

THE INTRODUCTION OF COMPUTER PROCESSING OF VACCINATION RECORDS

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The computerisation of inoculation records has become a widely accepted part of community health services in the United Kingdom. By providing a detailed record of all the children in a particular area, the computer service is in a position to ensure a regular and reliable appointment system for the recommended immunisations.

In 1970, the first proposals were made in Hillingdon towards the introduction of a computer system, that would assist the Health Department in carrying out a wide range of medical activities. It was felt in the initial planning stages, that an observation and handicapped child register, hearing and vision test results, and dental inspection notification, should be included as additional information to the basic immunisation computer file.

Preliminary Investigation

A working party comprising members of the Health Department, the London Boroughs Management Services Unit, and Dr. Knight of the Local Medical Committee, met in April 1971 to formulate a procedure policy. It was recognised that its main purpose was to outline a method of assessing the value to the department, and degree of support among general practitioners, for the computer service. As a result of this meeting, it was decided to adopt three separate lines of investigation.

Firstly a feasibility study was undertaken by Mr. Mills of the computer division LBMSU, and a cost benefit analysis made on the transfer of immunisation procedures to the Leo III computer.

Secondly an examination of the Hillingdon inoculation rates was carried out by Dr. E. Jones and Mr. Benson. These percentage rates are quoted annually in the Department of Health and Social Security returns, and involve many variable factors. These had complicated the working party's assessment of their true value, in comparison with other local authority rates.

Thirdly a statistical survey involving a 20% stratified sample of the Borough's family doctors revealed a considerable degree of support among the general practitioners, and a likely 60% acceptance rate for the computer service.

It was concluded from these investigations that the main areas of benefit lay in the provision of a detailed computerised filing system, and the close co-partnership with the Hillingdon family doctors, which would result from their involvement in the scheme. It was decided to recommend the adoption of the computer system, and arrangements were made for the service to commence on 3rd July 1972. The details of each child, who was born on or after 1st January 1971, were entered on the computer file.

The working arrangements of the computer section are best illustrated by two "flow charts"

which demonstrate the daily inflow, processing and delivery of information within the department, and which are recorded on the two following pages.

Computer Statistics

| | |
|--|-------|
| Number of Hillingdon Children on the Computer File | 6,505 |
| Number of Treatment Centre Clinics | 32 |
| Number of family doctors in the service | 70 |
| Number of Vision tests recorded | 211 |
| Number of Hearing tests recorded | 282 |
| Number of children on the Observation Register | 1,065 |
| Average weekly number of inoculations | 500 |

The adoption of a computer system has provided a considerable degree of challenge to the Health Department. In the initial months of the service, there were many alterations in working procedures, and the staff were required to adjust to the change from a manual recording system of information to the sophistication of a computer. It is pleasant to record that this difficult period of transition has been carried out smoothly and efficiently.

Mr. Benson, Mr. Feasey and the staff in the immunisation and vaccination section have operated the new service with considerable skill, and have received full co-operation from all clinic staff. With the expanding range of techniques in health monitoring and screening, it is confidently anticipated that the computer will play an increasing role in a modern Health Service. By the adoption of the computer system, the Health Department has taken an initial step in preparation for these future developments.

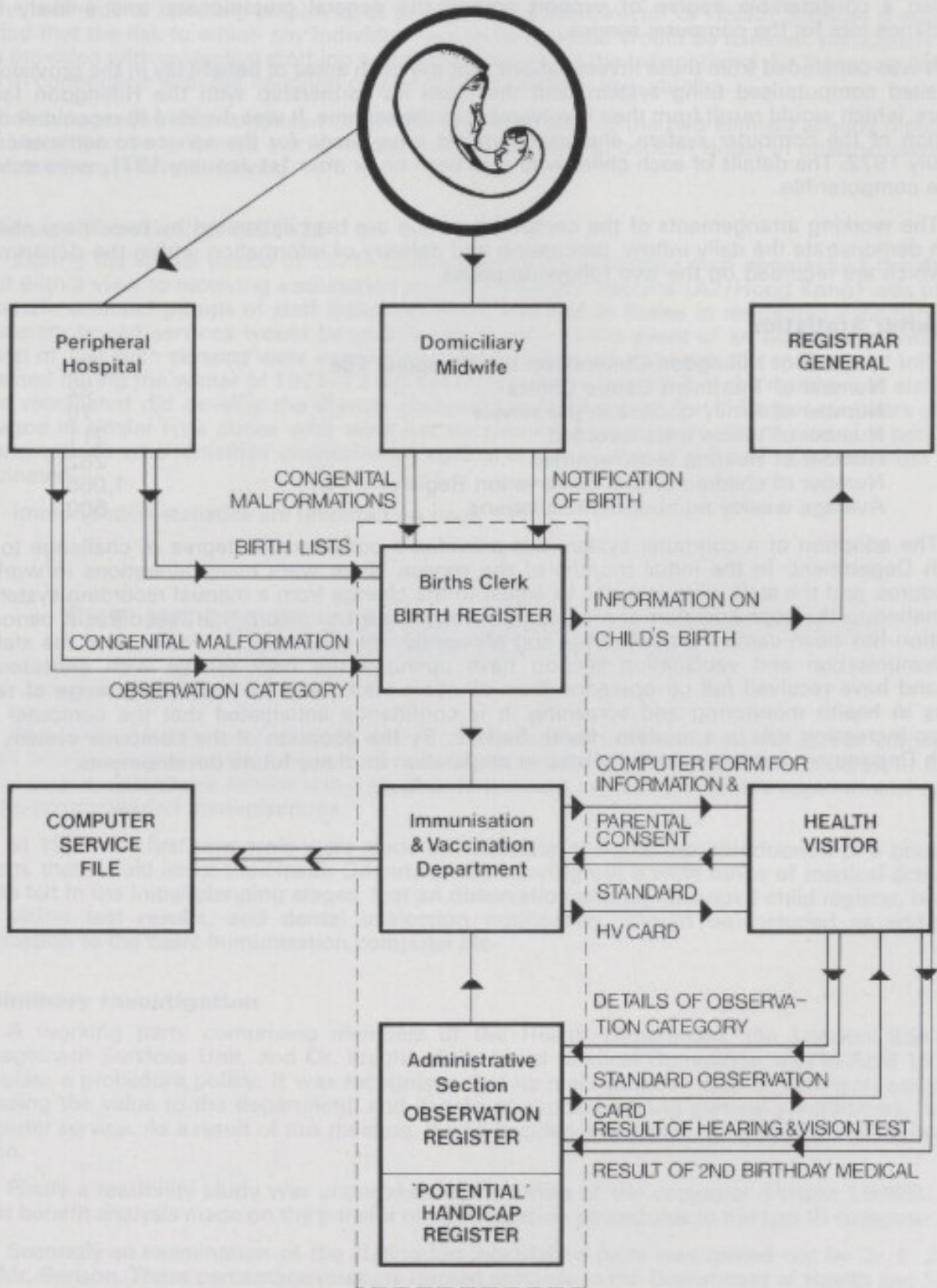
Diagrams on the following pages

Publication: THE HEALTH OF HILLINGDON 1972, ANNUAL REPORT
of the MEDICAL OFFICER OF HEALTH and PRINCIPAL SCHOOL MEDICAL OFFICER 1972
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