The Utilization of Outpatient Laboratory Resources at Ireland Army Community Hospital After Implementation of Tricare

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THE UTILIZATION OF OUTPATIENT LABORATORY RESOURCES AT IRELAND ARMY COMMUNITY HOSPITAL AFTER IMPLEMENTATION OF TRICARE

A Thesis
Presented to
the Faculty of the Department of Public Health
Western Kentucky University
Bowling Green, Kentucky

In Partial Fulfillment
of the Requirements for the Degree
Master of Science

By
Susan R. Seeley
December, 1999
THE UTILIZATION OF OUTPATIENT LABORATORY RESOURCES AT
IRELAND ARMY COMMUNITY HOSPITAL AFTER THE IMPLEMENTATION OF
TRICARE

Date Recommended December 2, 1999

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Dean, Graduate Studies
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The purpose of this study was to compare outpatient laboratory utilization patterns of active duty and retired military personnel and their dependents before and after the implementation of TRICARE. A stratified random sample was taken of patient test results over a two year period resulting in a sample size of 104 observations. The Complete Blood Count (CBC) results were used as indicators for the study. Data was gathered on the patient’s rank, active duty/retiree status, age, dependent status, and gender. Additionally, the total number of tests were recorded for the year prior to the introduction of TRICARE and after implementation of TRICARE at Ireland Army Hospital in Fort Knox, Kentucky. It was determined that there was a dramatic decrease in the utilization patterns...
of the retiree population. The mean age of the year 2 group was much younger, and changes in enlisted personnel utilization were noted. A decrease in the number of tests performed was also noted. These results are relevant to the Laboratory Director and the Commander of the installation.
CHAPTER 1
INTRODUCTION

The military health care system is evolving to mimic the managed care systems in the civilian sector. The effects of managed care have reached the military, and these changes are inevitable for this system to remain viable. The growing costs of health care and military downsizing play a significant role in the need for change. In order to remain competitive, the Department of Defense instituted the new health care system labeled TRICARE (TRICARE newsletter, 1996).

Since the end of the Cold War, the United States military has been downsizing. By the end of 1997, 35% of the military hospitals in the United States had closed. During that same period of time (1989-1997), the number of people that require health care in the military system decreased by only 9%. Health care workers in the military have also decreased dramatically. The mission of the military health service is to maintain a medical corps that is combat ready and peacetime ready. The high cost of this
training and retention has contributed to the decrease in the number of health care workers in the military. All of these factors contributed to the need for a more cost effective health care system (On-line: wramc.amedd).

In the past, service members and their dependents were allowed free health care in all of the military treatment facilities. Five of the armed services were included in the military health service: the Army, Air Force, Navy, Marines and the Coast Guard. Care was also available to the members of the National Guard and the Reserves for each respective state. As an active duty member who had completed his/her 20 years of service, he/she was still given access to this service as a retiree (Catledge, interview).

As the years passed and managed care took hold and as United States military budget was decreased, it became obvious that this free service could not remain in place. Health care costs and downsizing in the military were at the root of this problem. In 1993, the Department of Defense instituted TRICARE after several key meetings. It was decided at the time that the military health care system would follow the managed care model to keep pace with the civilian sector. TRICARE would be the answer to congressional concerns. It would address rising costs,
constrained budgets, patient dissatisfaction and access to health care. At the same time, combat readiness would also be maintained (Joseph, 1997).

For the purpose of TRICARE the United States was divided into thirteen regions. Kentucky falls into region five. The latest TRICARE contract for this area went into effect in January of 1999, so there is almost 10 months of data that have been collected to determine the success or failure of TRICARE in this area. These data are available for many departments of the hospitals that are affected by TRICARE. One of these departments is the laboratory at Ireland Army Hospital at Fort Knox (Catledge, interview, September 20, 1996).

It is well known that older people utilize more outpatient laboratory services than do younger people. As people age, their demand for health care and laboratory services increases. As the population ages, demand for services will increase. Demographic changes resulting in larger numbers of elderly people will be increasingly important in health care financial decisions (Henry, 1991). Historically, a large portion of patients seen at Ireland Army Hospital were elderly retirees. However, TRICARE altered the financial incentives facing retirees. With the advent of TRICARE, further changes may occur. Access to
health care with the new system is no longer available to everyone. Many members are free to select options other than the military treatment facility laboratory.

Military retirees are now required to pay out of pocket costs and at age 65, Medicare eligible patients will not be allowed care unless TRICARE Senior Prime is passed. At this point, they will be eligible for care on a space available basis similar to retirees. They will have to carry Medicare Part A and B and TRICARE Senior Prime will act as an HMO. A trial program for military retirees over the age of 65 took effect in 1997 and falls under “Medicare simulation.” This term is used to describe the DoD program that will operate at DoD expense. This program will be offered in only six of the regions and only at the lead agent centers, offering services to Medicare recipients (On-line: www.wramc.army.mil). If people who received free care in the past are now required to pay for services, their demand for these services may decrease. Demand for most medical services is price elastic and elasticity changes with the amount that the consumer must pay (Miller, 1997). Thus, utilization other health care resources can have a dramatic effect on the utilization and management in military facilities.
PURPOSE:

The purpose of this study is to determine if there was an age specific change in the utilization of laboratory resources after the introduction of TRICARE. The study took place at the Ireland Army Hospital laboratory and tracked outpatient utilization of laboratory resources.

NEED FOR THE STUDY:

There are several considerations that an effective laboratory manager must take into consideration when operating a successful clinical laboratory. These include:

- There is downward pressure on revenue by payors seeking to control health care expenditures;
- Laboratories are in a very competitive market and the lowest possible cost must be sought;
- Increased quality assurance will be demanded;
- Demand for services will increase as the population ages;
- Demand for new technology will continue, but with added competition, where this did not exist in the past. New competitors must sell their technology based on quality and price instead of need for new technology (Henry, 1991).
The laboratory manager will need to constantly monitor inappropriate and unnecessary use, be able to budget for the laboratory, and still ensure quality results (Henry, 1991). With the rising costs of laboratory supplies, it would be beneficial to the laboratory management to know which groups of people generate the most utilization. If the utilization of one age group has increased, tests that are specific for that group can be purchased in larger volume, generating potential savings. Laboratory tests for age groups that are declining in use can be shipped to a reference lab either in the system or in the civilian sector. Two of the main reference laboratories for the military are at Walter Reed Army Medical Center in the Washington D.C area and at Brooks Army Medical Center in San Antonio, Texas (On-line: brooks.af.mil).

The laboratory manager for each laboratory is an integral part of the Laboratory Joint Working Group. This group is responsible for the establishment of goals and strategies to facilitate high quality competitive laboratory services in a managed care environment. This Tri-service committee was formed to determine the costs of laboratory medicine. The functions of the group are as follows:
• To establish inter and intra-Service networks within each region.
• To develop and implement standard laboratory medicine costing and billing policies for DoD;
• To standardize communication protocols for laboratory data transfer;
• To provide reference laboratory services in the most cost-effective manner;
• To develop mechanisms to monitor and improve clinical utilization of laboratory testing.

The information garnered from this study cannot be generalized to other settings; however, it may be of interest to military lab directors and may suggest the need for further studies (Joseph, 1996).

HYPOTHESIS:

It is hypothesized that since the onset of TRICARE, the age specific use of resources in the laboratory has shifted from the retiree age group to the active duty group. Utilization for the retiree group will have declined and a larger percentage of resources will be utilized by the active duty population in the post TRICARE era. The null hypothesis will be accepted as there is no
significant change in the number of personnel seen, by rank or age, following the implementation of TRICARE.

DEFINITIONS:

1. **TRICARE** - the military managed care form of health care that encompasses the three main services.

2. **MTF** - Military treatment facility

3. **Active duty** - a service member is currently serving the Military as part of the regular service.

4. **Retiree** - applies to military service members that are either medically retired or have served twenty or more years in the service.

5. **Primary care manager (PCM)** - a patient’s principal Provider for routine medical needs. He/she is responsible for monitoring the continuity of care and handles all referrals for testing and specialty care.

6. **DoD** - Department of Defense.

7. **Beneficiary** - member that is entitled to health care benefits.

8. **CHAMPUS** - Civilian Health and Medical Program of the Uniformed Services. Old type of cost sharing program available to beneficiaries when access to medical care was not available.

9. **TRICARE Prime** - the TRICARE option that is similar to
The managed care HMO.

10. **TRICARE Extra** - Preferred provider network where the Provider charges lower rates to military members.

11. **TRICARE STANDARD** - system similar to the old CHAMPUS system.

12. **CHCS** - Composite Health care system. The information management system for Ireland Army Hospital.

13. **Catchment Area** - geographic area represented by a Circle of approximately 40 miles in radius around an MTF.

14. **Lead Agent** - the central command of each region within The TRICARE network. It is usually a major medical Center. (On line: www.jsnmarketing.com).
CHAPTER 2
LITERATURE REVIEW

There are thirteen regions in the TRICARE system. Each of these regions has a lead agent centered around a military medical center. The Army serves as a lead agent for five regions, the Air Force for four, and the Navy for two. Lead agents for the capital area and Europe alternate among the services. Lead agents are responsible for the coordination of the total health care delivery system. Ongoing evaluations, resource utilization, access and clinical services are all responsibilities of the lead agent. The lead agent for region 5 is Wright Patterson Air Force Base (TRICARE presentation, 1996).

In each region, a support contractor is designated. The contractor assumes risk in the form of a capitation payment for all of the beneficiaries in that area. A modified capitation-based methodology is used. Each military department develops its own service-specific methodology to allocate resources. The methodologies must contain the total cost per beneficiary and total number in
the covered population (On-line: www.tricare.osd.mil). The region five contract was awarded to Anthem Blue Cross/Blue Shield. Beneficiaries in each catchment area were counted, and a single capitation rate was fixed for all members. In each area, the military treatment facility (MTF) attempts to enroll as many people as possible in the TRICARE network because revenues are based upon the number of enrolled people in the catchment area. If the members seek care outside the network, this money is lost to the MTF. For that reason, it is imperative that the MTF remain competitive by gaining as many enrollees as possible. The support contractor helps to develop a network of physicians (TRICARE presentation, 1996).

In the past, military members had no choice in their health care utilization. Under TRICARE, choice is present. There are four options available: TRICARE Standard, TRICARE Extra, TRICARE Prime and TRICARE point-of-service. TRICARE Standard is similar to the old CHAMPUS system. TRICARE Extra is a preferred provider system, and TRICARE Prime is the military managed care health plan. Members may choose one of these options and seek health care at the military treatment facility or at an approved civilian provider. The major change with this new system is that there will be a cost incurred to the beneficiary if he/she chooses to go
outside the military treatment facility. The group that is hardest hit by cost increases is the military retiree group. They must now pay a $230.00 enrollment fee for one person and $460.00 fee for a family per year to utilize TRICARE Prime at any facility. They must also pay for each service utilized (TRICARE presentation, 1996).

Disillusionment on the part of this group has made enrolling them for TRICARE a difficult task. Many members feel let down by the government, and they seek alternative health care avenues because they feel that this service was to be free after they served their 20 years of service. In gaining services at a military hospital, retirees are ranked third in priority behind active duty members and their dependents; thus it is very difficult to obtain appointments and other needed services (Roark, 1997).

The number of retirees is growing disproportionately to the number of active duty personnel. There are over 1.3 million military retirees over the age of 65, and that number is expected to rise to 1.6 million by 2005. This population of people historically comprised a large percentage of the patients that utilize the MTF’s. As bases close and budgets are cut, this group of people will have a difficult time gaining access to health care (On-line: www.defenselink.mil).
The population for the Fort Knox catchment area was 56,766 in 1998. Of this total, 12,878 were in the active duty category and 10,937 were retirees. Retiree family members accounted for 14,595 in the catchment area. Active duty members have no choice but to seek care at the nearest MTF and to enroll in Prime, so their enrollment in TRICARE is at 100 percent. Retiree members form a large percentage of the catchment area, but their enrollment for fiscal year 1998 was only 15 per cent for the Fort Knox catchment area. If they are seeking health care at other facilities, their family members are probably not utilizing services at the MTF either. This trend can potentially reduce utilization in most areas of the hospital (Garrett, 1998).

Primary care physicians are the gatekeepers to the laboratory. These physicians must order outpatient laboratory services. With managed care, utilization of laboratory services has shifted. In most managed care settings, unnecessary tests are no longer allowed. The same is true for the TRICARE system also. If TRICARE causes a shift in the demographic characteristics of enrollees at MTFs, the pattern of laboratory tests ordered by the gatekeeper physicians will change as well.

At the center of the military member’s health care choices is satisfaction with the new system. The active
duty member must enroll in Prime; however if he/she is dissatisfied with care, he/she may not enroll their family members. The DOD is still trying to determine methods to measure enrollee satisfaction. Jackson has found some evidence suggesting the use of outcome assessments to measure patient satisfaction. As the capitation system is implemented, outcome measures can help clinicians select the most cost-effective treatment options and still maintain satisfaction for the beneficiary. The consumer is becoming much more sophisticated and with TRICARE takes a much more active role in health care choices (Jackson, 1997).

Government sponsored surveys have been implemented to measure satisfaction, and there appears to be relatively high satisfaction with TRICARE among enrollees. Survey results indicate that a majority of all categories of TRICARE-eligible respondents using civilian and military service rate their experiences as “good,” “very good,” or “excellent.” Satisfaction with quality of care was up to 63 percent in 1997 - up from a rating of 52 percent in 1995. A key factor in these results is that retirees over the age of 65 are not considered eligible, so they were not represented (On-line: www.tricare.osd.mil/News Releases).
From the directors' perspective, Dr. Stephen Joseph, assistant secretary of defense for health affairs, admits that TRICARE is not perfect. The main barrier to satisfaction with the system is access to care and this is a concern for the retiree population (Gillert, 1998). Dr. H. James Sears a director for the Navy component of TRICARE believes that TRICARE is maturing and needs to be stabilized. He feels that the system is dramatically better than the services offered in the past and there is great improvement on the ability to deliver quality health care (Gillert, 1999).

Other unpublished reports show retirees and physicians are dissatisfied with TRICARE. Retired Air Force Colonel, John Manning, believes that consistent care is non-existent in the new system. He enrolled in TRICARE Prime and paid his enrollment fee; after two months, his family physician and his endocrinologist left the network. Many physicians are leaving the network and retention is difficult. Reasons cited for these actions are delays in claim processing, fee reimbursement amounts, administrative burdens and slow patient referrals (Philpott, 1997).
CHAPTER 3

METHODOLOGY

The purpose of this study is to assess whether a shift in the age specific utilization of outpatient laboratory services at Ireland Army Hospital has occurred between April 1997 and March 1999. The routine Complete Blood Count (CBC) test was used as an indicator for this analysis. A stratified random sample was used to survey the number of CBC's performed before TRICARE and after TRICARE. Data were collected from April 1997 to March 1998 for the pre TRICARE group. Data were collected from April 1998 to March 1999 for the post TRICARE implementation group. These two groups were compared, looking for potential differences in the age, retiree status, gender, dependency status, and rank distribution.

The complete blood count was utilized as an indicator for this study because it is a common test that can be performed for patients of any age. It is not age specific and has been performed for neonates as well as elderly patients.
HYPOTHESIS:

It is hypothesized that since the onset of TRICARE, the age specific use of resources in the laboratory has shifted from the retiree age group to the active duty group. Utilization for the retiree group will have declined and a larger percentage of resources will be utilized by the active duty population in the post TRICARE era. The null hypothesis is that no significant change in the number of personnel seen, by rank or age, following the implementation of TRICARE will be observed.

SAMPLE:

The population of interest for this study consists of enlisted and retired personnel residing in the Fort Knox catchment area. As of 1998, there were 56,766 eligible personnel residing within thirty mile radius of Fort Knox. Of this total, 12,878 were in the active duty category and 10,937 were in the retiree category. A sample was drawn from all the CBC blood tests conducted at Ireland Army Hospital in the year prior to the year following the implementation of TRICARE. The sample was stratified by week, with one day of the week selected randomly. Further, because of the volume of the tests conducted at Ireland Army Hospital, a maximum of 20 cases on any day were randomly selected. Total number of CBC’s per day were
tabulated from the master log. Each CBC for each day was counted and noted. The data were collected from the master log of the CBC’s performed in the record of the patients.

DESIGN:

Data were gathered from the medical information system named Composite Health care System (CHCS) at the hospital. Demographic information gathered for the study included age, rank, retiree/active duty status, and the dependent status of each member. The rank of the sampled patients was also recorded. Each day, a log of the previous days work is printed. It is from this “Master” log that information was recorded.

INSTRUMENTATION:

The computer printouts generated by CHCS at the hospital were the source of information for this study. Each day, a log of the previous day’s work is printed up-including all tests that were performed for that day. The CBC results were contained in this printout. The patient’s results were noted on the printout along with other information, including the age of the member. Data were gathered in the same way for the pre-TRICARE group and the post-TRICARE group.

The data were compiled by keeping a log sheet for all of the subjects that were randomly selected for the study.
Appropriate statistical analysis was applied to the data to determine any potential changes.

CONFIDENTIALITY

Patient confidentiality was not an issue with this study. As a medical technologist in the laboratory, the author has access to this information and no names or personnel identifiers were recorded for the study.
CHAPTER 4

RESULTS

The purpose of this study was to determine if there was a change in the utilization of laboratory services at Ireland Army Hospital. A random sample of CBC results was analyzed for patients using laboratory services, in order to determine the relationship between active duty and retiree utilization pre- and post TRICARE implementation.

DESCRIPTION OF STUDY SAMPLE

A total of 104 sample days were chosen randomly for the study. The results for pre- and post TRICARE implementation were compared. The mean age of patients for the first year was 36.4 (SD =19.0) and for the second year it was 32.0 (SD=16.4).

The gender of the sample population was compared for each year. In year one, 521 males (51.7%) and 518 (48.4%) females were counted. For year two, there were 486 males (48.3%) and 553 (51.6%) females.

The dependency status for each year was compared. Dependent spouse and dependent child counts were compared.
For year one, there were 59 spouse dependents (50%) and 11 (33.3%) children and for year two 59 (50.0%) spouse dependents and 22 (66.7%) children.

Rank for each member was compared for each year based on scoring of 0-20 corresponding to consecutive ranks of E-1 through Brigadier General. A cumulative percent was determined for the total of both years. Enlisted personnel for both years totaled 84.7% of the total. Outliers for Warrant Officer and the Brigadier General were discounted to compare the two years since their numbers were so low.

The most significant change was observed in comparing the active duty and the retiree group from year one and year two. In year one, 29 active duty members and 23 retiree members were counted. In year two, 38 active duty and only 12 retiree members were counted. This result shows a significant drop in the number of retirees utilizing services (p=0.5).

VOLUME

The total number of tests for each year per day was compared. Table 1 presents the mean number of CBC tests performed the for both pre- and post-TRICARE implementation. There was a significant decrease in volume of lab tests performed post-TRICARE implementation (F=12.162, df=1,102, p < .01).
TEST OF HYPOTHESIS

Research Hypothesis: There will be a change in utilization patterns of laboratory services for pre-TRICARE to post-TRICARE years. Utilization for the retiree group will have declined and a larger percentage of resources will be utilized by the active duty population in the post TRICARE era. The null hypothesis states that there will be no significant change in the number of personnel seen, by rank, or age, following the implementation of TRICARE.

Univariate analyses including analysis of variance (ANOVA) and Chi-square tests of the relationship between pre-TRICARE and post-TRICARE results were performed.

Table 2 presents the mean age of patients pre- and post-TRICARE. An ANOVA was performed with the age of the patient as the dependent variable and year (pre or post) as the independent variable. The age of patients treated following the implementation of TRICARE was significantly younger than patients treated the previous year (F=31.495: df=1,2076: p=.007). The mean age for year one was 36.40 and for year two was 32.03. At the age of 37, a person can be eligible for retirement with 20 years of service. The null hypothesis that there would be no significant
difference in age between the groups was rejected in this instance.

Table 3 presents the number of active duty and retiree patients seen pre- and post-TRICARE. There was a significant decrease in retiree utilization of laboratory services ($x^2=4.629; \text{df}=1; p=0.05$). To explain this decrease, the chi square test was conducted comparing active duty and retiree status. In year one, 65.7% of the CBC’s performed were for retirees; in year two, this percentage dropped to 34.3%.

Table 4 presents the number of male and female patients both pre- and post-TRICARE. A Chi-square analysis on gender analysis was performed to compare the genders of both groups. No significant difference was observed in the number of males or females before or after implementation of TRICARE ($x^2=2.360, \text{df}=1, p=0.14$).

Table 5 presents the number of patients seen at the laboratory by dependent status. There was no significant change noted in the number of dependents treated at the hospital ($x^2=2.881, \text{df}=1, p=0.1$).

However, there was a significant difference, pre and post for the distribution of tests by rank of the patient. Table 6 presents the number of enlisted personnel and Table 7 presents the number of officers pre- and post-TRICARE.
The Pearson chi square results for the enlisted group was significant ($x^2 = 21.136; df=1,8: p<.01$), but not significant for officers. It appears that there are more lower rank enlisted personnel utilizing services in year two than in year one. During the first year, higher rank enlisted members were seen in larger numbers than in the second year. Those numbers may suggest that there is a shift to younger enlisted personnel utilizing services. Thirty-five Warrant officers and a single Brigadier General were excluded from this analysis as outliers.
CHAPTER 5

CONCLUSIONS

Two random samples of military member CBC results were compared in order to determine if a change in the utilization patterns of laboratory resources was observed from the year before to the year after the implementation of TRICARE.

SUMMARY OF RESULTS

A significant decrease in the utilization of resources by retiree members and a decrease in the number of total tests was noted in year two. The mean age of the participants decreased in year two consistent with the decrease in retiree utilization. There was also a change in the utilization by enlisted personnel. It appears that a shift took place from primarily higher rank enlisted utilization to lower rank enlisted utilization. This change may indicate a shift away from utilization of MTF services for higher income personnel.

DISCUSSION

With the advent of TRICARE, an abrupt shift in the
characteristics of the population utilizing the outpatient laboratory services at Ireland Army Hospital was observed. Fewer retirees used the laboratory services after the implementation of TRICARE. The mean age of the people using lab services also decreased as would be expected with a decrease in retiree utilization, thus suggesting that the retired personnel may be seeking laboratory services elsewhere.

LIMITATIONS

It would be ideal if this information could be generalized to the entire military population, but that cannot be done without further studies. This information pertains only to the military population at Ireland Army hospital. It may have relevance for other clinics and areas in the hospital, but further analysis may be necessary here also. According to Colonel Granger, the commander of the hospital, evaluations such as this present one will begin at the end of fiscal year 1999. Data is now being gathered for these types of analyses in databases for the hospital as a whole (Granger, 1998).

Another limitation involves using the CBC as an indicator for utilization of laboratory services. Not every patient has a CBC drawn, so additional analysis may be necessary to determine the total number of patients
using services per day versus the number of patients that
had complete blood count analysis performed. That
procedure will give a more complete picture of the
utilization of services for both groups.

CONCLUSION

There was a marked change in utilization patterns in
the laboratory at Ireland Army Hospital following the
implementation of TRICARE. During the first year under
TRICARE, retiree utilization and the average age of the
patient population decreased significantly. In addition,
enlisted utilization shifted toward the lower enlisted
ranks. This information indicates that current users are
more likely to be younger in the active duty category and
lower rank and income than in the pre-TRICARE era. Older
members and their dependents appear to be seeking medical
services elsewhere. This shift in utilization has
significant implication for resource allocation in the
clinical laboratory.

RECOMMENDATIONS

1. Further studies are necessary in order to assess the
impact of TRICARE on the military health care system.
2. Future research should measure impact of TRICARE on
retiree access to medical services.
References


Granger, S. Presentation to MEDDAC employees at Ireland Army Hospital. Fort Knox, KY. Nov. 1998.


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Table 1. Comparison of the total number of tests per day.
Table 2.
Comparison of mean age pre and post TRICARE implementation.

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<th>Max</th>
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</thead>
<tbody>
<tr>
<td>Pre</td>
<td>36.40</td>
<td>19.00</td>
<td>1039</td>
<td>1</td>
<td>87</td>
</tr>
<tr>
<td>Post</td>
<td>32.03</td>
<td>16.41</td>
<td>1039</td>
<td>1</td>
<td>81</td>
</tr>
<tr>
<td>Overall</td>
<td>34.21</td>
<td>17.88</td>
<td>2078</td>
<td>1</td>
<td>87</td>
</tr>
</tbody>
</table>
Table 3. Counts of Active Duty and Retiree status by pre and post TRICARE implementation.

<table>
<thead>
<tr>
<th></th>
<th>Active Duty</th>
<th>Retiree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>573</td>
<td>466</td>
<td>1039</td>
</tr>
<tr>
<td>Post</td>
<td>797</td>
<td>240</td>
<td>1037</td>
</tr>
<tr>
<td>Total</td>
<td>1370</td>
<td>706</td>
<td>2076</td>
</tr>
</tbody>
</table>
Table 4. Counts of gender by pre and post TRICARE implementation.

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>521</td>
<td>518</td>
<td>1039</td>
</tr>
<tr>
<td>Post</td>
<td>486</td>
<td>553</td>
<td>1039</td>
</tr>
<tr>
<td>Total</td>
<td>1007</td>
<td>1071</td>
<td>2079</td>
</tr>
</tbody>
</table>
Table 5.
Counts of dependents by pre and post TRICARE implementation.

<table>
<thead>
<tr>
<th></th>
<th>Spouse</th>
<th>Child</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>59</td>
<td>11</td>
<td>70</td>
</tr>
<tr>
<td>Post</td>
<td>59</td>
<td>22</td>
<td>81</td>
</tr>
<tr>
<td>Total</td>
<td>118</td>
<td>33</td>
<td>151</td>
</tr>
</tbody>
</table>
Table 6. Counts of enlisted personnel by pre and post TRICARE implementation.

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>105</td>
<td>138</td>
<td>243</td>
</tr>
<tr>
<td>E2</td>
<td>29</td>
<td>41</td>
<td>70</td>
</tr>
<tr>
<td>E3</td>
<td>40</td>
<td>52</td>
<td>92</td>
</tr>
<tr>
<td>E4</td>
<td>61</td>
<td>91</td>
<td>152</td>
</tr>
<tr>
<td>E5</td>
<td>109</td>
<td>95</td>
<td>204</td>
</tr>
<tr>
<td>E6</td>
<td>164</td>
<td>139</td>
<td>303</td>
</tr>
<tr>
<td>E7</td>
<td>209</td>
<td>185</td>
<td>394</td>
</tr>
<tr>
<td>E8</td>
<td>121</td>
<td>109</td>
<td>230</td>
</tr>
<tr>
<td>E9</td>
<td>42</td>
<td>30</td>
<td>72</td>
</tr>
<tr>
<td>Total</td>
<td>880</td>
<td>880</td>
<td>1760</td>
</tr>
</tbody>
</table>
Table 7.
Counts of officers by pre and post TRICARE implementation.

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1LT</td>
<td>19</td>
<td>27</td>
<td>46</td>
</tr>
<tr>
<td>2ndLT</td>
<td>7</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>CPT</td>
<td>45</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>MAJ</td>
<td>42</td>
<td>64</td>
<td>76</td>
</tr>
<tr>
<td>LTC</td>
<td>16</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>COL</td>
<td>17</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
<td>134</td>
<td>280</td>
</tr>
</tbody>
</table>