

AD _____

MIPR NO: 95MM5581

TITLE: Availability, Accessibility, and Adequacy of Health Care Provided to
USAF Active Duty Women in Theater During Operation Desert Shield/
Desert Storm

PRINCIPAL INVESTIGATOR: Anthony S. Robbins, Capt, USAF, MC

CONTRACTING ORGANIZATION: Armstrong Laboratory, Brooks Air Force Base,
Texas 78235-5241

REPORT DATE: August 1995

TYPE OF REPORT: Annual

PREPARED FOR: U.S. Army Medical Research and Materiel
Command
Fort Detrick, Maryland 21702-5012

DISTRIBUTION STATEMENT: Approved for public release;
distribution unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

19971223 072

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE August 1995	3. REPORT TYPE AND DATES COVERED Annual 9 Jan 95 - 1 Aug 95	
4. TITLE AND SUBTITLE Availability, Accessibility, and Adequacy of Health Care Provided to USAF Active Duty Women in Theater During Operation Desert Shield/ Desert Storm			5. FUNDING NUMBERS 95MM5581	
6. AUTHOR(S) Anthony S. Robbins, CAPT				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Armstrong Laboratory Brooks Air Force Base, Texas 78235-5241			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army Medical Research and Materiel Command Fort Detrick, Maryland 21702-5012			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) During the period 9 Jan 95-1 Aug 95 the following work was accomplished. A data-base containing all active duty Air Force personnel serving in theater during Operation Desert Shield/Desert Storm (ODS/S) was obtained from the Defense Manpower Data Center. A random sample of 564 female personnel was obtained from this data-base after stratifying by rank and occupational category. Using official personnel data sources and commercial telephone information, mailing addresses were obtained for 449 of these women and telephone numbers for 301. Letters of invitation to participate in the study were mailed to all those with addresses, but less than 100 of the addresses were accurate. Telephone contact was attempted with all those with telephone numbers, but less than 50% of the telephone numbers were accurate. The overwhelming majority of women contacted by mail or by phone have participated in the study. To date approximately 125 surveys have been completed by telephone interview or by mail. Efforts are continuing to identify correct telephone numbers for the women in the sample.				
14. SUBJECT TERMS Defense Women's Health Research Program; Women's Health; Operation Desert Shield/Desert Storm; Military Medicine			15. NUMBER OF PAGES 7	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unlimited	

DTIC QUALITY INSPECTED 2

GENERAL INSTRUCTIONS FOR COMPLETING SF 298

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to *stay within the lines* to meet *optical scanning requirements*.

Block 1. Agency Use Only (Leave blank).

Block 2. Report Date. Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.

Block 3. Type of Report and Dates Covered. State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 - 30 Jun 88).

Block 4. Title and Subtitle. A title is taken from the part of the report that provides the most meaningful and complete information. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. On classified documents enter the title classification in parentheses.

Block 5. Funding Numbers. To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

C - Contract	PR - Project
G - Grant	TA - Task
PE - Program Element	WU - Work Unit Accession No.

Block 6. Author(s). Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

Block 7. Performing Organization Name(s) and Address(es). Self-explanatory.

Block 8. Performing Organization Report Number. Enter the unique alphanumeric report number(s) assigned by the organization performing the report.

Block 9. Sponsoring/Monitoring Agency Name(s) and Address(es). Self-explanatory.

Block 10. Sponsoring/Monitoring Agency Report Number. (If known)

Block 11. Supplementary Notes. Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in.... When a report is revised, include a statement whether the new report supersedes or supplements the older report.

Block 12a. Distribution/Availability Statement. Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

DOD - See DoDD 5230.24, "Distribution Statements on Technical Documents."

DOE - See authorities.

NASA - See Handbook NHB 2200.2.

NTIS - Leave blank.

Block 12b. Distribution Code.

DOD - Leave blank.

DOE - Enter DOE distribution categories from the Standard Distribution for Unclassified Scientific and Technical Reports.

NASA - Leave blank.

NTIS - Leave blank.

Block 13. Abstract. Include a brief (*Maximum 200 words*) factual summary of the most significant information contained in the report.

Block 14. Subject Terms. Keywords or phrases identifying major subjects in the report.

Block 15. Number of Pages. Enter the total number of pages.

Block 16. Price Code. Enter appropriate price code (*NTIS only*).

Blocks 17. - 19. Security Classifications. Self-explanatory. Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., UNCLASSIFIED). If form contains classified information, stamp classification on the top and bottom of the page.

Block 20. Limitation of Abstract. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

FOREWORD

Opinions, interpretations, conclusions and recommendations are those of the author and are not necessarily endorsed by the US Army.

Where copyrighted material is quoted, permission has been obtained to use such material.

Where material from documents designated for limited distribution is quoted, permission has been obtained to use the material.

Citations of commercial organizations and trade names in this report do not constitute an official Department of Army endorsement or approval of the products or services of these organizations.

In conducting research using animals, the investigator(s) adhered to the "Guide for the Care and Use of Laboratory Animals," prepared by the Committee on Care and Use of Laboratory Animals of the Institute of Laboratory Resources, National Research Council (NIH Publication No. 86-23, Revised 1985).

✓ For the protection of human subjects, the investigator(s) adhered to policies of applicable Federal Law 45 CFR 46.

In conducting research utilizing recombinant DNA technology, the investigator(s) adhered to current guidelines promulgated by the National Institutes of Health.

In the conduct of research utilizing recombinant DNA, the investigator(s) adhered to the NIH Guidelines for Research Involving Recombinant DNA Molecules.

In the conduct of research involving hazardous organisms, the investigator(s) adhered to the CDC-NIH Guide for Biosafety in Microbiological and Biomedical Laboratories.

Anthony S. Robb 29 AUG 95
PI - Signature Date

TABLE OF CONTENTS

I. Introduction

II. Body

III. Conclusions

IV. References

I. Introduction

Female participation in military deployments and operations has increased significantly over the past decade. With the reduction in gender-specific barriers and the downsizing of military forces, this trend will continue. Both the number of women participants in military operations and the number of occupational specialties represented have increased. Consequently, preventive medicine interventions (vaccines, antimalarials, etc.) previously administered to all male "combat forces" need to be assessed for both genders. For example, the use of doxycycline for antimalarial prophylaxis reportedly increased the incidence of vaginal yeast infections experienced in Operation Desert Shield/Desert Storm (ODS/S). Additionally, the capabilities of medical facilities and personnel on site may need to be reevaluated. Changes in military medical planning doctrine should be based on problems identified by both after-action reports and information obtained from individuals directly participating in the operations.

This study was designed as a survey to assess the availability, accessibility, and adequacy of health care provided to USAF active duty women in theater during ODS/S. The survey questionnaire was developed to answer the following research questions: 1. What were the gender-unique health problems experienced by female ODS/S participants? 2. What were the modifiable causes of gender-unique health problems identified in female ODS/S participants? 3. What treatment (or nontreatment) was provided for female ODS/S participants' health problems? 4. What perceptions do female ODS/S participants have of the accessibility and adequacy of health care received in theater during ODS/S?

The study was designed as a collaboration between the military principal investigator (PI) at the USAF Office for Prevention and Health Services Assessment and civilian coinvestigators (CIs) at the University of Texas Health Science Center. The military PI had the responsibility to obtain the official Department of Defense (DOD) ODS/S Master File, perform sampling, and obtain mailing addresses and telephone numbers for potential study participants. Additionally, the PI has the responsibility for all data analysis once the data collection is complete. The civilian CIs had the responsibility for survey questionnaire development and administration of the survey instrument through telephone interviews and mailings.

Administration of historical questionnaires is an effective method of gathering information on significant life events. Casey et al.¹ found that 50-year-old adults could accurately recall events in early childhood and adolescence (height, weight, obesity, onset of menarche, year of maximal growth in height). Colditz et al.² found that nurses aged 30-55 years had accurate recall of year of menopause. Paganini-Hill and Chao³ emphasized the need to use specific wording (e.g., "myocardial infarction" instead of "heart attack") in questionnaires.

The CIs have elected to retain a professional telephone survey corporation to administer the instrument. Interviewers at this corporation use Computer Assisted Telephone Interviewing (CATI) to facilitate questionnaire administration and data collection. The use of trained knowledgeable telephone interviewers to facilitate questionnaire completion is expected to substantially enhance completeness of data, allow for clarification of technical terms, and increase collection of data in the "Additional Comments" section of the questionnaire.

II. Body

No results are available at this time as data collection is still under way. During the period 9 January 1995 through 1 August 1995 a considerable amount of work was accomplished. Some portions of the project have taken longer than anticipated to accomplish but the civilian CIs are expected to complete all work by 30 September 1995. The final report will be available by late CY95.

The military PI obtained an extract from the official DOD Desert Storm File, a database containing all active duty military personnel serving in theater during ODS/S, from the Defense Manpower Data Center. This extract contained all USAF personnel (male and female) who were deployed to this conflict from active duty.

Next, the PI obtained a random sample of 564 female personnel after stratifying by rank and occupational category. This stratification was done to increase representativeness, by minimizing the probability that the sample would be sharply skewed with respect to rank or occupational categories.

After obtaining the sample, the PI then collaborated with the Air Force Health Study staff at Brooks Air Force Base to obtain personnel data on as many of the sample women as possible. Data from personnel files included mailing addresses and in some cases telephone numbers. Using commercial telephone information, telephone numbers were obtained for the women with an available mailing address but whose records contained no telephone number.

Ultimately the PI obtained mailing addresses for 449 women and telephone numbers for 301. Letters of invitation to participate in the study were mailed to all those with addresses, but less than 100 of the addresses were accurate. Telephone contact was attempted with all those with telephone numbers, but less than 50% of the telephone numbers were accurate. The overwhelming majority of women contacted by mail or by phone have agreed to participate in the study. Those contacted by mail have each returned a completed copy of USAMRDC Form 60-R.

To date approximately 125 surveys have been completed by telephone interview or by mail. The women participating in the study have reportedly been enthusiastic and have expressed appreciation for the opportunity to express their thoughts regarding the health care received during deployment to ODS/S. Efforts are continuing to identify correct telephone numbers for all women in the sample. The contract telephone survey personnel will continue their work through 31 August 1995. The 125 completed telephone surveys represent approximately a 3% sample of the 4,997 Air Force women in the DOD Desert Storm File extract.

III. Conclusions

Since no data is currently available for analysis, no scientific inferences can be made at this time. However, with regard to study progress, considerable advances have been made toward the goal

of surveying approximately 150 female Air Force ODS/S veterans. Given that approximately 125 surveys have been completed at this time, the goal of 150 appears attainable. Major difficulties encountered to date have concerned the difficulty in obtaining accurate mailing addresses and telephone numbers for the women in the sample.

Origins of this difficulty appear to lie with 1) the large number of USAF women who have retired or separated from the Air Force since ODS/S combined with 2) the high degree of geographic mobility of both active duty and retired/separated military populations. These difficulties have been offset by the very high participation rate among women successfully contacted.

Efforts are continuing to obtain accurate contact information on as many of the women in the sample as possible.

IV. References

1. Casey VA, Dwyer ST, Coleman KA, Krall EA, Gardner J, Valadin I. Accuracy of recall by middle-aged participants in a longitudinal study of their body size and indices of maturation earlier in life. *Ann Human Biol* 1991; 18:155-166.
2. Colditz GA, Stampfer MJ, Willett WC, et al. Reproducibility and validity of self-reported menopausal status in a prospective cohort study. *Am J Epidemiol* 1987; 126:319-325.
3. Paganini-Hill A, Chao A. Accuracy of recall of hip fracture, heart attack, and cancer: a comparison of postal survey data and medical records. *Am J Epidemiol* 1993; 138:101-106.