

COMPUTERIZATION OF HEALTH MANPOWER RECORDS

(A CASE STUDY OF DEPARTMENT OF HEALTH SERVICES,  
FEDERAL CAPITAL DEVELOPMENT AUTHORITY, ABUJA.)

BY

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PGD/MCS/192/96

A PROJECT SUBMITTED TO THE DEPARTMENT OF MATHEMATICS AND  
COMPUTER SCIENCE, FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF  
POST-GRADUATE DIPLOMA (PgDip) IN COMPUTER SCIENCE.

MARCH, 1998

CERTIFICATION

This is to certify that **James Jaiye Alege** has successfully completed his practical project work in partial fulfillment of the Post-Graduate Diploma (PgDip) in Computer Science of Federal University of Technology, Minna.

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## DEDICATION

This Project is dedicated to my parents, Mr. J. O. Alege and Late Mrs. A. I. Alege; and to my brothers and sisters. Also it is dedicated to my dear wife, Mrs. Abike Alege and to my Son, Master Dayo Alege.

### ACKNOWLEDGEMENT

I am most indebted to Almighty God for the opportunity given to me to undergo this course.

I will like to express my sincere thanks to my Project Supervisor, Dr. Yomi Aiyesimi, Lecturer, Department of Mathematics and Computer Science. His criticisms, corrections and supervision made this report a masterpiece.

Many thanks also to Dr. K. R. Adeboye, Head, Department of Mathematics and Computer Science; and Prince R. Badmus, the Course Co-ordinator for their assistance and cooperation. I wish to express my profound gratitude to all the Lecturers in the Department.

I should not forget my close friends and classmates in Secondary School, Arch. Umar B. Jibril of Department of Works and Maintenance, F.U.T., Minna and Mallam Abdullahi Mundi, an Officer with Nigerian Immigration Service, Abuja for caring for me throughout my stay in Minna.

### ABSTRACT

The aim of this project is to examine the method of operations in managing staff records/files in the Department of Health Services of the Federal Capital Development Authority, Abuja and to proffer possible improvement over the method. This involves the ways in which staff personal information are collected, how they are processed, stored and retrieved for use. It was observed that the operations are done manually and problems associated with the system are that information can easily be seen or revealed to unauthorized persons and most at times duplication of records.

Also, the production of Staff Nominal Roll is labour intensive, slow and costly. Most of the office cabinets and shelves are used for storing personnel files and retrieval process is sometimes time consuming.

In this project, a new system has been designed by using computer for the operations. Hence, it will be seen that through this system, the Department will be able to achieve a good record management which is important for planning and decision-making.

Also, it will enhance the speed and efficiency of the collection, manipulation, storage, reporting and dissemination of information; and accuracy is guaranteed, provided correct data is inputted.

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## CHAPTER ONE

### INTRODUCTION

#### 1.1 PREAMBLE

Manpower Information Management System is tailored towards staff of any organization. Therefore, Computerization of Health Manpower Records of the Department of Health Services of the Federal Capital Development Authority (FCDA), Abuja is the main concern of this study. This study will look at the methods of collecting, processing, storing and retrieving of staff records/files, and examine the various benefits that both the FCDA Management and other Users derive from such records. Various available measures of systems analysis and design will be discussed. The need for computerization as a basis for effective management of personnel records will also be stressed.

In recent years, there has been an increasing awareness of the use of computer as a tool to effective management in many spheres of life.

The topic of this study relates to automation. There is hardly any area in which the impact of computer is not felt strongly and in particular business, where, as a daily way of life, decisions which affect profitability and continuity need to be made at all levels of all kinds of businesses. Indeed, it is hard to overestimate the contributions that computer automation have made to the effective planning, operation and control of business activities of all sorts.

## 1.2 AIMS AND OBJECTIVES OF THIS PROJECT

- (i) To study in details the Health Manpower Records of Department of Health Services of the Federal Capital Development Authority, Abuja, its problems and prospects and to offer some useful suggestions for possible improvement.
- (ii) Design means and strategies required to effect computerization of Health Manpower Record System on theoretical basis so that in the near future, this can be used for the same project.
- (iii) Design and implementation of the software required for effective use in the near future.

## 1.3 PROJECT SCOPE

This Project is limited in scope to Computerization of Health Manpower Records of Department of Health Services of the Federal Capital Development Authority (FCDA), Abuja.

The limitation in scope does not necessary imply that certain things cannot be generalized in terms of application and reference.

The Computer-based Health Manpower Record System (CHMRS) to be introduced would provide basic information on all Professionals and Non-professionals in the Department. It will be capable to keep track of employees' information such as Name, Date of Birth, Grade level, Rank, Date of Appointment, State of Origin and so on.

#### 1.4 COMPUTERIZATION

The widest benefits of Computerization should be seen in terms of the expansion of activity. Organizations which introduce computers rapidly come to realize that they have acquired a tool which not only rationalizes their previous work procedures but also enables the introduction of new activities which were hitherto not engaged in.

In principle, any kind of information processing can be done with the aid of a computer. However, the computer is not always the best tool for the job. It should not be assumed that every task which involves the processing of information can benefit from being automated. Indeed, some types of processing are much better candidates for computerization than others, and some are best performed by manual method.

#### 1.5 ADVANTAGES OF COMPUTERIZATION

There are some tasks for which computers offer clear advantages.

- (i) Long and Complex calculations which require great precision, such as may be required in scientific research, weather forecasting and control of space modules, may be quite infeasible without the aid of a computer.
- (ii) Repetitive tasks in public and private sectors may be boring for humans, leading to fatigue-induced errors; a computer can take on such tasks with a

consistent level of reliability.

- (iii) Manual methods of storing data may require a large amount of storage space, making access difficult and creating opportunities for internal contradictions where the same data is required for different purposes. Here computer can help by miniaturizing the spatial dimensions of the store, by providing remote access using Communications links, and by enabling the data to be organized in a manner satisfying to all users.

#### 1.6 MANAGEMENT INFORMATION SYSTEM (MIS)

Management Information System is a Computer-Based Information System; which is defined as an organized collection of people, procedures, databases and devices used to provide routine information to Managers and Decision-Makers. The information are used for planning and decision making.

Management Information System is designed to improve the flow of information in an entire organization, so as to interact more effectively and enable managerial personnel to perform their jobs more efficiently.

An MIS is useful to all levels of managements. Top and middle levels of Management use the information to formulate corporate strategies, develop administrative plans and establish operational policies. Lower levels of management can benefit from MIS information in their daily operations.

Finally, an MIS can reduce waste of resources and time of labour, as well as increases corporate goals and information provided by the system are accurate.

### 1.7 MANPOWER RECORDS

Manpower Records are tailored towards staff of any organization. Basic information on every staff is collected on the day of assumption of duty after he must have being offered letter of appointment. Much of the information used in the control of labour can be obtained from the payroll and personnel records applications. The information on every employee is what is collated to be known as MANPOWER RECORDS.

Hence, Manpower Records consist of basic information of all staff in the employment of an organization. These are recorded in a designed form and thereafter filed in the office cabinets. Manpower Records are used for generating series of labour reports (e.g. Staff list, Nominal roll, etc) which are in-turn used for administrative control, planning and decision making.

An Organization needs information on which to base decisions concerning the current operations and future plans. It is required that the information should be timely and accurate.

Therefore, a good manpower inventory usually includes:

- (i) personal history data: age, sex, marital status,  
number of dependent, etc.
  
- (ii) basic skills information: education, training,

- work experience,  
hobbies, languages,  
etc.
- (iii) special qualification: publications,  
honors, membership  
of professional  
organizations,  
special assignment  
completed, etc.
- (iv) measures and judgments of  
capacity
- (v) employee interests: jobs and locational  
preferences, etc.

The widespread use of computers has greatly facilitated manpower inventories. Not only have computers eliminated much of the clerical work, but they have also decreased the time necessary to obtain information about a specific employee.

## 1.8 THE IMPORTANCE OF MANPOWER RECORDS

### A. Manpower Planning

Manpower planning has been defined as "the process (including forecasting, developing implementing and controlling) by which a firm insures that it has the right number of people and the right kind of people, at the right places, at the right time, doing the things for which they are economically most useful. It facilitates the achievement of general corporate objectives

and promotes the efficient utilization of human resources. Through manpower planning, however formal or informal it may be, an organization:

- (i) determines its future human resource needs;
- (ii) provides guidance in recruitment and selection;
- (iii) evaluates current employees for transfer or promotion;
- (iv) establishes requirements for training programs;
- (v) and determines qualification required of jobholders.

**B. Manpower Recruitment and Selection**

The first stage in the process of recruitment is to identify the vacancy to be filled in terms of a job description and personnel specification. Records assist in determining the categories of manpower to be recruited and in selection for training among the existing staff (i.e. Manpower Development)

**C. Manpower Statistics**

In determining the numerical strength of staff in an organization, as well as in the Departments and Sections, Manpower Record is used. Also, it helps in obtaining statistics of different professionals or workers in a firm. This information assists in projection of workforce for the establishment.

**D. Manpower Allocation within the Organization**

Manpower Record is used in internal allocation of policies. Decisions are often taken on movements of human resources

3between and within organizations.

- E. In general, Manpower Records are used for Decision making at all levels of management (i.e. at the operational, tactical and strategic levels).
- F. Finally, Record is used for extracting or examining the historical data of staff.



CHAPTER TWO  
BACKGROUND INFORMATION

**2.1 FEDERAL CAPITAL TERRITORY, ABUJA.**

The Federal Capital Territory was created in 1976 by Decree No. 6. The Decree vested ownership and control of all land in the Territory in the Federal Government of Nigeria.

The Territory which is located at the Centre of the Country covers an area of 8,000 square kilometers.

The Federal Capital City itself which is located in the eastern fringes of the Territory is designed to cover an area of 256 square kilometers or 3 percent of the total land area of the Territory and full development, the city is expected to have a total population of 3.2 million.

This means that 7,744 square kilometers (97%) of the land area of the Territory Constitutes the city's regional component to be utilized for other services such as the development of agriculture to support the population of the city and the development of satellite towns to absorb the excess population from the city.

**2.2 FEDERAL CAPITAL DEVELOPMENT AUTHORITY (FCDA)**

The Federal Capital Development Authority (FCDA) was established in 1976 by Decree No. 6, as a Federal Government Agency responsible for the building and administration of the new Federal Capital, Abuja.

The Authority which commenced operation on or about 1st April,

1976 is charged with the responsibility for:

- (a) the preparation of detailed physical plans, urban design and building design to guide the orderly and healthy development of FCT according to the approved master plans;
- (b) land Administration including surveying functions;
- (c) the provision and maintenance of infrastructural facilities including water supply, roads, power supply and waste disposal to towns/villages in the Territory;
- (d) the provision and maintenance of social services to the populace in FCT, for example Health, Education, Agriculture, etc.
- (e) the building of public projects from design through construction to maintenance
- (f) the General Administration of the Territory;
- (g) provision of Housing to Federal Civil Servants and its maintenance.

### 2.3 STRUCTURE OF FCDA

The day-to-day running of the affairs of the Authority is the responsibility of the Honourable Minister of FCT who is the Chief Executive of the Territory, followed by the Honourable Minister of State, the Director-General and eight Directors.

To be able to initiate, supervise and generally carry out all tasks connected with building and administration of the new city, the Federal Capital Development Authority (FCDA) was presently

organized into eight departments, namely: Health, Education, Engineering, Maintenance, Public Works, Finance and Economic Development, Planning & Survey and Personnel Management. Each of the Departments performs specialized functions but in this project, the study will be centered on Health Department only.

#### **2.4 DEPARTMENT OF HEALTH SERVICES, FCDA, ABUJA.**

The Department started as two separate Units in 1979 - the Medical Unit of the Federal Capital Territory Administration (FCTA) under the Department of Administration and the Medical Services Unit of FCDA. The two were merged in 1982 following a major re-organization.

At the inception of the Federal Capital Territory Administration, there was no single Hospital or clinic in the entire 8,000 square kilometers of the Territory but only a handful of local Government and Voluntary Agency dispensaries. This contrasts sharply with the current situation. There are over one hundred and five (105) public health institutions and thirty-three (33) private ones in the Federal Capital Territory as of 1996.

#### **2.5 FUNCTIONS AND RESPONSIBILITY OF THE HEALTH DEPARTMENT**

(A) The Department is charged with the implementation of National Health Policy Programmes in the Territory which is providing a level of Health that will enable all Nigerians to achieve socially and economically productive lives. This is being executed through the provision of preventive curative,

promotive and rehabilitative Health Care Services.

- (B) It is responsible for Secondary Health Care in the Territory and in this regards has eight General Hospitals and two clinics distributed in the six Area Councils. These facilities are in the following Districts/Towns: Garki, Wuse, Gwarinpa, Kubwa, Nyanya, Karshi, Rubochi, Abaji and Dei-Dei.
- (C) It is charged with supervision and provision of technical support to the Area Councils for Primary Health Care as well as the Registration and Regulation of Private Health Institutions in the Territory.

The Department provides the above services to the inhabitants of the FCT, through a coordinated network activities of the five divisions in the Department which were based on professional groupings. These Divisions are:

- (i) Director's Office
- (ii) Hospital Services Division
- (iii) Nursing Services Division
- (iv) Pharmaceutical Services Division
- (v) Community Health Division
- (vi) Health Planning, Research and Statistics Division
- (i) The Director's Office

The decision on matters relating to Health in the FCT are made here. The Director of Health Services supervises the administrative work of all the Divisions in the Department. The Health Personnel and Accounts Units are closely supervised by the Director's office.

(ii) Hospital Services Division

The Division is responsible for providing diagnostic and curative hospital based services to the inhabitants of the FCT and its environs. These services include Medical Laboratory, X-Ray, Dental, Physiotherapy, Nutrition/Diet and Medical.

(iii) Nursing Services Division

The Nursing Division is responsible for the provision of Nursing Services to patients in Public Health Institutions. Also it administers the Nurses and Midwives in the Territory and provides General Training to them.

The Schools of Nursing and Midwifery, Gwagwalada is under the management of this Division.

(iv) Pharmaceutical Services Division

This Division takes charge of the procurement and distribution of drugs to the Public Health Institutions in FCT. It monitors drug administration, management, storage and control of dangerous drugs in all FCT Health Institutions.

The Drug Revolving Fund Scheme (DRFS), Drug Abuse Control, Registrations of pharmaceutical shops and patent medicine stores are under the management of the Division.

(v) Community Health Division

This Division is concerned with the following functions:

- (a) preventive services such as National Programme on

Immunization (NPI) and Oral Rehydration Therapy (ORT)

- (b) Control of outbreak of infectious diseases such as cholera, cerebro-spinal meningitis (CSM), yellow fever, guinea worm, etc.
- (c) Family Planning and Child Welfare
- (e) Health Education

(vi) **Health Planning, Research and Statistics Division:**

This is the Division responsible for Health projects in the FCT. It programmes and plans even distribution of Health facilities to the Area Councils and schedule's equipment for Government Hospitals. It handles Tenders and Contract processing for the Department.

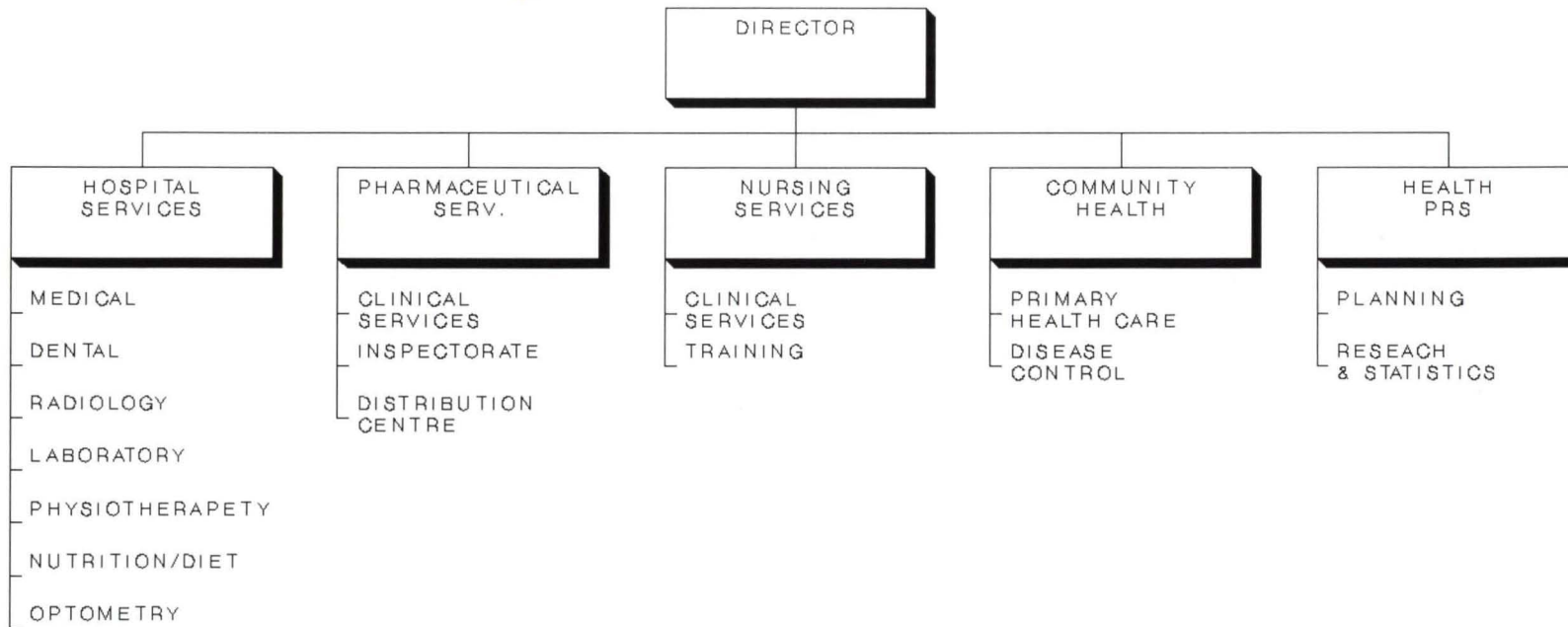
It is also charged with Health Management Information System in FCT. This includes gathering and producing of Health Statistics; and provision of Computer Services. It undertakes annual budget proposal and the three year rolling plan preparation.

Finally, it co-ordinates the National and FCT Councils on Health.

## 2.6 **STRUCTURE OF HEALTH DEPARTMENT**

The Department is headed by a Director, who is a Medical Doctor by profession. It has five Divisions and each is headed by a Deputy Director. The Organogram is on page 15.

# STRUCTURE OF HEALTH DEPARTMENT



## 2.7 THE HEALTH PROFESSIONALS IN THE DEPARTMENT

The Department has the following categories of professionals in the service who carried-out its functions and responsibility.

- (i) Medical Doctors
- (ii) Dentists
- (iii) Pharmacists
- (iv) Nurses/Midwives
- (v) Radiographers
- (vi) Medical Laboratory Technologists
- (vii) Community Health Officers
- (viii) Environmental Health Officers
- (ix) Physiotherapists
- (x) Optometrists
- (xi) Nursing/Midwifery Tutors
- (xii) Medical Records Officers
- (xiii) Health Educators
- (xiv) Nutritionists/Dieticians
- (xv) Medical Equipment/Instrument Technologists
- (xvi) Health Planners
- (xvii) Health Statisticians
- (xviii) Hospital Secretaries
- (xix) Dental Technologists/Therapists



## CHAPTER THREE

### SYSTEM ANALYSIS

#### 3.1 PROBLEM IDENTIFICATION AND DEFINITION

The Management of Health Manpower Records in the Department of Health Services of the FCDA is at present being done manually. It involves writing-out staff basic information on a designed format. Such information as Name, Date of Birth, Sex, Qualifications with Dates, Rank and so on. The personal files and records are kept in many office cabinets and shelves. Retrieval of files/records is time consuming.

The problem now is to seek and develop a system that would ease processing, storage and retrieval of staff records, so that all the draw-backs that are associated with the manual methods are eliminated or at least, drastically reduced.

The solution has been identified to be the Computerization of Health Manpower Records, so that at the end of every quarter, staff records will be updated processed and produced for FCDA Management with minimal input of labour, time and cost while maximum level of accuracy and speed is achieved.

#### 3.2 FEASIBILITY STUDY

The main aim of carrying out the feasibility study is to carefully examine the current manual way of managing staff records in the Department. With a view to determining whether it should be enhanced or that an entirely new system be developed.

### 3.3 OBJECTIVES OF THE STUDY

- (A) To investigate for other alternative, cost effective and more efficient technique of staff records management.
- (B) To reduce duplication of records
- (C) To improve record keeping of staff.
- (D) To reduce management cost
- (E) To minimize, monitor and Control the issuance of employees' information to users.

### 3.2 SCOPE OF THE STUDY

There are varying views as to the scope of Computerization of Health Manpower Records but for the purpose of this project, the scope view centered on gathering and management of information of personnel who are in the service of the Department of Health Services, FCDA, Abuja. The scope is limited to the following areas:

- (i) Personnel data
- (ii) Method of Data processing
- (iii) Method of file organization and storage
- (iv) File movement/Information dissemination
- (v) Security and Safety of files
- (vi) Efficiency and Effectiveness
- (vii) Time constraint
- (viii) Generating of Reports

### 3.5 TESTING PROJECT FEASIBILITY

#### (A) Operational Feasibility

The operational feasibility of the proposed system was conducted during which it was discovered that the new system being envisaged is operationally feasible because of the following:

- (i) Top Management have accepted the idea of computerization
- (ii) There was ecstasy that the office is going computerized
- (iii) There was yawning need for a change.

#### (B) Technical Feasibility

The available staff in the Health Statistics Unit would be able to handle the proposed system when the required computerization is effected.

#### (C) Financial Feasibility

The cost of implementing the proposed system would be quite reasonable and affordable as the required computers are available locally.

### 3.6 SYSTEM ANALYSIS

The following **Fact Finding Techniques (FFT)** were used in carrying out the analysis:

- (A) Interviews: Asking questions from Staff in the Personnel Unit of the Department
- (B) Record Searching: Going through the existing Staff

records and files.

- (C) Observation: Studying the existing system of Records management.

### 3.7 OPERATION OF THE EXISTING SYSTEM

The management of the entire staff records in the Department is done manually by Staff in the Personnel Unit, while each Division/Unit does its on professional grouping.

#### (A) Storage and Retrieval of Records

- (i) The newly recruited staff goes to the personnel office where a file is opened for him or her. Files in this office are kept in the file cabinets and arranged in alphabetical order of surnames.
- (ii) To retrieve any record, the File Number, Name and Grade Level must be known. With this information, the Clerk would go to the appropriate file cabinet and search for the name of the file to be retrieved. He now gets it out for viewing or updating or to extract the information needed.

#### (B) RECORD UPDATE

- (i) Since it is compulsory for the Department to submit Staff Nominal Roll every three months to the FCDA Management, this necessitated the updating of the Records four times in a year. When it is carried-out, it is done manually and this is very tedious, time consuming and at times non-error free.

(ii) The Clerk records the following particulars about the staff:

- File Number
- Surname
- Other Names
- Sex
- Qualifications with Dates
- Present Post
- Medical Salary Scale
- Health Salary Scale
- Grade Level
- Date Attained Post
- Date of First Appointment
- Date of Appointment into FCDA
- Date of Birth
- Home Town
- Local Government Area
- State of Origin
- Profession
- Area of Specialization
- Present Station
- Division
- Marital Status
- Bank
- Account Number
- Remarks

The Nominal roll is used to obtain the numerical strength of the Department, the professionals and it also reveals staff due for promotions, increments, retirements, etc.

### 3.8 PROBLEMS WITH THE EXISTING SYSTEM

The existing system has the following problems:

- (A) Storage problem: Information stored on files makes the files appear bulky and occupying more space in the cabinets. At times, no enough storage facilities.
- (B) Retrieval problem: The speed of retrieval is very slow as one has to search for a particular file (among many) from which the information is to be obtained.
- (C) Updating problem: It is always difficult as various information has to be entered into the file about changes that occur per staff, either in the case of annual increment or when promotion or retirement occurs. It poses boredom and inefficiency as different files have to be updated virtually every time.
- (D) Poor safety and security for the files
- (E) Poor files handling resulting in destruction/mutilation of vital documents.
- (F) Reported cases of missing files
- (G) Increase in staff strength makes processing of Records tedious
- (H) Ineffective Management Information System

### 3.9 PROPOSED COMPUTERIZED HEALTH MANPOWER INFORMATION SYSTEM

The Computerized Health Manpower Information System is to develop an overall plan for an Integrated Manpower System. As the plan proves economically and technically feasible, particular phases of the integrated system can be computerized in a planned sequence.

This approach entails integrating, by using the system approach and the multiple files (including employee records, position, recruitment, benefits, medical information and training). It also attempts to keep up-to-date records so that inquiries may be answered with timely and accurate information. As a result, a great deal of duplication and inconsistencies in existing files should be eliminated or reduced to the barest minimum.

### 3.10 OBJECTIVES OF THE PROPOSED SYSTEM

- A. The New System will improve the use and implementation of Health Manpower Information System on Microcomputers.
- B. To eliminate duplication of Records
- C. To improve record keeping of staff
- D. To reduce management cost e.g. production/maintenance cost
- E. Fast processing, Retrieval and Safe storage

### 3.11 BENEFITS OF THE PROPOSED SYSTEM

The benefit accruing from the proposed system include:

- (i) **Speed:** The most obvious benefit of using a computer is speed. The computer can perform

calculations and data processing more quickly than alternative method can. Work that might take human, months or even years to complete manually may be accomplished in hours or at most days by Computer. For example, some computers can do hundreds of thousands or even millions of arithmetic operations per second.

(ii) **Accuracy:** The computerized Health Manpower Information System with accurate data, will do the intended work with a very high degree of accuracy. The computer does exactly what the program tells it to do.

In addition, the computer does not get bored or fatigue thus avoiding the errors humans might well make under the same circumstances.

(iii) **Reliability:** The Computer can work almost twenty four hours a day (with a little time out for equipment check out and maintenance). Everyday of the year, it still operates reliably. Modern electronic computers perform at high levels of reliability and equipment failures are very few.

(iv) **Retention:** The Computer can store and search massive files of data and programs. The content of the files does not fade or get lost, and it can be used as often as needed.

(v) **Economy:** The advantage of speed and accuracy can



often be translated into dollar savings realized. Usually the per unit cost of processing data or doing computation by computers is considerably lower than by alternative means (i.e. manual or mechanical methods).

Accurate records can reduce the frequency of bad decisions that were made because of unreliable or unavailable information.

- (vi) **Wide Applicability:** A computer can be used to solve a wide variety of problems that arise in science and business. The boundaries of what the computer can accomplish are limited only by the ability and imagination of its users.
- (vii) Drastic Reduction in space occupied by files and file cabinets.
- (viii) Reduction in staff strength handling personnel records' duties.
- (ix) **Security:** The security of the system is taken into cognisance such that facilities are provided only for authorized users to have access to them.
- (x) **Flexibility:** The system is designed such that it can operate in a dynamic rather than static environment
- (xi) Better Management Information System.
- (xii) A more effective Department

### 3.12 THE VALUE OF HEALTH MANPOWER RECORDS

In one of the principles of Management Information Systems, when data are collected and processed, they become an information. The information is said to have value when it is made use of, in improving the operational goals of an organization. Therefore, the Health Manpower Records have values to all levels of Management in the Federal Capital Development Authority (FCDA) because they are often used for decision-making in the following areas:

- (i) for planning, monitoring and controlling the staff in the service and determining the categories and numbers of those to be hired or employed;
- (ii) for determining the numerical strength of staff in various professions and other services staff;
- (iii) for allocating Professionals and Non-professionals to appropriate areas of need within the FCDA health facilities;
- (iv) for resource allocation within the Government health establishments. These resources are allocated based on the specialists (e.g. Doctors, Nurses, Pharmacists, etc) available in each hospital or clinic. Such resources include medical equipment, furniture, drugs, disposable/consumable items, money, etc;
- (v) for identifying those who are due for promotion, increment, training, retirement, etc;
- (vi) for budgeting the annual expenditure on personnel;

- (vii) for generating Manpower Reports such as Nominal roll, Staff list, Manpower statistics, etc;
- (viii) for preparing rosters on shift duty, annual leave and call duty.
- (ix) and for general management.

## CHAPTER FOUR

### SYSTEM DESIGN AND IMPLEMENTATION

#### 4.1 INPUT SPECIFICATION

Here a database file will be used.

The database file is: MANPOWER.DBF

The input to the file are basic information on all staff employed into the service of the Department of Health, FCDA via the standard input device (keyboard)

The database file would have 24 fields. The design of the database structure is shown on page 29.

NO	FIELD DESCRIPTION	FIELD TYPE	FIELD NAME	WIDTH
1.	File Number	PF_NO	Character	5
2.	Surname	SURNAME	Character	10
3.	Other Names	OTH_NAMES	Character	15
4.	Sex	SEX	Character	1
5.	Qualification with Date	QUALIFIN	Character	15
6.	Present Post	POST	Charater	10
7.	Medical Salary Scale	MSS	Character	4
8.	Health Salary Scale	HSS	Character	4
9.	Grade Level	GL	Character	4
10.	Date Attained Post	DT_POST	Date	8
11.	Date of First Appointment	DT_FAPPT	Date	8
12.	Date of Appt. into FCDA	DT_FCDA	Date	8
13.	Date of Birth	DT_BIRTH	Date	8
14.	Hometown	HOMETOWN	Character	10
15.	Local Govt. Area	LGA	Character	10
16.	State of Origin	STATE	Character	10
17.	Profession	PROFESSION	Character	15
18.	Area of Specialization	SPECIALTY	Character	10
19.	Present Station	STATION	Character	10
20.	Division	DIVISION	Character	10
21.	Marital Status	M_STATUS	Character	1
22.	Bank	BANK	Character	10
23.	Account Number	ACCT_NO	Character	10
24.	Remarks	REMARKS	Character	15

**4.2 OUTPUT SPECIFICATION**

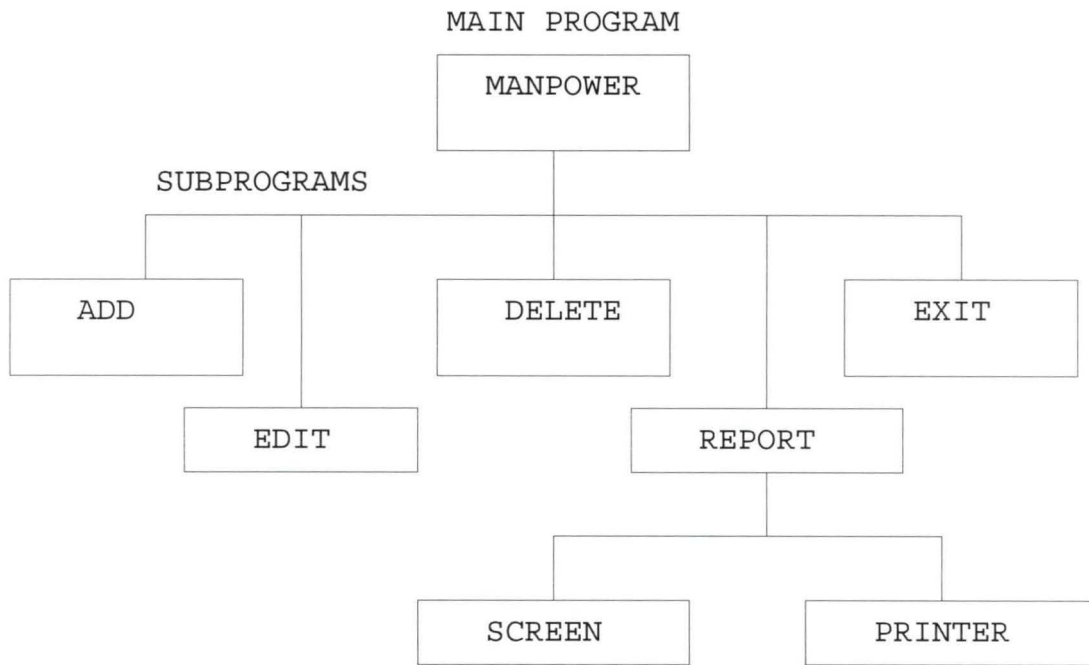
The output from the file are basic information on Professionals and Non-professionals working in the above mentioned Department. The Reports could either be in a Hard copy or visual on the standard output device (Monitor). The layout form of the output will look as below:

1. FILE NUMBER:.....
2. SURNAME: .....
3. OTHER NAMES: .....
4. SEX: .....
5. QUALIFICATIONS WITH DATES:.....
6. PRESENT POST:.....
7. MEDICAL SALARY SCALE: .....
8. HEALTH SALARY SCALE .....
9. GRADE LEVEL: .....
10. DATE ATTAINED POST:.....
11. DATE OF FIRST APPOINTMENT:.....
12. DATE OF APPT. INTO FCDA:.....
13. DATE OF BIRTH: .....
14. HOMETOWN:.....
15. LOCAL GOVT. AREA:.. .....
16. STATE OF ORIGIN:.....
17. PROFESSION: .....
18. AREA OF SPECIALIZATION: .....
19. PRESENT STATION:.....
20. DIVISION: .....

- 21. MARITAL STATUS:.....
- 22. BANK:.....
- 23. ACCOUNT NUMBER:.....
- 24. REMARKS:.....

**4.3 PROGRAM DESIGN**

The system flow chart below pictorially represent the captioning of information into the MANPOWER database file, as well as editing and deleting of records from the file. It also allows the generating of reports either through the screen or printer and quitting from the system.



#### 4.4 PROGRAM DEVELOPMENT

The program MANPOWER.PRG is written in DBASE IV tailored towards the result from investigation of the existing system of operation in the Department. This program will replace the manual system of preparing Staff Nominal Roll, Updating, Storage and Retrieval of Information as well as production of Reports.

#### 4.5 PROGRAM DESCRIPTION AND MAIN PROCESS

The Program is Menu-driven. At the running of the program, a menu is displayed on the screen consisting of five options as below:

- [1] ADD RECORD
- [2] EDIT RECORD
- [3] DELETE RECORD
- [4] REPORT GENERATOR
- [0] EXIT

The above listed options are therefore sub-programs to the MANPOWER program which are executed when the desire option is chosen from the menu.

#### MANPOWER.PRG

Manpower.Prg is the main program file that displays the menu options in a rectangular box at the centre of the screen called the Opening Menu.

\* Refer to Appendices I, II and VII for the Main Program Flow Chart, MANPOWER.PRG and Output respectively.



The options provided are described below:

[1] ADD RECORD

Choosing this option, the program will execute the module called ADD.PRG, this module will enable the user to add new records to the database.

The Data Entry Form will be presented to the user to enable him input records. The entered record does not go to the database file directly so as to maintain database integrity. At the end of entering a record the program will pause and present the user with the message "ARE THESE ENTRIES OK? (Y/N)". This will enable validating the entered record. If the user chooses N denoting that the entered record is not correct, the program control will immediately transfer the cursor to the first field in the database to enable the user to effect the desired changes. On the other hand, if the user chooses Y meaning that the entered record is correct, the program will then write the record from the variable field names to their corresponding fields in the database file. After the record has been written to the file, the program will again present the user with the text "DO YOU WANT TO ADD MORE RECORDS? (Y/N)", this will enable the user to decide whether he wants to continue to add more records or not.

\* Refer to Appendices III and VIII for the ADD.PRG and Output respectively.

[2] EDIT RECORD

The option will enable the user to effect changes to the existing records in the database file. The program will display a

text "ENTER PF-No." and pause for the user to input Staff Number, the program will then search the database file for a match with the Number entered. If a match is found the corresponding record to that Staff Number will be displayed on the screen and the cursor will be in the first field of the form, which enables the user effects desired changes. After which this message will be displayed, "ARE THE EDITED ENTRIES CORRECT? (Y/N)." If Y is chosen, the new entries will replace the old information in the database file. Also a text will be shown, asking the user if he wants to modify more records or not. On the other hand, if a match is not found, this message will be displayed "RECORD NOT FOUND"

\* Refer to Appendices IV and IX for the EDIT.PRG and Output respectively.

### [3] DELETE RECORD

This program to delete a record looks familiar with that of Edit. At the beginning of the running of the program a text is displayed on the screen to enable the user enter the Staff Number (i.e. PF-No) to be deleted. The program search the database file for the corresponding Staff Number. If a match is found the record will be displayed on the screen to enable user view the record he wanted to delete, at the same time the text "DELETE THIS RECORD (Y/N)" will be displayed at the bottom of the record. If the user chooses N denoting that he doesn't want the record to be deleted, the program will write the record back to the database file. On the other hand, if the user chooses Y meaning that he wants the record to be deleted, the program will permanently remove the

record from the database file.

\* Refer to Appendices V and X for the DELETE.PRG and Output respectively.

#### [4] REPORT GENERATOR

This program module called REPORT.PRG will enable the user to generate Reports from the database file. These Reports will be obtained either through the Computer Screen or the Printer. To view or print output, the output device to use must be selected before the calling of the database file, then the user will specify the Division to report-on, after which sorting operation will be carried-out on the choosing key field MSS or HSS or GL. The records concerned will be arranged in descending order, resulting in creating another database file called SORTED FILE. The sorted file is used in generating the Reports.

\* Refer to Appendices VI and XI for the REPORT.PRG and Result respectively.

#### [0] EXIT

By selecting this option from the menu, the program will quit and pass control to the DOT prompt of dBASE IV.

All variable names used in the program will be released. The SET ON and SET TO Commands used in the program will be reset back to their defaults.

\* Refer to Appendix II for the RETURN command.

#### 4.6 HOW TO RUN THE PROGRAM

At the DOS (Disk Operating System) prompt, change directory to DBASE.

(i) At the DOS PROMPT.

Type DBASE and press the ENTER key. Wait for some few seconds, DBASE IV will be loaded and present you with the dot prompt.

Insert your program disk in either drive A: or B: and change default to the drive where your programs reside by typing the below command at the dot prompt.

. SET DEFA TO A: OR B:

(ii) At the dot prompt

Type DO MANPOWER and press the ENTER key. DBASE IV will execute the program file called MANPOWER.PRG. During the execution, the program will clear the screen and present the user with the main menu consisting of listed options.

#### 4.7 FILES SPECIFICATION

(A) The MANPOWER.PRG is the filename of the main program that will display the menu options and activate any of the subprograms, when the desired option is selected. These Subprograms are also known as Program Modules.

\* Refer to Appendix II and VII for the MANPOWER.PRG and Output respectively.

- (B) In this project, four program modules were developed, with each one having its own file.

The filenames are:

- (i) ADD.PRG
- (ii) EDIT.PRG
- (iii) DELETE.PRG
- (iv) REPORT.PRG

\* Refer to Appendices III to VI for the Programs, and Appendices VIII to XI for their Outputs.

- (C) The Database file created in this project is called MANPOWER.DBF

\* Refer to Page 29 for the database structure.

#### 4.8 SYSTEM REQUIREMENTS

The following components are essential for implementation of the Proposed System:

(A) Hardware Requirement

- (i) IBM PC or Compatible
  - IBM 486 of 66 MHZ speed
  - 8MB RAM (Memory)
  - 246 MB Hard Disk
  - 2 Serial/Parallel Cards
  - 4 free expansion slots
  - 3.5" floppy disk drive
  - 5.25" floppy disk drive
  - 101 Enhanced Keyboard

(ii) Monitor

- 14" Color SVGA (1024 X 768 pixel 0.28 dot/pitch)

(iii) Printer

- Laser Jet or Heavy Duty Epson printer-LQ 2 (1070)
- 132 Column
- Parallel/Serial interface
- 360 x 360 dpi resolution

Speed:

Draft mode: 400cps

Letter Quality: 133cps

Fonts: 780

Buffer: 8KB

(iv) Power Storage

- APC Smart Uninterruptable Power Supply (UPS) 500VA
- Nnulec Voltage Stabilizer

Model: RT LR 1600

Power: 1600 VA

(B) Software Requirement:

- Ms-DOS version 4.0 or higher version
- DataBase Management System Package version IV

(C) Consumable Items

- 3.5" HD Diskettes (Maxwell)
- 5.25" HD Diskettes (Maxwell)
- Maxwell Ribbons
- Computer papers with carbon sheets

(D) Accommodation and Furniture

- A Room that is well rugged with Airconditioner
- Computer Table & Chair
- Office Cabinets

4.9 TRAINING NEEDS

The Computer Professionals in the Health Statistics Unit of the Department are capable of manning the proposed system when operational, but an in-house training would need to be given to them to re-fresh their knowledge on how to use the MANPOWER.PRG and other computer operations.

4.10 SYSTEM CONVERSION

The System Conversion to use is PARALLEL CHANGEOVER where both the old and new systems will be kept alive and operational, until the new system has been proved satisfactory, by using full live data in the real operations. It allows the results of the Automated System to be compared with the Manual System before acceptance by the user, thereby promoting user's confidence. When this is observed for sometimes, the old system would then be phased - out gradually.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 SUMMARY

In conformity with the objectives of this project, we have been able to see that the manual system of managing the Health Manpower Records of the Department can be converted to a computerized system.

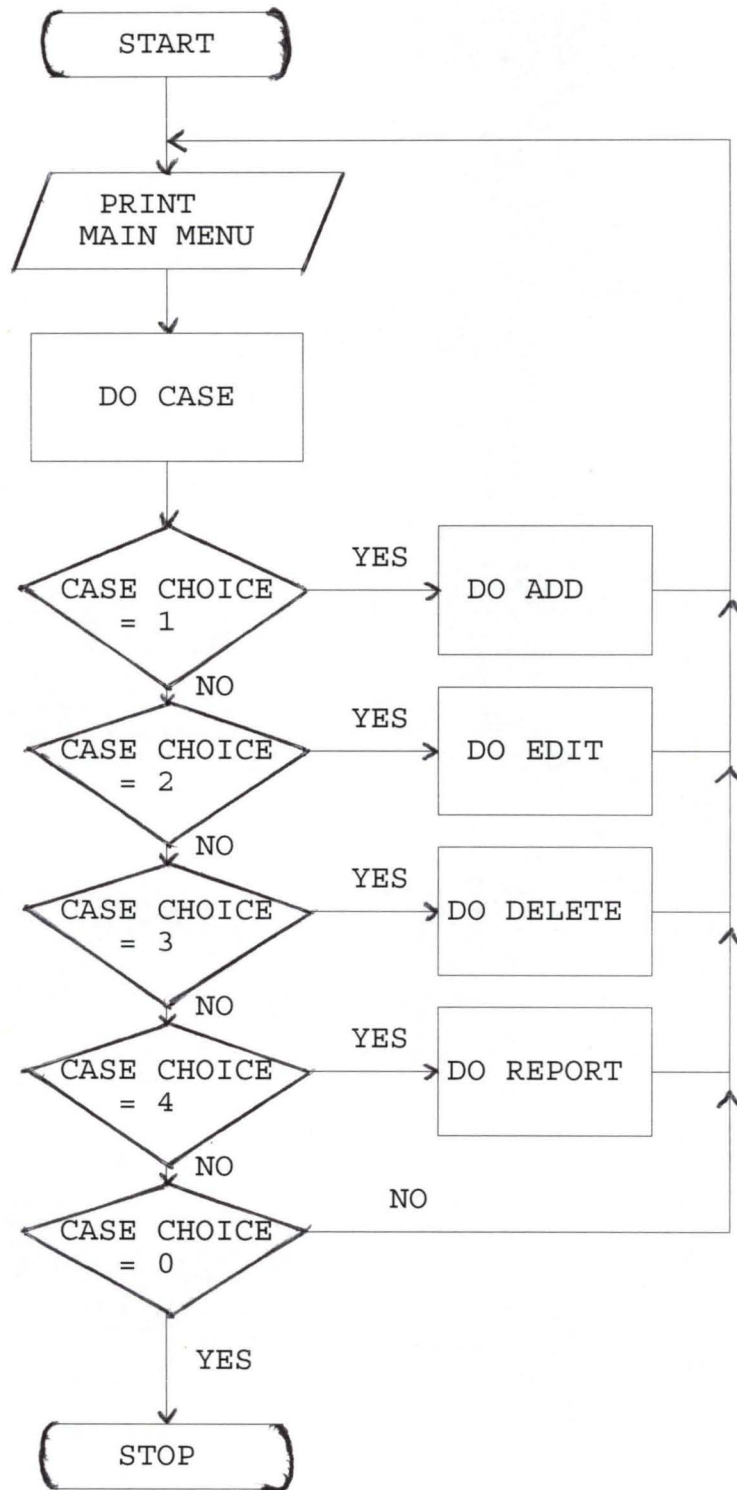
There has been an indepth - study of the existing system and the need for computerization. The reasons which have been mentioned in the various chapters.

In the course of the study, we were to find out in chapter three the feasibility of the project through the benefits to be derived from the proposed system when compared with the present manual system. The analysis of the existing system pointed out the problems being experienced, the causes of the problems and the need for correction or improvement of the system. The design of the new system was done based on the users' requirements and this includes computer programs for running the system.

Finally, is the implementation of the designed system for use by the Department which includes the training of the existing staff, hardware and software requirements and method of conversion.



THE MAIN PROGRAM FLOWCHART



```
**PROGRAM.....:MANPOWER.PRG
**WRITTEN BY....:JAMES J. ALEGE
**REG. No.....:PGD/MCS/192/96
**NOTES.....:THIS PROGRAM IS TO DISPLAY THE MENU OPTIONS ON THE SCREEN.
**
**
SET TALK OFF
SET SCOREBOARD OFF
CLEAR
DO WHILE .T.
  @ 2,18 TO 21,60 DOUBLE
  @ 4,30 SAY "MANPOWER MAIN MENU"
  @ 6,19 TO 6,59 DOUBLE
  @ 8,27 SAY "TASK CODE"
  @ 8,43 SAY "TASK"
  @ 9,27 TO 9,35
  @ 9,43 TO 9,46
  @ 10,31 SAY "[1]" + SPACE(7) + "ADD RECORD"
  @ 12,31 SAY "[2]" + SPACE(7) + "EDIT RECORD"
  @ 14,31 SAY "[3]" + SPACE(7) + "DELETE RECORD"
  @ 16,31 SAY "[4]" + SPACE(7) + "REPORT GENERATOR"
  @ 18,31 SAY "[0]" + SPACE(7) + "EXIT"
  CHOICE=0
  @ 20,30 SAY "ENTER A TASK CODE:"
  @ 20,49 GET CHOICE PICTURE "9" RANGE 0,4
  READ
  DO CASE
    CASE CHOICE = 1
      DO ADD.PRG
    CASE CHOICE = 2
      DO EDIT.PRG
    CASE CHOICE = 3
      DO DELETE.PRG
    CASE CHOICE = 4
      DO REPORT.PRG
    CASE CHOICE = 0
      SET TALK ON
      SET STATUS ON
      SET SCOREBOARD ON
      SET FILTER TO
      RELEASE ALL
      CLOSE DATABASE
      RETURN
    OTHERWISE
      LOOP
  ENDCASE
ENDDO
```

```

**PROGRAM.....: ADD.PRG
**WRITTEN BY....: JAMES J. ALEGE
**REG. No.....: PGD/MCS/192/96
**NOTE.....: THIS PROGRAM IS TO ADD NEW RECORD TO THE MANPOWER.DBF
**
**
SET TALK OFF
SET STATUS OFF
USE MANPOWER.DBF
CLEAR
DO WHILE .T.
  APPEND BLANK
  @ 1,8 TO 24,70 DOUBLE
  @ 3,30 SAY "DATA ENTRY FORM"
  @ 5,9 TO 5,69 DOUBLE
  STORE 0 TO MACCT_NO
  STORE SPACE(1) TO MSEX,MM_STATUS
  STORE SPACE(4) TO MMSS,MHSS,MGL
  STORE SPACE(10) TO MACCT_NO
  STORE SPACE(5) TO MPF_NO
  STORE SPACE(10) TO MSURNAME,MPOST,MLGA,MSTATE,MHOMETOWN
  STORE SPACE(10) TO MSTATION,MDIVISION,MBANK,MSPECIALTY
  STORE SPACE(15) TO MOTH_NAMES,MREMARKS,MQUALIFIN,MPROFESSIN
  STORE CTOD("__/__/__") TO MDT_POST,;
  MDT_FAPPT,MDT_FCDA,MDT_BIRTH
  @ 7,12 SAY "PF_NO:" GET MPF_NO
  @ 8,12 SAY "SURNAME:" GET MSURNAME
  @ 8,35 SAY "OTHER NAMES:" GET MOTH_NAMES
  @ 9,12 SAY "SEX:" GET MSEX
  @ 9,20 SAY "QUALIFICATION WITH DATE:" GET MQUALIFIN
  @ 10,12 SAY "PRESENT POST:" GET MPOST
  @ 11,12 SAY "MEDICAL SS:" GET MMSS
  @ 11,30 SAY "HEALTH SS:" GET MHSS
  @ 11,47 SAY "GRADE LEVEL:" GET MGL
  @ 12,12 SAY "DATE ATTAINED POST:" GET MDT_POST
  @ 13,12 SAY "DATE OF 1ST APPT:" GET MDT_FAPPT
  @ 14,12 SAY "DATE APPT INTO FCDA:" GET MDT_FCDA
  @ 15,12 SAY "DATE OF BIRTH:" GET MDT_BIRTH
  @ 16,12 SAY "HOMETOWN:" GET MHOMETOWN
  @ 16,35 SAY "LGA:" GET MLGA
  @ 17,12 SAY "STATE:" GET MSTATE
  @ 18,12 SAY "PROFESSION:" GET MPROFESSIN
  @ 18,40 SAY "SPECIALTY:" GET MSPECIALTY
  @ 19,12 SAY "STATION:" GET MSTATION
  @ 19,35 SAY "DIVISION:" GET MDIVISION
  @ 20,12 SAY "MARITAL STATUS:" GET MM_STATUS
  @ 21,12 SAY "BANK:" GET MBANK
  @ 21,31 SAY "ACCOUNT NO:" GET MACCT_NO
  @ 22,12 SAY "REMARKS:" GET MREMARKS
  READ
  CH = SPACE(1)
  @ 23,20 SAY "ARE THESE ENTRIES OK ? (Y/N)"
  @ 23,48 GET CH PICTURE "!"
  READ

```

## APPENDIX IV

```

**PROGRAM .....: EDIT.PRG
**WRITTEN BY...: JAMES J. ALEGE
**REG.NO.....: PGD/MCS/192/96
**NOTE.....: THIS PROGRAM IS TO EDIT STAFF RECORDS FROM MANPOWER.DBF
**
**
SET TALK OFF
SET STATUS OFF
**OPEN DATABASE FILE
USE MANPOWER
DO WHILE .T.
  CLEAR
  **FORMATTING DATA EDITING SCREEN
  MPF_NO = SPACE(5)
  @ 1,8 TO 24,70 DOUBLE
  @ 3,30 SAY "DATA EDITING ROUTINE"
  @ 5,9 TO 5,69 DOUBLE
  @ 7,12 SAY "ENTER PF_NO:" GET MPF_NO
  READ
  LOCATE FOR PF_NO = MPF_NO
  IF .NOT. FOUND()
    @ 9,15 SAY "RECORD NOT FOUND"
  ELSE
    STORE PF_NO TO MPF_NO
    STORE SURNAME TO MSURNAME
    STORE OTH_NAMES TO MOTH_NAMES
    STORE SEX TO MSEX
    STORE QUALIFIN TO MQUALIFIN
    STORE POST TO MPOST
    STORE MSS TO MMSS
    STORE HSS TO MHSS
    STORE GL TO MGL
    STORE DT_POST TO MDT_POST
    STORE DT_FAPPT TO MDT_FAPPT
    STORE DT_FCDA TO MDT_FCDA
    STORE DT_BIRTH TO MDT_BIRTH
    STORE HOMETOWN TO MHOMETOWN
    STORE LGA TO MLGA
    STORE STATE TO MSTATE
    STORE PROFESSION TO MPROFESSN
    STORE SPECIALTY TO MSPECIALTY
    STORE STATION TO MSTATION
    STORE DIVISION TO MDIVISION
    STORE M_STATUS TO MM_STATUS
    STORE BANK TO MBANK
    STORE ACCT_NO TO MACCT_NO
    STORE REMARKS TO MREMARKS
    @ 9,12 SAY "PF_NO:" GET MPF_NO
    @ 10,12 SAY "SURNAME:" GET MSURNAME
    @ 10,35 SAY "OTHER NAMES:" GET MOTH_NAMES
    @ 11,12 SAY "SEX:" GET MSEX
    @ 11,20 SAY "QUALIFICATION WITH DATE:" GET MQUALIFIN
    @ 12,12 SAY "PRESENT POST:" GET MPOST
    @ 13,12 SAY "MEDICAL SS:" GET MMSS
    @ 13,30 SAY "HEALTH SS:" GET MHSS
    @ 13,47 SAY "GRADE LEVEL:" GET MGL
    @ 14,12 SAY "DATE ATTAINED POST:" GET MDT_POST
    @ 14,42 SAY "DATE OF 1ST APPT:" GET MDT_FAPPT
    @ 15,12 SAY "DATE APPT INTO FCDA:" GET MDT_FCDA
    @ 15,42 SAY "DATE OF BIRTH:" GET MDT_BIRTH
  
```

```
@ 16,12 SAY "HOMETOWN:" GET MHOMETOWN
@ 16,35 SAY "LGA:" GET MLGA
@ 17,12 SAY "STATE:" GET MSTATE
@ 18,12 SAY "PROFESSION:" GET MPROFESSN
@ 18,40 SAY "SPECIALTY:" GET MSPECIALTY
@ 19,12 SAY "STATION:" GET MSTATION
@ 19,35 SAY "DIVISION:" GET MDIVISION
@ 20,12 SAY "MARITAL STATUS:" GET MM_STATUS
@ 21,12 SAY "BANK:" GET MBANK
@ 21,31 SAY "ACCOUNT NO:" GET MACCT_NO
@ 22,12 SAY "REMARKS:" GET MREMARKS
READ
CHOICE = " "
@ 24,18 SAY "ARE THE EDITED ENTRIES CORRECT? (Y/N)"
@ 24,55 GET CHOICE PICT "!"
READ
IF CHOICE = "y" .OR. CHOICE = "Y"
  *DATA IS CORRECT - ADD TO DATABASE
  REPLACE PF_NO WITH MPF_NO
  REPLACE SURNAME WITH MSURNAME
  REPLACE OTH_NAMES WITH MOTH_NAMES
  REPLACE SEX WITH MSEX
  REPLACE QUALIFIN WITH MQUALIFIN
  REPLACE POST WITH MPOST
  REPLACE MSS WITH MMSS
  REPLACE HSS WITH MHSS
  REPLACE GL WITH MGL
  REPLACE DT_POST WITH MDT_POST
  REPLACE DT_FAPPT WITH MDT_FAPPT
  REPLACE DT_FCDA WITH MDT_FCDA
  REPLACE DT_BIRTH WITH MDT_BIRTH
  REPLACE HOMETOWN WITH MHOMETOWN
  REPLACE LGA WITH MLGA
  REPLACE STATE WITH MSTATE
  REPLACE PROFESSION WITH MPROFESSN
  REPLACE SPECIALTY WITH MSPECIALTY
  REPLACE STATION WITH MSTATION
  REPLACE DIVISION WITH MDIVISION
  REPLACE M_STATUS WITH MM_STATUS
  REPLACE BANK WITH MBANK
  REPLACE ACCT_NO WITH MACCT_NO
  REPLACE REMARKS WITH MREMARKS
  CLEAR
ELSE
  CLEAR
ENDIF
ENDIF
CH = SPACE(1)
@ 22,15 SAY "DO YOU WANT TO EDIT MORE RECORDS? (Y/N)"
@ 22,57 GET CH PICTURE "!"
READ
IF CH = 'y' .OR. CH = 'Y'
  LOOP
ELSE
  EXIT
ENDIF
ENDDO
CLOSE DATABASE
SET TALK ON
SET STATUS ON
RETURN
```

```

**PROGRAM.....: DELETE.PRG
**WRITTEN BY.....: JAMES J. ALEGE
**REG.NO.....: PGD/MCS/192/96
**NOTE.....: THIS PROGRAM IS TO REMOVE UNWANTED RECORDS FROM MANPOWER.DBF
**
**
SET TALK OFF
SET STATUS OFF
**OPEN DATABASE FILE
USE MANPOWER
DO WHILE .T.
  GO TOP
  CLEAR
  MPF_NO = SPACE(5)
  @ 1,8 TO 24,70 DOUBLE
  @ 3,30 SAY "DATA DELETING ROUTINE"
  @ 5,9 TO 5,69 DOUBLE
  @ 7,12 SAY "ENTER PF_NO:" GET MPF_NO
  READ
  LOCATE FOR PF_NO = MPF_NO
  IF .NOT. FOUND()
    @ 9,15 SAY "RECORD NOT FOUND"
  ELSE
    @ 9,12 SAY "PF_NO:"+PF_NO
    @ 10,12 SAY "SURNAME:"+SURNAME
    @ 10,30 SAY "OTHER NAMES:"+OTH_NAMES
    @ 11,12 SAY "SEX:"+SEX
    @ 11,20 SAY "QUALIFICATION WITH DATE:"+QUALIFIN
    @ 12,12 SAY "PRESENT POST:"+POST
    @ 13,12 SAY "MEDICAL SS:"+MSS
    @ 13,30 SAY "HEALTH SS:"+HSS
    @ 13,47 SAY "GRADE LEVEL:"+GL
    @ 14,12 SAY "DATE ATTAINED POST:"+DTC(DT_POST)
    @ 14,43 SAY "DATE OF 1ST APPT:"+DTC(DT_FAPPT)
    @ 15,12 SAY "DATE APPT INTO FCDA:"+DTC(DT_FCDA)
    @ 15,43 SAY "DATE OF BIRTH:"+DTC(DT_BIRTH)
    @ 16,12 SAY "HOMETOWN:"+HOMETOWN
    @ 16,35 SAY "LGA:"+LGA
    @ 17,12 SAY "STATE:"+STATE
    @ 18,12 SAY "PROFESSION:"+PROFESSION
    @ 18,38 SAY "SPECIALTY:"+SPECIALTY
    @ 19,12 SAY "STATION:"+STATION
    @ 19,35 SAY "DIVISION:"+DIVISION
    @ 20,12 SAY "MARITAL STATUS:"+M_STATUS
    @ 21,12 SAY "BANK:"+BANK
    @ 21,31 SAY "ACCOUNT NO:"+ACCT_NO
    @ 22,12 SAY "REMARKS:"+REMARKS
  DELETE
  CHOICE = SPACE(1)
  @ 23,25 SAY "DELETE THIS RECORD? (Y/N)"
  @ 23,51 GET CHOICE PICT "@!"
  READ
  IF UPPER(CHOICE) = "Y"
    PACK

```

```
    @ 24,25 SAY "RECORD IS DELETED"  
    WAIT  
  ELSE  
    RECALL  
    @ 24,25 SAY "RECORD IS RECALLED"  
    WAIT  
  ENDIF  
  CLEAR  
  MORE = SPACE(1)  
  @ 23,20 SAY "ANY MORE RECORD TO DELETE? (Y/N)"  
  @ 23,53 GET MORE PICT "@!"  
  READ  
  IF UPPER(MORE) = "Y"  
    LOOP  
  ELSE  
    EXIT  
  ENDIF  
ENDIF  
ENDDO  
USE  
SET TALK ON  
SET STATUS ON  
RETU
```

## APPENDIX VI

```
**PROGRAM.....: REPORT.PRG
**WRITTEN BY....: JAMES J. ALEGE
**REG.NO.....: PGD/MCS/192/96
**NOTE.....: THIS PROGRAM IS TO GENERATE REPORTS FROM MANPOWER.DBF
**
**
SET TALK OFF
SET STATUS OFF
M_DEVICE = SPACE(1)
@ 2,5 SAY "OUTPUT DEVICE TO SCREEN OR PRINTER (P/S)"
@ 2,46 GET M_DEVICE PICTURE "!"
READ
**OPEN DATABASE FILE
USE MANPOWER
**
STORE SPACE(10) TO MDIVISION
**GET FILE NAME CONVERTED INTO UPPERCASE
@ 4,5 SAY "ENTER DIVISION NAME:" GET MDIVISION PICTURE '@!'
READ
**
M_SORT = " "
@ 6,5 SAY "SORT SALARY (Y/N)" GET M_SORT PICT '!'
READ
IF UPPER(M_SORT) = 'Y'
  MSALARY = SPACE(3)
  @ 8,5 SAY "INDICATE SALARY FIELDNAME:" GET MSALARY
  READ
  IF MSALARY = "MSS"
    SORT ON MSS/D TO MP_MSS.DBF
  ENDIF
  IF MSALARY = "HSS"
    SORT ON HSS/D TO MP_HSS.DBF
  ENDIF
  IF MSALARY = "GL"
    SORT ON GL/D TO MP_GL.DBF
  ENDIF
ENDIF
CLOSE DATABASE
**
**CLEAR
**
**TO VIEW REPORT ON THE SCREEN OR TO PRINT
IF M_DEVICE = "S"
  SET DEVICE TO SCREEN
ENDIF
IF M_DEVICE = "P"
  SET DEVICE TO PRINT
ENDIF
**
CLEAR
**TOP OF SCREEN DISPLAY
Pn = 1
@ 1,20 SAY "DEPARTMENT OF HEALTH SERVICES, FCDA, ABUJA"
@ 3,20 SAY "DIVISION: " + MDIVISION
```



```

@ 5,20 SAY "STAFF NOMINAL ROLL"
@ 7,10 SAY "DATE COMPILED:"
@ 7,25 SAY DATE()
@ 7,50 SAY 'PAGE:'
@ 7,56 SAY Pn
@ 9,0 SAY "PF_NO SURNAME OTHER NAMES SEX QUALIFICATION"
@ 9,52 SAY "POST DATE OF DATE APPTED"
@ 10,59 SAY "1ST APPT. INTO FCDA"
**DISPLAY BROKEN LINE ACROSS SCREEN
@ 11,0 SAY REPLICATE("-",79)
IF MSALARY = "MSS"
  USE MP_MSS
  SET FILTER TO DIVISION = MDIVISION .AND. LEN(TRIM(MSS)) <> 0
ENDIF
IF MSALARY = "HSS"
  USE MP_HSS
  SET FILTER TO DIVISION = MDIVISION .AND. LEN(TRIM(HSS)) <> 0
ENDIF
IF MSALARY = "GL"
  USE MP_GL
  SET FILTER TO DIVISION = MDIVISION .AND. LEN(TRIM(GL)) <> 0
ENDIF
**
STORE 0 TO Sc
**SET UP INITIAL SCREEN ROW
Sc = 13
GO TOP
DO WHILE .NOT. EOF()
  @ Sc,0 SAY PF_NO
  @ Sc,7 SAY SURNAME
  @ Sc,17 SAY OTH_NAMES
  @ Sc,33 SAY SEX
  @ Sc,37 SAY QUALIFIN
  @ Sc,52 SAY POST
  @ Sc,59 SAY DT_FAPPT
  @ Sc,69 SAY DT_FCDA
  **Increment row number for next iteration of loop
  Sc = Sc + 1
  IF M_DEVICE = "S"
    IF Sc = 23 .AND. .NOT. EOF()
      WAIT REPLICATE("*",20) + "Press any;
        key to view more names" + REPLICATE("*",20)
      @ 13,0 CLEAR
      **Return to row 4 for new screen
      Sc = 13
    ENDIF
  ENDIF
ENDIF
IF M_DEVICE = "P"
  IF Sc = 54
    EJECT
    Pn = Pn + 1
    @ 1,20 SAY "DEPARTMENT OF HEALTH SERVICES, FCDA, ABUJA"
    @ 3,20 SAY "DIVISION: " + MDIVISION
    @ 5,20 SAY "STAFF NOMINAL ROLL"
    @ 7,10 SAY "DATE COMPILED:"
    @ 7,25 SAY DATE()
    @ 7,50 SAY "PAGE:"
  
```

```
@ 7,56 SAY Pn
@ 9,0 SAY "PF_NO SURNAME OTHER NAMES SEX QUALIFICATION"
@ 9,52 SAY "POST DATE OF DATE APPTED"
@ 10,59 SAY "1ST APPT. INTO FCDA"
@ 11,0 SAY REPLICATE("_",79)
Sc = 13
ENDIF
ENDIF
IF EOF()
WAIT
EXIT
ENDIF
SKIP
WAIT
ENDDO
SET DEVICE TO SCREEN
SET FILTER TO
USE
RELEASE Sc
SET TALK ON
SET STATUS ON
RETU
```

MANPOWER MAIN MENU	
<u>TASK CODE</u>	<u>TASK</u>
[1]	ADD RECORD
[2]	EDIT RECORD
[3]	DELETE RECORD
[4]	REPORT GENERATOR
[0]	EXIT
ENTER A TASK CODE: 0	

## DATA ENTRY FORM

PF NO:  
SURNAME: OTHER NAMES:  
SEX: QUALIFICATION WITH DATE:  
PRESENT POST:  
MEDICAL SS: HEALTH SS: GRADE LEVEL:  
DATE ATTAINED POST: / /  
DATE OF 1ST APPT: / /  
DATE APPT INTO FCDA: / /  
DATE OF BIRTH: / /  
HOMETOWN: LGA:  
STATE:  
PROFESSION: SPECIALTY:  
STATION: DIVISION:  
MARITAL STATUS:  
BANK: ACCOUNT NO:  
REMARKS:

## DATA EDITING ROUTINE

ENTER PF\_NO: 16795

PF\_NO: 16795

SURNAME: ALEGE OTHER NAMES: JAMES J.

SEX: M QUALIFICATION WITH DATE:

PRESENT POST: SS

MEDICAL SS: HEALTH SS: 09 GRADE LEVEL:

DATE ATTAINED POST: 01/07/97 DATE OF 1ST APPT: 25/09/90

DATE APPT INTO FCDA: 12/06/92 DATE OF BIRTH: 01/09/68

HOMETOWN: YAGBA LGA: OYI

STATE: KOGI

PROFESSION: STATISTICIAN SPECIALTY: COMPUTER

STATION: HQR DIVISION: HLTH PLAN.

MARITAL STATUS: M

BANK: UNION ACCOUNT NO: 00000-097K

REMARKS:

## DATA DELETING ROUTINE

ENTER PF\_NO: 16795

PF\_NO:16795

SURNAME:ALEGE OTHER NAMES:JAMES J.

SEX:M QUALIFICATION WITH DATE:

PRESENT POST:SS

MEDICAL SS: HEALTH SS:09 GRADE LEVEL:

DATE ATTAINED POST:01/07/97 DATE OF 1ST APPT:25/09/90

DATE APPT INTO FCDA:12/06/92 DATE OF BIRTH:01/09/68

HOMETOWN:YAGBA LGA:OYI

STATE:KOGI

PROFESSION:STATISTICIAN SPECIALTY:COMPUTER

STATION:HQR DIVISION:HLTH PLAN.

MARITAL STATUS:M

BANK:UNION ACCOUNT NO:00000-097K

REMARKS:

DELETE THIS RECORD? (Y/N)

## DEPARTMENT OF HEALTH SERVICES, FCDA, ABUJA

DIVISION: HLTH PLAN

## STAFF NOMINAL ROLL

DATE COMPILED: 19/02/98

PAGE: 1

PF_NO	SURNAME	OTHER NAMES	SEX	QUALIFICATION	POST	DATE OF 1ST APPT.	DATE APPTED INTO FCDA
16795	ALEGE	JAMES 'JAIYE	M	CHIM	SS	01/09/90	12/06/92
12324	OKODU	SAMUEL S.	M	B.Sc.ECONOMICS	SHP	17/05/89	17/05/89
12325	ADEBAYO	JIDE H.	M	HND MED.RECORD	MRO	12/12/89	12/12/89
12323	ALHAJI	UMORU A.	M	DIP.STATISTICS	SO	14/09/91	14/09/91
12326	HASSAN	HAJARA	F	B.Sc.ECONOMICS	HP	25/02/90	25/02/90

\*\*\*\*\*Press any key to view more names\*\*\*\*\*