increase. Consideration should be given to keeping the Library open during evening hours.

VI. ADMISSIONS

As noted previously, in accordance with Government ruling, admission to the Medical School actually takes place on admission to the College of Liberal

Arts and Sciences pre-medical course. At that time intelligence is judged by written and oral examination and a physical examination is given. A limited number of 120 students is admitted to the pre-medical course. There is no quota for age, sex or religion, but students must with rare exceptions come from Seoul or the surrounding area. There is a surplus of applicants.

The pre-medical course is two years in length and admission to the Medical School, as mentioned above, is guaranteed by Government ruling if the pre-medical work is successfully matriculated. The pre-medical curriculum is designed by the faculty of the College of Liberal Arts and Sciences and includes at Seoul National University English, Biology, Physics, Chemistry, Mathematics and National History. Because of a relatively low percentage of drop-outs in the pre-medical years the Medical School receives only slightly less than 120 students in its freshman class each year. The total enrollment at present is 619 (including 25 women). This exceeds 120 per class because of repeaters and some returning veterans admitted with advanced standing.

The school year is on a semester basis, fifteen weeks each in length, starting in April and September. The cost of attendance, including Government tuition, Financial Support Organization contribution, student activities fee and special laboratory fees, is 23,700 Hwan per semester (\$47.40). Private school tuition is twice this amount. Most students at Seoul National University are from lower income groups but are of good quality as is shown by the fact that over 95% of its students pass the National licensure examination and by the fact that graduates obtain in competition some of the best internships in hospitals of the Seoul area as well as other cities of the Republic.

Students' Medical School records are kept in the College Dean of Students office but any credentials or records prior to work in the Medical School are in the office of the College of Liberal Arts and Sciences.

Discussion and Recommendations.

It is regrettable and illogical that the Medical faculty has no discretion in the choice of those who are to receive medical education. Instead they are obliged to educate those chosen by non-medical personnel. Such men are undoubtedly capable and conscientious people. However, in making such a selection they would profit in the counsel of those with an understanding that comes from training in Medicine. The privilege of helping to judge which applicants possess desirable characteristics for admission to medical training rightfully belongs to the staff of the College of Medicine. Indeed, the exercise of such judgment is a part of the obligation of the faculty to the people of Korea.

Performance in pre-medical subjects is a measure of ability to achieve in natural sciences fields, and may be a measure of mental capacity, but many other characteristics should be evaluated before permitting an individual to become a student in the profession. Personal integrity, honest and health motivation, emotional stability and balance, good physical health and spirit of service to one's fellowmen and dedication of one's life to others are essential. Attention must be paid to evaluating these qualities in every applicant for medical study.

The limitation of 120 students per class is very sound. This present class size is the maximum that facilities and faculty should attempt to accommodate. Quality is more important at this time than quantity.

It is noted with enthusiasm that Dean Kim this year instituted a welcoming ceremony for entering freshmen. Previously there was no event which distinguished the transition from pre-medicine to the study of medicine.

VII. CURRICULUM AND TEACHING METHODS

The four year course is devoted primarily to basic science teaching in the first two years and clinical teaching in the last two years. The program offers courses in all the commonly recognized essential disciplines of the basic sciences and specialties of Medicine. In addition it should be noted that courses in Medical History, Dentistry and Medical Jurisprudence and Physical Exercise are included.

The student attends from 8:00 a.m. to 5:00 p.m. Monday through Friday and 8:00 a.m. to 12:00 noon on Saturdays with occasional Saturday afternoon lectures. During the first two years essentially each entire day is occupied with class attendance. Lectures are given in the morning and are two hours in length. Laboratory periods of four hours ⁱⁿ length are held in the afternoon.

In the junior year two hours each afternoon, 1:00 to 3:00 p.m., are devoted to attendance on the in-patient wards, the remainder of the time to lecture. Groups of ten students rotate for one week on each of fourteen different services, including three general medical and three general surgical services each semester. This attendance is characterized by the presentation by a staff member of 10 to 20 cases during the two-hour period to students as a group at the bedside. There is limited opportunity for students to examine the pertinent findings. The junior student is not responsible for the patient's history or physical examination or for case presentation. Some of the specialty services such as ophthalmology and oto-laryngology utilize this time to teach special examination procedures in their specialties.

In the senior year, two hours in the morning, 10:00 to 12:00 a.m., are devoted to attendance in the Out-Patient Department, the remainder of the time to lecture. Groups of 12 or 13 students rotate for one week in each of 12 different clinics each semester. In the Out-Patient Department senior students are responsible for a brief history and physical on new patients. This is usually then reviewed by the instructor with the remainder of the student group present.

The total Out-Patient load runs about 300 patients per day.

20 to 30 autopsies are performed per year.

Regular textbooks are almost completely in absence. However, in all departments one or several faculty members have improvised quite complete mimeographed textbooks, utilizing their own knowledge of the subject and as well as a few assorted texts in the field.

Laboratory exercises utilize the usual laboratory experiment books; in fact,

in some cases actual reprints of United States school laboratory books such as that from Minnesota in Physiological Chemistry are used. About one-half of the experiments in such a manual are accomplished. Much essential equipment for laboratory teaching is lacking. Cadaver supply is difficult but thus far sufficient to allow each student to dissect the lateral half of one cadaver.

Conferences at which students and staff are present are held weekly on almost every clinical service and include review of important cases or perhaps some review of the literature. There are no inter-departmental conferences. There is a one-hour clinical pathological conference each week with Medicine, Surgery, and X-Ray participating.

There is one microscope equipped with 10x and 40x objectives for each two students. Visual aids are very limited but a regular projector is available. Some departments, notably Pathology and Histology, have progressed far in rebuilding their collection of teaching slides. A micro-projector is on order.

Several departments also hold classes for nurses, dentists, pharmacists and others from colleges of Seoul National University and other universities in the area.

Discussion and Recommendations.

Medical progress has been so rapid and so sweeping in the past ten years that many basic concepts and principles have undergone some alteration. The Doctors of Korea have been denied by the circumstances of war and unrest in the past several years the opportunity to absorb many of the recent basic developments in medicine. Thus for most individuals a general review of basic principles in his chosen field is a most useful opportunity. This kind of "rehabilitation" of the foundation is necessary before sound educational and research effort can subsequently be undertaken.

It is hoped that experience in the United States and other countries will serve to provide Seoul National University faculty members with this knowledge of recent medical development and theories. Obtaining such a general orientation and recapitulation should be the primary effort of those going abroad to study.

To learn research techniques, for example, is important, but is a second step. The first step is to prepare to better perform the service which will fulfill the greatest immediate need in Korea, namely, improved quality of medical education.

At the same time as this new knowledge is accumulating indications of the direction of change in curriculum content and newer methods of teaching will also become apparent. Thus it is also important that the faculty abroad gain appreciation of newer teaching aids and their use, of the necessity for inter-departmental conferences and joint teaching of courses by departments, of specialization with preservation of general services, of necessity for teamwork of several physicians and nurses and various technicians in treating and teaching others to treat the patient in a comprehensive fashion.

In making teaching and curriculum revisions it is recognized that many factors are interdependent. The desirable decrease of time spent in didactic work will also require increased availability of textbooks for outside reading. The increase of time spent at the bedside and the responsibility of the medical student for history and physical examination will depend on curriculum revisions but also on faculty attitudes, patient acceptance, and increased number of cases available for teaching purposes.

The direction of desirable curriculum change has thus been indicated. It would be toward decrease in time spent in lecture and increase in time spent with the patient at the bedside. Modern teaching concepts emphasize doing as well as observing and listening. Once equipment arrives it must be utilized by medical students to demonstrate for themselves an increased number of basic science principles through regular laboratory experiments.

On the clinical service the students must see for themselves and hear for themselves and feel for themselves. For example, reading about physical diagnosis can only have its full value when accompanied by the opportunity to experience the things read about. Thus a bedside laboratory session is an integral part of

teaching of physical diagnosis. Further, practical experience can best be obtained if the student is charged with a degree of responsibility for the patient's history and physical examination and observation of his progress in the Hospital or in the Out-Patient Department. Close supervision of the faculty is, of course, imperative and the student's history and physical examination is recorded as an exercise to be checked with the independent recorded examinations of that patient by the staff members in charge.

The clerkship form of clinical teaching is recommended to accomplish these ends. A clerkship involves the assignment of a group of students to one service for a long enough period, at least one to two months, to provide continuity of experience with many cases. The student is responsible to the given service. Essentially the student's whole day during the given period is spent at the bedside on the ward and in the special functions of the department.

The department, in turn, is responsible for a complete basic orientation of the student to that specialty by the use of the regular functions of the service, by teaching at the bedside, and by organization of special teaching functions such as small conferences for those students on the service at that time.

The basic structure of the present four-year curriculum appears sound and indicates the beginning transition to the newer methods of medical teaching. One purely technical point about the course and credit schedule is the fact that for purposes of clarity course credit might better be assigned on a uniform time per credit hour basis, such as one credit for each hour of lecture, two credits for each two hours of laboratory, etc.

Such present practices as the student rounds at the bedside on clinical wards and actual performance of out-patient examinations are notable. Also, the inclusion of orientation to dental problems and to medical jurisprudence is to be applauded. This transition must be continued and vigorously pursued in the direction as noted above of increased participation and responsibility of the student.

Equipment, such as microscopes, teaching laboratory tools, and textbooks, is of course absolutely essential. The provisions to arrive soon from Minnesota under the contract will make a significant beginning. These, however, must be supplemented by such things as the creation of a clear channel for individual student and faculty to easily purchase journals, texts, and additional equipment.

The job which the faculty has done in writing its own textbooks is magnificent. These are superb accomplishments with a minimum of materials to work with. They represent tremendous ingenuity, time and toil on the part of the faculty. Heartening progress has also been made by the faculty in restoration of the teaching materials, such as slides in Histology and Pathology. These are of excellent quality and repaired painstakingly with the same bare minimum tools.

VIII. STUDENT LIFE

The present student government organization at Seoul National University Medical College and all Universities called "The Student Defense Corps" was originated several years ago directly by the President of the Republic of Korea through the Ministry of Education as an anti-Communist force. At the time it was a part of the effort to control Communist sabotage.

The organization has persisted to the present day. It has two branches, the Executive Council and the House of Representatives. All students of the college vote to elect a president and vice president. The president appoints, subject to the ratification of the House of Representatives, the heads of ten departments including Athletics, Foreign Affairs, Literature, Music, Academic, Program Planning, Finance, Discipline, Executive, and Women's. These individuals comprise the Executive Council, which plans the various activities for the student body. The financial support of these activities, however, rests with the discretion of the House of Representatives.

The House of Representatives is composed of twelve members, three elected delegates from each class. Three members of this group are also delegates to the all-University student House of Representatives. The President represents

the college in the central University executive group. Its Chairman, in turn, is directly responsible to the Minister of Education.

In addition to this organization there is a Christian Students Society (non-denominational) which holds regular meetings during the year and has as its principal activity other than its regular Christian fellowship a summer program. In the past four years during the summer vacation a team of ten to twelve Society members, plus one or two faculty members, plus two or three residents, have gone to doctorless areas of Korea, there to administer direct medical care to the population, to teach personal hygiene and preventive medicine, and Christian principles. In this manner they contact on the average 3,000 people during a ten-day period.

A newly organized student group is the Anti-Communist Student Body of Southeast Asia. This organization was stimulated by the Government as a part of its participation in the Southeast Asia Conference.

The majority of students live with their families. Many travel long distances from one to two hours to get to and from school. There are no student dormitories. The remainder of the students obtain rooms in the University area. There is no University control over student housing. It is often sub-standard by present-day Korean housing standards. Heat and light are both in short supply.

All students enrolled in the University pay 1000 Hwan per semester to a student activities fee. This money goes directly to the College and is controlled by the aforementioned House of Representatives. It is utilized to support the various student activities.

Dean of Students in the Medical School is Dr. Shin Sang Hwan, also Professor of Hygiene and Preventive Medicine. Recently, the faculty at his suggestion set up a faculty advisor system. Each member of the faculty is assigned seven or eight students for a semester. He visits with them as a group once each week and depending on what relationship they develop he may further counsel individual students. In support of such social functions as this may involve (tea, coffee

hour, etc.) 300 of the 1000 Hwan activities fee/has been designated for support. that
This effort is just beginning and its success cannot be measured as yet.

At present the staff of the Medical School gives free care in the regular Out-Patient Department and in-patient services of the University Hospitals to any of the 13,000 Seoul National University students who wish it. Only a surgical fee of one-half the usual cost is charged. This, of course, includes medical students. The faculty and administration of the University have already recognized the desirability and need for an organized student health service unit. The organization of such a service is under discussion.

Discussion and Recommendations.

The ready adoption of the faculty advisor system is indicative of the faculty's interest in the students in medical education and augurs well for the future.

In future years the University will want to assume responsibility for assuring better housing for students, if not with its own dormitories, perhaps with some system of inspection and approval of students' outside rented living facilities.

If the Students Defense Corps is discontinued as a Government-directed organization of students (apparently quite possible) the medical students at Seoul National University would create in its place their own student governing body. The students are very conscious of democratic ideals and appear to be approaching the matter of student government in a responsible manner.

The students have a gratifying diversity of well-developed interests and talents in addition to their medical interests. The four prizes which Medical School teams won in the all-University intercollegiate athletic contests this year and the spring concert by the 20-piece medical students symphony orchestra are recent demonstrations of this fact.

Medical students at Seoul National University are generally alert, intelligent and vitally interested in improving their education and their country. They give real cause for faith in the future.

IX. SCHOLARSHIPS

There are several annual scholarships available to undergraduate students in the College of Medicine:

Government Scholarship (1)	10,000 Hwan per month
American Korean Foundation (total 20; 5 per class)	20,000 Hwan per semester
Korean Veterans' Association (8)	15,000 Hwan per semester
Government Tuition Scholarship (total 120; 30 per class)	3,000 Hwan per semester

No loan funds are available.

X. ADVANCED EDUCATION AND TRAINING

There are 74 students registered for graduate study in Medicine in Seoul National University Graduate School. (Total Graduate School enrollment 471). These individuals pay tuition. There is no paid fellowship program. There are however 2 or 3 research fellowships available, selected by staff.

Present Graduate School rules require a great deal of actual credit in lecture courses and have not been modified for the Medical School. Three to five years' work with preparation of a thesis is required for the Ph.D. degree.

The Graduate study in Medicine is loosely organized at present in most departments and suffers as would be expected from a lack of equipment and other facilities.

There is another group of individuals probably equal in number to the number registered as graduate students who attempt to accumulate study in a specialty by associating with clinical departments without status or pay for variable lengths of time.

Discussion and Recommendations.

As the largest national university Seoul is the logical institution at which to develop a center for graduate study in Medicine for the Republic. Its development, if careful attention is given to the effort by the faculty and administration, will go forth with the general upgrading of the facilities and teaching of the School.

At present the Medical School has realistically approached graduate study by emphasizing practical laboratory or clinical experience. The Medical School is presently discussing possible modification of Graduate School rules to fit more suitably the requirements for graduate study in Medicine.

XI. RESEARCH

At the present time there is very little research being attempted. Aside from a few beginning efforts by individual faculty members the only formal activity is The Drug Research Institute. Established in 1936, it is now under the direction of Dr. Oh, Chin Sup, Professor of Pharmacology. The Institute is pursuing the chemical investigation of crude drugs.

Discussion and Recommendations.

The problem of reestablishing medical education and supplying competent Doctors to Korea is of paramount importance. This should be the primary concern of faculties in all schools. Thus emphasis on research function at this period in the re-establishment of medical education in Korea does not seem appropriate.

However, research is usually necessary for a full intellectual life of a vigorous, energetic faculty. The fact that so many of Seoul National University's faculty have seen and participated in research efforts abroad and are presumably better trained to proceed with research, makes some encouragement in beginning organization of research efforts by members of this faculty worth while at the present time. At present, the support of faculty morale and prestige would be as important as what contribution might be made to the world's knowledge. Certainly at some future date this land offers extremely fertile fields for much research effort, and this faculty offers capable talent to accomplish it.

XII. NURSING EDUCATION IN KOREA

There are at present 23 schools of nursing in the Republic of Korea. Last year there were 339 nurses graduated. Nine schools are privately supported, usually by various missionary organizations, and 14 are government supported. There is a significant but decreasing difference between these two types.

The missionary institutions have placed emphasis on bedside nursing care of all people and on the nurse as a part of the team in the care of the patient. Government supported schools are those which were Japanese government supported schools during the 35 years of Japanese occupation of Korea. In these Japanese schools the standards for nursing care and education were extremely low and the nurse was relegated to a strictly servile status. Since the liberation in 1945 changes in attitude toward nursing, nursing education and nursing care, have been taking place in the Government-supported schools. This change to a full regard of the nurse as an integral part of the medical team and of the importance of nursing education is slowly taking place but is not yet accomplished.

In all but two of the schools of nursing in Korea students are admitted at the end of middle school, or about age 15. A three-year course takes the place of the usual high school education. Most students graduate at age 18 or 19. Two schools, Severance Union Medical College (for the past three years) and Ewha Women's Medical College (beginning March, 1956) admit students to the nursing course only after high school graduation. Ewha is the only school in Korea which has designated a four-year college level nursing course. The college-level course at Severance is, as all the others in the Republic of Korea, a three-year course.

As would be expected at the high school level the basic science background is extremely minimum. A principal defect in all schools is the lack of actual bedside experience. The instruction is primarily by lecture. With some exceptions nurses in Korea give very little nursing care to the hospitalized patients. Patients are usually cared for in the hospital by members of their own family, who also provide the bedding and cook the meals in the room.

Nursing schools are under the jurisdiction of both the Ministry of Health and the Ministry of Education. Thus uniform standards for schools of nursing have not been established and the schools can become the victims of intra-governmental differences.

There are ample numbers of applicants to nursing schools. These exceed the number of available places by as much as ten times at some schools. Many girls utilize this opportunity to obtain free high school education in order to go on to college. The number that ultimately actually practice nursing is further reduced by marriage, and by generally miserably low salaries. Many devote their efforts exclusively to midwifery because the earnings are higher.

Two years ago the Republic of Korea Army inaugurated a program of Army nurses training in civilian schools. The ROK Army Nurses Training School at Masan is unable to fill existing needs of the Military. Thus to make a total of 360 per year each civilian school is required to accept an appointed quota of Army trainees which they must educate and train in addition to whatever class they may then still be able to accommodate.

After graduation the individual must pass a national examination for licensure administered by the Ministry of Health. This combines licenses in nursing and midwifery. It is primarily a theoretical examination. Thus candidates can obtain licensure without any real experience at bedside nursing and commonly pass the midwifery section without having had any obstetrical experience.

The only facility for "post graduate" nursing education in Korea at present is the National Postgraduate Nursing School in Seoul. This school, offering a nine-months course, was established two years ago, principally through the efforts of Miss Susan Haines, Nurse Consultant of the United Nations Korean Civil Assistance Command. Qualifications for admission include "graduation from a recognized school of nursing, good physical health, a spirit of service, and more than one year of practical experience in nursing since graduation." The school operates under the Ministry of Health but support funds have thus far been provided by the American-Korean Foundation and the Rockefeller Foundation. This money will not be available after July 1, 1957. The future is therefore uncertain. It has no university affiliation.

Classes are held in a room provided in a District Public Health Center in

Seoul. Students are quartered in an adjacent dormitory building. The school depends primarily on guest lecturers from surrounding nursing and medical schools and government agencies for its teaching faculty. The third class has just begun its nine months training period. No graduate degree is offered. The first three months is occupied with basic review; the second three months, according to the choice of the student, with lectures in a sequence of either public health nursing or nursing education and nursing administration. The third and last three months of this period is occupied with practical experience. The first class graduated 13, the second class 18, and the present class has a maximum of 20 students enrolled. Two-thirds of the graduates are working in hospitals and one-third in public health nursing. There is very little demand for nurses in the Public Health field; therefore positions are scarce.

Discussion and recommendations.

Unfortunately, many schools are significantly inadequate. Notable efforts at improvement by nursing educators and the Korean Association are taking place. An annual competition in Nursing Arts is an example of broad cooperative effort. However, imperative for the continued development of nursing education in the Republic of Korea is the establishment of uniform standards for nursing schools. This should include a clarification of the governmental responsibility in nursing education and licensure and the establishment of minimum course requirements, and the requirement of an adequate amount of practical experience while in training. Midwifery training and licensure problems deserve special attention.

Increased bedside care to the patient and attraction and retention of additional numbers of able people into the profession by adequate salaries would go a long way in accomplishing the needed improvement in prestige of and respect for nurses.

SEOUL NATIONAL UNIVERSITY SCHOOL OF NURSING

The School of Nursing is located on the campus of Seoul National University in the area of the University Hospital and the Medical School. Administratively

it is a part of the Medical School and its Director is responsible to the Dean of the Medical School. It does not participate in what general University services are available. It is the equivalent of a high school.

Physically it is in the form of a separate compound and includes a one-story dormitory for undergraduate students, with adjacent kitchen and quonset dining hall. 236 girls are housed in extremely crowded conditions with double bunk beds a few inches apart and perhaps a small footlocker as the only furniture. 12 girls are housed in each room approximately 12' x 20'. Heat and water supply are sub-minimum. There are no recreational facilities. There is in addition a two-story dormitory building with kitchen and dining room to accommodate approximately 100 graduate nurses employed at the School and Hospital. It is only a little less crowded.

2 quonset huts are used for classrooms for the second and third year students. The Medical School has provided a classroom in one of its permanent buildings for the first year students. The present offices of the School of Nursing are in one room in the University Hospital.

Money is available (ICA FY '56) and plans have been drawn for a new School of Nursing Building to be located directly across from the University Hospital. This two-story building will contain the School offices, library, workroom, auditorium, and 7 classrooms. No new dormitory is planned at present but its need is stressed by Mrs. Lee, Director of the School. There is some ICA contract money earmarked at present for repair of existing dormitory facilities. A part of this money could be utilized to convert the two quonset huts now used for classrooms into dormitory space once the new school building is completed.

The faculty includes the following:

Principal

Mrs. Lee Kwi Hyang

(just returned from one year's study in Australia; scheduled to spend 6 months at the University of Minnesota in the near future)

Assistant Principal and Chief Nurse of Hospital	Mrs. Yun Soo Bak
Assistant Chief Nurse at Hospital	Miss Lee Song Hi (scheduled to spend one year at the University of Minnesota beginning September, 1956)
Instructor	Miss Hong Yo Shin
Instructor and Dormitory Supervisor	Mrs. Kim Chung Soon
Instructor	Miss Yoo Myung Heun
Evening Supervisor	Miss Kang Yun Hee
Night Supervisor	Mrs. Pak So Hae
Office Assistant	Mrs. Shin
Other	Male Administrative Assistant and Clerk 6 cooks and laborers

Teaching assignments of the various faculty members are as follows:

Nursing Ethics and Ward Administration	Mrs. Lee
Communicable Disease Nursing, Medical Nursing, and Ward Administration	Mrs. Yun
Bandaging and Surgical Nursing	Miss Lee
Nursing Arts	Miss Hong
History of Nursing	Mrs. Kim
Personal Hygiene	Miss Yoo
Basic Sciences	Various members of Medical School faculty

Ward experience is supervised by Mrs. Lee, Mrs. Yun, Miss Lee and Miss Hong. According to Mrs. Lee this supervision and experience is inadequate. The inadequacy of experience is a result of several factors, including care of patients by family, no limitation on visiting hours, and inadequate equipment.

No. of Students

First year	44	*42 (ROK Army)	86
Second year	58	*42 (ROK Army)	100
Third year	50		<u>50</u>
Total			236

No. of Graduates

1949	29
1950	21
1954	51
1955	45
1956	<u>37</u>
Total	183

The facilities of the School of Nursing are meant to accommodate 50 students per class. For the March 1956 class there were 455 applicants. Selection is made by the Nursing School faculty from among candidates who take a competitive examination after completing middle school (U. S. grades 7 through 9). Usually the top 42 students are admitted for the regular class. After this 42 additional students are taken to fulfill the assigned Army quota. These students are also selected from among those taking the competitive examination. Applicants not selected for the regular class are then given opportunity to compete for places under the Army quota. All expenses are provided by the School, including room, board, tuition and uniforms. Educationally, the School of Nursing is a separate unit and its students have no classes with the general University students or students of the Medical School.

The curriculum is organized as follows:

First year - First Semester	- 8 hours lecture per day - liberal arts and basic sciences
Second Semester	- 6 hours lecture per day - principles of nursing arts and basic sciences

Second year - First Semester and Second Semester	- 4 - 5 hours lecture per day - nursing arts 3 - 4 hours hospital - medications and treatments, and procedures including catheterization, enema, injections (I.M. and I.V.)
Third year - First and Second Semesters	- 2 - 3 hours lecture 5 hours hospital - surgery, psychiatry, isolation, obstetrics, and midwifery - students record temperature and pulse and make other chart notes; also give medications.

There is very little opportunity for practical experience in obstetrics at the University Hospital. Thus, students in groups of four spend four weeks on the obstetrical service at the Australian Missionary Maternity Hospital in Pusan and an additional two weeks on the obstetrical wards at East Gate Hospital in Seoul.

The majority of recent graduates have chosen to work the first year in the University Hospital. Many of these are working without salary out of loyalty and a desire for additional experience. This is an addition to their education because it is the policy to rotate these girls through all services of the Hospital. Thus it amounts to a year's rotating internship in Nursing and increases appreciably their practical experience. However, no formal teaching program is carried out during this period.

The table of organization of this 450-bed University Hospital with average census of 270 patients allows 93 nurses. It is Mrs. Lee's opinion that this is too few for most efficient operation. At present 117 graduate nurses are employed. The supervisory staff includes a chief nurse, assistant chief nurse, two supervisors, evening and night, 29 head nurses (for fifteen sections of the Out-Patient Department, 13 wards and one operating room). The Out-Patient Department specialty clinics each have 1 - 2 general duty nurses except for four in the Medicine Clinic. On the sixty-bed wards the staff totals 8 - 10 nurses; on 30-bed wards 4 - 5 nurses.

All wards consist of a long corridor with rooms on either side, all with closed doors. One room near the center is the nursing office. There is also a treatment room and an examination room. There is no call system. The autonomy of the individual ward and its chief is reflected in the fact that each ward has its own procedures, medication card forms, packs, etc. There is no central supply room; thus each ward prepares its own packs, dressings, etc.

There is no "special" nurse. Critical cases receive as much attention as the regular ward nurses can give along with care given by the family. Custodial duties on each ward formerly done by the nurse are now the responsibility of other laborers.

The Nursing School faculty is paid according to the regular University salary scale. Mrs. Lee, the Director, receives 30,000 Hwan per month (\$60.00). The University pay scale is relatively low in comparison with average salaries in other occupations. The regular duty nurse at University Hospitals is paid 5,000 Hwan (\$10.00) per month in addition to her room and board. This is about one-half the average salary for such a position in a private hospital.

Discussion and Recommendations.

The following recommendations are made on the basis of relatively superficial study and may be modified by subsequent more detailed information gathered and evaluated by a professional nursing educator. Such information should include further evaluation as to the amount of real cooperation one can expect from the staff in actually upgrading the curriculum of the School, what actual increase in practical bedside experience can be effected, what the realistic future expectation of graduates from the proposed School of Nursing courses may be, what provision can be made for supply of nurses during the transition period, as well as what the upgraded course will mean in terms of the supply of nursing personnel to the University Hospital.

The first essential step in the development of the Nursing School is that of making high school graduation a requirement for admission. The present undergraduate nurses training should be improved before any attempt at other development.

With a large percentage of graduates staying on at University Hospitals for further experience the first year of employment after graduation could be utilized informally as an additional training period. This could be accomplished by providing one permanent experienced nurse in each Section to exercise some teaching responsibility and give continuity to the effort. In this way one might look forward eventually to a four-year degree program in nursing.

At some future time, when the developments noted above are well established, Seoul National University School of Nursing will be a logical institution at which to provide graduate nursing education.

XIV. SUMMARY AND PROJECTION

The Minnesota assistance program has been in operation 21 months. It has been threefold; assisting in strengthening and developing medical education and research through exchange of faculty, advising and supplying new equipment and coordination and partial financing of rehabilitation of the physical plant.

In the first 2 years 11 members of the basic science faculty and 11 members of the clinical faculty of Seoul National University College of Medicine will have spent a total of 30 man years in study at the University of Minnesota. The plan for the last year of the contract will rotate an additional 3 basic science and 5 clinical and 2 nursing faculty for 9 man years. In consideration of a possible extension of the contract an additional group of 1 basic science and 7 clinical men have been tentatively nominated for rotation.

Thus a significant number of Seoul National University faculty have first been given opportunity to review recent medical progress and to see modern western medical education methods in operation. The time spent by University of Minnesota faculty at Seoul National University will now be immeasurably more efficient and more profitable for all concerned. A significant portion of Seoul National University faculty will have some real and working concept of what these advisers are talking about and will therefore be far better able to translate words into action.

Thus the second phase - that of rotation of Minnesota faculty - is beginning. Emphasis might appropriately be placed on assistance with hospital administration and with installation and utilization of new equipment as well as with the upgrading of nursing education and the development of the program of the School of Public Health.

Of additional assistance to all concerned would be the presence of one individual over a long period of time to provide liaison with the whole Seoul National University faculty. He could provide counsel to other Minnesota faculty here for shorter terms, facilitate their orientation and provide continuity and integration to their effort.

As noted before the College was in operation with bare essentials at the time the contract was initiated. Additional equipment is being provided under the contract over a period of time which will allow a gradual assimilation with which faculty, operational facilities and maintenance can comfortably keep pace. Also as noted, equipment now on order should be assimilated before much additional ordering is done. It is appropriate, however, that the College has already prepared further listing of equipment desired. This will greatly facilitate the planning and obtaining of these items. Some of the additional items might appropriately be ordered now, including consumable supplies such as certain basic laboratory reagents and dyes not otherwise obtainable, photographic equipment necessary to adequately prepare teaching slides, some additional teaching models, charts and laboratory equipment, certain surgical and diagnostic instruments and hospital supplies. As will be noted the emphasis is on equipment to facilitate teaching and patient care rather than research for the present. Cognizance must also be taken of the fact that some faculty will now be returning from study at Minnesota prepared to utilize some equipment that was not thought appropriate previously, such as equipment for a blood bank.

Rehabilitation of physical plant as mentioned previously in this report is proceeding with definite plans drawn for FY 1956-57 and additional suggested

priorities listed for the future. Specific plans for these projects have been requested from Seoul National University preparatory to requesting of funds.

Remaining funds available for faculty exchange and for equipment purchase appear adequate. Rehabilitation plans for coming years appear conservatively drawn and reflect the logical and sound approach of improving and utilizing physical plant already in existence. These facilities are structurally sound and adequate in size and plan and should be maintained (with exception of additional nurses dormitory space). Obviously a limit must be drawn somewhere but previous excellent coordination of rehabilitation plans by the Chief Adviser here indicates that this will be properly accomplished.

In summary, extension of the contract would be worth while to make more effective the investment of time, money and energy made thus far and to bring closer to fruition efforts in all the three categories of assistance in medical education.

APPENDIX A

REPORT ON TOUR OF MEDICAL EDUCATION FACILITIES IN THE REPUBLIC OF KOREA

May 29 - June 7, 1956

This tour was undertaken with Dean Kim of the Medical College of Seoul National University and at his suggestion for the purpose of further orientation to the situation of medical education and practice in the Republic of Korea, with the conviction that such orientation would aid in the more efficient execution of the University of Minnesota assistance contract. The itinerary included visits in and about the area of Taegu, Kyungju, Tongnai, Pusan, Jinai, and Masan.

The trip was begun on Tuesday, May 29, 1956 and ended on June 7 without completing the proposed visit to Kwangju because of bad weather and transportation difficulties. The medical facilities visited included Kyoung Pook, National University Medical School and Hospital (Taegu), 2nd ROK Army Hospital (Taegu), Tongson Hospital (Presbyterian - Taegu), Aeisangwon Leprosarium (Presbyterian - Taegu), a country practitioner in Youngchun, 18th ROK Army Hospital (Chest Disease Center - Kyungju), 31st ROK Army Hospital (Convalescent Center - Tongnai), ROK Army Rehabilitation Center and First Orthopedic Prosthetic Laboratory (Tongnai), 3rd and 5th ROK Army Hospitals (Pusan), Army Medical General Laboratory (Pusan), National Institute for Veterinary Research (Songdo), German Hospital and Swedish Red Cross Hospital (Pusan), Pusan University Medical School, Pusan Children's Charity Hospital, ROK Navy Hospital and Academy (Jinai) ROK Army Medical Center and Medical Field Service School (Masan), 36th ROK Army Hospital (Thoracic Surgery Center - Masan) and National Tuberculosis Sanitorium (Masan).

In all instances, the inspection of these facilities was greatly enhanced by the gracious hospitality of Deans, Commanding Officers, staff and other personnel and by the opportunity to talk freely with them about problems in

medical education in Korea today. In addition, many rural areas and famous landmarks of the country's customs and religions were visited.

The following observations can be ventured as a result of this tour; in regard to the medical schools, rehabilitation of equipment and physical plant can be accomplished as demonstrated by the National Medical Schools at Taegu, where UNKRA and 8th Army have exerted time, effort, and money (approximately \$2,000,000) over the past three years. As a result the efficiency of operation and the level of medical care provided have been gratifyingly raised at this institution. At the same time, however, the curriculum and practical experience provided medical students lags behind modern methods and behind that provided in some other medical schools of the Republic of Korea. For example, medical students see patients only in the senior year and then only in the Out-Patient Department for a few hours per week.

On the other hand, the new medical school at the University in Pusan, though lacking in sufficient teaching staff and lacking hospital facilities when its present sophomore class reaches the next year, is introducing newer teaching methods and new ideas of departmental cooperation and integration. For example, for freshmen there is a weekly student conference with the Department of Physiology, Physiological Chemistry and Anatomy all participating, and for sophomores a similar conference with the Departments of Medicine, Surgery and Pathology participating.

Aside from the medical schools the ROK Army is probably the greatest single force in medical education in present day Korea. The vast majority of physicians have been or are at present in the Army, many of them for more than five years. Since the Army organization is patterned after the United States forces these doctors are becoming indoctrinated in modern hospital administration methods such as central supply and uniform record systems and with the inter-dependence of the various medical specialties, with the necessity and means for maintenance of equipment and with some elements of modern practice in medicine.

In addition the Army Medical Center has become the main source of supply of trained technicians. These include personnel in medical laboratory technology, x-ray technology, physical therapists, nurses' aides, pharmacists, and dental technicians. The creation of the Army Rehabilitation Center Prosthetics Laboratory and Convalescent Hospital is bringing the concept of physical medicine rehabilitation to these physicians. The Medical General Laboratory with its plans for expansion offers the nucleus for research effort as well as vital statistical studies of the medical problems in Korea.

Thus the Army is playing a real part in the introduction of modern medical educational methods. The Government-supported medical school at Taegu by virtue of its well-equipped status and full-time faculty concept and that at Pusan by virtue of its progressive basic science curriculum have begun to accomplish the transition to new educational methods. They however reflect the need for minimum standards for medical education, for inter-cooperation and exchange of information about educational methods in medicine and for additional financial support. The larger problems relating to the general health education of the population, and to the change of centuries old beliefs and customs, religious and otherwise, which are antithetical to modern practice, confront all medical educational institutions and efforts alike.

The expectation that Seoul National University's position will increasingly be one of leadership in the medical education structure in the Republic of Korea is appropriate and entirely justified on the basis of comparison with other institutions observed during this trip and otherwise. Though at present less well equipped physically than other schools (a factor which will be remedied shortly) it has an energetic and competent faculty imbued with loyalty and cooperative spirit and led by a strong and progressive Dean. Those of the faculty who will soon return from Army service and the United States with working orientation to newer methods and techniques will help significantly in accelerating the

transition in medical education and administrative methods. The Dean and faculty of Seoul National University Medical School are eminently worthy and capable of leadership in medical education in Korea.