DEVELOPMENT OF A HEALTH INFORMATION SYSTEM FOR THE MALTESE ISLANDS

Status quo and future plans for the Health Services Information Unit

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Introduction

Among the 38 regional targets laid down by the World Health Organization for attaining the goal of "Health for all by the year 2000" is one entirely dedicated to the setting up of a Health Information System. Target 35 states that:

"Before 1990, Member States should have health information systems capable of supporting their national strategies for health for all."

So it was that in May 1983 a Health Services Information Unit (H.S.I.U.) was established with the following objectives:

(i) To provide a systematic and analytical basic source of information fundamental to health services and their development;

(ii) To ensure a critical evaluation of the development and implementation of health programmes in the light of predetermined health indicators;

(iii) To provide a computerised register containing comprehensive medical data on all persons coming into contact with the health services (this will eventually cover the entire population) with the aim of providing readily available clinical information to medical practitioners on the patients they are treating, of scheduling appointments and follow up procedures, of managing immunisation and the preventive programmes and of conducting surveys and research.

The original site of this Unit was at 6, Harper Lane, Floriana — the building now housing the Health Education and Nutrition Units. Since then the H.S.I.U. was moved to premises at the boundary wall of St. Luke's hospital which were opened in May of 1985.

.Although the premises remain the same to-day, many of the original staff members and some of the priorities of this Unit have changed. The W.H.O. aims for information systems in providing support for the planning, monitoring and evaluation of health development and services; the assessment of national progress towards health for all; and the dissemination of relevant scientific information remain the terms of reference for this Unit. While medically qualified personnel now direct the progress of the Unit there has been a gradual replacement of staff by the technical grades whose training is dedicated to this line of work.

Functions presently carried out or in the process of being implemented by the Unit include:

(a) Vital Statistics Record Keeping

This involves the registration of data pertaining to Mortality (from Death certificates), Cancer registration/notification, various infectious diseases (where notifiable) as well as a Non-Communicable Disease component consisting principally of the ongoing MONICA register of myocardial infarction.

(b) Services Information

Data relating to hospital admissions are presently stored for a limited period and used at the Hospital reception.

It is planned to start collecting limited data on hospital discharges similar to a system used in other countries. In addition, staff registers are kept including lists of registered doctors, pharmacists and so on.

(c) Health Care Systems

These include the main clinical data systems stored at the HSIU through the COSTAR (Computer Stored Ambulatory Record) system. The collection of data from Health Centres is a prime example. At the present time this is collected only from the Floriana Centre although plans are underway to have all Health Centres included in this scheme by 1990.

Also some data is stored on COSTAR from St. Luke's Hospital. This includes data from the Diabetes Clinic at which data is input directly on terminals placed at the clinic; and the Obstetrics and Gynaecology department where data is collected on forms and sent for 'capturing' to HSIU.

(d) Health Care Support Systems

These include a number of ancillary services to offer enhanced administrative support for the health services. A "Master Index" of all hospital files is kept and maintained in collaboration with the records section of St. Luke's

Hospital. Appointments are also scheduled through a system utilized by the hospital reception. There is also a separate system at the Diabetes Clinic for retaining and utilizing data pertaining to "Blue Cards" i.e. anti-diabetic free drugs.

(e) Surveys

Each year support is offered for individuals or groups undergoing large scale surveys. These include the MONICA project which undertakes 5-yearly large sample surveys of the Maltese population for cardiovascular risk factors. The Diabetes Program had also been supported in its various stages in previous years. For 1989 much support was given to the Eye Disease Survey, largely related to Glaucoma studies.

Other smaller studies were undertaken or supported such as the Smoking Survey on attitudes and habits of Health Personnel presently being analysed.

(f) Surveillance

Other forms of surveillance (ongoing data collecting and monitoring) besides the above have been supported or proposed for the future. These include the formulation of a questionnaire for monitoring patients at the Coronary Care Unit and detailing of a plan for its computerization. Plans are also underway to support the Emergency and Admission Department of St. Luke's Hospital in a similar endeavour.

With regard to infectious diseases, besides the collection and reporting of statistics, notifications are also processed for the co-ordination of community control.

As can be seen an ambitious plan is underway for the provision of a better system for the collection and utilization of medical and related data. A con-figuration of the proposed plan for the computerization and linkage of data is represented in Figure 1 and a sub-unit of any one peripheral section e.g. a health centre or a hospital department in Figure 2.

Two important facts must be borne in mind when considering the implementation of any computeriz-ation system:

1. A computer only stores whatever is collected and captured.
2. The extraction of data from computers is not always a straight-forward process. It is often limited by the software provided and the
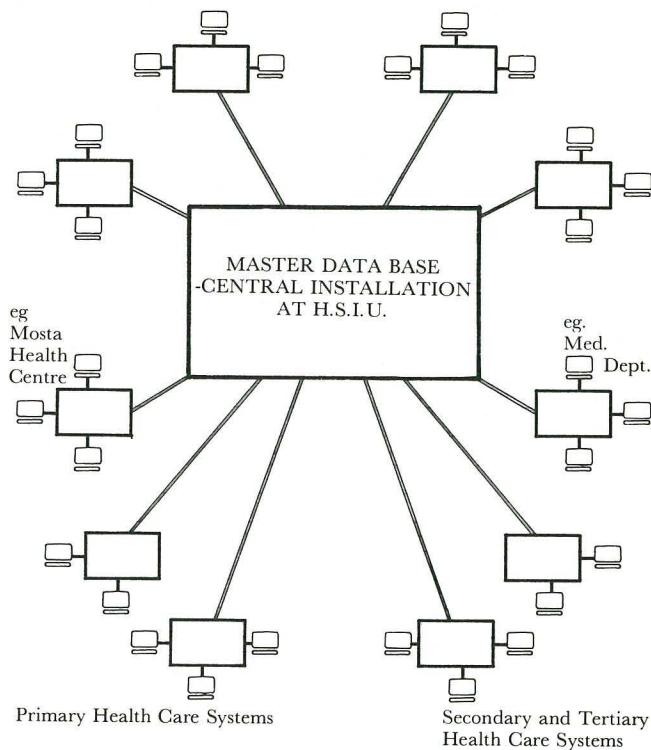

Figure 1: Computerized set-up and record linkage Digramatic representation.

Note: While the central installation would act as a main data base with "back ups" of all sub databases, many independent processes would be carried out at the peripheries.
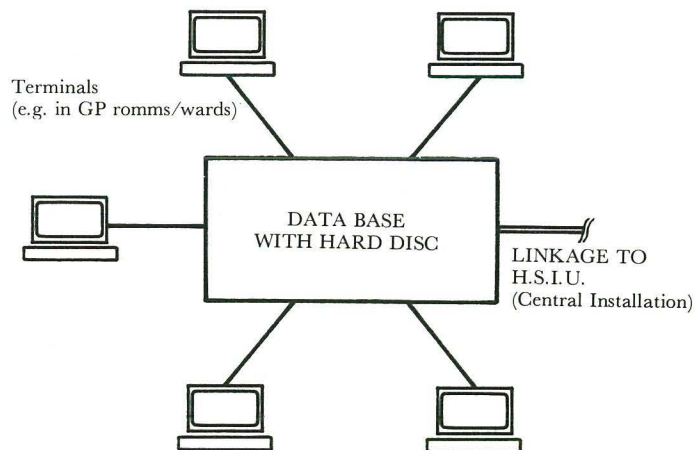

Figure 2: Computer set-up and linkage in a Peripheral Unit e.g. Health Centre/ Hospital Dept.

Note: Data capture, updating, searches and analysis on the peripheral data base could be carried out at the peripheral Unit.

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hardware on which it is run. Faults and breakdowns of systems are not rare.

Conclusion

The need for the provision of an enhanced system for information for health has long been felt. Efforts are underway for establishing a manageable system of capturing and recording such data which could prove useful in various clinical, epidemiological and administrative functions. It now rests with all concerned individuals to play their part and dedicate more time and effort towards proper record keeping, which is essential for informed decision taking.

The HSIU acknowledges the efforts of the Health Department, and particularly the persisting support of Dr. Alfred Grech in this project. The progress made on the project so far is largely due to the tireless work of all past and present staff at the HSIU. We are also grateful to the expertise and support of the World Health Organisation. Special mention must be made of Sir Henry Yellowless, Mr. K. Floisand and Mr. M. Subramanian of the Regional Office for Europe.

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