UNITED STATES ARMY
HEALTH CARE STUDIES
AND
CLINICAL INVESTIGATION ACTIVITY

DENTAL UTILIZATION BY SOLDIERS AND THEIR FAMILIES

MAJ (P) Michael C. Chisick

Report #DR90-005
25 June 1990

DTIC ELECTED
AUG 27 1990

UNITED STATES ARMY
HEALTH SERVICES COMMAND
FORT SAM HOUSTON, TEXAS 78234

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited
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) 234-7633, 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
(U) Dental Utilization by Soldiers and Their Families

This study explores the dental utilization of soldiers and their families. Data were collected from the Spring 1989 Soldier Support Center semi-annual survey. Self-administered questionnaires were completed by 15,634 enlisted soldiers and 4,529 officers. Results show that dental utilization by soldiers exceeds that of employed U.S. Adults. However, some soldiers have never seen a dentist. Nearly all soldiers receive their care exclusively in military clinics. Spouses have lower utilization rates. Both soldiers and spouses are mostly seeking preventive care. Spouses and children are less reliant on military dental clinics for dental care than soldiers.
Dental Utilization by Soldiers and Their Families

Michael C. Chisick, MAJ(P), DC

Dental Studies Division
U.S. Army Health Care Studies and Clinical Investigation Activity
Fort Sam Houston, Texas

June 1990
Table of Contents

Executive Summary vi

Chapter 1: Introduction 1
1.1 Purpose of the Study 1
1.2 Background 1

Chapter 2: Methods 2
2.1 Study Sample 2
2.2 Study Design 2
2.3 Data Analysis 2
   2.3.1 Data Management 2
   2.3.2 Major Analysis Groups 2
   2.3.3 Key Outcome Variables 2
      2.3.3.1 Interval Since Last Dental Visit 2
      2.3.3.2 Main Reason For Most Recent Dental Visit 3
      2.3.3.3 Nature of Most Recent Dental Visit 3
      2.3.3.4 Source of Dental Care 3
      2.3.3.5 The Active Duty Dependents' Dental Insurance Plan and Dependent Dental Utilization 3

Chapter 3: Results 4
3.1 Sample Size 4
3.2 U.S. Population 4
3.3 Soldiers 4
   3.3.1 Interval Since Last Dental Visit 4
   3.3.2 Main Reason For Most Recent Dental Visit 4
   3.3.3 Nature of Most Recent Dental Visit 5
   3.3.4 Source of Dental Care 5
3.4 Spouses 5
   3.4.1 Interval Since Last Dental Visit 5
   3.4.2 Main Reason For Most Recent Dental Visit 5
   3.4.3 Nature of Most Recent Dental Visit 6
   3.4.4 Source of Dental Care 6
3.5 Children

3.5.1 Source of Dental Care

3.6 Families

3.6.1 The Active Duty Dependents Dental Insurance Plan and Ease of Access to Dental Care

3.6.2 Fragmentation of Dental Care

Chapter 4: Discussion and Recommendations

4.1 Soldiers

4.1.1 Interval Since Last Dental Visit

4.1.2 Main Reason for Most Recent Dental Visit

4.1.3 Nature of Most Recent Dental Visit

4.1.4 Source of Dental Care

4.2 Spouses

4.2.1 Interval Since Last Dental Visit

4.2.2 Main Reason for Most Recent Dental Visit

4.2.3 Nature of Most Recent Dental Visit

4.2.4 Source of Dental Care

4.3 Children

4.3.1 Source of Dental Care

4.4 Families

4.4.1 The Active Duty Dependents Dental Insurance Plan and Ease of Access to Dental Care

4.4.2 Fragmentation of Dental Care

References

Appendix: Survey Instrument and Figures
Executive Summary

In this study, issues related to dental utilization by soldiers and their families are explored. Survey questionnaires were completed by 15,364 enlisted soldiers and 4,529 officers. A subset of 8,663 enlisted personnel and 3,386 officers answered questions about their spouses. Another subset of 4,958 enlisted personnel and 2,125 officers answered questions about their children.

Results show that annual dental utilization by officers (74.6%) and enlisted personnel (68.6%) exceeds that of employed U.S. adults (58.5%). Nearly all soldiers (89% or better) have seen a dentist within the past two years. Nonetheless, 1.8% of officers and 5.6% of enlisted soldiers have never seen a dentist. Within rank groups, as rank increases, annual dental utilization increases and the proportion of soldiers never having seen a dentist decreases. Preventive services are the reason most soldiers recently saw a dentist. Enlisted soldiers are more likely to have dental emergency visits (13%) than officers (8%). Nearly all soldiers (90%) receive their dental care exclusively in military clinics.

Spouses are less likely to regularly seek dental care. According to what soldiers tell us, 48.8% of enlisted spouses and 61.6% of officer spouses seek dental care at least once a year. Over 10% of enlisted spouses and just under 5% of officer spouses have never visited a dentist. Preventive services are the most commonly consumed services by spouses. Nearly half of officer spouses and 58.3% of enlisted spouses seek dental care exclusively from military dental clinics.

Children of soldiers also rely heavily on military dental clinics for care. Forty percent of officers and 60% of enlisted personnel with children who consume dental care report a reliance on military dental clinics as their only source of care.

Only half of soldiers who enrolled in the Active Duty Dependents Dental Insurance Plan think the ADDDIP has eased access to dental care for their families. Most soldiers whose families seek dental care both on and off post perceive this fragmentation of care as a problem.
Chapter 1: Introduction

1.1 Purpose of the Study

The purpose of this study is to explore the dental utilization of soldiers and their families. Specifically, it aims to determine the following: (1) interval since last dental visit for soldiers and their spouses, (2) the main reason (type of procedure) for the most recent dental visit for soldiers and their spouses, (3) the nature (emergency or routine) of the most recent dental visit for soldiers and their spouses, (4) the source (civilian or military clinics) of dental care for soldiers, their spouses, and their children, (5) whether enrollment in the Active Duty Dependents Dental Insurance Plan (ADDDIP) makes it easier for their family to get dental care, and (6) whether fragmentation of care (some on post and some off post) is a problem for their family. Wherever possible, results from this study are compared to results from national surveys.

It is hopeful that results from this study will illustrate the extent to which soldiers and their families are availing themselves to dental care and will identify impediments to dental utilization.

1.2 Background

According to Army Regulation 40-35, every active duty soldier is required to have a dental examination annually (1). Although the Army has a elaborate system for notifying soldiers in their birth month that they are due for an annual dental examination, compliance with AR 40-35 has never been verified. One goal of this study is to determine the extent to which soldiers comply with AR 40-35.

Dental utilization by Army dependents has been explored in two studies (2,3). The sampling of children in these surveys was sound but we did not probe the issue of their source of dental care. We address that issue in this survey. In our previous studies, we could not overcome a reliance on clinic-based, convenience sampling for spouses. Thus, we could not generalize our results to all Army spouses. We overcome that limitation in this survey and expand our questions beyond interval since last dental visit.
Chapter 2: Methods

2.1 Study Sample

Samples of active duty soldiers are randomly selected twice a year for surveys conducted by the Army Personnel Survey Division, Soldier Support Center (SSC). These samples are selected using the last two digits of social security numbers from the Standard Installation/Division Personnel System. Approximately 10% of officers and 5% of enlisted personnel are selected worldwide.

2.2 Study Design

This study collected data on dental utilization by soldiers and their families. Soldiers completed 170-item questionnaires which included 11 questions on dental utilization. Data were collected in spring 1989. The specific topics on dental utilization covered in this survey are discussed in detail in the Key Outcome Variables section (2.3.3) of this report and are presented in Figure 1.

2.3 Data Analysis

2.3.1 Data Management

Completed study forms were screened and edited by the Soldiers Support Center and were entered onto a computer tape. Data analysis was performed by SSC personnel using the Statistical Package for the Social Sciences (SPSS).

2.3.2 Major Analysis Groups

Analysis of the survey data uses frequencies for the study population and subgroups of that population. Where appropriate, results are presented separately for soldiers, spouses, children, and families.

2.3.3 Key Outcome Variables

Results in this report are organized in sections devoted to key outcome variable. These include interval since last dental visit, main reason for most recent dental visit, nature of most recent dental visit, source of dental care, and Active Duty Dependents Dental Insurance Plan and dependent dental utilization.

2.3.3.1 Interval Since Last Dental Visit

We asked soldiers how long it has been since their last dental visit for dental care. Soldiers were allowed to select from the
following answers: (a) I have never received dental care, (b) less than one year, (c) 1-2 years, (d) 3-4 years, and (e) 5 or more years. We also asked soldiers how long it has been since their spouse's last visit for dental care. Options to select from included: (a) my spouse has never received dental care, (b) less than 1 year, (c) 1-2 years, (d) 3-5 years, (e) 5 or more years, and (f) don't know.

2.3.3.2 Main Reason for Most Recent Dental Visit

To determine the mix of dental services soldiers and their spouses are seeking, we asked soldiers what the main reason was for their (or their spouse's) most recent visit for dental care. Soldiers were allowed to select from the following responses: (a) I (or my spouse) have never received dental care, (b) regular check-up/teeth cleaning, (c) tooth filled/repair broken teeth, (d) tooth pulled or other surgery/toothache, (e) bleeding gums or periodontal disease, or (f) other.

2.3.3.3 Nature of Most Recent Dental Visit

To determine the proportion of dental visits that are emergencies, we asked soldiers: "Was your most recent dental visit for emergency or routine dental treatment?" The following responses were offered to select from: (a) I have never received dental care, (b) routine appointment, (c) emergency visit. A similar question was asked about soldier's spouses. We limited our analysis to soldiers and spouses, who were seeking dental care. That is, respondents who have never received dental care were dropped from the analysis.

2.3.3.4 Source of Dental Care

We probed the extent to which soldiers and their families are reliant on military dental clinics by asking "Where do you (your spouse or your children) go for dental care?" Possible responses included: (a) never received dental care, (b) military dental clinic only, (c) civilian dental office only, (d) both military and civilian dental clinics. In our analysis, we excluded those who have never received dental care.

2.3.3.5 The Active Duty Dependents Dental Insurance Plan and Dependents Dental Utilization

We asked soldiers two questions related to how the ADDDIP affects dental utilization by their families. These were simple yes/no/does not apply questions. First, we asked, "Does enrollment in the Active Duty Dependents Dental Insurance Plan make it easier for your family to get the dental care that they need?" Second, we asked, "Is it a problem for your family to seek dental care at both on-post and off-post facilities?" In our analysis, we excluded does not apply responses.
Chapter 3: Results

3.1 Sample Size

For the spring 1989 SSC Survey, questionnaires were completed by 4,524 officers and 15,364 enlisted personnel. Of this sample, 3,386 officers and 8,663 enlisted personnel have spouses and 2,125 officers and 4,958 enlisted personnel have children. Due to non-response and exclusions, sample size may vary.

3.2 U.S. Population

Figure 2 presents the interval since last dental visit for employed U.S. adults under 65 years of age. The main reason for their most recent dental visit is given in Figure 3. The data come from the 1985–86 National Survey of Oral Health in Employed U.S. Adults and Seniors (4). We present this data as a reference.

3.3 Soldiers

3.3.1 Interval Since Last Dental Visit

In Figure 4, we compare the proportion of enlisted personnel, officers, and employed U.S. Adults who have seen a dentist within the past year. Annual dental utilization by officers (74.6%) exceeds that of enlisted personnel (68.6%). Soldiers are more likely to have seen a dentist within the past year than employed U.S. adults (58.5%). However, 1.8% of officers and 5.6% of enlisted personnel have never seen a dentist compared to 1.5% of employed U.S. adults (Figure 5).

Figures 6–11 show interval since last dental visit across rank subgroups. As rank increases, annual dental utilization rates increase and the proportion of soldiers never having seen a dentist decreases.

3.3.2 Main Reason for Most Recent Dental Visit

The main reason soldiers give for their most recent dental visit is shown in Figures 12 and 13. The leading reason for both officers (71.5%) and enlisted personnel (61.8%) is oral prophylaxis or examinations. Soldiers are more likely to go to a dentist than employed adults (57.3%) (Figure 3). The second most common service sought by soldiers and or civilians is fillings. Officers (17.8%) and enlisted personnel (19.9%) are more likely to seek restorative care than employed adults (13.3%).

For officers (5.3%) and enlisted personnel (11.4%), the third most common reason for seeing a dentist is for extractions. For
employed adults, it is other dental services (for example, dentures and so on). Periodontal treatment or toothaches are the least most common reason why soldiers or civilians seek dental care.

3.3.3 Nature of Most Recent Dental Visit

Figures 14 and 15 reveal that while the most recent dental visit for nearly all soldiers is for routine care, enlisted personnel are more likely to make an emergency visit (13%) than officers (8%). Comparisons across rank subgroups show that emergency dental visits are more common among junior (E1-E4) enlisted personnel (15%) and senior (O4-06) officers (9.4%).

3.3.4 Source of Dental Care

About 90% of officers and enlisted personnel go to military clinics exclusively for their dental care (Figures 16 and 17). Less than 5% seek dental treatment from civilian dentists only.

3.4 Spouses

3.4.1 Interval Since Last Dental Visit

According to enlisted soldiers, 48.8% of their spouses have seen a dentist within the past year (Figure 18). This is lower than the annual utilization of officer's spouses (51.6%) and employed adults (58.5%). The proportion of enlisted (11.9%) and officer (4.3%) spouses who have never seen a dentist exceeds that of employed U.S. adults (1.5%) (Figure 19).

Figures 20-25 demonstrate that within rank subgroups, there exists a direct relationship between sponsor’s rank and the annual dental utilization rate of spouses. The figures also show an inverse relationship between sponsor’s rank and the proportion of spouses who have never seen a dentist. Nearly one-fifth of E1-E4 soldiers report that their spouses have never seen a dentist (Figure 23).

3.4.2 Main Reason for Most Recent Dental Visit

According to soldiers, the main reason for their spouse's most recent dental visit is oral prophylaxis or examinations (Figures 26 and 27). Officer spouses (67.1%) are more likely to be seeking these services than enlisted spouses (58.2%) or employed adults (57.3%). The next most common services sought are fillings followed by extractions. Periodontal treatment or toothaches are the least common. About one-fifth of soldiers' spouses went to the dentist for fillings versus 13.3% of U.S. employed adults (Figure 3).
3.4.3 Nature of Most Recent Dental Visit

While the most recent dental visit for most spouses is for routine care, 11.9% of officer spouses (Figure 28) and 17% of enlisted spouses (Figure 29) are seeking emergency care. Comparisons across rank subgroups show that emergency dental visits are more common for spouses of junior (E1-E4) and middle grade (E5-E6) enlisted personnel (17.3%) and for spouses of warrant officers (14.6%).

3.4.4 Source of Dental Care

Figures 30-37 show that nearly half of officer spouses and 58.3% of enlisted spouses seek dental care from military dental clinics exclusively. Across rank subgroups, reliance on military dental clinics is greatest by junior officer (O1-O3) spouses (56.6%) and middle grade enlisted (E5-E6) spouses (62%). Spouses of senior officers (O4-O6) are the only rank subgroup to show a preference for care from civilian dentists only (Figure 33), but this is by a slim margin.

3.5 Children

3.5.1 Source of Dental Care

Figure 38 reveals that officers' children are nearly equally likely to receive care from military or civilian dentists. However, the children of enlisted personnel are much more likely to be reliant on military dental clinics (Figure 42). While only 42.4% of officers' children receive their dental care exclusively in military dental clinics, nearly 60% of children of enlisted personnel do. A majority of children with sponsors from all rank subgroups (Figures 39-41 and 43-45), except warrant officers and senior officers (O4-06), go to military dental clinics exclusively for dental care. Children of E5-E6s are the most reliant on military dental clinics (61.8%) as their only source of care (Figure 44). Children of 04-06s (33.8%) are the least reliant (Figure 45). Figure 45 shows that the only rank subgroup to distinctly use civilian dentists preferentially for their children are 04-06s.

3.6 Families

3.6.1 The Active Duty Dependent Dental Insurance Plan and Ease of Access to Dental Care

Figures 46 and 47 show the proportion of officer and enlisted families enrolled in the Active Duty Dependents Dental Insurance Plan who think the ADDDIP makes it easier for their family to get dental care. Overall, roughly half of enlisted personnel and
officers believe the ADDDIP does improve their family’s access to care. However, this belief is not evenly held across rank subgroups. E1-E4s (51.9%) and O4-O6s (59.2%) are the only rank subgroups where a majority hold this view.

3.6.2 Fragmentation of Dental Care

Both officers and enlisted personnel report that receiving some dental care on post and some dental care off post is a problem for their families (Figures 48 and 49). Overall, officers (63.2%) are more likely to perceive this as a problem than enlisted personnel (56.9%). While this perception is fairly constant across officer rank subgroups, it increases as enlisted rank increases. Just over half of E1-E4s believe fragmentation of dental care is a problem for their families versus two-thirds of E7-E9s (Figure 49).
Chapter 4: Discussion and Recommendations

4.1 Soldiers

4.1.1 Interval Since Last Dental Visit

Annual dental utilization by soldiers is high, but it is far from 100% compliance with AR 40-35. The lower utilization seen among junior ranks may be due, in part, to recent accession into the Army. That is some soldiers may not have received an annual dental check-up as prescribed in AR 40-35 because they have not been in the Army a year.

For all ranks, job responsibilities, to include lengthy field training exercises, and transitions, such as military or civilian schooling, assignment transfers, and so on, might prevent a soldier from fulfilling the annual dental examination requirement. Indeed that 88% or more of soldiers from all ranks have seen a dentist within the past two years suggests that most soldiers are trying to comply with AR 40-35.

A relatively small percentage of soldiers has never seen a dentist. Analysis across rank subgroups (data not presented in this report) shows that this problem resides mostly in junior ranks. Again, many of these may be recent accessions who have not been in the service for an entire year. However, the failure to ever see a dentist is not confined to junior ranks. Both senior officers and senior enlisted personnel report never having been to a dentist. Although this small group probably has little impact, overall, on dental readiness with regard to combat deployability, they could create difficulties in post-mortem identification in a mass casualty situation. Locating non-compliers with AR 40-35 should identify soldiers who have never seen a dentist. However, many of these soldiers, over the years, have been very clever at evading detection and may continue to do so. Is the benefit of locating them worth the effort?

Annual dental utilization by soldiers in this study compares very favorably with employed civilians in a national sample. However, caution must be applied in drawing conclusions from this comparison as the samples differ in many important respects. The national sample includes adults from 18-65 years of age and a near even distribution of males and females. Our sample consists of mostly young males. Thus, to make a valid comparison between these two groups, it would be necessary to stratify both samples by sex and age. We plan on pursuing this analysis in the near future.

4.1.2 Main Reason for Most Recent Dental Visit

Results from this study show that preventive care, i.e. oral prophylaxis and examinations, constitute the bulk of dental
services consumed by soldiers. This finding is not surprising in light of the fact that this also holds for employed civilians. That soldiers consume proportionately more preventive care than employed civilians may be due to differences in age composition of the two samples. The Army sample is younger than the national one.

The difference in the mix of dental services consumed by officers and enlisted personnel is due primarily to a greater proportion of extractions among enlisted soldiers. Again, this difference in case mix probably reflects age related patterns of dental disease. Young enlisted soldiers are in an age bracket where removal of third molars is a common treatment need.

4.1.3 Nature of Most Recent Dental Visit

The greater proportion of emergency dental visits by enlisted soldiers compared to officers may be due to age related patterns of dental disease, differences in educational level, and differences in economic backgrounds.

As mentioned in section 4.1.2, young enlisted soldiers are in an age bracket where removal of third molars is a common treatment need. Many times third molars are asymptomatic until a sudden flare up of pain and swelling occurs. We speculate that a significant proportion of the emergency dental visits reported by E1-E4s were due to symptomatic third molars.

Education level also influences health behavior. There is a strong direct relationship between annual dental utilization and education level. Better educated individuals are more prone to seek dental care on a regular basis (5) and develop preventive health behaviors. Regular users of care are certainly less likely to experience dental emergencies due to neglect. Thus, the higher education levels of officers may partially explain their lower rate of emergency visits compared to enlisted personnel.

Finally, differences in economic background may account for some difference in the rate of emergency visits between these two groups. There is a strong direct relationship between annual dental utilization and income level (5). This effect may be less among soldiers because they have access to free dental care regardless of income level. However, the effect may still be strong among soldiers who have recently entered the Army. The unusually high level of emergency visits by junior enlisted personnel may be due to preventive health behaviors they held prior to entering the service. The greater likelihood of senior officers seeking emergency care versus junior officers is due perhaps to greater job responsibilities and time pressures. Officers with demanding command and staff positions often feel they have little time to attend to routine health matters.
4.1.4 Source of Dental Care

That over 90% of soldiers receive their dental care exclusively from military clinics should not be surprising. The care is without cost and access is not restricted. Apparently, soldiers must also be very pleased with the quality of care they receive in Army dental clinics. Otherwise, they could still pay for care in the civilian sector. The small proportion of soldiers who are seeking care exclusively from civilian dentists may represent dissatisfaction with care in military dental clinics. However, we speculate instead, that these soldiers are assigned to duties where access to military dental care is not readily available (for example, long term civilian training, recruiting duty, and so on).

4.2 Spouses

4.2.1 Interval Since Last Dental Visit

While the annual dental utilization by officer spouses approximates that of employed U.S. adults, the annual dental utilization by enlisted spouses is much lower. Since care for dependents in military clinics is provided on a space available basis, this means that many spouses will need to seek care from civilian dentists if they are to receive care on a regular basis. The data shows that officer spouses are more willing to do this than enlisted spouses. We speculate that this greater willingness to seek civilian dental care may be due to higher income levels in officer versus enlisted households. It may also be due, in part, to higher education levels of officer versus enlisted spouses.

4.2.2 Main Reason for Most Recent Dental Visit

The mix of dental services sought by spouses of soldiers differs in two main areas. Officer spouses seek a greater proportion of preventive services while enlisted spouses seek a greater proportion due to extractions. We speculate that this difference is due mostly to age related patterns of dental disease. Since the bulk of the enlisted force is E1-E4s, the average age of enlisted wives is probably lower that the average age of officer wives. A sizable proportion of enlisted wives are in their late teens or early twenties, an age bracket in which extraction of third molars is a common treatment need.

4.2.3 Nature of Most Recent Dental Visit

Just as with soldiers, the greater proportion of emergency dental visits by enlisted versus officer spouses may be due to age related patterns of dental disease and socioeconomic characteristics.
Removal of symptomatic third molars is a common treatment need of spouses of E1-E4s. These often present as emergencies. Too, the strong direct relationships between annual dental utilization and education and income (5) have a greater impact here than with soldiers because access to dental care for dependents in military dental clinics is provided on a space available basis. Unlike soldiers, spouses do not have consistent, guaranteed access to free dental care.

Because levels of access to space available dental care for dependents can vary substantially from one military installation to another, spouses may be more likely to seek emergency care for two reasons. First, they may defer seeking routine dental care at assignments where access to military clinics is low, hoping that access will be better at the sponsor's next assignment. This intentional neglect may be long enough to push some dental conditions to emergencies. Second, spouses may claim a routine need is emergent hoping to get treatment. Even in locations where access to space available dependent dental care is low, spouses are not refused legitimate emergency care.

4.2.4 Source of Dental Care

Despite the fact that dependent dental care is provided on a space available basis in military clinics and an alternative (dental insurance) exists, soldiers' spouses are still heavily reliant on military dental clinics as their only source of care. However, the findings of this study must be interpreted with some caution. It must be kept in mind that nearly one-third of the Army is assigned overseas. Spouses in these locations have no choice but a total reliance on military dental clinics for care. Likewise, there are some remote U.S. assignments where this is true.

We recommend that this data be analyzed separating CONUS from OCONUS assignments and splitting CONUS locations into low, medium, and high access levels for dependent dental care. We believe that assignment location will have a major impact on source of dental care for spouses.

The difference, between officer and enlisted spouses and between junior and senior officer spouses in preference for civilian dentists we attribute to higher discretionary income in officer, especially senior officer, households.

4.3 Children

4.3.1 Source of Dental Care

Just as with spouses, the findings of this study on the proportion of soldier's children who receive dental care
exclusively in military clinics must be interpreted with caution. Since this is a worldwide sample, soldiers with children may be assigned at overseas and remote U.S. locations where access to non-military dental care would not be available or would be extremely limited. The data should be analyzed stratifying across assignment location.

Nonetheless, it is safe to conclude that the children of enlisted soldiers are more reliant on military dental clinics for care that the children of officers. Again, we believe this is related to differences in the amount of discretionary income available to both groups.

4.4 Families

4.4.1 The Active Duty Dependents Dental Insurance Plan and Ease of Access to Dental Care

Response to the question was limited to enrollees in the plan. That only half of enrollees think the ADDDIP makes it easier for their families to get dental care should be a matter of concern to makers of military health policy. Perhaps cost is still perceived as a barrier to access for some. Perhaps others perceive the plan's limited range of services as not easing access to care. Or perhaps, Army families face long queues for care in the civilian sector, or have difficulties finding a civilian dentist. We recommend that these issues be probed in greater depth on another SSC survey.

4.4.2 Fragmentation of Dental Care

Enrollees in the ADDDIP whose families are seeking care both on and off post perceive fragmentation of care as a problem. This is likely to remain to be so long as the ADDDIP covers a limited range of services and dependents are allowed to seek dental services not covered under the ADDDIP in military dental clinics.
References


Appendix:
Survey Instrument
and
Figures
119. How long has it been since your last visit for dental care?
A. Does not apply; I have never received dental care.
B. Less than 1 year
C. 1 - 2 years
D. 3 - 4 years
E. 5 or more years

120. Where do you go for dental care?
A. Does not apply; I have never received dental care.
B. Military dental clinic only
C. Civilian dental office only
D. Both military and civilian dental clinics

121. What was the main reason for your most recent visit for dental care?
A. Does not apply; I have never received dental care.
B. Regular checkup/teeth cleaning
C. Tooth filled/repair broken tooth
D. Tooth pulled or other surgery/toothache
E. Bleeding gums or periodontal disease
F. Other

122. Was your most recent dental visit for emergency or routine dental treatment?
A. Does not apply; I have never received dental care.
B. Routine appointment
C. Emergency visit

IF YOU ARE NOT MARRIED,
GO TO QUESTION 127 ON PAGE 31.

123. How long has it been since your spouse's last visit for dental care?
A. Does not apply; my spouse has never received dental care.
B. Less than 1 year
C. 1 - 2 years
D. 3 - 4 years
E. 5 or more years
F. I do not know.

124. Where does your spouse go for dental care?
A. Does not apply; my spouse has never received dental care.
B. Military dental clinic only
C. Civilian dental office only
D. Both military and civilian dental clinics

SPRING 1989 OFFICER QUESTIONNAIRE PAGE 30
DENTAL CARE UTILIZATION BY ARMY FAMILIES (CONTINUED)

125. What is the main reason for your spouse's most recent visit for dental care?
   A. Does not apply; my spouse has never received dental care.
   B. Regular checkup/teeth cleaning
   C. Tooth filled/repair broken tooth
   D. Tooth pulled or other surgery
   E. Bleeding gums or periodontal disease/toothache
   F. Other

126. Was your spouse's most recent dental visit for emergency or routine treatment?
   A. Does not apply; my spouse has never received dental care.
   B. Routine appointment
   C. Emergency visit
   D. I do not know.

IF YOU SKIPPED QUESTIONS 123 THROUGH 126 BECAUSE YOU ARE NOT MARRIED, RESUME ANSWERING QUESTIONS HERE.

127. Where do your children go for dental care?
   A. Does not apply; I have no children.
   B. Does not apply; my children have never received dental care.
   C. Military dental clinic only
   D. Civilian dental office only
   E. Both military and civilian dental clinics

128. Does enrollment in the Family Member Dental Insurance Plan (FMDIP) make it easier for your family to get the dental care that they need?
   A. Does not apply; I am not enrolled in the FMDIP.
   B. Yes
   C. No

129. Is it a problem for your family to seek dental care at both on-post and off-post facilities?
   A. Does not apply; I have no spouse or family.
   B. Does not apply; my family gets all of its dental care on post.
   C. Does not apply; my family gets all of its dental care off post.
   D. Yes
   E. No
TIME SINCE LAST DENTAL VISIT
FOR U S POPULATION *

> 5 YRS 8.3 %
3-5 YRS 10.6 %
1-2 YRS 21.1 %
NEVER 1.5 %
< 1 YR 58.5 %

* SOURCE: 1985 - 86 NAT'L SURVEY OF ORAL HEALTH
IN EMPLOYED U S ADULTS AND SENIORS

Figure 2
MAIN REASON FOR MOST RECENT DENTAL VISIT FOR U.S. POPULATION

- PERIO/T.A.: 4.1%
- EXTRACTION: 11.0%
- FILLING: 13.3%
- OTHER: 14.3%
- PROPHY/EXAM: 57.3%

Figure 3
PERCENT OF SOLDIERS SEEING A DENTIST WITHIN PAST YEAR

% IN PAST YEAR

68.6 %  74.6 %  58.5 %

ENLISTED  OFFICER  US POP

BY RANK GROUP

Figure 4
PERCENT OF SOLDIERS WHO HAVE
NEVER SEEN A DENTIST

% NEVER
50
40
30
20
10
0

5.6%
1.8%
1.5%

ENLISTED
OFFICER
US POP

Figure 5
TIME SINCE LAST DENTAL VISIT

FOR W1 - W4 SOLDIERS

- < 1 YR: 75.4%
- 1-2 YRS: 20.9%
- 3-5 YRS: 1.0%
- NEVER: 1.0%
- > 5 YRS: 1.6%

Figure 6
TIME SINCE LAST DENTAL VISIT

FOR 01-03 SOLDIERS

- < 1 YR: 72.3%
- 1-2 YRS: 22.1%
- 3-5 YRS: 2.4%
- NEVER: 0.7%
- > 5 YRS: 2.5%
TIME SINCE LAST DENTAL VISIT

FOR O4 - O6 SOLDIERS

- < 1 yr: 78.4%
- 1-2 yrs: 18.1%
- 3-5 yrs: 1.8%
- > 5 yrs: 0.7%
- Never: 1.0%

Figure 8
TIME SINCE LAST DENTAL VISIT
FOR E1 - E4 SOLDIERS

- < 1 YR: 67.5%
- 1-2 YRS: 21.2%
- 3-5 YRS: 2.3%
- NEVER: 7.4%
- > 5 YRS: 1.6%
TIME SINCE LAST DENTAL VISIT

FOR E5 - E6 SOLDIERS

- < 1 YR: 69.7%
- 1-2 YRS: 23.4%
- 3-5 YRS: 2.7%
- NEVER: 3.4%
- > 5 YRS: 0.8%
TIME SINCE LAST DENTAL VISIT

FOR E7 - E9 SOLDIERS

- < 1 YR: 71.4%
- 1-2 YRS: 22.1%
- 3-5 YRS: 2.9%
- NEVER: 2.1%
- > 5 YRS: 1.5%
MAIN REASON FOR MOST RECENT DENTAL VISIT FOR OFFICERS

- PROPHY/EXAM: 71.5%
- FILLING: 17.8%
- EXTRACTION: 5.3%
- OTHER: 4.1%
- PERIO/T.A.: 1.3%
MAIN REASON FOR MOST RECENT DENTAL VISIT FOR ENLISTED SOLDIERS

PERIO/T.A. 1.5%
EXTRACTION 11.4%
FILLING 19.9%
PROPHY/EXAM 61.8%

Figure 13
PERCENT SOLDIERS WHOSE MOST RECENT DENTAL VISIT WAS AN EMERGENCY

% YES
50
40
30
20
10
0

7.9% 7.2% 9.4% 8.0%
W1-W4 01-03 04-06 ALL OFF

Figure 14
PERCENT SOLDIERS WHOSE MOST RECENT DENTAL VISIT WAS AN EMERGENCY

% YES

- 15.0% E1-E4
- 10.8% E5-E6
- 9.9% E7-E9
- 13.0% ALL ENL

Figure 15
Source of Dental Care for Officers

- Civilian Only: 2.3%
- Military Only: 90.8%
- Both: 6.9%
SOURCE OF DENTAL CARE

FOR ENLISTED SOLDIERS

- BOTH 6.9%
- CIVILIAN ONLY 4.1%
- MILITARY ONLY 89.0%

PERCENT OF USERS

Figure 17
PERCENT OF SPOUSES SEEING A DENTIST WITHIN PAST YEAR

% IN PAST YEAR

100

90

80

70

60

50

40

30

20

10

0

48.8 %

61.6 %

58.5 %

ENLISTED

OFFICER

US POP

Figure 18
PERCENT OF SPOUSES WHO HAVE NEVER SEEN A DENTIST

% NEVER

ENLISTED

OFFICER

US POP

11.9%

4.3%

1.5%

LT RANK GROUP

Figure 19
TIME SINCE LAST DENTAL VISIT

FOR W1 - W4 SPOUSES

- < 1 YR: 59.3%
- 1-2 YRS: 23.6%
- 3-5 YRS: 8.5%
- > 5 YRS: 3.8%
- UNKNOWN: 1.4%
- NEVER: 3.4%
TIME SINCE LAST DENTAL VISIT

FOR 01 - 03 SPOUSES

- < 1 YR: 57.6%
- 1-2 YRS: 25.0%
- 3-5 YRS: 5.7%
- > 5 YRS: 2.7%
- UNKNOWN: 3.1%
- NEVER: 5.9%

Figure 21
TIME SINCE LAST DENTAL VISIT

FOR 04 - 06 SPOUSES

- < 1 YR: 68.1%
- 1-2 YRS: 20.1%
- 3-5 YRS: 5.6%
- > 5 YRS: 2.1%
- UNKNOWN: 1.6%
- NEVER: 2.5%

Figure 22
TIME SINCE LAST DENTAL VISIT

FOR E1 - E4 SPOUSES

- < 1 YR: 44.7%
- 1-2 YRS: 20.9%
- 3-5 YRS: 5.9%
- > 5 YRS: 1.8%
- UNKNOWN: 9.6%
- NEVER: 17.1%
TIME SINCE LAST DENTAL VISIT

FOR E5 - E6 SPOUSES

- < 1 YR: 50.8%
- 1-2 YRS: 25.0%
- 3-5 YRS: 7.2%
- > 5 YRS: 1.9%
- UNKNOWN: 5.8%
- NEVER: 9.4%

Figure 24
TIME SINCE LAST DENTAL VISIT
FOR E7 - E9 SPOUSES

- < 1 YR: 54.3%
- 1-2 YRS: 26.6%
- 3-5 YRS: 8.1%
- > 5 YRS: 2.9%
- UNKNOWN: 2.7%
- NEVER: 5.5%

Figure 25
MAIN REASON FOR MOST RECENT DENTAL VISIT FOR OFFICER SPOUSES

- PROPHY/EXAM 67.1%
- PERIO/T.A. 2.7%
- EXTRATION 5.4%
- FILLING 19.4%
- OTHER 5.4%

Figure 26
Figure 27

MAIN REASON FOR MOST RECENT DENTAL VISIT FOR ENLISTED SPOUSES

- PROPHY/EXAM: 58.2%
- FILLING: 20.0%
- EXTRACTION: 10.5%
- PERIO/T.A.: 3.3%
- OTHER: 7.9%
Percent spouses whose most recent dental visit was an emergency

By officer group

Figure 28
PERCENT SPOUSES WHOSE MOST RECENT DENTAL VISIT WAS AN EMERGENCY

% YES

17.4%  17.3%  15.0%  17.0%

E1-E4  E5-E6  E7-E9  ALL ENL

Figure 29
SOURCE OF DENTAL CARE
FOR OFFICER SPOUSES

PERCENT OF USERS

- BOTH: 18.5%
- CIVILIAN ONLY: 33.0%
- MILITARY ONLY: 48.5%

Figure 30
SOURCE OF DENTAL CARE
FOR W1 - W4 SPOUSES

PERCENT OF USERS

CIVILIAN ONLY
31.7%

MILITARY ONLY
48.4%

BOTH
19.9%
SOURCE OF DENTAL CARE

FOR O1 - O3 SPOUSES

- BOTH 16.1%
- CIVILIAN ONLY 27.3%
- MILITARY ONLY 56.6%

PERCENT OF USERS

Figure 32
SOURCE OF DENTAL CARE

FOR 04 - 06 SPOUSES

PERCENT OF USERS

Figure 33
SOURCE OF DENTAL CARE
FOR ENLISTED SPOUSES

PERCENT OF USERS

BOTH
15.8 %

CIVILIAN ONLY
25.8 %

MILITARY ONLY
58.3 %
SOURCE OF DENTAL CARE
FOR E1 - E4 SPOUSES

- BOTH 15.6%
- CIVILIAN ONLY 28.9%
- MILITARY ONLY 55.4%

PERCENT OF USERS
Figure 35
SOURCE OF DENTAL CARE

FOR E5 - E6 SPOUSES

PERCENT OF USERS

Figure 36
SOURCE OF DENTAL CARE
FOR E7 - E9 SPOUSES

BOTH
16.4%

CIVILIAN ONLY
27.9%

MILITARY ONLY
55.7%

PERCENT OF USERS

Figure 37
SOURCE OF DENTAL CARE

FOR OFFICER CHILDREN

BOTH
19.6%

CIVILIAN ONLY
38.0%

MILITARY ONLY
42.4%

PERCENT OF USERS

Figure 38
SOURCE OF DENTAL CARE

FOR W1 - W4 CHILDREN

PERCENT OF USERS

Figure 39
SOURCE OF DENTAL CARE

FOR 01 - 03 CHILDREN

PERCENT OF USERS

Figure 40
SOURCE OF DENTAL CARE

FOR 04 - 06 CHILDREN

PERCENT OF USERS

Figure 41
SOURCE OF DENTAL CARE
FOR ENLISTED CHILDREN

PERCENT OF USERS

Figure 42
SOURCE OF DENTAL CARE

FOR E1 - E4 CHILDREN

BOTH
12.6%

CIVILIAN ONLY
33.6%

MILITARY ONLY
53.8%

PERCENT OF USERS

Figure 43
SOURCE OF DENTAL CARE
FOR E5 - E6 CHILDREN

PERCENT OF USERS

Figure 44
SOURCE OF DENTAL CARE
FOR E7 - E9 CHILDREN

PERCENT OF USERS

Figure 45
"Does ADDIP make dental care easier for your family to get?"

% YES

<table>
<thead>
<tr>
<th>Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1-W4</td>
<td>46.2%</td>
</tr>
<tr>
<td>01-03</td>
<td>47.7%</td>
</tr>
<tr>
<td>04-06</td>
<td>59.2%</td>
</tr>
<tr>
<td>ALL OFF</td>
<td>52.3%</td>
</tr>
</tbody>
</table>
"DOES ADDDIP MAKE DENTAL CARE EASIER FOR YOUR FAMILY TO GET?"

% YES

51.9%  47.0%  45.8%  48.7%

E1-E4  E5-E6  E7-E9  ALL ENL

Figure 47
PERCENT OFFICER FAMILIES PERCEIVING FRAGMENTED CARE AS A PROBLEM

% YES

<table>
<thead>
<tr>
<th></th>
<th>W1-W4</th>
<th>01-03</th>
<th>04-06</th>
<th>ALL OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>63.5%</td>
<td>61.2%</td>
<td>65.6%</td>
<td>63.2%</td>
</tr>
</tbody>
</table>

Figure 48
PERCENT ENLISTED FAMILIES PERCEIVING FRAGMENTED CARE AS A PROBLEM

% YES

57.6%  58.7%  66.2%  56.9%

E1-E4  E5-E6  E7-E9  ALL ENL

Figure 49