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United States Army
Health Care Studies



and

Clinical Investigation Activity

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SYSTEM DOCUMENTATION FOR THE U.S. ARMY
AMBULATORY CARE DATA BASE (ACDB) STUDY:
MAINFRAME, PERSONAL COMPUTER AND OPTICAL
SCANNER FILE STRUCTURE

GS-12 David R. Bolling
MAJ(P) Jeffrey P. Moon

Executive Summary
Report HR89-002A

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) The U.S. Army Ambulatory Care Data Base (ACDB) Study was conducted at six medical treatment facilities during the period January 1986 - September 1987. This report outlines the optical scanning technology, personal computer and mainframe data processing support required for the project. Extensive coverage of the file structure and data element architecture used to integrate a personal and mainframe data base management system are contained in the final report. Also a description for the FOCUS Data Base Management System programs, master files, and software profiles are included in the final report. Technical support for the project was provided by the Data Processing Center, Fort Detrick, Maryland.					
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The development effort can be divided into four major areas. The first area pertained to the optical scanner which was used to read the raw data. The second area concerned the IBM XT system used to drive the scanner. This XT performed data conversions and edits while preparing data for the data base. The third major area involved the IBM XT which stored the data in a

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fourth generation data base management system (DBMS) called FOCUS. FOCUS was used to load data, write reports, prepare files for shipment and perform other data maintenance activities. The fourth area related to the mainframe computer at Ft. Detrick. Here data from all the sites was collected and placed into cumulative files. The DBMS on the mainframe was also FOCUS making many mainframe load and report programs similar to those in the PC versions. Operating procedures such as uploading data, processing Standard Installation Division Personnel System (SIDPERS) data, processing Defense Eligibility Enrollment System (DEERS) data, loading data into FOCUS and downloading patient data to be sent back to the sites are covered within the final report.

Although an entire document could be written about end user support, little is discussed here. Ft. Detrick provided technical support to all sites throughout the project. The hospital site temporary employees had little or no computer experience. They quickly learned to follow detailed directions, and they provided feedback when problems occurred. Their support allowed for rapid resolution of problems preventing major disruptions. As such, these temporary employees were instrumental to the success of the study.

Lastly, the project used various computer languages and equipment with specialized documentation. The manual does not attempt to duplicate any documentation already written but provides references to such. In some cases, however, additional explanations are furnished where external documentation is lacking or insufficient.

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