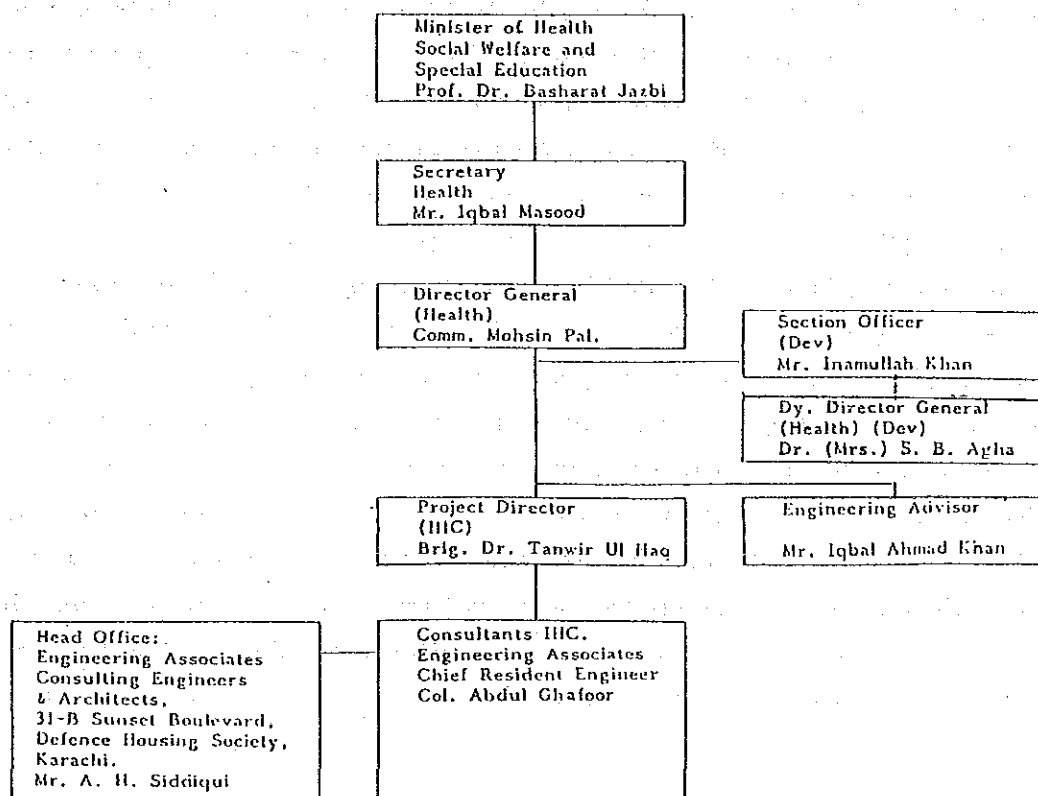


CHAPTER 6 PROJECT IMPLEMENTATION PLAN

6-1 Execution Body of The Project

The execution body of this project is Ministry of Health (MOH). Mr. Iqbal Masood, Secretary of Ministry of Health, is in charge of this project, and Brig. (Rtd.) Dr. Tanwir-Ul-Haq, the project director of IHC Project, will be responsible for the execution of the project. The Project Director is authorized to sign all documents in respect of establishment of the College and Institute until its completion.

EXECUTION BODY OF THE PROJECT



6-2 Construction Execution Plan

1) Construction execution plan

Japanese consultants and the Project Director representing the Government will have periodical detailed discussions and exchange views concerning design, tendering, construction of work contract procedures and execution of the work, based on the basic design and the signing of the final agreement for the construction project.

Prior to the commencement of this construction project, it is essential that the preparation of the proposed site and the infrastructure will be completed in coordination with the schedule of the construction work.

As for the work plan, it will be necessary for both the Japanese party and the Pakistani party to discuss the detailed work processes, and confirm the scopes of the works to be undertaken by both parties respectively, the times for the start of the various works, procedures for the purchase of building materials and for the transportation method of the materials, procedures for installation works and the necessity of the presence of Pakistani representatives at the places of tests or test runs of the materials and equipments.

As for the period of the work execution, it is desirable to carry out the earth work, foundation work and structural work during the dry season (December to June), and the brick laying work and the interior work during the rainy season (July to September) in consideration of the local weather condition.

Also, the both parties is required to set up the work execution schedule so that not only the arrivals of Japanese specialists but also the materials and the equipments from Japan at the construction site fit the progress of work at the site without causing any substantial waste of time and manpower.

2) Supervising plan

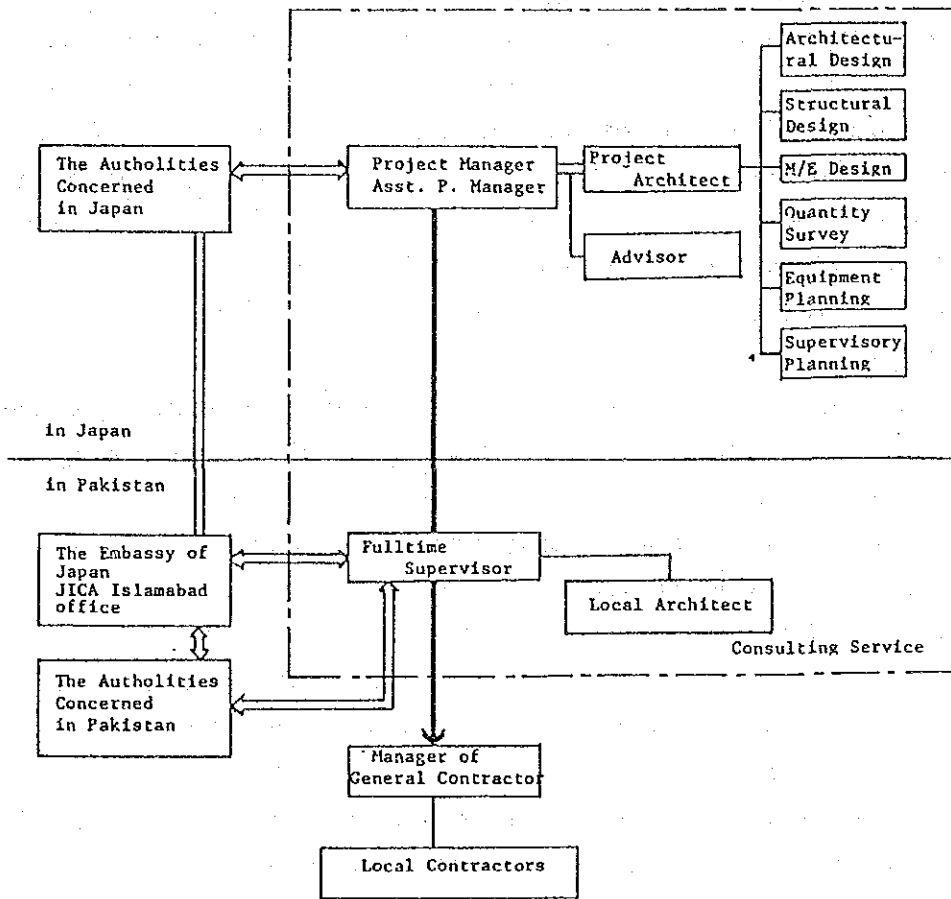
The consultant is to organize an integrated project execution team concerning the preparation of the design drawings and the supervisory works based on the content of the basic design and the basic policy of the Japanese Grant Aid, and to coordinate the opinions of the parties concerned for the successful completion of the project.

In addition, the consultants are to station the resident supervisors with qualified technical backgrounds at the site of the construction for the proposed College and Institute in order to let them advise and obtain advice concerning execution of the work. Furthermore, the consultants are supposed to dispatch the engineers of different specialties to the site from Japan for the necessary period of time to let them be present at the place of inspection, or let them give the necessary advice for the execution of the work.

Basic supervision policies are as follows:

- To maintain close contact with the agencies and officials concerned of the both Governments for smooth completion according to the Execution schedule.
- To provide adequate and timely advice and guidance to the contractor to ensure that all facilities will be built according to the detail drawings.
- To make best efforts to use locally available materials and adopt local construction methods to upgrade the level of building construction in Pakistan.
- To make consistent efforts for technology transfer to upgrade the local construction techniques and methods to assure that the project will produce the maximum effects under the Grant Aid.
- To offer adequate advice and guidance to the Pakistan officials in charge of maintenance and management after delivery of the facilities to the Pakistan.

PROJECT IMPLEMENTATION SYSTEM



In consideration of the above policies, the consultants are to provide the following services in performing their supervisory function.

o Cooperation on contract agreement

Selection of construction companies, preparation of contract documents, assistance in letting construction contracts, examination of cost breakdown for construction, attendance on contract agreement.

o Check and confirmation of shop drawings

Examination of shop drawings, materials, finish samples, and equipment submitted by the contractor during construction.

o Construction Instruction

Study of construction planning and schedule, instruction to staffs of contractor, presentation of supervision report for construction progress.

o Cooperation of authorization to pay

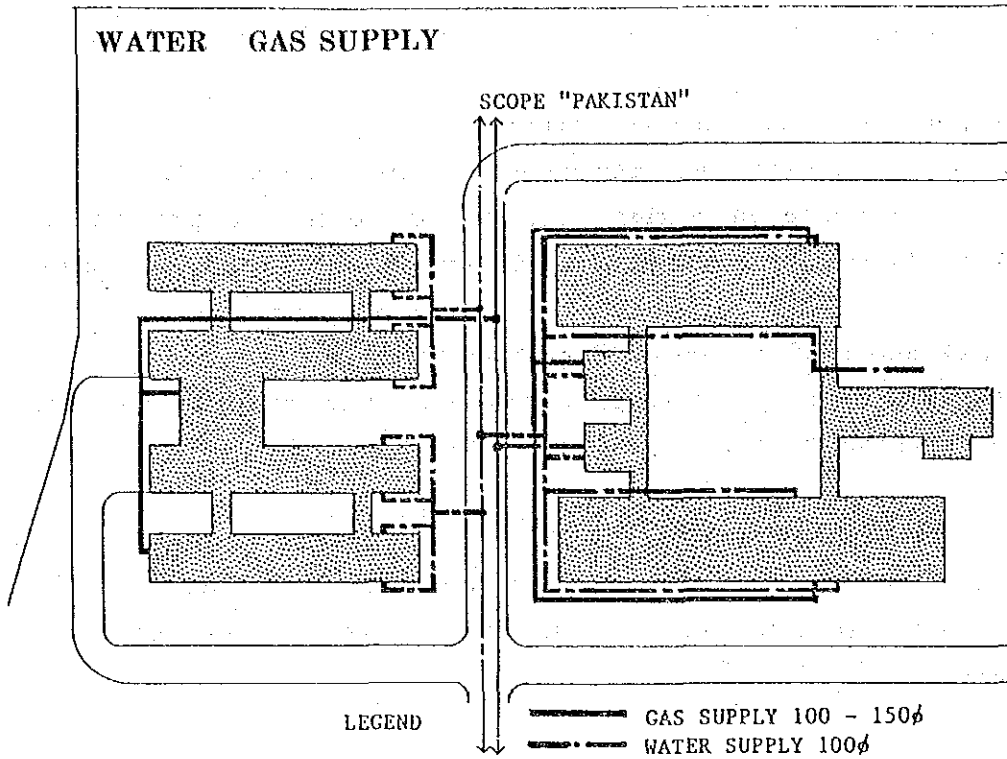
Examination of payment requests during and after the construction and cooperation for payment procedure.

o Inspection of construction

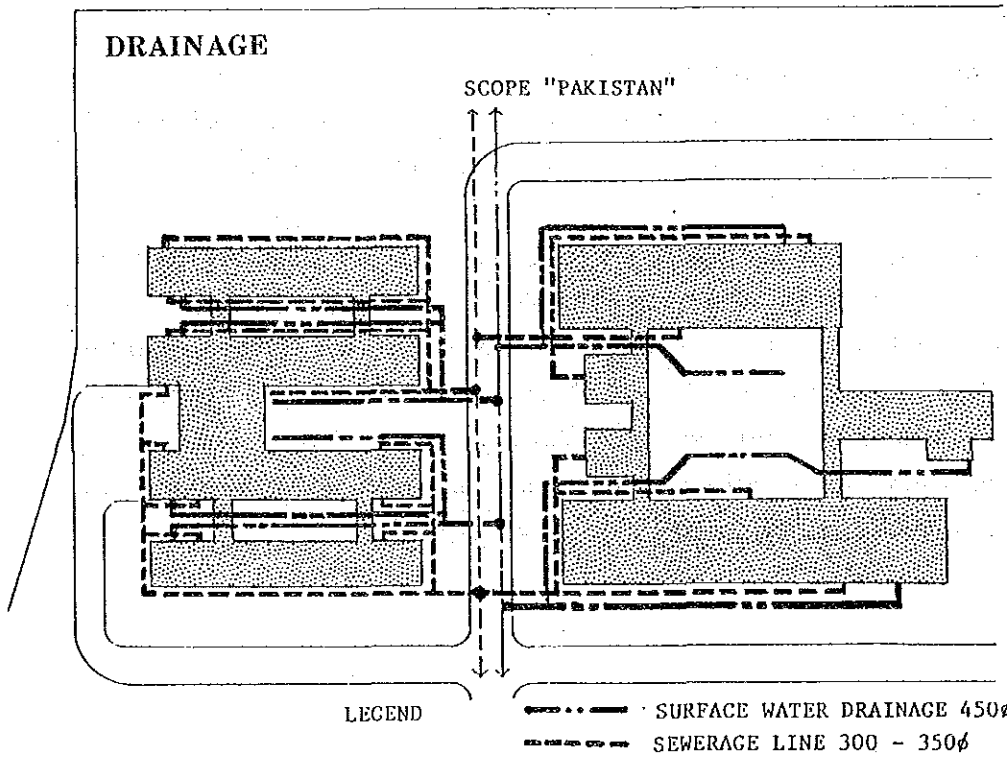
Inspections of construction for each completed amount of work during the construction term from commencement to completion.

The consultant will confirm the completion of the construction and fulfillment of conditions of the contract agreement. By the attendance on the delivery and acceptance of the Project, the consultant will complete its supervision services. Moreover, the consultant will report necessary and essential matters to the Government of Japan in consultation for matters such as construction progress, payment procedures, completion and delivery, etc.

WATER GAS SUPPLY



DRAINAGE



6-3 Demarkation of Construction

For the construction project of the College and Institution, the scope of work to be undertaken by the Japanese Government (GOJ) and the Pakistani Government (GOP) are as follows:

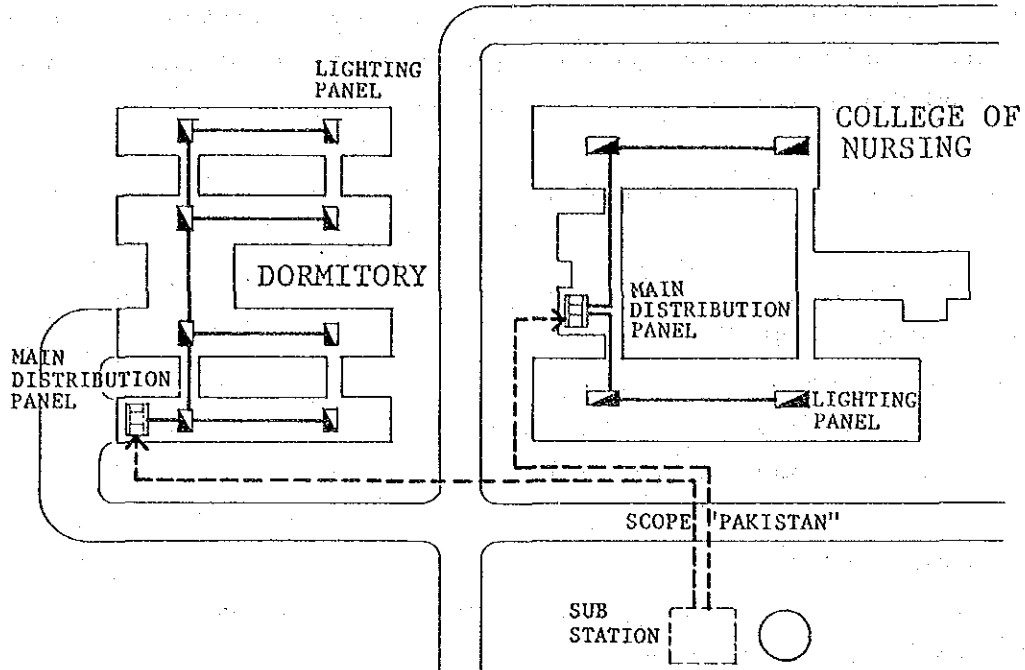
Scope of work to be undertaken by GOJ:

- 1) Facilities
 - a) Administration Block
 - b) Library Block
 - c) Education Block-1 (College of Nursing)
 - d) Education Block-2 (Paramedical Institute)
- 2) Infrastructure
 - a) Connection work for piping in the construction site.
 - b) Hydrant and fire pump
 - c) Installation of switchboards
- 3) External Work
 - a) Pavement work within the proposed site.
 - b) Drainage systems within the proposed site.
 - c) Outdoor lighting fixtures
 - d) Flagpole
- 4) Principal educational equipment

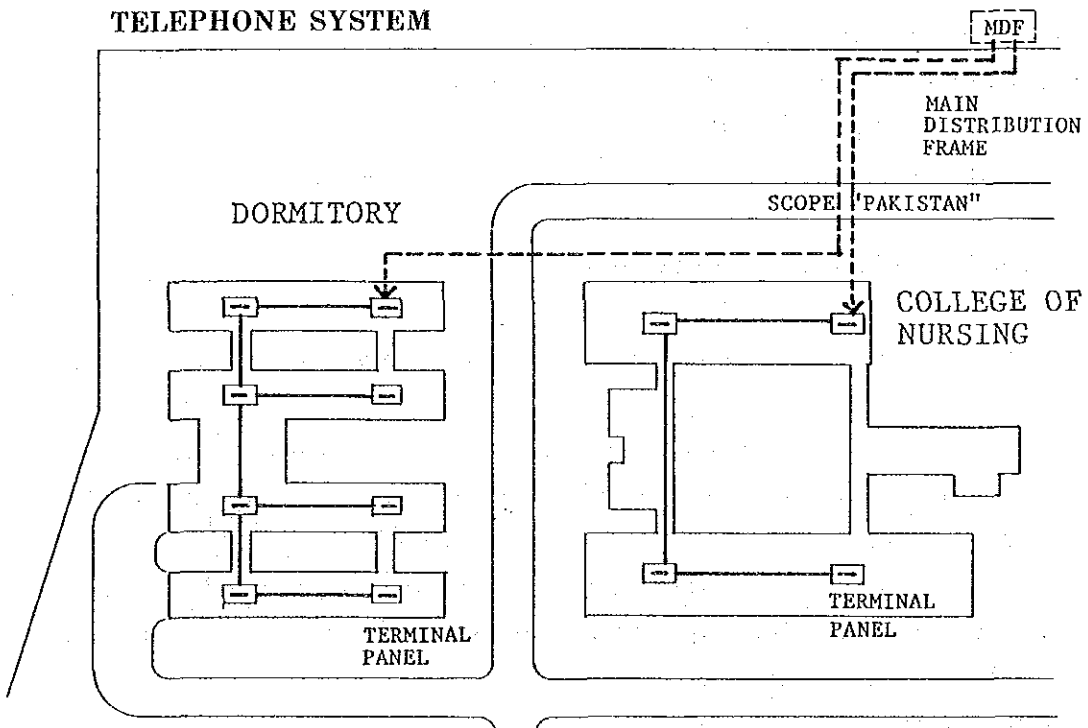
Scope of work to be undertaken and services to be provided by GOP:

- 1) Aquisition of land area for the College and Institute.
- 2) Preparation and leveling of the proposed site prior to construction work.
- 3) Construction of the roads around and in the construction site.
- 4) Construction of staff quarters, related infrastructure and roads in the construction site.
- 5) Works related to the infrastructure
 - o Installation of water supply system and drainage system.

ELECTRICAL SYSTEM



TELEPHONE SYSTEM



- o Installation of power line.
 - o Installation of city gas piping.
 - o Installation of telephone line.
- 6) Installation of the fixtures, furnishings, furniture and curtains not covered by Japanese side.
 - 7) Landscape gardening and tree-planting work.

Services and expenses to be borne by GOP:

- 1) Provision of necessary information for the construction project of the College and Institute.
- 2) Various expenses to be borne
 - o Expenses incidental to banking arrangement.
 - o Installation costs of power, city gas and telephone lines.
 - o Expenses incidental to permission for the construction.
 - o Expenses incidental to the acquisition of the permission for tax exemption.
- 3) Maintenance and administration costs of facilities and equipment.
- 4) Measures to accelerate and facilitate unloading operations, customs clearance and inland transportation.
- 5) Measures for exempting Japanese personnel participating the project under the varified contract from customs duties, domestic taxes and other public rates imposed in Pakistan.
- 6) Providing and accord necessary permission, licenses and other authorization required to carry out the project.
- 7) Assignment of capable personnel required for execution and administration of the project, on the bases of a well-considered staff allocation.

6-4 Execution Schedule

The execution schedule for construction of the proposed College and Institute can be divided into the following three major phases:

A. Detailed design phase

In this phase, the drawings and documents for the tendering will be prepared according to the Basic Design Report. During period of this phase, necessary discussions with the Pakistan side have to be made. This phase will require about 3 months.

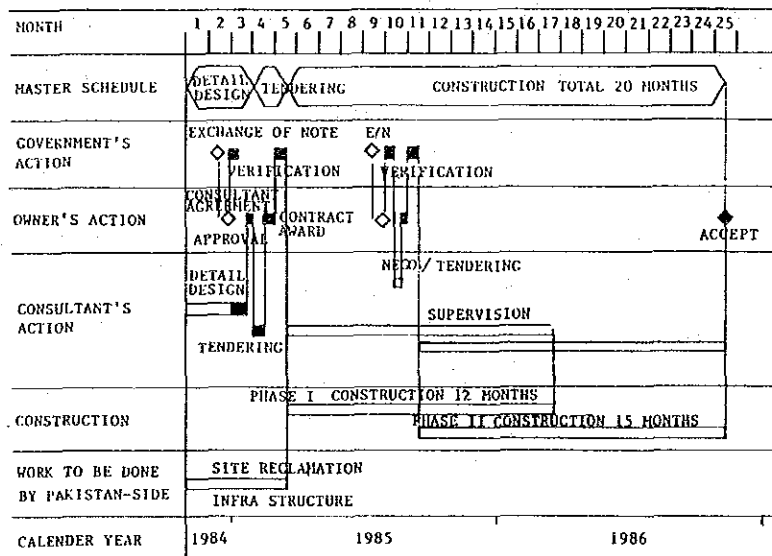
B. Tendering phase

This phase is for the public announcement for tender, examination of the qualification of the tenderers, estimate and checking of construction costs, and signing of the construction work agreement. This phase will require about 2 months from completion of the detailed design phase.

C. Construction phase

In this phase, construction will be started after the awarded contract is verified by the Government of Japan. Judging from the size of the buildings and the related facilities to be constructed under this project, the construction work will be completed in about 12 months, provided that the supplies of building material arrives at the site on time and the ground work is completed as scheduled in the beginning.

CONSTRUCTION SCHEDULE

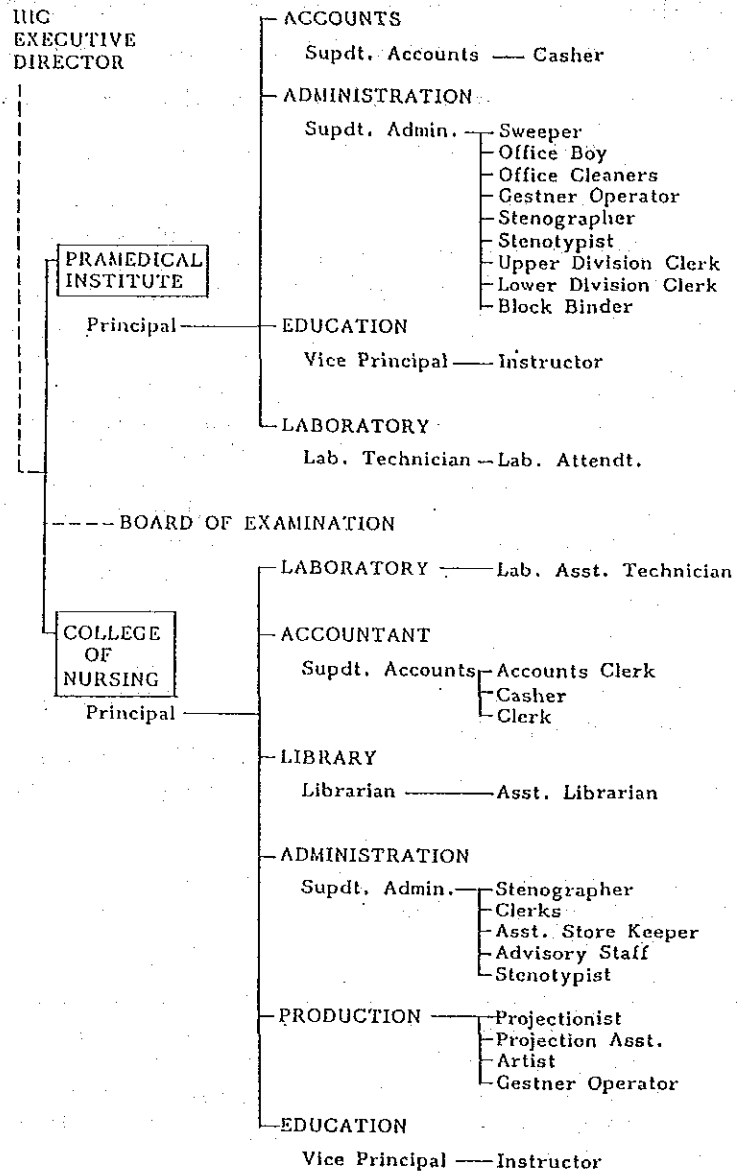


6-5 Procurement of Construction Materials

In conjunction with this construction project, a market survey of the construction and building materials available in Pakistan has been conducted. According to the results of this survey, almost all the necessary materials can be procured through Pakistani market irrespective of their origin. The procurement schedule at the present stage is shown on the chart below. A detailed market survey shall be carried out for costs, qualities and quantities of materials, and local materials shall be utilized as much as possible.

	Materials and equipments expected to be purchased from local markets	Materials and equipments expected to be purchased from Japan or third countries
Building work	Aggregates Cement Bricks Stone materials Tiles Terrazzo blocks Paints Glass Lumber	Steel structure frames Reinforcing steel Waterproof materials Aluminum and steel fittings Wooden fittings (partly) Material parts for fittings Special processed materials
Air conditioning work	Ceiling fan Steel pipes (limited)	Air conditioner Heater Ventilation fan Steel plates/pipes Dampers
Water supply, drainage and sanitary works	Concrete pipes Sanitary wares (limited) Pipes (limited)	Sanitary wares Valves/pipes Pumps
Electric work	Electrical wires Cable (limited) Receptacles (limited) Electric lamps Vinyl tubes	Switchboards Switchboard for telephone Lighting fixtures Electric appliances

LAYOUT SCHEDULE OF STAFF IN THE COLLEGE AND INSTITUTE



CHAPTER 7. OPERATION AND MAINTENANCE

The true effect of grant aid assistance will never be achieved without smooth operation of the delivered facilities through competent effort by the beneficiary side and strenuous exertion to support the objective scheme.

It is essential, therefore, to establish a appropriate administration and maintenance system for this College and Institute for education and training for nurse students and paramedics.

7-1 Administration System

The College and Institute will constitute a part of IHC, and the principals of the College and Institute will be responsible for the executive director, and the operating expenses will be covered with the budge of IHC.

For the teaching staffs of this College and Institute, the candidates have been trained in foreign countries. The most effective methods to attain the satisfactory result of education in a short period is to invite the technical advisers from Japan, but the success of this College and Institute on a long-range basis is basically dependent on the abilities of Pakistani teachers and specialists. They should have been employed prior to opening of the new College and Institute so that they will be able to start teaching soon after the opening.

7-2 Maintenance Planning

For the ease of maintenance and administration, especially for daily cleaning, inspection and servicing, Japanese specialists will provide detailed explanations and demonstrations of correct maintenance and servicing of the buildings and equipment to the local personnel before they are delivered officially to the owner.

When the facilities and the equipments are delivered finally to the local personnel in charge, the names and addresses of the Japanese specialists to be contacted later in conjunction with the servicing, replacement and purchases should be provided to the local personnel. In order to operate the new College and Institute and the related facilities efficiently, appropriate number of maintenance personnel should be secured by proper annual budgeting.

7-3 Operating and Maintenance Costs

The operating expenses and maintenance expenses for the College and Institute are to be covered by MOH.

The annual maintenance and operating costs for the first year are estimated as follows:

o Personnel cost (salaries & wages)	RS 3.0 million
o Overhead costs (30% of personnel cost)	RS 0.9
o Lighting and heating costs for operating the facilities	RS 0.7
o Training cost	RS 0.4
o Supplies and miscellaneous costs	RS 0.3
Total	RS 5.3 million

CHAPTER 8. PROJECT EVALUATION

1) Social evaluation

The Sixth 5-year plan is under implementation to achieve the equal social opportunity and to activate the economy through assurance of specific level of living standards, education and health to the poor. In this 5-year plan, it is important to complete and extend health facilities, and it is most important to correct the imbalance of the personnel in the health and medical care field to improve the health and medical care services.

Practical training facilities for paramedics in Pakistan are inadequate. This project aims at improving the medical care service in Pakistan through increasing the number and ability of paramedics. This will be the Model of training organization of this kind that will be constructed in various regions in the future.

There are two different ways to train nurses. One is to increase the total number of the nurses through basic nursing education, and the other way is to improve the level of the whole nursing field. To realize the advanced and adequate nursing service, this plan aims to train the teaching staff for the basic education of the nurses and to train the leaders in the practice field, and at the same time to re-educate actually working nurses who might receive education based on practice rather than on basic theory. Therefore, this plan can be evaluated as an effective plan to improve the health care services and to increase the number of the nurses in a short period of time.

Although, in Pakistan, many occupations are closed to woman, the nurses have high intellectual levels and are respected widely because of the character of their job. This plan can be considered as an effective means of advancing women into society in the future.

2) Financial evaluation

Judging from the education course and the number of the students, the size of the facilities is to display the functions required, and does not compare unfavorably with the similar facilities in the field.

Local construction method, materials, equipment and labor are adopted as much as possible to realize the goal of decreasing construction costs. This plan can be considered as a plan to bring up the construction industry in the field.

According to estimates made by the Basic Design Survey Team, the expenses for work done by the Pakistan side are not large, about 5.7 million Rs. If the Dormitory which was originally planned to construct by the Pakistan side will be constructed under the Grant Aid by the Government of Japan, the implementation cost of the plan borne by the Pakistan side will be bearable.

Natural site conditions are sufficiently taken into consideration when making this facilities plan from the operational standpoint. Mechanical heating and electrical lighting expenses of this facility will be low if adequate operation control is used. The annual maintenance and operation expenses will be 5.3 million Rs., so this College and Institute will operate smoothly.

3) Operational evaluation

In the operation of this College and Institute, the principals of the College of Nursing and Paramedical Institute are appointed under the control of the president of the IHC. This management system may be suitable for the purpose and the functions of the facilities that has two different characters.

The IHC is positioned as the central hospital of the capital, Islamabad, which is under the direct control of the Federal Government. The IHC is the medical care research and education organization at the national level in Pakistan. This College and Institute as a part of the IHC provides smooth operation in view of its personnel and budget.

CHAPTER 9. CONCLUSIONS AND RECOMMENDATIONS

9-1. Conclusions

The problem of the health and medical care services in Pakistan is the imbalance in the number of doctors, nurses and paramedicals. In past 5-year plans, the Government of the Islamic Republic of Pakistan had endeavoured to improve this imbalance in addition to providing preventive health activities and the medical facilities.

The construction of the IHC was planned as the central organization of health, medical care, medical research and medical education in the capital. As a part of the IHC, the Childrens' Hospital is constructed under the Grant Aid of the Government of Japan. It is expected that this Childrens' Hospital would be opened simultaneously with the IHC.

Under this situation, execution of the construction plan of this College and Institute contributes greatly to the development of the society and health care services. That is, this College and Institute will eliminate the insufficient number of nurses, bring about the extension of the paramedics both in quality and in quantity, promote the advancement of women into the society, and improve the health care level in Pakistan.

On the other hand, it is indispensable to complete the Dormitory for the nurse students and the paramedics at the same time to enhance the educational effects. To conclude, the construction of dormitory under the Grant Aid is very effective for this project.

9-2 Recommendations

To improve the imbalance of the health care personnel in Pakistan through the training of nurses and paramedics, the role of this College and Institute is important and much is expected of it. Self-reliant efforts are indispensable for full display of the effects of this College and Institute and for the realization of the expectations of the Pakistani people.

1) Early and smooth operation of the IHC

It is pointed out that at present the practice of nurses in the basic education is prevented by their tasks in the hospital.

IHC will be the central medical organization in Pakistan, and offers this College and Institute for practice in this field.

Financially, this College and Institute are not independent, but are operated as a part of IHC. According to estimates provided by the Basic Design Study Team, this College and Institute require the operation expenses of 5.3 million Rs. annually. It is necessary for this College and Institute to secure the above mentioned operation expenses surely independently from that of the IHC in the future. Continuation and the success of the education in the College and Institute depend on the early and smooth operation of the IHC.

2) Flexible and adequate operation

The curriculum of this College and Institute has been worked out, however, in the education of the postgraduate nurses, refresher courses in basic medical and nursing theory are especially important. The deterioration of the education in quality by placing an emphasis on the early achievement of the authorized strength of the nurses and on the practice must be avoided.

In addition, the College and Institute consists of two education and training facilities which have different sexes, ages and intellectual levels. In principle, these facilities are separated from each other, but it is expected that a part of the practice room would be used by

the students of both schools. To use the whole facilities efficiently and smoothly, it is essential to establish an all-inclusive organization. On the other hand, the medical care technology is progressing, so re-organization, combination and abandoning of educational courses in the near future will become inevitable. Also, short-term education courses or seminars are expected to be provided in addition to regular educational courses to give more extensive education to the nurses and the paramedics, so this College and Institute must be operate flexibly.

3) Securing of personnel

154 staff members will be required to operate this College and Institute. The arrangement of personnel is necessary according to careful recruiting plan before the delivery of the buildings. The personnel must be familiar with the contents of the facilities and the equipment, and must be trained smoothly through educational programs.

It is especially important to secure the teaching staff. A situation in which less than one half of the required teaching staff is barely secured, such as the one at the JPMC should be avoided. The required personnel must be recruited by all means.

4) Pakistan's responsibilities

Preparation and infrastructure tasks undertaken by Pakistan side have a great influence on the construction schedule of the project. The early completion of the work by Pakistan is important. In addition, necessary measures by the Pakistan side to rapidly clear materials and the equipment through the customs, to transport them inland, and to secure the materials to be procured in the field are required.

5) Technical cooperation

The Government of Islamic Republic of Pakistan has dispatched personnel overseas to train the teaching staff of the health and medical education annually. The Government is now planning to secure the teaching staff of this College and Institute by calling them back from abroad and by transferring the staff of the relevant facilities to this College and Institute. However, the continuous operation of the JPMC in spite of the insufficient personnel seems to owe much to the educational guidance provided the USA in ten and odd years. The technical cooperation of Japan to Pakistan is important for more effective education and training in the College and Institute.

The means of technical cooperation should be examined in the future. The acceptance of Pakistani counterpart and the dispatch of Japanese experts in a short period are desirable.

In order to display the original functions of the College and Institute, and to improve the health and medical care service in Pakistan, it is essential that two fundamental conditions be fully satisfied. These are the realization of the project under the Grant Aid by the Government of Japan, and strenuous self-reliant effort to be exerted by the Pakistan-side to wards making this project truly fruitful.

APPENDIX

- 1. Dispatch of the Survey Teams**
- 2. Minutes of Discussions**
- 3. Related Information**
- 4. Equipment List**

APPENDIX 1. Dispatch of the Survey Teams

1) Members of the Survey Team

o Basic Design Survey Team (Aug. 2 - Aug. 21, 1984)

Team Leader	Mr. Yutaka HOSONO Deputy Director Grant Aid Department, JICA
Planning of Para Medical Education	Prof. Kenichi KOJIMA Dean, College of Biomedical Technology Niigata University
Planning of Nursing Education	Ms. Yasuko OTAKE Former Matron, Musashino Red Cross Hospital
Training of Nursing	Ms. Chiyoe SHIMA Director, The International Nursing Foundation of Japan
Coordinator	Mr. Yukihide KATSUTA 2nd Training Division, Training Department, JICA
Architectural Planning	Mr. Kazuo ISHIHARA Kume Architects-Engineers
Architectural Design	Mr. Shigeru ENOMOTO Kume Architects-Engineers
Mechanical Planning	Mr. Nobuo HORIE Kume Architects-Engineers
Equipment Planning	Mr. Akikazu KATO Kume Architects-Engineers

o Draft Report Team (Oct. 8 - Oct. 17, 1984)

Team Leader

Prof. Kenichi KOJIMA
Dean,
College of Biomedical Technology,
Niigata University

Coordinator

Mr. Yoshihide TERANISHI
Basic Design Division
Grant Aid Department, JICA

Architectural Planning

Mr. Kazuo ISHIHARA
Kume Architects-Engineers

Architectural Design

Mr. Shigeru ENOMOTO
Kume Architects-Engineers

Equipment Planning

Mr. Akikazu KATO
Kume Architects-Engineers

2) Cooperation Officials in the Survey

o Pakistan Authorities Concerned

- EAD (Economic Affairs Division)

Mr. F.I. Malik	Joint Secretary
Mr. M. Faheem	Deputy Secretary

- MOH (Ministry of Health, Special Education and Social Welfare)

Mr. S.H. Rizvi	Joint Secretary
Commd. M. Mohsin Pal	Director General
Dr. Mrs. S.B. Agha	Deputy Director General
Mrs. K. Mawla	Nursing Advisor
Brig. Tanwir UL Haq	Project Director, IHC
Mr. I. Ahmad	Engineering Advisor (MOH)
Mrs. G.P. Khakwani	Nursing Superintendent, IHC

o Japanese Officials Concerned in Pakistan

- Embassy of Japan

H.E. Shinichi YANAI	Ambassador Extraordinary and Plenipotentiary
Mr. Akira SUGINO	Counselor
Mr. Satoshi TAGUCHI	First Secretary

- JICA Islamabad Office

Mr. Kinjiro WADA	Director
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APPENDIX 2. Minutes of Discussions

Minutes-1 on the Basic Design Survey (Aug. 15, 1984 Signed)

Minutes-2 on the Draft Report (Oct. 15, 1984 Signed)

Minutes of Discussions

on

The Establishment of

The College of Nursing & Para Medical Institute

in the Islamic Republic of Pakistan

In response to the request made by the Government of the Islamic Republic of Pakistan for the establishment of the College of Nursing and Para Medical Institute (hereinafter referred to as "the Project"), the Government of Japan has sent, through the Japan International Cooperation Agency (hereinafter referred to as "JICA"), a team headed by Mr. Yutaka HOSONO, Deputy Director of Grant Aid Department, JICA, to conduct a basic design study from August 3rd to August 21st, 1984. The team has carried out field surveys, held a series of discussions and exchanged views with the authorities concerned of the Project.

Study Team visited institutions shown in Annex V to conduct surveys into related facilities and to hold discussions with responsible officials of the institutions.

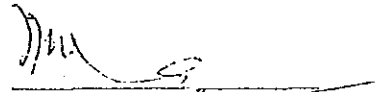
As the result of the study and discussions, both parties have agreed to recommend to their respective Governments to examine the results of the study attached herewith towards the realization of the Project.

August 15th 1984

Islamabad



Mr. Yutaka Hosono
Team Leader
Basic Design Study Team
JICA



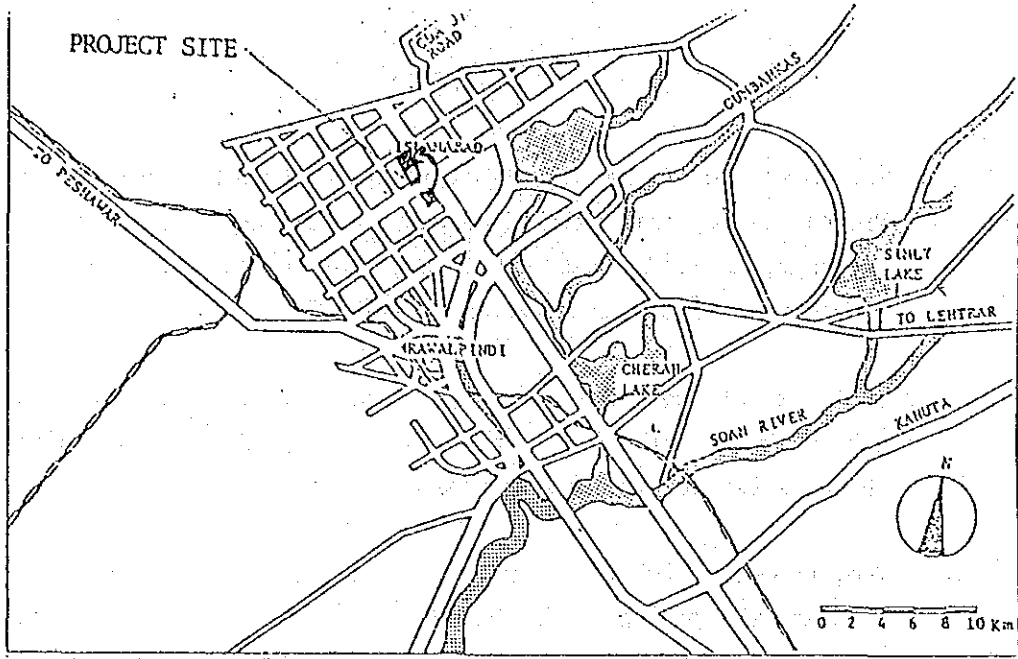
Mr. F. I. Malik
Joint Secretary
Economic Affairs Division
Government of Pakistan

ATTACHMENT

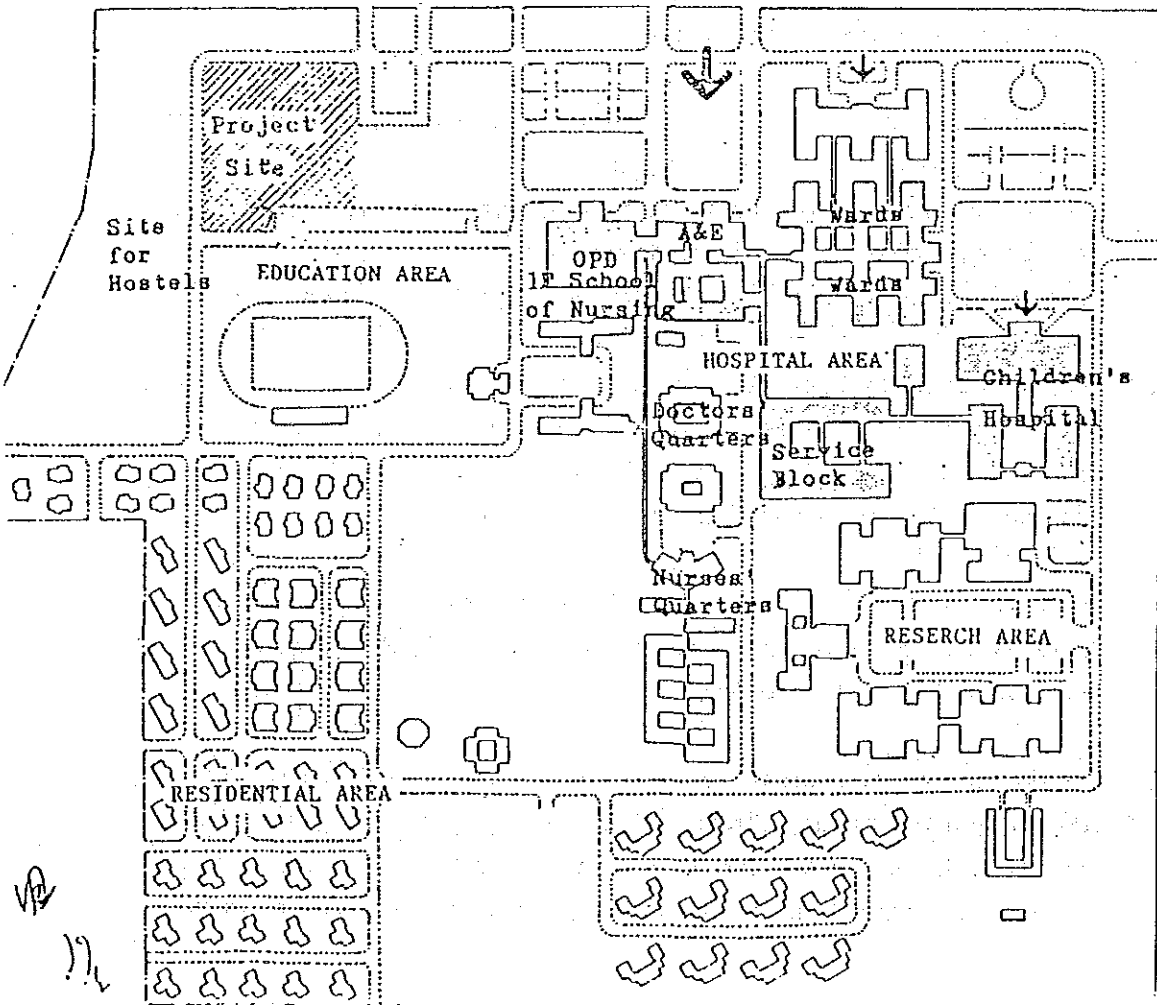
1. The objective of the College of Nursing & Para Medical Institute Project is to train skilled nurses and para medical staff and impart necessary knowledge and techniques, thus contributing to the development of health services of Pakistan.
2. The scope of the Project is to provide necessary building, facilities and equipment for the College of Nursing & Para Medical Institute (hereinafter referred to as "the Institutions").
3. The proposed site of the Project is located in the Islamabad Hospital Complex, the possession of which is with the Ministry of Health, Government of Pakistan (hereinafter referred to as "the Project Site"). The location of the Project Site is shown in Annex I.
4. The Pakistan side proposed to conduct training courses in the Institutions as shown in Annex II.
5. The Japanese Survey Team will convey to the Government of Japan the desire of the Government of Pakistan that the Government of Japan take necessary measures to co-operate in implementing the Project and provide the building and other items listed in Annex III within the scope of Japanese economic cooperation programme in grant form.
6. The Government of Pakistan have understood Japan's grant aid system explained by the Japanese Survey Team which includes principle of the use of a Japanese Consultant Firm and a Japanese General Contractor for implementation of the Project.
7. The Government of Pakistan will take necessary measures listed in Annex IV on condition that the grant aid by the Government of Japan is extended to the Project.
8. The Government of Pakistan requests that under the Japanese Technical Cooperation programme, through JICA, necessary teaching staff may be sent from Japan for the two institutions and Pakistani teaching staff may also be trained in Japan for a period of six to twelve months.

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ANNEX I



- UNDER CONSTRUCTION
- PLANNING FACILITIES



ANNEX II

4

College of Nursing

<u>Speciality training of following disciplines</u>	<u>No. of Students</u>
1. Nursing in Paediatrics	20 (one year)
2. Nursing in Operation Theatre Techniques	10 (one year)
3. Nursing in Anesthesia	10 (one year)
4. Nursing in Intensive/Coronary Care	10 (one year)
5. Public Health Nursing	20 (one year)
6. Nursing in Neuropsychiatry	10 (one year)
7. Teachers for basic training schools	50 (25 x two year)
<hr/>	
Total	130

Para Medical Institutes

<u>Field</u>	<u>No. of Students</u>
1. Broad based technicians	40 (one year)
2. Operation Theatre Technicians	10 (one year)
3. X-Ray technicians	40 (20 x two year)
4. Physiotherapists	60 (20 x three year)
5. Orthoptists	10 (one year)
6. Dental Hygienists	10 (one year)
7. Dietary Technicians	10 (one year)
8. Medical Electronics & Engineering Technicians	5 (one and half year)
<hr/>	
Total	185

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ANNEX III

Items requested for the Project by the Government of Pakistan.

A. Facilities

1. College of Nursing

- Lecture Rooms
- Practical Training Rooms (types are shown with Equipments)
- Preparatory Rooms
- Director Room
- Instructor Rooms
- Audio-Visual Rooms
- Student W.C.
- Instructor W.C.
- Storage
- Meeting Rooms
- Miscellaneous

2. Para Medical Institute

- Lecture Rooms
- Practical Training Rooms (types are shown with Equipments)
- Preparatory Rooms
- Director Room
- Instructor Rooms
- Audio-Visual Rooms
- Student W.C.
- Instructor W.C.
- Storage
- Meeting Rooms
- Miscellaneous

EM

3. Common Space
- Office - Registrar's - Board of Examination
 - Superintendent
 - Clerks
 - Library
 - Stack Room
 - Large Lecture Hall for 200 students
 - Cafeteria
 - Kitchen
 - General Administration Office
 - Production Room
 - Miscellaneous

B. Equipment

Related equipment for the project is shown below together with types of Practical Training Rooms where most of them shall be installed.

SW 2

List of Equipment
Disciplines

Equipment

No. Basic Nursing

Model Ward

Equipment listed on attached sheets
Sheet 10. Specimen Model
Sheet 11. Nursing Education (Basic)
Sheet 12. Nursing Education (Special)

N1. Nursing in Paediatrics

Model NICU

to be combined with Model ICU.CCU
and to be attached to Model Ward
Incubator
Photo Therapy Unit
Resuscitator for Infant

N2. Nursing in Operation
Theatre Techniques.

Corner of Model ICU.CCU shall be used

in Practical Training with
Operating Instrument Set
Instrument Tray
Instrument Trolley
Compact High Speed Sterilizer
Hot Air Sterilizer

N3. Nursing in Anesthesia

Corner of Model ICU. CCU shall be used

in Practical Training with
Anesthesia Apparatus
Anesthetic Ventilator
Endotracheal Tube Set
Rubber Masks

N4. Nursing in Intensive/
Coronary Care

Model ICU. CCU

ICU bed
Bed Side Monitor
Central Monitor
Defibrillator
Resuscitator
Suction Unit
X-Ray Film Illuminator
Haemodialysis Unit
Peritonium-dialysis Unit

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- N5. Public Health Nursing Mobile Dispensary
 Visiting Bag
- N6. Nursing in Neuropsychiatry
- N7. Teachers for basic training schools
- Audio-Visual Room with
 Video Set (video-tapes)
 Overhead Projector
 Slide Projector
 Tape Recorder
 Record Player
- Production Room with
 Plain Paper Copier
 Printing Machine
- Dark Room with
 Photographic Developing & Printing Set
-
- P1. Broad Based Technician Clinical Laboratory with
- Slide Staining Set
 Large Sledge Microtome
 Incubator
 Electro-Balance
 Counter Balance
 Monocular Microscope for Student
 Binocular Microscope for Instructor
 Microscope for Instructions
 Magnetic Stirrer
 Water Bath
 General Laboratory Centrifuge
 Micro Centrifuge for Cell Washing
 Haematocrit Centrifuge
 Micro Titer System
 Gas Pack System
 pH Meter
 Hand Protein Refractometer
 Pump
 Electrophoresis Equipment Unit
 Densitometer

4/10
 2/1

UV -VIS Spectrophotometer 9
Deep Freezer
Flame Photometer
Diposal Microtome Blade Set
Low Temperature Cabinet (Refrigerator)
Hemacytometer
Cell Counter and Slides
Autostill

Physiological Laboratory with
ECG
EEG
Polygraph
Chemistry Laboratory

P2. Operation Theatre Technicians

to use the same equipment provided for
N2. Operation Theatre course in the
College of Nursing.

P3. X-Ray Technician

Model X-Ray Room with
Diagnostic X-ray Apparatus
X-Ray Film Illuminator
Model Dark Room with
Table Top Automatic Film Processor
Film Processing Set

P4. Physiotherapists

Model Rehabilitation Room with
Micro Wave Therapy Apparatus
Infrared Ray Lamp
Heat-Less Ultra Violet Ray Lamp
Hirschmann's Galvanic and Faradic Apparatus
Exercise Bicycle
Wrist Roll
Training Bed
Paraffin Bath Unit
Over Head Frame
Turning Wrist
Restorator

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P5. Orthoptists	Practice Room with Instrument Set Eye Test Chart (1.Distant 2.Near 3.Color Vision) Refracting Eye Test Unit Trial Frame Set of Trial Lens Measure Model Dark Room with Ophthamoscope Indirect Ophthamoscope Tonometer Refractometer Perimeter Slit Lamp Microscope	10
P6. Dental Hygienists	Practice Room with Dental Treatment Unit with Chair Instrument Set	
P7. Dietary Technicians	Practice Room with Cooking Unit Show Case and Models	
P8. Medical Electronics and Engineering	Workshop with Electronic Tester Oscilloscope Vise Lathe Set of Tools	
Common	Furniture and Books defined as Tools of Training	

Handwritten notes:
 2/11/72

10. Specimen Model
- 1001 Anatomical Human Body (Articulated & Disarticulated)
- 1002 Human Skeleton (Articulated & Disarticulated)
- 1003 Circulatory System
- 1004 Skull
- 1005 Anatomical Heart
- 1006 Respiratory Organs
- 1007 Digestive Organs
- 1008 Brain and Nervous System
- 1009 Muscle
- 1010 Section of Skin
- 1011 Structure of Eye/Ear
- 1012 Structure of Teeth
- 1013 Structure of Nasal Cavity/Throat/Pharynx
- 1014 Kidney and Urinary System
- 1015 Pelvis
- 1016 Pregnant Uterine
- 1017 Development Stages of Foetus
- 1018 Conception Control Training
- 1019 Conception System
- 1020 Parasites in Human Body
- 1021 Feces of Child
- 1022 Trachoma
- 1023 Alveolar Pyorrhea
- 1024 Pathogenic Microbes
- 1025 Show Cases for Models
- 1026 Anatomical Charts

EM
2

- 11. Nursing Education (Basics)
 - 1101 Gatch Bed
 - 1102 Standard Bed
 - 1103 Paediatric Bed
 - 1104 Neo Natal Bassinet
 - 1105 Incubator for Premature Baby
 - 1106 Bed Side Table/Chair
 - 1107 Over Bed Table
 - 1108 Training Dummy
 - 1109 Training Dummy for Stomach Pump
 - 1110 Training Dummy for Dressing
 - 1111 Training Dummy for Baby Bath
 - 1112 Baby Bath Tub
 - 1113 Measuring Rod (Adult/Child)
 - 1114 Weighing Scale (Adult/Child)
 - 1115 Sitting Height Measuring Rod
 - 1116 Shampoo Cart, Bed Bath Cart
 - 1117 Shampoo Tray
 - 1118 Back Rest
 - 1119 Over-bed Cradle
 - 1120 Wheel Chair
 - 1121 Stretcher
 - 1122 Invalid Walker
 - 1123 Litters
 - 1124 Splint
 - 1125 X-ray Fil Viewer
 - 1126 Phantom
 - 1127 Spirometer
 - 1128 Dynamometer
 - 1129 Back Dynamometer
 - 1130 Sphygmomanometer
 - 1131 Pelvimeter
 - 1132 Traube's Stethoscope
 - 1133 Oxygen Flow Meter
 - 1134 Oxygen Density Meter
 - 1135 Oxygen Inhalation Device
 - 1136 Nebulizer
 - 1137 Round Sitting Sandbag

- 1138 Examination Instrument Set
 - Stethoscope
 - Eye Speculum
 - Tongue Forcep
 - Hammer for Tendon
 - Perception Test Sect
 - Measure etc.

- 1139 Enema Set

- 1140 Syringe Set
 - Hypodermic Injection
 - Intra Venous Injection
 - Intra Venous Feeding
 - Large Amount Hypodermic etc.

- 1141 Temperature Taking Set
- 1142 Medication Tray Set
- 1143 Set for Face Washing & Bed Bath
- 1144 Set for Baby Bath
- 1145 Set for Milk Preparation
- 1146 Set for Stomach Pump
- 1147 Blade Holders and Blades, assorted
- 1148 Knives, assorted
- 1149 Catheters, assorted
- 1150 Forceps, assorted
- 1151 Hooks, assorted
- 1152 Ear Scope, Nasal Scope
- 1153 Proctoscope, Vaginascope
- 1154 Boiling Sterlizer
- 1155 Gauze Sterlizer
- 1156 Water Boiler
- 1157 Irrigator Stand
- 1158 Bedpan Rack
- 1159 Screen
- 1160 Decubitous Protecting Mattress
- 1161 Show Cases

- 121 Nursing Education (Special)
- 1201 Resuscitation Training Dummy (Adult)
- 1202 Resuscitation Training Dummy (Child)
- 1203 Clinical Thermometer
- 1204 Suction Unit
- 1205 Continous Suction Unit
- 1206 Oxygen Density Meter
- 1207 Oxygen Tent
- 1208 Resuscitator
- 1209 Emergency Instrument Set
- 1210 Automatic Resuscitator
- 1211 Phono-cardiograph, ECG
- 1212 Instrument Set for Small Size Surgery
- Tracheotomy
- Artificial Abortion
- 1213 Instrument Table
- 1214 Surgery Light, Stand Type
- 1215 Linen for Surgery
- 1216 Orthopaedic Instrument Set
- Traction Set
- Gypsum Set
- 1217 Exchange Blood Transfusion Instrument Set (new born)
- 1218 Normal Delivery Set
- 1219 Abnormal Delivery Set
- 1220 Training Set for Mammary Massage
- 1221 Miling Device (Automatic, Hand Type)
- 1222 Phantom
- 1223 Incubator for Premature Baby
- 1224 Hand Scrub Unit
- 1225 Baby Bath Unit
- 1226 Microscope
- 1227 Cabinet
- 1228 Dummy for Midwifery
- 1229 Dummy for Baby Care
- 1230 Midwifery Instrument Set
- 1231 Reading Laboratory for 10 students

2/11/23

Following arrangements are required to be taken by the Government of Pakistan.

1. To secure a lot of land necessary for the construction of facilities and to clear, fill and level the site as needed before the start of the construction.
2. To provide necessary data and information for the basic design.
3. To provide facilities for distribution of electricity, telephone, water supply, gas and other identical facilities to the proposed project site.
4. To take necessary measures for the construction of Student Hostels for the timely implementation of Training in the Institutions.
5. To ensure prompt unloading, tax exemption, customs clearance at ports of disembarkation in Pakistan, and prompt internal transportation therein of the products purchased under the grant.
6. To maintain and use properly and effectively the facilities constructed and equipment purchased under the grant.
7. To undertake incidental civil works such as gardening, fencing gates and exterior lighting, as needed.

Note: Regarding the Student Hostels (item 4 mentioned above) Government of the Islamic Republic of Pakistan earnestly requests to the Government of Japan and would deeply appreciate if hostel accommodation for students of the College of Nursing and Paramedical Institute is also constructed by the friendly Government of Japan as grant aid. This request has been made due to financial constraints in the country. It is considered that the hostel accommodation should be simultaneously constructed to correspond with the establishment of the College of Nursing and Paramedical Institute.

The Japanese Team will transmit to the Government of Japan the above mentioned requests.

ANNEX V

16

Survey of Related Facilities

Children's Hospital, Islamabad Hospital Complex, Islamabad.

General Hospital, Islamabad Hospital Complex, Islamabad.

National Institute of Health, Islamabad.

Rawalpindi General Hospital, Rawalpindi.

School of Nursing, Rawalpindi General Hospital, Rawalpindi.

Central Government Poly Clinic, Islamabad.

School of Nursing, Central Government Poly Clinic, Islamabad.

Holy Family Hospital, Rawalpindi.

School of Nursing, Holy Family Hospital, Rawalpindi.

Jinnah Post Graduate Medical Centre, Karachi

College of Nursing, JPMC, Karachi

School of Physiotherapists, JPMC, Karachi

College of Physicians and Surgeons, Karachi

School of Nursing, Aga Khan University, Karachi

Mayo Hospital, Lahore

10 School of Nursing, Mayo Hospital, Lahore

Public Health Institute of Nursing, Lahore

11 Punjab State Medical Faculty, Lahore.

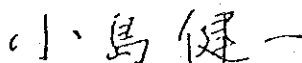
MINUTES OF DISCUSSION
ON
THE DRAFT REPORT OF THE BASIC DESIGN STUDY
ON
THE ESTABLISHMENT PROJECT OF
THE COLLEGE OF NURSING & PARAMEDICAL INSTITUTE
IN THE ISLAMIC REPUBLIC OF PAKISTAN

The Government of Japan has sent, through Japan International Cooperation Agency (JICA), a Basic Design Study Team to the Islamic Republic of Pakistan, from 8th to 17th October, 1984 for the purpose of presenting and explaining the Draft Final Report of the Basic Design Study (the Report) on the Establishment Project of the College of Nursing & Paramedical Institute in the Islamic Republic of Pakistan (the Project).

The Team held meetings with the Pakistani officials to explain and discuss on the Report. As a result of the discussions, both parties have confirmed the following items. Also, a note regarding the Technical Cooperation is attached.

1. The Pakistani Side has agreed in principle to the basic design proposed in the Draft Final Report.
2. Final Report (10 copies in English) on the Project with the amendments mutually agreed will be submitted to the Government of the Islamic Republic of Pakistan by the end of January 1985.
3. The Pakistani Side understood the system of Japan's Grant Aid Programme and the arrangements to be taken by the Pakistani Side for realization of the Project.

October 15th, 1984
Islamabad



Dr. Kenichi Kojima
Draft Report of
Basic Design Study Team, JICA



Mr. F. I. Malik
Economic Affairs Division
Government of Pakistan

Note:

The Pakistani Side strongly desired that under the Japanese Technical Cooperation Programme, through JICA, necessary teaching staff may be sent from Japan and Pakistani teaching staff may also be trained in Japan for the smooth and effecient functioning of the College and Institute at the initial stage.

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APPENDIX 3. Related Information

BASIC DESIGN STUDY
ON
THE CONSTRUCTION PROJECT OF
THE COLLEGE OF NURSING & PARA MEDICAL INSTITUTE (IHC)
IN THE ISLAMIC REPUBLIC OF PAKISTAN

QUESTIONNAIRE

AUGUST 1984

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

Questions

1. There is already 2-year course for Public health nurse. The new 1-year course thereof included in the College of Nursing seems to be inconsistent with the above mentioned.
 - The one year course included in College of Nursing is meant for graduate nurses who after training will perform the duties of management, supervision and teaching in public health field; as such there seems to be no conflict.

2. Please clarify the curriculum for the dispenser.
 - Training in Hospital Pharmacy, Sterilization, dispensing of drugs dressing techniques, elementary knowledge of vaccines and sera, first aid and emergency procedures and routine blood/sputum/urine examination.

3. Please clarify the detail of works which "the broad based technicians" cover. Can they select only one or a few subjects during 1-year course to become specialists in one speciality or do they have to take all the subjects to become all-around technicians?
 - Broad Based Technician will be taught a number of subjects to be "an all-around technician".

4. What specialities are included in the curriculum of "the broad based technicians"?

Urinalysis, hematology, parasitology, microbiology (bacteriology, virology), surgical pathology (pathological anatomy), clinical physiology (ECG, EMG, EEG, Cardioechography, respiratory function), cell biology, medical electronics, medical mechanics (engineering), others (what else?).

 - The Broad Based Technician will be trained in rotation in the broad specialities like medical ward, general surgical ward, Eye, ENT wards, cardiology, paediatrics and operation theatre. Detailed curriculum will be developed later on with the assistance of tutors involved in the training, and curriculum committee. Period of training might have to be extended beyond one year.

5. Please clarify the allocation of hours of lectures, practices at the school, and practices at the hospital lab.
 - 50% for lectures
 - 50% for practicals
6. Are the other hospitals planned to be used for the practice hospitals of the students?
 - Islamabad Hospital Complex will be self sufficient to take care of hospital training of the students.
7. Is there any state examination after the training?
 - At present State Medical Faculty is conducting examinations of dispensers (Pharmacists C Grade and B Grade) Sanitary Inspectors and Laboratory Technicians. The same faculty will be entrusted with the jobs of conducting examination of these paramedics and will award diploma - some spade work will have to be done by the Health Division to get these categories recognised and enlisted with the State Medical Faculty.
8. Do the trainees get any title or qualification after the training?
 - The trainees will be awarded diploma and the titles have been suggested in the PC-I.
9. Please estimate an approximate number of patients of IHC per day in the coming 5 years.
 - 4000 patients per day by the end of 5 years.
10. Does IHC has the dental clinics? If yes, what specialities will be opened?
 - Islamabad Hospital Complex has five dental clinics and laboratories (all Oro - dental specialities have been included.
11. About the rehabilitation facilities.
 - 1) Do you have sufficient number of qualified teaching staff for physical, occupational and speech therapists (PT, OT, and ST)?
 - Teaching staff is available but they will have to be provided further training to improve their knowledge regarding latest techniques.

- 2) What kinds of diseases are the main subjects for PT (congenital malformation, wounded, cerebral vascular accident, chronic illness, etc)?
 - Mainly injuries due to accidents, chronic illnesses cerebro - vascular accidents, congenital aburruateties, poliomyelities, parkinsonism and post coronary rehabilitation.

12. About the patients with renal failure with regard to artificial kidney.
 - 1) Number of renal centres in the whole country.
 - Seven Kidney Centres are functioning in the country having a strength of 186 beds. Another centre is coming up in the Islamabad Hospital Complex. These centres are poorly manned and inadequately equipped.

 - 2) Number of patients with acute and chronic renal insufficiency.
 - In Western World there are estimated to be: 120000 New cases of renalfailure every year. The gestimate indicate a much higher incidence in Pakistan due to poor preventive services.

 - 3) Number of patients under chronic hemodialysis and continuous peritoneal dialysis (CPD).
 - Chronic Heamodialysis: Nil
 - Continuous Peritoneal Dialysis: Negligible

 - 4) Number of kidney transplantation performed in the past 5 years.
 - Number of Kidney transplantation: Negligible

13. Please clarify the number of ICU and CCU in your country and the number of accommodated patients in those facilities.
 - Twenty ICU and twenty CCU units are functioning in the country including those attached to the teaching hospitals four hundred and thrity beds are provided in these units to provide indoor treatment.

14. Please clarify the difference of works between "coronary care nurse" in College of Nursing and "coronary care technician" in Paramediacal Institute.

- The Coronary Care Nurse will provide the bed side nursing care while the coronary care technician will perform the clinical physiology tests. He will also be called upon to assist the coronary care nurse.

15. Are nurse teachers included in the instructors of College of Nursing?

- Nurse teachers are included in the instructors of the College of Nursing.

16. Please clarify the reason why more "lab techn. (6)" are listed in the teaching personnel of College of Nursing than in Paramedical Institute (4)?

- Actually four Laboratory Technicians (Grade 16) and 6 Assistant Laboratory Technician (Grade 9) have been proposed for both College of Nursing and Paramedical Institute. For simplicity's case posts of Laboratory Technicians have been put in Paramedics Institute and Assistant Laboratory Technician in College of Nursing.

17. Do you expect male nurse student for College of Nursing and female technicians students for Paramedical Institute?

- Co-education will be allowed both in CN and paramedics institue.

18. About reagents for laboratory tests.

1) Are the clinically used reagents easily available, or do you have to but a lot of them in one time and to store them?

- Reagents are generally easily available from the open market.

2) Are the most routine reagents ready-made and provided as kits, or do you have to prepare them?

- Routine Reagents are generally provided ready made.

19. Please clarify if the following equipments or apparatus are to be set up in IHC?

Related Information

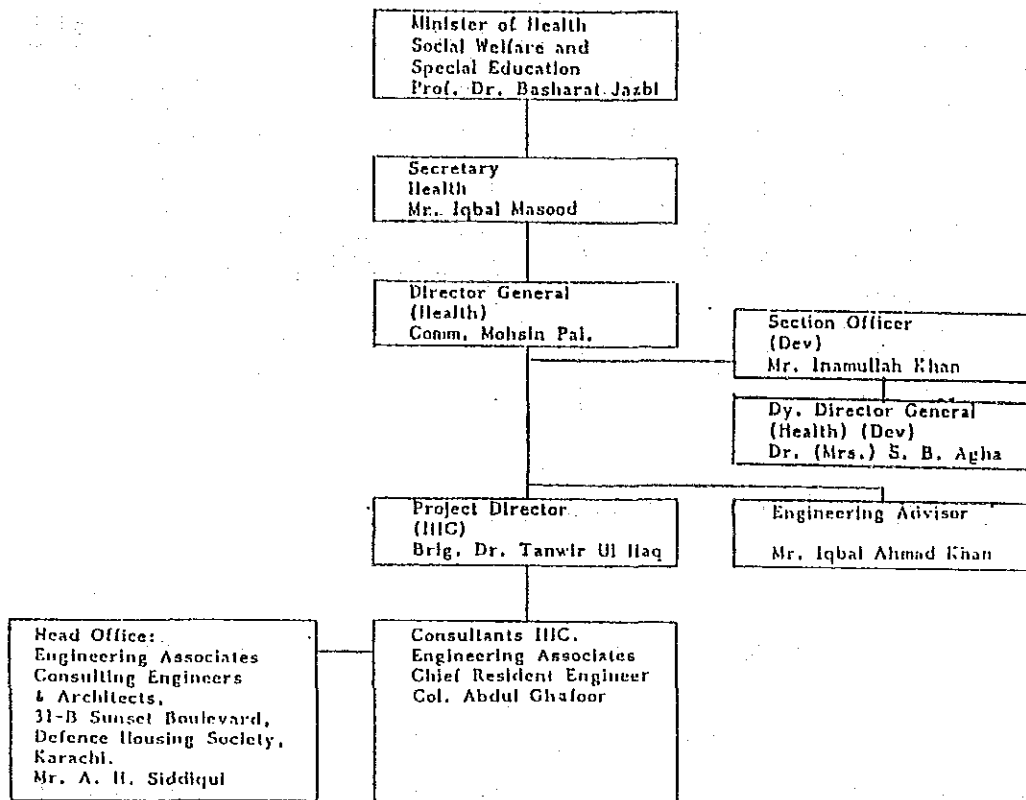
- 1) autoanalyzer of blood chemistry
- Yes
- 2) automatic microplate dropper and diluter
- Yes
- 3) laser nephelometer
- Yes later on
- 4) computers
- Hospital is under active consideration for computer programming.
- 5) automatic blood cell counter
- Yes
- 6) echocardiograph
- Yes
- 7) computed tomograph
- Yes
- 8) high speed X-ray apparatus for angiography
- Yes for peripheral engingraphy only.
- 9) respirator
- Yes
- 10) defibrillator
- Yes

PART ONE: GENERAL CONDITIONS OF THE PROJECT

101. Execution Body of the Project

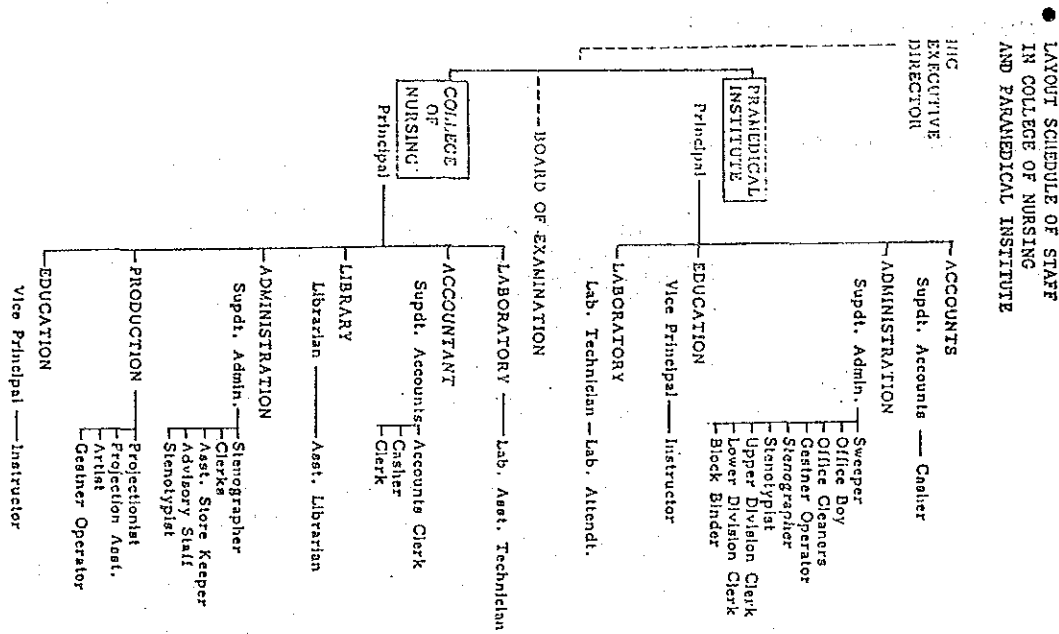
Please complete Chart 1.

● EXECUTION BODY OF THE PROJECT



102. Organization of College and Institute

Please draw the Organization of College and Institute as Chart 2.



103. Operation of College and Institution

1). Curriculum

Please complete Chart 3.

Chart 3. Curriculum of College and Institute

Please make necessary amount of copies to clarify the contents of each discipline or field.

Discipline: Each Dicipline

Content: Yet to be decided by Curriculum Committee

Number of Students: male female

Duration: 48 wekks days-weeks-months

Begining of Term: September each year

Method of Training: Lectures and Practical

Required Training Material & Equipment:
Not yet finialized - However the list provided by Japanese Consultant appears adequate.

Practical Training (Place & Duration):
Islamabad Hospital Complex. 50% of the time will be spent for practical training.

- 2). Trainee Recruiting Method
Open competition/merit
- 3). Qualifications of Trainees
(Required Certificate, Educational Backgrounds, etc.)
For postgraduate Nursing:
Four Years training in Nursing & Midwifery.
For Paramedics
1st Division Matriculates with Science (10 years Schooling)
- 4). Qualifications of Instructors
- Yet to be finalised.
- 5). Qualifications to be given out to the successful Trainees
- Award of diploma in the subject.
- 6). Expected Areas of Employment
- Teaching Hospitals, Specialist Hospitals, District Hospitals, Tehsil Hospitals.

104 Staff Allocation Plan

Please complete Chart 4.

- Staff Allocation Plan

Distribution of Instructors in various disciplines is only possible. One Instructor each in basic sciences and clinical subjects will be allocated for each discipline except for teachers for basic teachers for Basic Training Schools which will have two tutors each in basic sciences and clinical subjects.

Rest of the staff will be a common pool for management, supervision, sectorial assistance and ancillary work.

105. Budgetary Plan

- 1). Please clarify the initial budget for the construction cost to be covered by the recipient side.
 - Already provided in Islamabad Hospital Complex.
- 2). Responsible Organization for the operation cost of this College and Institution:
 - Ministry of Health, Special Education & Social Welfare.
- 3). Process of Budgeting carried out by the above Organization:
 - As provided by Government of Pakistan.

- 4). Independency of the above budget from that of IHC:
 - As part of Islamabad Hospital Complex.
- 5). Amount of above budget:
 - Cannot be identified as it is included in the over-all budget of (IHC).
- 6). Amount of Training Fee that each Trainee shall pay annually:
Percentage of above figure against the total required training fee for each trainee:
 - Not yet decided, under consideration.
- 7). Breakdown of Training Fee
 - Trainers Expenses: - As above
 - Training Materials: "
 - Meal Expenses: "
 - Tuition Fee: "
 - Lodging Fee: "
 - Others: "
- 8). Please clarify the salaries and wages of staff by completing Chart 5.
 - Chart 5 attached.

Chart 5. Salaries and Wages of Staff

(i) College of Nursing

Name of Post	No. of Post	Grade	Salaries & Wages
1. Principal	1	19	Rs 3200-166-4480
2. Vice Principal	1	18	Rs. 2100-156-3600
		Plus Special Pay	
3. Instructors			
Basic Sciences	10	17	Rs. 1600-120-3040
Clinical Subjects	10	17	-do-
4. Librarian	1	17	-do-
5. Asst. Librarian	1	16	Rs. 1050-80-2250
6. Supdt. Admin.	1	16	-do-
7. Supdt. Accoutns	2	16	-do-
8. Stenographer	1	15	Rs. 900-55-2000
9. Production Asstt.	1	14	Rs. 850-50-1850
10. Projectionists	2	14	-do-
11. Artist	1	14	-do-
12. Stenotypist	1	12	Rs. 750-40-1550
13. Lab. Asstt. Technician	6	9	Rs. 620-29-1200
14. Upper Division Clerk	3	7	Rs. 560-23-1020
15. Accounts Clerks	2	7	-do-
16. Cashier	1	7	-do-
17. Asst. Store Keeper	1	7	-do-
18. Lower Division Clerk	5	5	Rs. 520-18-880
19. Gestetnor Operator	1	2	Rs. 460-12-700
20. Dftri (Book Binder)	1	2	-do-
21. Lab. Attendants	6	2	-do-
22. Naib Qasid (Office Boy)	10	1	Rs. 440-10-640
23. Frash (Office Cleaners)	4	1	-do-
24. Khakrobe (Sweeper)	<u>4</u>	1	-do-
Total	77		

Related Information

(ii) Para Medical Institute

Name of Post	No. of Post	Grade	Salaries & Wages
1. Prinoipal	1	19	Rs. 3200-160-4480
2. Vice Principal	1	18	Rs. 2100-150-3600
3. Instructors	20	17	Rs. 1600-120-3040
4. Supdt. Admin.	1	16	Rs. 1050-80-2250
5. Supdt. Accounts.	1	16	-do-
6. Lab. Technician	4	16	-do-
7. Stenographer	1	15	Rs. 900-55-2000
8. Stenotypist	1	12	Rs. 750-40-1550
9. Cahier	1	7	Rs. 560-23-1020
10. Upper Division Clerk	4	7	-do-
11. Lower Division Clerk	6	5	Rs. 520-18-880
12. Daftri (Book Binder)	1	2	Rs. 460-12-700
13. Gestetnor Operator	1	2	-do-
14. Lab. Attendant	10	2	-do-
15. Frash (Office Cleaner)	5	1	Rs. 440-10-640
16. Naib Qesid (Office Boy)	12	1	-do-
17. Khakrobe (Sweeper)	<u>4</u>	1	-do-
Total	64		

(iii) Board of Curriculum & Examinations

Name of Post	No. of Post	Grade	Salaries & Wages
1. Registrar	1	18	Rs. 2100-150-3600
2. Office Supdt.	1	16	Rs. 1050-80-2250
3. UDC (Upper Division Clerk)	4	7	Rs. 560-23-1020
4. LDC (Lower Division Clerk)	1	2	Rs. 460-12-700
5. Daftri (Book Binder)	1	2	-do-
6. Gestetnor Operator	1	2	-do-
7. Naib Qasid (Office Boy)	<u>4</u>	1	Rs. 440-10-640
Total	13		
Grand Total	<u>154</u>		

106. Future Forcast of Trainee Recruit Plan

1). Expected Number of Trainee

	<u>1985</u>	<u>1990</u>
Nurses:	125	150
Para Medicals:	185	200

- (The increase is to cater or any new specialists which may come up).

2). From what type of Organizations and Schools, the Trainees are expected to come from in the future.

Nurses: - School of Nursing under Federal & Provincial Control and from Hospitals.

Para Medicals: - Public Schools in the country and inservice trainees from provinces.

3). Expected area of Employment

- Employment in hospitals, medical centres, professional colleges, Rural Health Centre & Basic Health Units.

107. Existing IHC School of Nursing for basic nursing for 100 nurses.

1). Roles and Functions

- To train students in basic nursing for 3 years and one year midwifery.

To teach Islamic Studies and Pakistan Studies.

To impart training in character building.

2). Location

- In the Islamabad Hospital Complex.

3). Organization

- As per PC-1 already given.

4). Staff Allocation

- Copy of staffing pattern attached (Handed over to basic study team).

5). Operation Budget

- As part of Islamabad Hospital Complex budget.

108. Hostel

Please clarify the following.

Location Availability to Trainees

Total Capacity Availability to Staff

- No hostel is provided for nurses and paramedical.

PART TWO: ISLAMABAD HOSPITAL COMPLEX

201. Role and Functions

Please describe in detail.

- 1. To provide health care facilities to the federal employees and their families and the general public of Islamabad and the surrounding areas.
- 2. To serve as a referral centre for specialized treatment.
- 3. To cater for foreign mission and international agencies located in Islamabad when required.
- 4. To serve as teaching hospital for postgraduate medical studies.
- 5. To provide teaching facilities for nursing and midwifery and paramedics.
- 6. To act as centre of excellence for research and development programme in health sciences.

202. Organization and Staff Allocation

Please draw the Organization of IHC as Chart 6 including Proposed College and Institute and the describe the Staff Allocation for IHC.

Chart 6. Organization Chart of IHC. Attached next page.

203. Budget

Please clarify the budget for the Construction and the Operation of IHC.

1). Construction

- Rupees 300 million (Rupees three hundred) Million.

2). Operation

- Rupees 82 million (including component of rupees 9 million).

204. Master Plan & Present Development

Please present a set of drawings and documents to clarify the following.

A. Building

- 1) Construction Program
- 2) Present Accomplishments
- 3) Date of Completion of each building

B. Equipmentation

- 1) Procurement Program
- 2) Present Accomplishments
- 3) Date of Completion

- Electromedical equipment has already been procured, other equipments such as central laundry and central sterilization has also been procured. In built equipment such as heating, ventilation, Air-conditioning, Ketchen equipment and food service equipments, hospital type lifts etc. is under procurement, expected date of completion is June 1985.

C. Utilities

- 1) Provision Program
- 2) Present Accomplishments
- 3) Date of Completion

- Under procurement by Health Division.

205. Children's Hospital in IHC

- 1) Please point of the position in the Organization Chart of IHC (Chart 6).
- Copy of organization chart is attached.
- 2) Is the Budget for operation of Children's Hospital from that of IHC.
- No

206. Infrastructure

- 1). Please prepare for us a map showing infrastructure in Islamabad/ proposed site; Electricity, Telephone, Water, Sewarage, Gas, etc.
- 2). Soil Conditions
Please prepare the Boring Data.
- 3). Mechanical Service
Please clarify the Following.

Operation Term of Air-Conditioning usually in Islamabad

	Period	Design Temp. and Humidity
o Cooling: May	Jun, July	outdoor ... 42.9°C 30%
		indoor 23.65 +1°C 50%
o Heating: Dec	Jan, Feb	outdoor ... 1.66°C 80%
		indoor 23.65+1°C 50%

4). Plumbing Service

Please clarify the Following.

4-1. Data of City Water in Islamabad

o Size of Supply Main Pipe (Ømm):

6"AC 12", 4"PVC 18", 6"AC 12", 6"AC 12"

o Water Supply Pressure (kg/cm²): 100' - 120'

o Material of Pipe : AC, PVC

o Water Quality:

Transparency, pH value, mineral component:

Hardness and content of sodium chloride etc.:

Soft Water, Fit for drinking purpose.

o Charge (Rp/m³): Rs 5/1000 gallon

4-2. Data of well water near the proposed site:

Tupe Well G-8/4

o Necessary depth (GL-m): 148'

o Water level (GL-m): 27' (Drawn down 21')

o Supply capacity (liter/minute): 14000 gallon/h.

o Data of water quality: Soft Water, Fit for Drinking

4-3. Data of Fuel Gas Service in Islamabad

o Liquefied Petroleum Gas (LPG):

Type of Gas:

Name of Supply Company:

Capacity of Supply per day or week:

- Not Necessary

Regulation for Gas Installment:

Charge (Rs/m³):

- o City Gas Supply of available
 - Type of Gas (Kcal/Nm³): 970 BTU/c.ft
 - Material of Pipe: Mild Steel
 - Size of Supply Main Pipe: 6"
 - Gas Supply Pressure: 30 lps/sq.inch
 - Charge (Rs/m³): Rs 18/1000 ft³
- 5). Electrical Service
 - Please clarify the Following
 - 5-1. Data of Power Supply Service in Islamabad
 - o Name of Supply Authority Concerned: WAPDA
 - o Frequency of Stoppage of Electricity: Negligible
 - o Frequency and Range of Droppage of Electric Voltage: Negligible
 - o Charge (Rs/W): Rs 1/KWH
 - 5-2. Position of the nearest Sub-Station and the date of its completion.

No. 5 (No. 6)
 - 5-3. Data of Telephone Service in Islamabad
 - o Name of Supply Company Concerned: T & T
 - o Charge: Rs. 0.60/call (Local)

PART THREE: BASIC DATA

301. Data and Informations

Please prepare the reports on following points.

1). Health Data

1.1 Government Organization Chart (Chart 7)

- Attached

1.2 Position and Functions of Pakistan Nursing Council

- Attached

1.3 Health Service Networks (Chart 8)

- Attached

1.4 Total health budget and details

Capital Outlay for Health Sector

Sl. -No.	Sub-sector	Million Rs.	Per cent
(i)	Medical education	975	7.50
(ii)	Hospital beds including teaching beds	3,259	
(iii)	Preventive programmes	1,490	11.46
(iv)	Rural health programme	5,660	43.54
(v)	Provision of dental care in the existing facilities.	250	1.92
(vi)	Medical research	*85	0.65
(vii)	Traditional medicine	375	2.89
(viii)	Disabilities	500	3.85
(ix)	Nutrition programmes	250	1.92
(x)	Miscellaneous	120	6.92
Total:		13,000	100.00

* The total allocation for medical research is Rs. 320 million and the balance is reflected under other sub-sectors.

(ii) Recurring expenditure. - The public health sector will be requiring about Rs. 4.5 billion per annum (current prices) towards the end of the Sixth Plan. This has been worked out on the following basis.

	Million Rs.
(i) 7000 BHUs	875
(ii) 729 RHCs	218
(iii) 17,000 teaching beds	850
(iv) 15,700 non-teaching beds in DGQ/ THQ hospitals	315
(v) Drugs and medicines for the public health system for out-patients	500
(vi) District, Provincial Headquarters, health Division and other contingencies	500
	3,258
Add User Charges:	1,250
	4,508

It will be worthwhile to review the growth of recurring expenditure during the Fifth Plan period. This has increased from Rs. 646 million in 1978-79 to Rs. 1,299 million during 1982-83 as indicated in the table below:

Recurring Expenditure on Health, 1978-83

Year	Expenditure
1978 - 79	646.20
1979 - 80	727.40
1980 - 81	763.80
1981 - 82	986.00
1982 - 83	1299.00

The recurring expenditure has increased at an annual rate of 15 percent. The Sixth Plan envisages a growth of 20 percent per year. At this rate, the expenditure will increase to Rs. 3,234 million in the last year of the Sixth Five Year Plan. This will be

supplumented by Rs. 1.25 million to be collected by introduction of user charges.

1.5 Financial background for Health Training from Government and external sources

- For health training we are sending doctors, nurses, LHV and other para medics in the country and abroad. For training in the country budget is provided by the respective Federal and Provincial Governments each year. For International training abroad budget is provided by WIO, UNICEF, UNDP and other International agencies as part of Government share.

1.6 Disease Structure

- The three leading causes of death for each category of age are given below:

<u>Age group</u>	<u>Causes of death</u>
All ages	Diarrhoea Pneumonia Complex Metabolic disorders including cardiovascular disorder Malignancy.
Under 1 year	Causes of perinatal mortality diarrhoea diseases Pneumonia.
1-4 years	Pnaumonia Diarrhoeal diseases Other communicable diseases.
5-14 years	Accidents Pneumonias Malignant neoplasms
15-44 year	Accidents Tuberculosis Cardiovascular diseases
46-64 years	Cardiovascular diseases Malignant neoplasms Pneumonias

- While accidents are among the three causes of death, they represent a significantly smaller proportion of all deaths. This is because of the greater mortality associated with excessive incidence of infections, parasitic and respiratory diseases in preschoolers.

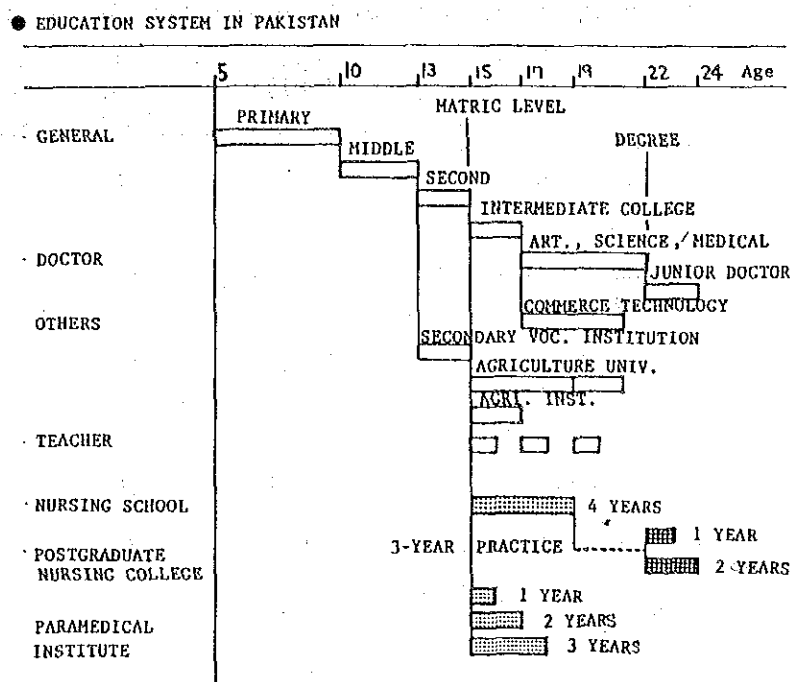
1.7 Number and job of workers stationed abroad

- Not available.

2). Education Data

2.1 Education system and pyramid in connection with Health training (Chart 9)

- Education system and pyramid in connection with Health training (Chart 9)



2.2 Number of graduates and institutions by each educational step

- Number of graduates and institutions by each educational step

2.3 Location and size of secondary/higher education institutions by province

- Location and size of secondary/higher education institutions by province.

2.4 Total education budget and details

- Total education budget and details

- Please see page 359-362 of Sixth Five Year Plan 1983-88 on Education.

3). Health Training

3.1. Please clarify the Following Training Facilities in each Province

Number

- Estimates of Current Numbers of Staff Employed,
Training Institutions and Annual Training Output

	In post (1981)	No. of Training Institutions	Annual Training Output	Annual Training Intake
Doctors		16		
P-G doctors	16,501	4	4,000	
Nurses (inc. nurse midwives)	9,251	44	972	978
Midwives	4,705	46	359	N.A.
LHVs	3,473	10	312	N.A.
Dispensers	16,161	50	1,500	N.A.
Med. Technicians	2,000	26	600	N.A.
Health Inspectors.	1,000	-	-	N.A.

Annual Intake and Output in recent 5 years

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
Nurses	767	659	736	972	909
LHVs	309	313	341	247	308
Midwives	307	313	369	739	941
Med. Technicians	29	27	36	39	39
Dispenser	1207	729	1209	1011	1149
Sanitary Inspector	86	43	72	67	37
Physiotherapist	12	22	Nil	14	9

Ratio of male to female among the Students

- 95% femal for nursing and 95% males for paramedics training

Managing Organization

- Universities for doctors, Nursing Council for nurses and State
medical Faculty for paramedics

Budget of Operation

- a. Salaries and Wages
- b. Training Material
- c. General Expenses
 - Not available

Future Programs

- Attached

3.2. Health Manpower

Please clarify the following in each Province

Type of Government health professions

Roles and Responsibilities of above

Number of above in each Province

Training Method for above

- Will be provided Later-on.

3.3. Health Campaign Program

Please describe the type of professions essential to the current Health Campaign Programs and their training plans.

- May be seen in the Sixth Five Year Plan (1983-88)
(Attached Herewith).

3.4. Authorized Qualifications of Nurses and Paramedics

Please clarify the type(s) of authorized qualifications and the Authority(s) which give(s) out the Certificates.

Types of Authorized Qualifications	Authority
A. Nurses	
1) Head Nurse	_____
2) Registered Nurse	_____
3) Special Nurse	_____
1. Paediatrics	_____
2. Psychiatry	_____
3. Operation theatre	_____
4. Anesthesia	_____
5. Intensive care	_____
6. Public health nurse	_____
7. Coronary care	_____
8. Teachers for basic training schools	_____

- Provincial Nursing Examination Board issue Diploma in General Nursing, Midwifery, Lady health visiting, Ward Admin. and teaching and other special courses. The General trained nurse and midwife can appear in examinations in English, Islamiat Ethics and Pakistan studies B.Sc. Courses of the University and successful candidates are awarded B.Sc. Degree.

B. Para Medics

- 1) Broad based technicians _____
- 2) Operation theatre technicians _____
- 3) X-Ray Technicians _____
- 4) Coronary care technicians _____
- 5) Physiotherapists _____
- 6) Speech therapists _____
- 7) Audiometrician _____
- 8) Orthoptists _____
- 9) Dental Hygienists _____
- 10) Dietary technicians _____
- 11) Dialysis assistants _____

- State Medical Faculty issue certificates to Paramedics.

3.5. Expected Career for Nurses and Para Medics.

Please describe in detail.

- Already provided.

302. Latest National Records

Please present or renew a copy of following reports or booklets;

- o Health Report (latest issue)
- o "The 6th Five Year Development Plan" ('83-'88)
- o Economic Report (latest issue)
- o Regional Development Plan - Islamabad
- o "NESPAK Price Index" (latest issue)
- o "Building and Equipments for the School of Nursing"
- o Education Report (latest issue)
- o Manpower Development Plan
- o Statistical Year Book (latest issue)

303. Climatic and Geological Condition

Please prepare copies of Report on the Following.

Data of Climatic Condition

- 1) Meteorological Record.
 - o Record of Max. Temperature and Frequency (°C)
 - o Record of Min. Temperature and Frequency (°C)
 - o Frequency of relative Humidity (%)
 - o Record of Rain falls
 - Max. per day (mm/day)
 - Day per Month (day/month)
- 2) Record of Max. Wind Velocity and Frequency.
- 3) Record of Magnitude and Frequency of Earthquake.
- 4) Record of Sand-storm.
- 5) Record of Lightning.

Data of Geological Condition, etc.

- 1) Geological Map of Islamabad/proposed site.
- 2) Land use Map as above.

- Already provided during the implementation of Children Hospital.

304. Building Construction Condition

Please prepare following booklets.

National Law, Local Regulations and Standards Concerned

- 1) Pakistan Fire Code
- 2) Standard Specification for Construction Work of NESPAK, CDA, etc.
- 3) Price Index of Construction Materials of NESPAK
- 4) Contract Form of NESPAK, CDA, etc.

- 5) Methods of Measurement of CDA.
- 6) Sample of Bill of Quantities in Actual construction
- 7) Termite Control Method and Cost Dept. of Agriculture
- 8) Laws or Regulations concerned for Project

- Already provided during the implementation of Children Hospital.

Procedure of Building Permit

Should we get the permit from Authority or exempt because of the National Project?

- Already provided during the implimentation of Children Hospital.

ADDITIONAL QUESTIONNAIRE

001. Please specify names of major diseases in following group.

- a) infections and communicable diseases
- | | |
|--------------------|-------------------|
| - Malaria | - Diphtheria |
| - Typhoid | - Tetanus |
| - Polio - Myelitis | - Tuberculosis |
| - Measles | - Viral Hepatitis |
| - Whooping Cough | |
- b) diarrhoeal diseases
- | | |
|------------------------|-----------------------|
| - Infective Diarrhoeas | - Bacillary Dysentery |
| - Viral | - Shigella |
| - Amoebic Dysentery | |
- c) anaemia
- | | |
|---------------------|--|
| - Iron - Deficiency | |
|---------------------|--|
- d) cardiovascular diseases
- | | |
|-------------------------------|----------|
| - Hypertension | - Angina |
| - Acute Myocardial Infarction | |
- e) cancer
- | | |
|-----------------|----------------------|
| - Cancer Breast | - Cancer lung |
| - Cancer Cervix | - Cancer oral Cavity |

002. Please show the breakdown of total hospitals in Pakistan (626) and average number of beds

- a) Federal
- | | | |
|------------------|--------|--|
| No. of Hospitals | - 2 | |
| No. of Beds | - 1050 | |
- b) Provincial
- | | | | |
|------------------|---------|--------------------|--------|
| <u>Punjab</u> | | <u>Baluchistan</u> | |
| No. of Hospitals | - 237 | No. of Hospitals | - 30 |
| No. of Beds | - 24729 | No. of Beds | - 2594 |
| <u>Sind</u> | | <u>FATA</u> | |
| No. of Hospitals | - 141 | No. of Hospitals | - 49 |
| No. of Beds | - 16448 | No. of Beds | - 1566 |
| <u>NWFP</u> | | <u>AJK</u> | |
| No. of Hospitals | - 145 | No. of Hospitals | - 16 |
| No. of Beds | - 9038 | No. of Beds | - 873 |
- c) Private
- | | |
|-----------------------------|--|
| - No registration available | |
|-----------------------------|--|

- d) Military
 - Not known (information classified)
- e) Others
 - Not known

003. Please clarify the following on Nurses

- a) Number of nurses. The number shown in PC-I Form is 7,561, while the information received on our arrival is about 15,000.
 - Number of nurses is 7561 and not 15000.
- b) Actual number of nurses on job. (total and by province)
 - Not known
- c) Number of nurses who graduated from JPMC and those with BSc. Nursing. (total and by province)
 - Not known
- d) Number of Nurse-Midwives
 - 4000
- e) Is Public Health Nurse a new profession in Pakistan
 - Yes
- f) Number of Public Health Nurse
 - Nil
- g) How long is the career as a Nurse. Average length of duration as a Nurse.
 - Not know

004. Please clarify the following on 6th 5-year Development Plan.

- a) What measures are taken to achieve the target number of increased nurses.
 - By adding more nursing schools in teaching hospitals and district hospitals.
- b) Within the estimation in the increase of nurses are those who shall drop out from training schools and those who shall retire from job included.
 - Normal wastage.
- c) What is the estimated ratio of those who shall acquire the job posts after graduation against the total number of graduates.
 - 100%

005. Please clarify the following on Nurses Training.
- a) Total number of candidates to Nursing School annually.
 - Nursing Schools -44, Number of students -840.
 - b) Total number of female matrications annually.
 - Not known
006. Please clarify the following on Nursing College.
- a) The role and functions of Anesthesia Nurse
 - Is she to replace Anesthetist or is she to support Anesthetist.
 - Basically supportive and substitution during emergency.
 - b) Basis of calculation on number of students in each discipline.
 - Estimated requirements.
 - c) Is it appropriate to increase the Specialist Nurses when the total number of General Nurses is insufficient.
 - Yes, due to lack of special nurses in the country; shortage is being made up in 6th plan period.
 - d) Relations of Proposed Nursing College to existing JPMC and the division of functions between the two.
 - Supplementary and additional in respect of specialised nursing. Administratively both will be under the control of Ministry of Health, Special Education and Social Welfare.
007. Please clarify the types and the number of each type of Nursing Auxillaries.
- No information could be gathered.
008. Please describe the jobs and workposts for women in Pakistan and the social position of Nurses among them.
- Scientists, Doctors, Nurses, Teachers, Secretariat Jobs, Library Services, Computer Programming, Telecommunication, Air-Hostesses, Receptionists, Hotel Management etc. The position of nurses among other working women is respectable despite the existing socio cultural barriers.
009. Please clarify the ration of hospital deliveries to home deliveries in maternity situation of Pakistan.
- 95% to 5%.

010. Please clarify what kinds of works following professions do.
- a) Lady Health Visitors
 - Mother and child health care.
 - b) Sanitary Inspectors
 - Environmental support, communicable diseases control and immunization etc.
 - c) Laboratory Technicians
 - Functional and supervision
 - d) Dispensers
 - Pharmacy assistance
 - e) Graduates from institutions for mid level auxiliars
 - Primary health care
011. Please confirm the types of works the following technicians engage in.
- a) Broad Based Tech:
 - Cardiology, ICU, Clinical Chemistry General Medicine.
 - Yes, as rotatory worker in all disciplines.
 - b) Clinical Pathology Tech:
 - Urinanalysis, Hematology, Parasitology, Microbiology, Pathologic Anatomy, Serology
 - Yes
 - c) Clinical Physiology Tech:
 - ECG, EEG, EMG, Respiratory Functions.
 - Yes
 - d) Blood Bank Tech:
 - Blood banking technology
 - Yes
012. Please show the priorities in the opening or the start of Para Medical Institute.
- a) Fields to be omitted or postponed.
 - None
 - b) Reduction of number of trainee for certain period of time
 - Start with 100 students to reach the proposed ceiling in course of time; we may also increase the total intake to 200.
 - c) Lengthening Study Periods in some of the Fields
 - Physiotherapy, Laboratory Technicians, and Radiology etc. e.g. Speech Therapy Technician.

APPENDIX 4. Equipment List

College of Nursing
and
Paramedical Institute
in
Islamabad
Pakistan

List
of
Equipments

October 1984

Room	Equipment	Q'ty
Museum	101 Anatomical Human Body Male	1
	102 Anatomical Human Body Female	1
	103 Human Skeleton, Articulated	1
	104 Human Skeleton, Disarticulated	1
	105 Circulatory System	1
	106 Skull	1
	107 Anatomical Heart	1
	108 Respiratory Organs	1
	109 Digestive Organs	1
	110 Brain and Nervous System	1
	111 Muscle	1
	112 Section of Skin	1
	113 Structure of Eye/Ear	1
	114 Structure of Teeth	1
	115 Structure of Nasal Cavity/Throat/Pharynx	1
	116 Kidney and Urinary System	1
	117 Pelvis	1
	118 Pregnant Uterine	1
	119 Development Stages of Foetus	1
	120 Conception Control Training	1
	121 Conception System	1
	122 Parasites in Human Body	1
	123 Feces of Child	1
	124 Tracoma	1
	125 Alveolar Pyorrhoea	1
	126 Pathogenic Microbes	1
	127 Show Cases for Models	1 set
	128 Anatomical Charts	2 sets

Room	Equipment	Q'ty
Model Ward	201 Standard Bed w/Mattress, Sheets, Pillow, etc.	5
	202 Bed Side Table	5
	203 Bed Side Chair	5
	204 Over Bed Table	5
	205 Training Dummy	2
	206 Training Dummy for Stomach Pump	1
	207 Training Dummy for Dressing	1
	208 Training Dummy for Baby Bath	2
	209 Baby Bath Set	2
	210 Measuring Rod (Adult/Infant)	1 each
	211 Weighing Scale (Adult/Infant)	1 each
	212 Sitting Height Measuring Rod	1
	213 Shampoo Cart	1
	214 Bed Bath Cart	1
	215 Shampoo Tray	3
	216 Back Rest	1
	217 Over-Bed Cradle	5
	218 Wheel Chair	2
	219 Stretcher	2
	220 Invalid Walker	1
	221 Litters	1
	222 Splint, assorted	3 sets
	223 X-Ray Film Viewer	1
	224 Phantom for Delivery	2
	225 Dynamometer, Back Dynamometer	1
	226 Sphygmomanometer, Portable Type	5
	227 Pelvimeter	2
	228 Traube's Stethoscope	5
	229 Nebulizer, Stand Type	1
	230 Nebulizer, Portable Type	1
	231 Round Sitting Sand Bag, assorted	3 sets

Room	Equipment	Q'ty
232	Examination Instrument Set	5
	Stethoscope	
	Eye Speculum	
	Tung Forcep	
	Hammer for Tendon	
	Perception Test Sect	
	Pencil Type Lamp	
	Measure etc.	
233	Enema Set	3
234	Syringe Set, Disposal	100
	Hypodermic Injection	
	Intra Venous Injection	
	Intra Venous Feeding	
	Large Amount Hypodermic etc.	
235	Temperature Taking Set	10
236	Medication Trolley Set	
237	Set for Milk Preparation	1
238	Set for Stomach Pump	1
239	Ear Scope	1
240	Nasal Scope	1
241	Proctoscope	1
242	Vaginoscope	1
243	Boiling Sterilizer	1
244	Gauze Cast, Large/Small	1
245	Irrigator Stand	2
246	Bedpan Rack	1
247	Screen, portable	3
248	Decubitus Protecting Mattress	1
249	Blood Sedimentation Rack w/Pipettes	1
250	Cabinet, steel	3
251	Resuscitation Training Dummy (Adult) & Infant	1 each
252	Resuscitator	1
253	Automatic Resuscitator	1
254	ECG, Portable Type	1
255	Emergency Instrument Set	1
256	Operating Instrument Set	2

Room	Equipment	Q'ty
	257 Instrument Trolley	2
	258 Surgery Light, Stand Type	1
	259 Linen for Surgery	2
	260 Orthopaedic Instrument Set	2
	261 Traction Set	1
	262 Gypsum Set	2
	263 Delivery Set	2
	264 Training Set for Mammary Massage	1
	265 Milking Device, Hand Type	1
	266 Dummy for Midwifery	1
	267 Dummy for Baby Care	2
	268 Catheter Set	1
	269 Tracheostomy Instrument Set	1
	270 Abortion Instrument Set	1
Model Paediatric Ward	281 Paediatric Bed w/Mattress, Sheets, Pillow, etc.	2
	282 Neo Natal Bassinet	2

Room	Equipment	Q'ty
Model ICU.	301 ICU Bed, w/Mattress, Sheets, Pillow, etc.	2
CCU	302 Bed Side Monitor	2
	303 Central Monitor	1
	304 Defibrillator	1
	305 Resuscitator	1
	306 Suction Unit	1
	307 X-Ray Film Illuminator	1
	308 Haemodialysis Unit	1
	309 Peritoneal-dialysis Unit	1
	310 Sphygmomanometer, Stand Type	2
	311 Operating Instrument Set	2
	312 Instrument Trolley	2
	313 Compact High Speed Sterilizer	1
	314 Hot Air Sterilizer	1
	315 Anesthesia Apparatus	1
	316 Anesthetic Ventilator	1
	317 Endotracheal Tube Set	1
	318 Rubber Masks	2
	319 Oxygen Flow Meter	1
	320 Oxygen Inhalation Device	2
	321 Suction Unit	1
	322 Continuous Suction Unit	1
	323 Oxygen Tent	1
	324 Hand Scrub Unit	2
Model NICU	351 Incubator	2
	352 Photo Therapy Unit	1
	353 Resuscitator for Infant	1
	354 Weighing Scale for Infant	1
	355 Oxygen Density Meter	1
	356 Clinical Thermometer, Electronic Type	1
	357 Exchange Blood Transfusion Set (new born)	2

Room		Equipment	Q'ty
Public Health	401	Mobile Dispensary Set	1
Practic Room	402	Visiting Bag	2
Audio Visual	451	Video Set (video-tapes)	2
Room	452	Overhead Projector	3
	453	Slide Projector	10
	454	Tape Recorder	2
	455	Record Player	2
	456	Audio Tape Set	1
	457	Vido Tape Set	1
Production	461	Plain Paper Copier	2
Room	462	Printing Machine	1
Dark Room	471	Photographic Developing & Printing Set	1

Room	Equipment	Q'ty
Clinical	501 Slide Staining Set	100
Laboratory	502 Large Sledge Microtome	1
	503 Incubator	2
	504 Electro-Balance	1
	505 Counter Balance	5
	506 Monocular Microscope for Student	20
	507A Binocular Microscope for Instructor	1
	507B Binocular Microscope with Photographic Unit	1
	508 Discussion Microscope	1
	509 Magnetic Stirrer	2
	510 Water Bath	5
	511 General Laboratory Centrifuge	3
	512 General Laboratory Centrifuge w/extra rotar	2
	513 Haematocrit Centrifuge	1
	514 Micro Titer Set	2
	515 Gas Pack Set	5
	516 PH Meter	1
	517 Hand Protein Refractometer	2
	518 Aspirator	5
	519 Electrophoresis Equipment Unit	2
	520 Densitometer	1
	521 VIS Spectrophotometer, Single Beam	5
	522 UV-VIS Spectrophotometer, Double Beam	1
	523 Deep Freezer	1
	524 Flame Photometer	1
	525 Disposal Microtome Blade Set, Blade 1 doz.	2
	526 Low Temperature Cabinet (Refrigerator)	2
	527 Haemacytometer	20
	528 Hand Tolly Counter	20
	529 Autostill	1
	530 Blood Sedimentation Rack w/Pipettes	2 sets
	531 Standard Hemometer	2

Room	Equipment	Q'ty
Physiological	551 ECG	1
	552 Phonocardiograph	1
	553 EEG	1
	554 Polygraph	1
	555 Measuring Rod	1
	556 Spirometer	1
	557 Weighing Scale	1
	558 Examination Couch	3
Chemistry/ Physics Laboratory	580 Laboratory Equipment Set	1
Model X-Ray Room	601 Diagnostic X-Ray Apparatus	1
	602 X-Ray Film Illuminator	2
	603 Table Top Automatic Film Processor	1
	604 Film Processing Set	2
	605 X-Ray Accessories	1

Room	Equipment	Q'ty
Model	651 Micro Wave Therapy Apparatus	1
Rehabilitation	652 Infrared Ray Lamp	1
Room	653 Heat-Less Ultra Violet Ray Lamp	1
	654 Hirschmann's Galvanic and Faradic Apparatus	1
	655 Exercise Bicycle	1
	656 Wrist Roll	1
	657 Training Bed	4
	658 Paraffin Bath Unit	1
	659 Over Head Frame	1
	660 Turning Wrist	1
	661 Restorator	1
	662 Orthopaedic Instrument Set	2
	663 Traction Set	1
	664 Gypsum Set	2
	665 Invalid Walker	1
	666 Splint, assorted	1
	667 Full Length Mirror	1
Orthoptists	701 Test Chart Projector	1
Practice Room	702 Eye Test Chart	4
	704 Set of Trial Lens	2
	705 Ophthalmic Measure	1
	706 Instrument Set	1
Orthoptists	721 Ophthamoscope	2
Practice	722 Indirect Ophthamoscope	2
Dark Room	723 Tonometer	1
	725 Perimeter	1
	726 Slit Lamp Microscope	1
	727 Fundus Camera	1

Room		Equipment	Q'ty
Dental	751	Dental Treatment Unit with Chair	1
Practice Room	752	Instrument Set	1
Model	801	Cooking Unit	5
Kitchen	802	Show Case and Food Models	1
Workshop	851	Electronic Tester	5
	852	Oscilloscope	1
	853	Vise	5
	854	Lathe	1
	855	Set of Tools	5
	856	Computer Model	2
Library	901	Reading Laboratory	5

JICA