(2)

United States Army Health Care Studies and Clinical Investigation Activity

AMBULATORY CARE DATA BASE (ACDB) PROVIDER SURVEY

LTC JAMES M. GEORGOULAKIS, Ph.D., M.S., USA
GS-9 SUE E. AKINS, B.F.A.
GS-12 DAVID R. BOLLING, M.S.
MAJ(P) JEFFREY P. MOON, M.S., USA

HR 89-005A

EXECUTIVE SUMMARY

APRIL 1989

US ARMY

HEALTH SERVICES COMMAND

FORT SAM HOUSTON, TEXAS 78234

89 7 20 4

NOTICE

The findings in this report are
not to be construed as an official
Department of the Army position
unless so designated by other
authorized documents.

* * * * * * * * * * * * *

Regular users of services of the Defense Technical Information Center (per DOD Instruction 5200.21) may purchase copies directly from the following:

Defense Technical Information Center (DTIC)
ATTN: DTIC-DDR
Cameron Station
Alexandria, VA 22304-6145

Telephones: AUTOVON (108) 284-7633, 4, or 5
COMMERCIAL (202) 274-7633, 4, or 5

All other requests for these reports will be directed to the following:

U.S. Department of Commerce
National Technical Information Services (NTIS)
5285 Port Royal Road
Springfield, VA 22161

Telephone: COMMERCIAL (703) 487-4600

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for Public Release Distribution Unlimited
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) HR 89-005 A	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION USA Health Care Studies & Clinical Investigation Activity 6b. OFFICE SYMBOL (If applicable) HSHN-H	7a. NAME OF MONITORING ORGANIZATION DASG-RMP
6c. ADDRESS (City, State, and ZIP Code) Bldg 2265 Stanley Road Fort Sam Houston, TX 78234-6060	7b. ADDRESS (City, State, and ZIP Code) 5109 Leesburg Pike Falls Church, VA 22041-3258
8a. NAME OF FUNDING / SPONSORING ORGANIZATION HQDA (DASG-RMB) 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State, and ZIP Code) 5109 Leesburg Pike Falls Church, VA 22041-3258	10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNIT ACCESSION NO.

11. TITLE (Include Security Classification)
(U) Ambulatory Care Data Base (ACDB) Provider Survey

12. PERSONAL AUTHOR(S) James M. Georgoulakis, LTC, MS, USA, PhD; Sue E. Akins, DAC, B.F.A.; David R. Bolling, DAC, M.S.; Jeffrey P. Moon, MAJ(P), MS, USA, M.S.

13a. TYPE OF REPORT	13b. TIME COVERED	14. DATE OF REPORT (Year, Month, Day)	15. PAGE COUNT
Executive Summary	FROM 8/87 TO 12/87	1989 April	7

16. SUPPLEMENTARY NOTATION

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB-GROUP	Ambulatory Care, Provider Survey, data reliability, data collection, workload, provider participation

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

The Army's ACDB Study collected information on more than 3.1 million patient visits during a 21-month period; more than 4,000 providers were involved at six medical treatment facilities. During the data collection period, various study team members collected anecdotal information from a number of participating providers. Unfortunately, this information was never consolidated and validated. To overcome this deficiency and to provide study participants (the health care providers) with the opportunity to provide input or to evaluate the ACDB study, the ACDB Provider Survey was developed.

The Provider Survey collected information from nearly 500 health care providers and has provided the Army Medical Department with valuable insight on many aspects of the ACDB Study. However, the most important aspect may be in the knowledge that the data contained in the bubble forms not only are valid but also are an accurate representation of the care provided in the outpatient clinics.

20. DISTRIBUTION / AVAILABILITY OF ABSTRACT	21. ABSTRACT SECURITY CLASSIFICATION
☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS	Unclassified
22a. NAME OF RESPONSIBLE INDIVIDUAL James M. Georgoulakis, LTC, MS, USA, Ph.D.	22b. TELEPHONE (Include Area Code) (512) 221-5880 22c. OFFICE SYMBOL HSHN-H

INTRODUCTION

Recognizing the benefits of an ambulatory care data base, the Army Medical Department began planning in 1984 for a multi-year study to establish an outpatient data base. Based on the results of a 6-month pilot study completed at Fox Army Community Hospital, Redstone Arsenal, Alabama (Misener & Gilbert, 1984), the ACDB Study (Georgoulakis et al, 1988) was initiated to collect clinical data from outpatient encounters (visits). During the 21-month period of the study (January 1986 to September 1987), over 3.1 million patients encounters were recorded from the six study sites, representing more than 4,000 health care providers in some 70 clinical specialties.

This report examines the more salient aspects of the study from the participating health care providers' perspective. In order to quantify provider input, a structured questionnaire was employed.

DISCUSSION

The participation of nearly 500 health care providers in completing 493 ACDB provider surveys has provided the Army Medical Department and ACDB study team with many valuable insights on the project. Some of the more salient points will be discussed in this section.

One of the most useful findings is knowing that the providers completed bubble forms on nearly every patient for whom they provided care. This finding has a number of very important implications. First and foremost, it provides the study team with an additional measure of confidence in the fact that the collected data is an accurate representation of the existing workload in the ambulatory clinics of the hospitals that participated in the study.

Secondly, when this finding is combined with the finding that more than 85 percent of the providers indicated that they are usually or almost always

accurate in the information they entered, the level of confidence increases even more. This makes the data base more relevant for workload estimation as well as for epidemiological studies of incidence of illnesses for various groups. Thirdly, this perceived accuracy of data by providers is supported by the findings of the ACDB Reliability Study (Moon, et al. 1989) which demonstrated that the data entered on the bubble forms was extremely accurate and was as good as any data within or outside the United States Army Medical Department.

The finding that nearly 68 percent of the providers could find the appropriate evaluations/services/procedures 75 percent or more of the time indicates that the types of procedures performed in the various out-patient clinics are performed with a good deal of consistency. Additionally, should the Army Medical Department or the Department of Defense proceed with plans to develop a clinically based management system like the Composite Health Care System (CHCS), the procedures lists developed for the ACDB study could serve as the basis from which to develop a more accurate procedures list. This is also true for the development of a specialty related menu of diagnoses.

Another finding which merits comment is the "effect that completing the bubble form had on provider workloads." The initial effects appeared mixed with about 33 percent of the providers indicating that completing the bubble forms had no effect on their workload and 29 percent responding that patients waited longer for care. This was in reality not as significant as one might initially believe.

An additional analysis proved enlightening. This analysis consisted of taking the average number of forms completed in a day (14.9) and multiplying it by the average time required to complete a form (42.3 seconds). The result is ten and one half minutes per day per provider. Therefore, for those

providers (29%) indicating that patients waited longer for care or for the providers who worked longer hours, the amount of time the patients were waiting or providers were working must have been minimal. Moreover, additional analyses indicated that as a provider became more familiar with a form, his proficiency increased and the time required to complete the form decreased. Thus the additional workload which resulted from using the bubble forms decreased over time.

SUMMARY

The Army's ACDB study collected information on more than 3.1 million patient visits during a 21-month period; more than 4,000 providers were involved at six medical treatment facilities. During the data collection period, various study team members collected anecdotal information from a number of participating providers. Unfortunately, this information was never consolidated and validated. To overcome this deficiency and to give study participants (the health care providers) with the opportunity to provide input or to evaluate the ACDB study, the ACDB Provider Survey was developed.

The provider survey collected information from nearly 500 health care providers and has provided the Army Medical Department with valuable insight on many aspects of the ACDB Study. However, the most important aspect may be in the knowledge that the data contained in the bubble forms not only are valid but also are an accurate representation of the care provided in the outpatient clinics.