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NAVY MEDICAL RESOURCE PLANNING: RATES OF ILLNESS FOR VARIOUS OPERATIONAL THEATERS

Christopher G. Blood
William M. Pugh
Debra K. Griffith
Corazon B. Nirona



Medical Information Systems Department
Naval Health Research Center
P.O. Box 85122
San Diego, CA 92138-9174

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SUMMARY

Investigation of disease and non-battle injury (DNBI) data available for medical resource planning yielded three separate sources: 1) shipboard sickcall data collected by Naval Health Research Center between 1967 and 1979, 2) Monthly Morbidity data stored at the Naval Medical Data Services Center, and 3) Inpatient Medical Histories maintained at NHRC. Sickcall data across Navy ships yielded an overall rate of 11.2 per 1000 strength per day; specific geographical areas ranged from 8.8 to 11.9. Monthly Morbidity data indicated an overall shipboard rate of 11.9 with rates for various theaters ranging from 8.6 (Southwest Asia) to 21.8 (Southeast Asia). Shore station morbidity rates varied from 10.2 to 22.6. Hospital admission data yielded an overall afloat rate of 0.203 and an ashore rate of 0.315. A patient encounter system that would allow a wider range of illnesses to be recorded, distinguish between Navy and Marine personnel, and indicate illness disposition is needed. (KT) ←

NAVAL MEDICAL RESOURCE PLANNING:
RATES OF ILLNESS FOR VARIOUS OPERATIONAL THEATERS

Introduction

The effectiveness of the U.S. Navy and the success of the missions undertaken are greatly affected by the health of the constituent personnel. Optimal levels of readiness for forces afloat and ashore can be maintained only if the number of crewmembers incapacitated due to illness is minimized. Accordingly, a great deal of emphasis is placed on medical resource planning so that the appropriate medical personnel and supplies will be on-hand to meet health demands as they occur. To enhance the capabilities of the DOD services in this area the Deployable Medical Systems (DEPMEDS) project was initiated¹. Specifically, DEPMEDS is the capability to set up a fully supplied field hospital. These hospitals will be outfitted with standardized equipment designed to be easily transportable and function at a permanent site. *pg 2*

Clearly, the effectiveness of medical resource planning is dependent on the reliability of the disease and injury rates that are used by the DEPMEDS project to determine personnel and supply requirements. Rates of medical disorders will be used in conjunction with an algorithm devised to indicate hospital areas (e.g. operating room, pharmacy, wards) needed, specialized care within a functional area (such as neurosurgery) required, the time necessary to attend to the patient conditions, and actual medical supplies (bandages, drugs, etc.,) in demand². These formulae, developed by personnel at the U.S. Army Academy of Health Sciences, Fort Sam Houston, Texas, also predict the rate of hospitalization given a known incidence of disorders.

Previous research has indicated that a substantial number of personnel are incapacitated during military operations by disease and non-battle injuries (DNBI)³⁻⁵. Palinkas and Coben indicated that for every 100 Marines hospitalized for a combat-related wound or injury in Vietnam, 128 were hospitalized for a disease or non-battle injury. Although knowledge of hospitalization rates is important to medical planning, the numbers of outpatient visits for various illness categories also have a significant impact on medical personnel and supplies needed.

The need exists for DNBI rates of Navy and Marine forces, both afloat and ashore, in Northeast Asia, Southwest Asia, and Europe so that various operational scenarios may be evaluated. The purpose of this investigation then, is threefold: 1) to determine the available data sources for computation of DNBI rates, 2) to provide DNBI rates for those personnel and areas where data exists, and 3) to make recommendations for the implementation of a system whereby credible DNBI rates would continually be available.

Method

An appraisal of the medical information sources available for both numerator (illness) data and denominator (overall population) data yielded three separate bases of information. The first set of sickcall data is from a series of investigations⁶⁻¹² undertaken at the Naval Health Research Center between the years of 1967 and 1979 which recorded outpatient visits during various ship deployments. The second source of illness data is a product of the Medical Services and Outpatient Morbidity Reporting System¹³. The monthly morbidity reports, as they are commonly known, are completed by each reporting facility and maintained at the Naval Medical Data Services Center, Bethesda, Maryland. The third source of data is the medical inpatient historical files maintained at the Naval Health Research Center. The data on these files contain hospitalization records of Navy and Marine personnel which are obtained annually from the Naval Medical Data Services Center and are then compiled into chronological histories for each hospitalized individual. Each of these three databases will be further described in detail. Complementing the medical inpatient files is the Service History database maintained at NHRC which details each active duty service member's personnel record and indicates the Unit Identification Code (UIC) to which he is attached. The service history database allows illness rates to be calculated by providing the populations for each Unit Identification Code. Additionally, Command History data maintained at the Naval Historical Center, Washington, D.C. were used to determine ship deployment locales and time frames.

All illness and hospitalization rates are computed per 1,000 strength per day. Separate rates were computed for Northeast Asia, Southeast Asia, Southwest Asia, and Europe. The location of afloat populations was defined to

be Northeast Asia whenever a ship was operating in the waters around Japan and Korea. Similarly, the area of operation was defined as Southeast Asia whenever a ship was operating in the area south of Hong Kong and extending to the Philippines and their immediate environs. Ships were determined to be in Southwest Asia if they were operating in the Arabian Sea, the Red Sea, or the Persian Gulf and considered to be in Europe if they were in the Mediterranean or the waters from the Strait of Gibraltar through the North Sea up to the Norwegian Sea. For shore facilities, Northeast Asia DNBI rates were based on data from Japan; Southeast Asia rates were based on data from the Philippines; Southwest Asia data was obtained from Bahrain; European data came from facilities in Spain, Italy, Greece, United Kingdom, Scotland, and Wales.

Sickcall Data

Shipboard sicklog data recorded for each outpatient visit were collected by NHRC personnel during various deployments in the time frame 1967 - 1979. These data were recorded on forms designed to be easily coded so that the burden on medical department personnel would be minimal. The data in these investigations has been converted to the NHRC illness format which corresponds to the diagnostic nomenclature of the Ninth Revision of the International Classification of Diseases Adapted For Use in the United States (ICD-9). In order to provide accurate rates for specific theaters of operation, only those months of deployment in which the ship remained in the specific target area were used. The target areas for the sickcall data include: Northeast Asia, Southeast Asia, East Asia, and Europe; East Asia data represents illness information collected from ships shuttling between Northeast Asia and Southeast Asia during a given time frame.

Monthly Morbidity Data

The Medical Services and Outpatient Morbidity Reporting System has undergone an expanded revision since its inception in 1971. So that an accurate assessment of the monthly morbidity data might be obtained, information from two time periods will be reported in this study. The most recent available morbidity data is from 1985 and is used for one set of illness rates. A second set of data from the mid 1970s is included so that consistency within this reporting system might be gauged as well as any illness trends delineated. Shipboard illness rates for this second time slice

come from 1975 data; shore facilities reported on a regional basis rather than for individual clinics until the following year. Therefore, shore facility rates are reported for 1976. The monthly morbidity forms collect illness data in accordance with the major illness categories within the ICD-9 schema along with a few select subcategories of disease. For the purposes of this investigation, these data have been coded to the NHRC disease reporting format. Similar to the sicklog reporting, all shipboard morbidity data represents illnesses and time periods strictly limited to months within a target area.

Hospitalization Data

As with the morbidity data, hospitalization rates are provided for the years 1985 and 1975. Each reporting facility records the hospital admission in accordance with the requirements set forth in the instructions of BUMEDINST 6300.3B (Inpatient Data System)¹⁴. The data maintained at NHRC corresponds to the ICD-9 diagnostic classifications. Shipboard hospitalizations were those that occurred within the time frame that the ship was deployed within a specific target area.

For all three data sources only the initial visit for a specific illness per individual enters into the rate calculations; no follow-ups or revisits for the same illness are used in the disease tallies. Ninety-five percent confidence limits have been provided for all illness rates to indicate the degree to which a rate might be likely to fluctuate under similar conditions.

RESULTS

Sickcall Data

Outpatient rates for all major disease categories as well as those subcategories that appeared on all forms used in the previous studies are displayed in Table 1. Illness data from 43 ships are used in this table; the ships included 10 destroyers, 10 frigates, 2 cruisers, 15 amphibious ships, 1 battleship, and 5 carriers. The most frequently occurring categories of disorders were respiratory system, infective and parasitic, and accidents. Though data for subcategories within the accident category were not available

for all ships, most prominent were strains and sprains, open wounds, burns, and fractures. Total man-days for this sample were 2,818,091.

Sickcall data for ships deployed to Northeast Asia were based on illnesses from five amphibious vessels. Table 2 indicates that the most prevalent disorders were respiratory, accidents, and skin disorders. Rates for these data are based on 97,077 man-days.

Southeast Asia rates are based on illnesses collected from ships which included four frigates, two destroyers, one cruiser and one carrier. Table 3 indicates that the most prevalent categories of sickcall visits were respiratory, infective and parasitic, and accidents. Man-days across these eight ships were 365,753.

Nineteen ships consisting of three destroyers, two frigates, ten amphibious, one battleship, and three carriers composed the East Asia shipboard sample shown in Table 4. Respiratory, infective and parasitic, and accidents were the most prevalent disorders. Total man-days were 1,468,398.

Illness rates for ships deployed to Europe are displayed in Table 5. Respiratory illnesses, followed by accidents and skin diseases were responsible for the most sickcall visits. There were a total of 886,863 man-days across the 11 ships in this sample which consisted of 5 destroyers, 4 frigates, 1 cruiser, and 1 carrier.

Morbidity Data

Overall shipboard rates based on monthly morbidity reports for 1985 and 1975 are shown in Table 6. The 1985 sample consisted of ten destroyers, nine frigates, five cruisers, two amphibious, and three carriers that were deployed to Asia, Europe, and the Indian Ocean. Total man-days were 1,032,482. The earlier sample which yielded the overall 1975 rates included seven destroyers, ten frigates, three cruisers, three amphibious, and seven carriers which were deployed to Asia, Europe, Indian Ocean, and the Caribbean. There were 2,465,781 man-days in this sample. Respiratory and infective/parasitic disorders were the most prevalent for both time periods.

Illness rates for Northeast Asia are displayed in Table 7. The 1985 rates are based on a single amphibious ship representing 13,380 man-days; rates for 1975 are from a frigate, an amphib and a carrier comprising 148,130 man-days. The most recent sample indicated that accidents and musculoskeletal disorders were most prevalent contrasting with respiratory and infective in the earlier sample.

Shipboard rates from vessels deployed to Southeast Asia are indicated in Table 8. One destroyer and one frigate accumulating 26,179 man-days make up the 1985 sample. The 1975 sample consisted of 351,502 man-days from one destroyer, four frigates, one cruiser, and one carrier. For both time frames infective disorders were the most prevalent followed by respiratory diseases.

Disease rates for ships deployed to East Asia appear in Table 9. Three frigates and one amphib constitute the 1985 sample (58,145 man-days) while two destroyers, two frigates, two amphibious, and three carriers make up the 1975 data (1,120,003 man-days). Respiratory and infective disease were the most frequently occurring for both samples.

Shipboard illness rates for Southwest Asia are presented in Table 10. Total man-days aboard the five destroyers, one frigate, and one cruiser in the 1985 sample were 84,585; the 1975 sample consisted of one destroyer and one frigate representing 22,134 man-days. Respiratory and infective disorders were most prevalent in the latest sample while respiratory, skin, infective, and accident categories were all high in the 1975 data.

The final shipboard morbidity rates, seen in Table 11, are those for Europe. The 1985 data consisted of two destroyers, three frigates, three cruisers, and one carrier (man-days = 333,389); rates from 1975 come from a single destroyer, two frigates, two cruisers, and two carriers (man-days = 807,862). Respiratory disorders and accidents were the most frequently occurring categories for 1985, while ten years earlier the categories of respiratory and infective/parasitic were most prevalent.

Overall Morbidity Rates across Navy Shore stations for 1985 and 1976 are shown in Table 12. The 1985 sample consists of shore stations in Japan,

Bahrain, Diego Garcia, Spain, Italy, Greece, Scotland, Wales, and Iceland totalling 6,501,554 man-days. Data for the 1976 overall rates comes from Japan, Bahrain, Spain, Italy, and Greece which represents 5,151,418 man-days. Accidents and respiratory disorders were the most frequently occurring categories in 1985 while a decade earlier respiratory and musculoskeletal disorders were most prevalent.

Navy ashore morbidity rates for Northeast Asia (Japan) are presented for the two time periods in Table 13. Man-days for the 1985 sample total 1,453,098 and consist of units from Yokosuka, Atsugi, and Sasebo. Man-days for the 1976 data sum to 1,107,612 and originate from units attached to the same three locations. Accidents, nervous system disorders, and skin diseases were most frequent in 1985; respiratory disorders, accidents, and musculoskeletal problems were the most prevalent reasons for outpatient visits in 1976.

Morbidity rates for Marine Shore stations in Northeast Asia appear in Table 14. The 1985 data represent 10,294,460 man-days for units in Iwakuni and Okinawa while the 1976 sample represents 1,804,359 man-days for units in Iwakuni. The 1985 rates are suspiciously low, and further analyses are needed to verify them; the 1976 data indicate that respiratory and musculoskeletal disorders were most frequent.

Illness rates for the Navy shore stations in Southwest Asia (Bahrain) are shown in Table 15. The man-days for 1985 and 1976 are 14,274 and 37,698, respectively. Respiratory diseases were the most frequent illness category for both samples with 1976 showing a particularly high rate.

Morbidity rates shown in Table 16 represent the illnesses occurring at Navy Shore stations in Europe for the two time frames. The 1985 sample consists of units from Rota (Spain), Naples and Sigonella (Italy), Souda Bay and Nea Makri (Greece), Brawdy (Wales), and Edzell (Scotland) while the 1976 data were available for units in Rota, Naples, Sigonella, Nea Makri and Souda

Bay. The man-days for the samples were 3,782,232 and 4,006,108. Respiratory disorders were most prevalent for both samples with accidents second most frequent in 1985 and musculoskeletal disorders following respiratory in the earlier sample.

Hospitalization Data

Hospital admission rates across Navy ships in 1985 and 1975 are presented in Table 17. The most recent sample represents 10 destroyers, 12 frigates, 4 cruisers, 8 amphibious, and 3 carriers deployed to Asia, the Indian Ocean, and Europe (939,669 man-days). The 1975 data comes from 8 destroyers, 10 frigates, 4 cruisers, 9 amphibious, and 6 carriers deployed to Asia, the Indian Ocean, Europe, and the Caribbean (1,837,592 man-days). The most frequently occurring categories of hospital admissions for 1985 were symptoms and ill-defined, accidents, and behavioral (mental) disorders; the most prevalent admissions a decade earlier were for the categories of infective and parasitic, genitourinary, and accidents.

Rates of hospital admissions for ships confined to East Asia appear in Table 18. The 1985 sample consists of one destroyer, four frigates, and seven amphibious representing a total of 247,128 man-days. The data of the 1976 sample comes from three destroyers, seven frigates, two cruisers, eight amphibious, and four carriers totalling 1,208,780 man-days. The most frequent admissions in 1985 were for behavioral disorders while the 1975 data yield highest admissions for infective and parasitic disorders and genitourinary problems.

Admission rates for ships deployed to Southwest Asia are seen in Table 19, and reflect the relatively low occurrence of hospital admissions generally found among deployed ships. Four destroyers, two frigates, and one cruiser make up the 1985 sample (man-days = 97,195) while the 1976 data comes from one destroyer and one frigate (21,142 man-days).

Hospital admissions required for crew members aboard ships deployed to the European theater are presented in Table 20. The 1985 sample consists of three destroyers, five frigates, two cruisers, one amphibious, and one carrier. Ships of the 1975 sample consist of two destroyers, two frigates, two cruisers, one amphibious, and two carriers. Total man-days were 305,131

and 591,840 respectively. Hospitalizations for the diagnostic category of symptoms and ill-defined were most frequent in 1985 while the most prevalent admissions in 1975 were for accidents.

Overall, hospital admission rates for samples of Navy shore stations appear in Table 21. The 1985 data is composed of units attached to shore facilities in Japan, Philippines, Bahrain, Diego Garcia, Spain, Italy, and Iceland (man-days = 2,547,700). The 1975 sample is from personnel stationed in the same areas plus Greece and the United Kingdom and represents 2,780,205 man-days. Pregnancies, behavioral disorders, and accidents were the most frequently occurring reasons for hospitalizations in 1985 while behavioral problems and accidents provide the most admissions in 1975.

Hospital admissions for Navy shore stations in Northeast Asia (Japan) are shown in Table 22. Both the 1985 and 1975 data came from units in Misawa, Yokosuka, and Hanza. Admissions were low in both samples with behavioral disorders, pregnancies, and musculoskeletal problems most prevalent in 1985 and accidents most frequent ten years earlier. The man-days for 1985 were 310,615 and for 1975, were 347,115.

Table 23 is a presentation of the admission rates for Southeast Asia (Philippines). Both time samples represent units in Subic Bay (1985 man-days = 552,245; 1975 man-days = 643,860). Accidents, digestive disorders, and infective and parasitic diseases were the most frequently recorded diagnoses in 1985; accidents and behavioral disorders provided the most admissions in 1975.

Hospitalization data for Southwest Asia (Bahrain) as presented in Table 24 are sparse. Man-days for 1985 were 29,200 and for 1975 were 8,030. No hospitalizations occurred for the 22 personnel stationed in Bahrain in 1975.

Rates of hospital admissions for European shore stations are shown in Table 25. Units within the 1985 sample were attached to Rota, Sigonella, and Naples (man-days = 1,163,985), while units from the 1975 data were stationed at Rota, Naples, Sigonella, San Vito, Souda Bay, Athens, Nea Makri, Edzell, London, and Brawdy (man-days = 1,283,340). Pregnancy was the most common

category of admissions in 1985 while accidents and behavioral disorders were most common in 1975.

The final table (Table 26) indicates the hospital admissions for Marine shore stations in Europe (Italy). These data are for 1984 and come from units stationed in Sigonella and Naples (man-days = 79,935). The most frequent admissions were for accidents.

DISCUSSION

The need for accurate injury and illness rates to ensure adequate medical resource planning has been stated. To meet this need, the present investigation was undertaken to assess the present sources of illness information. However, it must be realized that past illness patterns may only roughly approximate future health trends.

The sickcall data collected between 1967 and 1979 were the most consistent across ships and likely yielded highly accurate rates for that time period. The overall rate of 11.2 visits per thousand strength per day appeared reasonable and the rates for various geographical areas fall within a fairly restricted range (8.8 - 11.9). The two main drawbacks to the sickcall data were that they were not current and they did not provide frequencies for a large number of specific diagnoses.

The morbidity reports were a valuable source of illness information in that they were filed monthly for all ships and shore clinics. It is interesting to note that the overall Navy Afloat rate (11.9) calculated from the monthly morbidity reports was very similar to that attained through the independently collected sickcall data. However, among the 1985 shipboard morbidity data a wider variation was evidenced for the geographical regions (8.6 - 21.8). With the exception of a suspiciously low Marine facility rate, the rates for 1985 shore stations varied a similar amount (10.3 - 22.6).

Although the morbidity form was expanded in 1979 to cover a broader range of illnesses there are still a large number of specific disorders that can not be tallied. Additionally, the method in which the form is completed leaves open the possibility of inaccurate statistics. Typically, at the end of a

reporting month a member of the medical department must read through the sicklog and count all the visits to sickbay. With crew size aboard ships ranging from two hundred to several thousand this represents a formidable task. In addition to errors that may result from the sheer volume of sickcall visits, differentiation of new cases from revisits is not always easily discernible. Another insurmountable problem with the current system is that although strength of Navy personnel and Marine personnel are recorded separately the illness information for both service branches are grouped together. This method of reporting does not allow for rates to be computed individually for Navy and Marine forces unless the reporting facility is composed solely of Navy or Marine personnel.

The inpatient reporting system appears to provide a highly accurate method for determining hospitalization rates for Navy personnel. The hospital admission database contains information on the unit to which each hospitalized individual is attached and allows for afloat and ashore rates to be computed. One problem that does exist with the inpatient system concerns the accuracy with which Marine hospitalization rates may be calculated. Instructions for filling out the inpatient admission record¹⁴ state that the Unit Identification Codes for hospitalized personnel may be found in the Navy Comptroller Manual. While this is true for Navy personnel, it does not apply to Marine personnel. Consequently, the Marine hospitalization records contain both accurate Reporting Unit Codes (RUC's) for Marine facilities and inaccurate Unit Identification Codes of Navy facilities in the same area. It is a difficult if not impossible task to determine to which RUC a hospitalized Marine was actually attached.

Currently efforts are being undertaken at NHRC to address some of these problems. A Patient Encounter Form has been designed that will 1) allow illness rates to be determined for a wide range of illnesses, 2) distinguish illnesses for Navy and Marine forces separately, taking into account that Marines embark and disembark from ships at irregular intervals, and 3) indicate the disposition of an individual that reports to sick bay. Also, a database and query system are being developed that have the capability of providing rates for numerous theaters of operation over a wide range of time. Additional reports forthcoming from the present investigation will deal with

the disposition for various categories of illness, rate differences among ships deployed in hostile/non-hostile environments, and differences in illness rates as a function of ship size.

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TABLE 1. SICKCALL DATA ACROSS U.S. NAVY SHIPS, 1967 - 1979

	FREQUENCY	LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	5192	1.792	1.842	1.892
DIARRHEA	1119	0.374	0.397	0.420
DYSENTERY/ENTERITIS	141	0.042	0.050	0.058
SEXUALLY TRANSMITTED DISEASES	2356	0.802	0.836	0.870
DERMATOPHYTOSIS	665	0.218	0.236	0.254
NEOPLASMS	15	0.003	0.005	0.008
ENDOCRINE, NUTRITIONAL & METABOLIC	76	0.021	0.027	0.033
BLOOD & BLOOD FORMING ORGANS	24	0.005	0.008	0.012
BEHAVIORAL	580	0.189	0.206	0.223
ALCOHOL ABUSE	48	0.012	0.017	0.022
NERVOUS SYSTEM & SENSE ORGANS	1239	0.415	0.440	0.464
OTTITIS MEDIA/OTTITIS EXTERNA	765	0.252	0.271	0.291
CIRCULATORY SYSTEM	100	0.028	0.035	0.037
RESPIRATORY SYSTEM	8751	3.040	3.105	3.170
UPPER RESPIRATORY INFECTION	4670	1.610	1.657	1.705
NASOPHARYNGITIS/PHARYNGITIS	2194	0.746	0.779	0.811
INFLUENZA	723	0.238	0.257	0.275
DIGESTIVE SYSTEM	1862	0.631	0.661	0.691
GENITOURINARY SYSTEM	2371	0.808	0.841	0.875
URETHRITIS (NON-SPECIFIC)	1534	0.517	0.544	0.572
PREGNANCY, CHILDBIRTH & PUERPERIUM	0		0.000	
SKIN & SUBCUTANEOUS TISSUE	3754	1.290	1.332	1.375
CELLULITIS	272	0.085	0.097	0.108
DERMATITIS	736	0.242	0.261	0.280
MUSCULOSKELETAL SYSTEM	1750	0.592	0.621	0.650
CONGENITAL ANOMALIES	15	0.003	0.005	0.008
SYMPTOMS & ILL-DEFINED	1130	0.378	0.401	0.424
HEADACHE	542	0.176	0.192	0.208
ACCIDENTS, POISONINGS, & VIOLENCE	4704	1.622	1.669	1.717
TOTAL	31,563	11.077	11.200	11.323

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 2. SICKCALL DATA FOR U.S. NAVY SHIPS DEPLOYED TO NORTH EAST ASIA, 1967 - 1979

	FREQUENCY	LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	106	0.884	1.092	1.300
DIARRHEA	17	0.092	0.175	0.258
DYSENTERY/ENTERITIS	0		0.000	
SEXUALLY TRANSMITTED DISEASES	30	0.199	0.309	0.420
DERMATOPHYTOSIS	35	0.241	0.361	0.480
NEOPLASMS	0		0.000	
ENDOCRINE, NUTRITIONAL & METABOLIC	0		0.000	
BLOOD & BLOOD FORMING ORGANS	0		0.000	
BEHAVIORAL	10	0.039	0.103	0.167
ALCOHOL ABUSE	2	0.000	0.021	0.049
NERVOUS SYSTEM & SENSE ORGANS	28	0.182	0.288	0.395
OTITIS MEDIA/OTITIS EXTERNA	17	0.092	0.175	0.258
CIRCULATORY SYSTEM	3	0.000	0.031	0.066
RESPIRATORY SYSTEM	240	2.160	2.472	2.785
UPPER RESPIRATORY INFECTION	156	1.355	1.607	1.859
NASOPHARYNGITIS/PHARYNGITIS	49	0.364	0.505	0.646
INFLUENZA	21	0.124	0.216	0.309
DIGESTIVE SYSTEM	25	0.157	0.258	0.358
GENITOURINARY SYSTEM	48	0.355	0.494	0.634
URETHRITIS (NON-SPECIFIC)	42	0.302	0.433	0.564
PREGNANCY, CHILDBIRTH & PUERPERIUM	0		0.000	
SKIN & SUBCUTANEOUS TISSUE	107	0.894	1.102	1.311
CELLULITIS	7	0.019	0.072	0.126
DERMATITIS	17	0.092	0.175	0.258
MUSCULOSKELETAL SYSTEM	58	0.444	0.597	0.751
CONGENITAL ANOMALIES	0		0.000	
SYMPTOMS & ILL-DEFINED	40	0.284	0.412	0.540
HEADACHE	10	0.039	0.103	0.167
ACCIDENTS, POISONINGS, & VIOLENCE	193	1.708	1.988	2.268
TOTAL	858	8.250	8.838	9.427

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 3. SICKCALL DATA FOR U.S. NAVY SHIPS DEPLOYED TO SOUTHEAST ASIA, 1967 - 1979

	FREQUENCY	LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	835	2.128	2.283	2.438
DIARRHEA	155	0.357	0.424	0.490
DYSENTERY/ENTERITIS	24	0.039	0.066	0.092
SEXUALLY TRANSMITTED DISEASES	492	1.226	1.345	1.464
DERMATOPHYTOSIS	92	0.200	0.252	0.303
NEOPLASMS	4	0.000	0.011	0.022
ENDOCRINE, NUTRITIONAL & METABOLIC	5	0.002	0.014	0.026
BLOOD & BLOOD FORMING ORGANS	1	0.000	0.003	0.008
BEHAVIORAL	79	0.168	0.216	0.264
ALCOHOL ABUSE	9	0.008	0.025	0.041
NERVOUS SYSTEM & SENSE ORGANS	167	0.387	0.457	0.526
OTITIS MEDIA/OTITIS EXTERNA	110	0.245	0.301	0.357
CIRCULATORY SYSTEM	13	0.016	0.036	0.055
RESPIRATORY SYSTEM	1284	3.319	3.511	3.702
UPPER RESPIRATORY INFECTION	702	1.778	1.919	2.061
NASOPHARYNGITIS/PHARYNGITIS	387	0.953	1.058	1.164
INFLUENZA	88	0.190	0.241	0.291
DIGESTIVE SYSTEM	254	0.609	0.694	0.780
GENITOURINARY SYSTEM	302	0.733	0.826	0.919
URETHRITIS (NON-SPECIFIC)	201	0.474	0.550	0.626
PREGNANCY, CHILD BIRTH & PUERPERIUM	0		0.000	
SKIN & SUBCUTANEOUS TISSUE	435	1.078	1.189	1.301
CELLULITIS	39	0.073	0.107	0.140
DERMATITIS	136	0.309	0.372	0.434
MUSCULOSKELETAL SYSTEM	173	0.402	0.473	0.544
CONGENITAL ANOMALIES	2	0.000	0.005	0.013
SYMPTOMS & ILL-DEFINED	94	0.205	0.257	0.309
HEADACHE	42	0.080	0.115	0.150
ACCIDENTS, POISONINGS, & VIOLENCE	635	1.601	1.736	1.871
TOTAL	4283	11.361	11.710	12.059

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 4. SICKCALL DATA FOR U.S. NAVY SHIPS DEPLOYED TO EAST ASIA, 1967 - 1979

	FREQUENCY	LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	3191	2.098	2.173	2.248
DIARRHEA	410	0.252	0.279	0.306
DYSENTERY/ENTERITIS	102	0.056	0.069	0.083
SEXUALLY TRANSMITTED DISEASES	1534	0.992	1.045	1.097
DERMATOPHYTOSIS	432	0.266	0.294	0.322
NEOPLASMS	10	0.003	0.007	0.011
ENDOCRINE, NUTRITIONAL & METABOLIC	38	0.019	0.026	0.034
BLOOD & BLOOD FORMING ORGANS	15	0.005	0.010	0.015
BEHAVIORAL	289	0.174	0.197	0.220
ALCOHOL ABUSE	27	0.012	0.018	0.025
NERVOUS SYSTEM & SENSE ORGANS	684	0.431	0.466	0.501
OTITIS MEDIA/OTITIS EXTERNA	430	0.264	0.293	0.320
CIRCULATORY SYSTEM	71	0.037	0.048	0.060
RESPIRATORY SYSTEM	4864	3.220	3.312	3.405
UPPER RESPIRATORY INFECTION	2441	1.596	1.662	1.728
NASOPHARYNGITIS/PHARYNGITIS	1336	0.861	0.910	0.959
INFLUENZA	523	0.326	0.356	0.387
DIGESTIVE SYSTEM	696	0.439	0.474	0.509
GENITOURINARY SYSTEM	1671	1.083	1.138	1.192
URETHRITIS (NON-SPECIFIC)	1159	0.731	0.776	0.821
PREGNANCY, CHILDBIRTH & PUERPERIUM	0		.000	
SKIN & SUBCUTANEOUS TISSUE	2114	1.378	1.440	1.501
CELLULITIS	164	0.095	0.112	0.129
DERMATITIS	442	0.273	0.301	0.329
MUSCULOSKELETAL SYSTEM	637	0.400	0.434	0.468
CONGENITAL ANOMALIES	12	0.004	0.008	0.013
SYMPTOMS & ILL-DEFINED	649	0.408	.442	0.476
HEADACHE	204	0.120	.139	0.158
ACCIDENTS, POISONINGS, & VIOLENCE	2573	1.685	1.752	1.820
TOTAL	17,514	11.752	11.927	12.103

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 5. SITORCALL DATA FOR U.S. NAVY SHIPS DEPLOYED TO EUROPE, 1967 - 1979

	FREQUENCY	LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	1060	1.123	1.195	1.267
DIARRHEA	537	0.554	0.606	0.657
DYSENTERY/ENTERITIS	15	0.008	0.017	0.026
SEXUALLY TRANSMITTED DISEASES	300	0.300	0.338	0.376
DERMATOPHYTOSIS	106	0.097	0.120	0.142
NEOPLASMS	1	0.000	0.001	0.003
ENDOCRINE, NUTRITIONAL & METABOLIC	33	0.024	0.037	0.050
BLOOD & BLOOD FORMING ORGANS	8	0.003	0.009	0.015
BEHAVIORAL	202	0.196	0.228	0.259
ALCOHOL ABUSE	10	0.004	0.011	0.018
NERVOUS SYSTEM & SENSE ORGANS	360	0.364	0.406	0.448
OTITIS MEDIA/OTITIS EXTERNA	208	0.203	0.235	0.266
CIRCULATORY SYSTEM	13	0.007	0.015	0.023
RESPIRATORY SYSTEM	2363	2.557	2.664	2.772
UPPER RESPIRATORY INFECTION	1371	1.464	1.546	1.628
NASOPHARYNGITIS/PHARYNGITIS	422	0.430	0.476	0.521
INFLUENZA	91	0.082	0.103	0.124
DIGESTIVE SYSTEM	887	0.934	1.000	1.066
GENITOURINARY SYSTEM	350	0.353	0.395	0.436
URETHRITIS (NON-SPECIFIC)	152	0.144	0.171	0.199
PREGNANCY, CHILDBIRTH & PUERPERIUM	0		0.000	
SKIN & SUBCUTANEOUS TISSUE	1098	1.165	1.238	1.311
CELLULITIS	62	0.052	0.070	0.087
DERMATITIS	141	0.133	0.159	0.185
MUSCULOSKELETAL SYSTEM	882	0.929	0.995	1.060
CONGENITAL ANOMALIES	1	0.000	0.001	0.003
SYMPTOMS & ILL-DEFINED	347	0.350	0.391	0.432
HEADACHE	286	0.285	0.322	0.360
ACCIDENTS, POISONINGS, & VIOLENCE	1303	1.390	1.469	1.549
TOTAL	8908	9.837	10.044	10.252

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 6. MONTHLY MORBIDITY DATA ACROSS U.S. NAVY SHIPS

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	2214	2.055	2.144	2.234	8505	3.376	3.449	3.522
DIARRHEA	—	—	—	—	1665	0.643	0.675	0.708
DYSENTERY/ENTERITIS	705	0.632	0.683	0.733	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	556	0.494	0.539	0.583	4813	1.897	1.952	2.007
DERMATOPHYTOSIS	617	0.550	0.598	0.645	1468	0.565	0.595	0.626
NEOPLASMS	3	0.000	0.003	0.006	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	62	0.045	0.060	0.075	192	0.067	0.078	0.089
BLOOD & BLOOD FORMING ORGANS	6	0.001	0.006	0.010	—	—	—	—
HEPATOCHOL	242	0.205	0.234	0.264	548	0.204	0.222	0.241
ALCOHOL ABUSE	61	0.044	0.059	0.074	172	0.059	0.070	0.080
NERVOUS SYSTEM & SENSE ORGANS	377	0.328	0.365	0.402	1037	0.395	0.421	0.446
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	1037	0.395	0.421	0.446
CIRCULATORY SYSTEM	131	0.105	0.127	0.149	—	—	—	—
RESPIRATORY SYSTEM	3020	2.821	2.925	3.029	11458	4.562	4.647	4.732
UPPER RESPIRATORY INFECTION	2241	2.081	2.170	2.260	7368	2.920	2.968	3.056
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	1952	0.756	0.792	0.827
INFLUENZA	482	0.425	0.467	0.508	1288	0.494	0.522	0.551
DIGESTIVE SYSTEM	323	0.279	0.313	0.347	1419	0.546	0.575	0.605
GENITOURINARY SYSTEM	762	0.686	0.738	0.790	3489	1.368	1.415	1.462
URETHRITIS (NON-SPECIFIC)	599	0.534	0.580	0.627	3137	1.228	1.272	1.317
PREGNANCY, CHILDBIRTH, & PUERPERIUM	0	—	0.000	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	1574	1.449	1.524	1.600	4873	1.921	1.976	2.032
CELLULITIS	209	0.175	0.202	0.230	332	0.120	0.135	0.149
DERMATITIS	398	0.348	0.385	0.423	409	0.150	0.166	0.182
MUSCULOSKELETAL SYSTEM	1080	0.984	1.046	1.108	5063	1.997	2.053	2.110
CONGENITAL ANOMALIES	0	—	0.000	—	—	—	—	—
SYMPTOM & ILL-DEFINED	723	0.649	0.700	0.751	142	0.048	0.058	0.067
HEADACHE	240	0.203	0.232	0.262	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	1727	1.594	1.673	1.752	2044	0.793	0.829	0.865
TOTAL	12,244	11.650	11.859	12.068	38,770	15.568	15.723	15.878

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 7. MONTHLY MORBIDITY DATA FOR U. S. NAVY SHIPS DEPLOYED TO NORTHEAST ASIA

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	25	1.137	1.868	2.600	366	2.218	2.471	2.724
DIARRHEA	—	—	—	—	79	0.416	0.533	0.651
DYSENTERY/ENTERITIS	8	0.184	0.598	1.012	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	1	0.000	0.075	0.221	51	0.250	0.344	0.439
DERMATOPHYTOSIS	8	0.184	0.598	1.012	204	1.188	1.377	1.566
NEOPLASMS	0	—	0.000	—	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	0	—	0.000	—	25	0.103	0.169	0.235
BLOOD & BLOOD FORMING ORGANS	0	—	0.000	—	—	—	—	—
BEHAVIORAL	24	1.077	1.794	2.511	52	0.256	0.351	0.446
ALCOHOL ABUSE	21	0.899	1.570	2.240	17	0.060	0.115	0.169
NERVOUS SYSTEM & SENSE ORGANS	7	0.136	0.523	0.911	31	0.136	0.209	0.283
OTITIS MEDIA/OTITIS EXTERNA	0	—	—	—	31	0.136	0.209	0.283
CIRCULATORY SYSTEM	12	0.390	0.897	1.404	—	—	—	—
RESPIRATORY SYSTEM	19	0.782	1.420	2.058	608	3.779	4.105	4.430
UPPER RESPIRATORY INFECTION	17	0.667	1.271	1.874	365	2.212	2.464	2.716
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	58	0.291	0.392	0.492
INFLUENZA	0	—	0.000	—	109	0.598	0.736	0.874
DIGESTIVE SYSTEM	2	0.000	0.149	0.357	92	0.494	0.621	0.748
GENITOURINARY SYSTEM	2	0.000	0.149	0.357	91	0.488	0.614	0.740
URETHRITIS (NON-SPECIFIC)	2	0.000	0.149	0.357	81	0.428	0.547	0.666
PREGNANCY, CHILD BIRTH, & PUERPERIUM	0	—	0.000	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	28	1.318	2.093	2.867	237	1.396	1.600	1.804
CELLULITIS	6	0.090	0.448	0.807	12	0.035	0.081	0.127
DERMATITIS	8	0.184	0.598	1.012	21	0.081	0.142	0.202
MUSCULOSKELETAL SYSTEM	32	1.564	2.392	3.219	249	1.472	1.681	1.890
CONGENITAL ANOMALIES	0	—	0.000	—	—	—	—	—
SYMPTOMS & ILL-DEFINED	16	0.610	1.196	1.781	1	0.000	0.007	0.020
HEADACHE	10	0.284	0.747	1.210	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	51	2.768	3.812	4.856	117	0.647	0.790	0.933
TOTAL	218	14.148	16.293	18.096	1869	12.049	12.617	13.186

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 8. MONTHLY MORBIDITY DATA FOR U.S. NAVY SHIPS DEPLOYED TO SOUTHEAST ASIA

	FREQUENCY	LOWER LIMIT	1965		FREQUENCY	LOWER LIMIT	1975	
			* RATE	UPPER LIMIT			RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	140	4.464	5.348	6.231	2002	5.447	5.696	5.944
DIARRHEA	—	—	—	—	177	0.429	0.504	0.578
DYSENTERY/ENTERITIS	20	0.429	0.764	1.099	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	98	3.004	3.743	4.483	1263	3.395	3.593	3.791
DERMATOPHYTOSIS	13	0.227	0.497	0.766	415	1.067	1.181	1.294
NEOPLASMS	0	—	0.000	—	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	0	—	0.000	—	24	0.041	0.068	0.096
BLOOD & BLOOD FORMING ORGANS	0	—	0.000	—	—	—	—	—
BEHAVIORAL	20	0.429	0.764	1.099	56	0.118	0.159	0.201
ALCOHOL ABUSE	2	0.000	0.076	0.182	16	0.023	0.046	0.068
NERVOUS SYSTEM & SENSE ORGANS	9	0.119	0.344	0.568	153	0.366	0.435	0.504
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	153	0.366	0.435	0.504
CIRCULATORY SYSTEM	1	0.000	0.038	0.113	—	—	—	—
RESPIRATORY SYSTEM	86	2.592	3.285	3.978	1805	4.899	5.135	5.371
UPPER RESPIRATORY INFECTION	59	1.679	2.254	2.828	1315	3.539	3.741	3.943
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	268	0.671	0.762	0.854
INFLUENZA	3	0.000	0.115	0.244	57	0.120	0.162	0.204
DIGESTIVE SYSTEM	2	0.000	0.076	0.182	345	0.878	0.982	1.085
GENITOURINARY SYSTEM	32	0.799	1.222	1.646	686	1.806	1.952	2.098
URETHRITIS (NON-SPECIFIC)	31	0.768	1.184	1.601	541	1.410	1.539	1.669
PREGNANCY, CHILDBIRTH, & PUERPERIUM	—	—	—	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	45	1.217	1.719	2.221	1218	3.271	3.465	3.659
CELLULITIS	4	0.003	0.153	0.302	79	0.175	0.225	0.274
DERMATITIS	1	0.000	0.038	0.113	104	0.239	0.296	0.353
MUSCULOSKELETAL SYSTEM	24	0.550	0.917	1.283	704	1.855	2.003	2.151
CONGENITAL ANOMALIES	0	—	0.000	—	—	—	—	—
SYMPTOMS & ILL-DEFINED	200	6.585	7.640	8.694	19	0.030	0.054	0.078
HEADACHE	2	0.000	0.076	0.182	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	12	0.199	0.458	0.718	391	1.002	1.112	1.223
TOTAL	571	20.042	21.811	23.581	7403	20.586	21.061	21.536

*RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 9. MONTHLY MORBIDITY DATA FOR U.S. NAVY SHIPS DEPLOYED TO EAST ASIA

	FREQUENCY	1985			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	230	3.445	3.956	4.466	4283	3.710	3.824	3.938
DIARRHEA	—	—	—	—	1004	0.841	0.896	0.952
DYSENTERY/ENTERITIS	47	0.577	0.808	1.039	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	131	1.868	2.253	2.638	2589	2.223	2.312	2.400
DERMATOPHYTOSIS	40	0.475	0.688	0.901	406	0.327	0.362	0.398
NEOPLASMS	0	—	0.000	—	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	1	0.000	0.017	0.051	125	0.092	0.112	0.131
BLOOD & BLOOD FORMING ORGANS	0	—	0.000	—	—	—	—	—
BEHAVIORAL	17	0.153	0.292	0.431	202	0.156	0.180	0.205
ALCOHOL ABUSE	11	0.077	0.189	0.301	106	0.077	0.095	0.113
NERVOUS SYSTEM & SENSE ORGANS	18	0.167	0.310	0.453	595	0.489	0.531	0.574
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	595	0.489	0.531	0.574
CIRCULATORY SYSTEM	2	0.000	0.034	0.082	—	—	—	—
RESPIRATORY SYSTEM	365	5.635	6.277	6.919	6503	5.666	5.806	5.947
UPPER RESPIRATORY INFECTION	321	4.918	5.521	6.123	4383	3.798	3.913	4.029
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	1013	0.849	0.904	0.960
INFLUENZA	38	0.446	0.654	0.861	978	0.818	0.873	0.928
DIGESTIVE SYSTEM	17	0.153	0.292	0.431	320	0.254	0.286	0.317
GENITOURINARY SYSTEM	80	1.075	1.376	1.677	2449	2.100	2.187	2.273
URETHRITIS (NON-SPECIFIC)	67	0.876	1.152	1.428	2332	1.998	2.082	2.167
PREGNANCY, CHILDREN, & FERTILITY	0	—	0.000	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	68	0.892	1.169	1.447	2277	1.950	2.033	2.116
CELLULITIS	15	0.127	0.258	0.388	186	0.142	0.166	0.190
DERMATITIS	15	0.127	0.258	0.388	183	0.140	0.163	0.187
MUSCULOSKELETAL SYSTEM	51	0.636	0.877	1.118	2886	2.483	2.577	2.671
CONGENITAL ANOMALIES	0	—	0.000	—	—	—	—	—
SYMPTOMS & ILL-DEFINED	50	0.622	0.860	1.098	63	0.042	0.056	0.070
HEADACHE	16	0.140	0.275	0.410	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	178	2.612	3.061	3.510	678	0.550	0.605	0.651
TOTAL	1077	17.427	18.523	19.619	20,381	17,950	18.197	18.445

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 10. MONTHLY MORBIDITY DATA FOR U.S. NAVY SHIPS DEPLOYED TO SOUTHWEST ASIA

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND INFESTIVE	117	1.133	1.383	1.634	130	4.867	5.873	6.879
DIARRHEA	—	—	—	—	84	2.985	3.795	4.605
DYSENTERY/ENTERITIS	51	0.438	0.603	0.768	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	4	0.001	0.047	0.094	18	0.438	0.813	1.188
DERMATOPHYTOSIS	55	0.478	0.650	0.822	4	0.004	0.181	0.357
NEOPLASMS	0	—	0.000	—	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	0	—	0.000	—	2	0.000	0.090	0.180
BLOOD & BLOOD FORMING ORGANS	0	—	0.000	—	—	—	—	—
BEHAVIORAL	12	0.062	0.142	0.222	23	0.615	1.039	1.463
ALCOHOL ABUSE	3	0.000	0.035	0.076	5	0.028	0.226	0.442
NERVOUS SYSTEM & SENSE ORGANS	35	0.277	0.414	0.551	9	0.141	0.407	0.693
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	9	0.141	0.407	0.693
CIRCULATORY SYSTEM	6	0.014	0.071	0.128	—	—	—	—
RESPIRATORY SYSTEM	288	3.012	3.405	3.797	179	6.907	8.087	9.267
UPPER RESPIRATORY INFECTION	234	2.412	2.766	3.120	68	2.343	3.072	3.801
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	33	0.983	1.491	2.000
INFLUENZA	41	0.336	0.485	0.633	3	0.000	0.136	0.272
DIGESTIVE SYSTEM	19	0.124	0.225	0.326	44	1.401	1.988	2.575
GENITOURINARY SYSTEM	17	0.106	0.201	0.296	11	0.203	0.497	0.791
URETHRITIS (NON-SPECIFIC)	10	0.045	0.118	0.192	5	0.028	0.226	0.442
PREGNANCY, CHILDBIRTH, & PUERPERIUM	0	—	0.000	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	70	0.634	0.828	1.021	133	4.991	6.009	7.027
CELLULITIS	20	0.133	0.236	0.340	17	0.403	0.768	1.133
DERMATITIS	15	0.088	0.177	0.267	2	0.000	0.090	0.180
MUSCULOSKELETAL SYSTEM	70	0.634	0.828	1.021	55	1.829	2.485	3.141
CONGENITAL ANOMALIES	0	—	0.000	—	—	—	—	—
SYMPTOMS & ILL-DEFINED	32	0.247	0.378	0.509	16	0.369	0.723	1.087
HEADACHE	21	0.142	0.248	0.354	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	63	0.561	0.745	0.929	129	4.825	5.828	6.831
TOTAL	729	7.996	8.619	9.242	731	30.672	33.026	35.179

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 11. MONTHLY MORBIDITY DATA FOR U.S. NAVY SHIPS DEPLOYED TO EUROPE

	FREQUENCY	1985			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	446	1.214	1.338	1.462	1690	1.992	2.092	2.192
DIARRHEA	—	—	—	—	313	0.344	0.387	0.430
DYSENTERY/ENTERITIS	207	0.536	0.621	0.706	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	29	0.055	0.087	0.119	881	1.019	1.091	1.162
DERMATOPHYTOSIS	146	0.367	0.438	0.509	427	0.478	0.529	0.579
NEOPLASMS	0	—	0.000	—	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	57	0.127	0.171	0.215	16	0.010	0.020	0.030
BLOOD & BLOOD FORMING ORGANS	0	—	0.000	—	—	—	—	—
BEHAVIORAL	80	0.187	0.240	0.292	210	0.225	0.260	0.295
ALCOHOL ABUSE	8	0.007	0.024	0.041	26	0.020	0.032	0.045
NERVOUS SYSTEM & SENSE ORGANS	95	0.228	0.285	0.342	243	0.263	0.301	0.339
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	243	0.263	0.301	0.339
CIRCULATORY SYSTEM	51	0.111	0.153	0.195	—	—	—	—
RESPIRATORY SYSTEM	1105	3.119	3.314	3.510	2289	2.718	2.833	2.949
UPPER RESPIRATORY INFECTION	820	2.291	2.460	2.628	1217	1.422	1.506	1.591
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	563	0.639	0.697	0.754
INFLUENZA	72	0.166	0.216	0.266	139	0.144	0.172	0.201
DIGESTIVE SYSTEM	156	0.394	0.468	0.541	601	0.684	0.744	0.803
GENITOURINARY SYSTEM	76	0.177	0.228	0.279	245	0.265	0.303	0.341
URETHRITIS (NON-SPECIFIC)	31	0.060	0.093	0.126	172	0.181	0.213	0.245
PREGNANCY, CHILDBIRTH, & PUERPERIUM	0	—	0.000	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	483	1.320	1.449	1.578	976	1.132	1.208	1.284
CELLULITIS	86	0.203	0.258	0.312	34	0.028	0.042	0.056
DERMATITIS	87	0.206	0.261	0.316	97	0.096	0.120	0.144
MUSCULOSKELETAL SYSTEM	313	0.835	0.939	1.043	1127	1.314	1.395	1.476
CONGENITAL ANOMALIES	0	—	0.000	—	—	—	—	—
SYMPTOMS & ILL-DEFINED	212	0.550	0.636	0.722	40	0.034	0.050	0.065
HEADACHE	109	0.266	0.327	0.388	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	721	2.005	2.163	2.320	662	0.757	0.819	0.882
TOTAL	3795	11.023	11.383	11.743	8099	9.808	10.025	10.242

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 12. MONTHLY MORBIDITY DATA ACROSS U.S. NAVAL SHORE STATIONS

	FREQUENCY	1965			FREQUENCY	1976		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	5213	0.780	0.802	0.824	2909	0.544	0.565	0.585
DIARRHEA	—	—	—	—	1600	0.295	0.311	0.326
DYSENTERY/ENTERITIS	2461	0.364	0.379	0.394	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	1395	0.203	0.215	0.226	696	0.125	0.135	0.145
DERMATOMYCOSIS	607	0.086	0.093	0.101	188	0.031	0.036	0.042
NEOPLASMS	41	0.004	0.006	0.008	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	989	0.143	0.152	0.162	317	0.055	0.062	0.068
BLOOD & BLOOD FORMING ORGANS	82	0.010	0.013	0.015	—	—	—	—
BEHAVIORAL	4387	0.655	0.675	0.695	910	0.165	0.177	0.188
ALCOHOL ABUSE	1625	0.238	0.250	0.262	242	0.041	0.047	0.053
NERVOUS SYSTEM & SENSE ORGANS	5586	0.837	0.859	0.882	2247	0.418	0.436	0.454
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	2247	0.418	0.436	0.454
CIRCULATORY SYSTEM	1982	0.291	0.305	0.318	—	—	—	—
RESPIRATORY SYSTEM	11,439	1.727	1.759	1.792	15,945	3.047	3.095	3.143
UPPER RESPIRATORY INFECTION	8526	1.284	1.311	1.339	8930	1.698	1.734	1.769
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	1803	0.334	0.350	0.366
INFLUENZA	1080	0.156	0.166	0.176	1777	0.329	0.345	0.361
DIGESTIVE SYSTEM	3005	0.446	0.462	0.479	3027	0.567	0.588	0.608
GENITOURINARY SYSTEM	4491	0.671	0.691	0.711	2368	0.441	0.460	0.478
URETHRITIS (NON-SPECIFIC)	938	0.135	0.144	0.154	590	0.105	0.115	0.124
PREGNANCY, CHILDBIRTH, & PUERPERIUM	795	0.114	0.122	0.131	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	7850	1.181	1.207	1.234	4324	0.814	0.839	0.864
CELLULITIS	981	0.141	0.151	0.160	336	0.058	0.065	0.072
DERMATITIS	1321	0.192	0.203	0.214	523	0.093	0.102	0.110
MUSCULOSKELETAL SYSTEM	8117	1.221	1.248	1.276	6287	1.190	1.220	1.251
CONGENITAL ANOMALIES	111	0.014	0.017	0.020	—	—	—	—
SYMPTOMS & ILL-DEFINED	6362	0.954	0.979	1.003	342	0.059	0.066	0.073
HEADACHE	1431	0.209	0.220	0.232	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	11,725	1.771	1.803	1.836	6122	1.159	1.188	1.218
TOTAL	72,175	11.021	11.101	11.182	44,798	8.616	8.696	8.776

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 13. MONTHLY MORBIDITY DATA FOR U.S. NAVAL SHORE STATIONS IN NORTHEAST ASIA (JAPAN)

	FREQUENCY	1965			FREQUENCY	1976		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	1788	1.174	1.230	1.288	831	0.699	0.750	0.801
DIARRHEA	—	—	—	—	251	0.199	0.227	0.255
DYSENTERY/ENTERITIS	797	0.510	0.548	0.587	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	651	0.414	0.448	0.482	424	0.346	0.383	0.419
DERMATOMYOSITIS	183	0.108	0.126	0.144	34	0.020	0.031	0.041
NEOPLASMS	12	0.004	0.008	0.013	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	62	0.032	0.043	0.053	68	0.047	0.061	0.076
BLOOD & BLOOD FORMING ORGANS	29	0.013	0.020	0.027	—	—	—	—
BEHAVIORAL	1703	1.116	1.172	1.228	476	0.391	0.430	0.468
ALCOHOL ABUSE	657	0.418	0.452	0.487	175	0.135	0.158	0.181
NERVOUS SYSTEM & SENSE ORGANS	2746	1.819	1.890	1.960	499	0.411	0.451	0.490
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	499	0.411	0.451	0.490
CIRCULATORY SYSTEM	570	0.360	0.392	0.424	—	—	—	—
RESPIRATORY SYSTEM	2459	1.625	1.692	1.759	4938	4.334	4.458	4.582
UPPER RESPIRATORY INFECTION	1723	1.130	1.186	1.242	3322	2.897	2.999	3.101
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	458	0.377	0.414	0.451
INFLUENZA	228	0.136	0.157	0.177	580	0.481	0.524	0.566
DIGESTIVE SYSTEM	709	0.452	0.488	0.524	856	0.721	0.773	0.825
GENITOURINARY SYSTEM	1648	1.079	1.134	1.189	749	0.628	0.676	0.725
URETHRITIS (NON-SPECIFIC)	653	0.415	0.449	0.484	283	0.226	0.256	0.285
PREGNANCY, CHILDBIRTH, & PUERPERIUM	96	0.053	0.066	0.079	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	2740	1.815	1.886	1.956	1132	0.962	1.022	1.082
CELLULITIS	423	0.263	0.291	0.319	136	0.102	0.123	0.143
DERMATITIS	384	0.238	0.264	0.291	116	0.086	0.105	0.124
MUSCULOSKELETAL SYSTEM	2157	1.422	1.484	1.547	2053	1.773	1.854	1.934
CONGENITAL ANOMALIES	13	0.004	0.009	0.014	—	—	—	—
SYMPTOMS & ILL-DEFINED	1730	1.134	1.191	1.247	87	0.062	0.079	0.095
HEADACHE	456	0.285	0.314	0.343	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	3769	2.511	2.594	2.676	2501	2.170	2.258	2.346
TOTAL	22,231	15.100	15.299	15.499	14,190	12.602	12.811	13.021

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 14. MONTHLY MORBIDITY DATA FOR U.S. MARINE SHORE STATIONS IN NORTHEAST ASIA (JAPAN)

	FREQUENCY	1965			FREQUENCY	1976		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	2076	0.193	0.202	0.210	3371	1.805	1.868	1.931
DIARRHEA	—	—	—	—	419	0.210	0.232	0.254
DYSENTERY/ENTERITIS	502	0.044	0.049	0.053	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	713	0.064	0.069	0.074	336	0.166	0.186	0.206
DERMATOPHYTOSIS	502	0.044	0.049	0.053	682	0.350	0.378	0.406
NEOPLASMS	151	0.012	0.015	0.017	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	650	0.058	0.063	0.068	503	0.254	0.279	0.303
BLOOD & BLOOD FORMING ORGANS	35	0.002	0.003	0.004	—	—	—	—
BEHAVIORAL	1767	0.164	0.172	0.180	148	0.069	0.082	0.095
ALCOHOL ABUSE	349	0.030	0.034	0.038	93	0.041	0.052	0.062
NERVOUS SYSTEM & SENSE ORGANS	1518	0.140	0.147	0.155	718	0.369	0.398	0.427
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	718	0.369	0.398	0.427
CIRCULATORY SYSTEM	709	0.064	0.069	0.074	—	—	—	—
RESPIRATORY SYSTEM	3371	0.316	0.327	0.338	6137	3.316	3.401	3.486
UPPER RESPIRATORY INFECTION	2421	0.226	0.235	0.244	2922	1.561	1.619	1.678
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	2371	1.261	1.314	1.367
INFLUENZA	344	0.030	0.033	0.037	621	0.317	0.344	0.371
DIGESTIVE SYSTEM	790	0.071	0.077	0.082	171	0.081	0.095	0.109
GENITOURINARY SYSTEM	2493	0.233	0.242	0.252	322	0.119	0.178	0.198
URETHRITIS (NON-SPECIFIC)	1277	0.117	0.124	0.131	246	0.119	0.136	0.153
PREGNANCY, CHILDBIRTH, & PUERPERIUM	630	0.056	0.061	0.066	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	2707	0.253	0.263	0.273	1994	1.057	1.105	1.154
CELLULITIS	528	0.047	0.051	0.056	307	0.151	0.170	0.189
DERMATITIS	375	0.033	0.036	0.040	307	0.151	0.170	0.189
MUSCULOSKELETAL SYSTEM	2869	0.268	0.279	0.289	5138	2.770	2.848	2.925
CONGENITAL ANOMALIES	28	0.002	0.003	0.004	—	—	—	—
SYMPTOMS & ILL-DEFINED	2125	0.198	0.206	0.215	36	0.013	0.020	0.026
HEADACHE	303	0.026	0.029	0.033	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	6270	0.594	0.609	0.624	991	0.515	0.549	0.583
TOTAL	28,189	2.706	2.738	2.770	19,529	10.672	10.823	10.974

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 15. MONTHLY MORBIDITY DATA FOR U.S. NAVAL SHORE STATION IN SOUTHWEST ASIA (BAHRAIN)

	FREQUENCY	1985			FREQUENCY	1976		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	42	2.054	2.942	3.831	174	3.931	4.616	5.300
DIARRHEA	—	—	—	—	132	2.905	3.502	4.098
DYSENTERY/ENTERITIS	23	0.953	1.611	2.269	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	2	0.000	0.140	0.334	0	—	0.000	—
DERMATOPHYTOSIS	14	0.467	0.981	1.494	26	0.425	0.690	0.955
NEOPLASMS	0	—	0.000	—	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	1	0.000	0.070	0.207	13	0.157	0.345	0.532
BLOOD & BLOOD FORMING ORGANS	0	—	0.000	—	—	—	—	—
BEHAVIORAL	13	0.415	0.911	1.406	13	0.157	0.345	0.532
ALCOHOL ABUSE	9	0.219	0.631	1.042	1	0.000	0.027	0.078
NERVOUS SYSTEM & SENSE ORGANS	22	0.893	1.541	2.185	37	0.665	0.981	1.298
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	37	0.665	0.981	1.298
CIRCULATORY SYSTEM	13	0.416	0.911	1.406	—	—	—	—
RESPIRATORY SYSTEM	56	2.898	3.923	4.949	375	8.946	9.947	10.949
UPPER RESPIRATORY INFECTION	42	2.054	2.942	3.831	303	7.136	8.038	8.939
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	41	0.755	1.088	1.420
INFLUENZA	13	0.416	0.911	1.406	26	0.425	0.690	0.955
DIGESTIVE SYSTEM	11	0.315	0.771	1.226	9	0.083	0.239	0.395
GENITOURINARY SYSTEM	14	0.467	0.981	1.494	20	0.298	0.531	0.763
URETHRITIS (NON-SPECIFIC)	2	0.000	0.140	0.334	16	0.216	0.424	0.632
PREGNANCY, CHILD BIRTH, & PUERPERIUM	0	—	0.000	—	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	50	2.534	3.503	4.472	53	1.028	1.406	1.784
CELLULITIS	7	0.127	0.490	0.854	6	0.032	0.159	0.286
DERMATITIS	8	0.172	0.560	0.949	4	0.002	0.106	0.210
MUSCULOSKELETAL SYSTEM	40	1.935	2.802	3.670	41	0.755	1.088	1.420
CONGENITAL ANOMALIES	—	—	—	—	—	—	—	—
SYMPTOMS & ILL-DEFINED	18	0.679	1.261	1.843	5	0.016	0.133	0.249
HEADACHE	9	0.219	0.631	1.042	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	43	2.113	3.012	3.912	14	0.177	0.371	0.566
TOTAL	323	20.189	22.629	25.068	754	18.588	20.001	21.414

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 16. MONTHLY MORBIDITY DATA FOR U.S. NAVAL SHORE STATIONS IN EUROPE

	FREQUENCY	1965			FREQUENCY	1976		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	2639	0.671	0.698	0.724	1904	0.454	0.475	0.497
DIARRHEA	—	—	—	—	1217	0.287	0.304	0.321
DYSENTERY, ENTERITIS	1452	0.364	0.384	0.404	—	—	—	—
SEXUALLY TRANSMITTED DISEASES	449	0.108	0.119	0.130	272	0.060	0.068	0.076
DERMATOPHYTOSIS	25	0.059	0.068	0.076	128	0.026	0.032	0.038
NEOPLASMS	16	0.002	0.004	0.006	—	—	—	—
ENDOCRINE, NUTRITIONAL & METABOLIC	704	0.172	0.186	0.200	236	0.051	0.059	0.066
BLOOD & BLOOD FORMING ORGANS	47	0.009	0.012	0.016	—	—	—	—
BEHAVIORAL	2267	0.575	0.599	0.624	421	0.095	0.105	0.115
ALCOHOL ABUSE	867	0.214	0.229	0.244	66	0.012	0.016	0.020
NERVOUS SYSTEM & SENSE ORGANS	2044	0.517	0.540	0.564	1711	0.407	0.427	0.447
OTITIS MEDIA/OTITIS EXTERNA	—	—	—	—	1711	0.407	0.427	0.447
CIRCULATORY SYSTEM	1098	0.273	0.290	0.308	—	—	—	—
RESPIRATORY SYSTEM	6544	1.688	1.730	1.772	10,632	2.604	2.654	2.704
UPPER RESPIRATORY INFECTION	4937	1.269	1.305	1.342	5305	1.289	1.324	1.360
NASOPHARYNGITIS/PHARYNGITIS	—	—	—	—	1304	0.308	0.326	0.343
INFLUENZA	624	0.152	0.165	0.178	1171	0.276	0.292	0.309
DIGESTIVE SYSTEM	1728	0.435	0.457	0.478	2162	0.517	0.540	0.562
GENITOURINARY SYSTEM	2099	0.529	0.552	0.576	1599	0.380	0.399	0.419
URETHRITIS (NON-SPECIFIC)	165	0.037	0.044	0.050	291	0.064	0.073	0.081
PREGNANCY, CHILD BIRTH, & Puerperium	603	0.147	0.159	0.172	—	—	—	—
SKIN & SUBCUTANEOUS TISSUE	3814	0.976	1.008	1.040	3139	0.756	0.784	0.811
CELLULITIS	377	0.090	0.100	0.110	194	0.042	0.048	0.055
DERMATITIS	771	0.190	0.204	0.218	403	0.091	0.101	0.110
MUSCULOSKELETAL SYSTEM	4829	1.241	1.277	1.313	4193	1.015	1.047	1.078
CONGENITAL ANOMALIES	97	0.020	0.026	0.031	—	—	—	—
SYMPTOMS & ILL-DEFINED	4130	1.059	1.092	1.125	250	0.055	0.062	0.070
HEADACHE	719	0.176	0.190	0.204	—	—	—	—
ACCIDENTS, POISONINGS, & VIOLENCE	6274	1.618	1.659	1.700	3607	0.871	0.900	0.930
TOTAL	38,923	10.189	10.291	10.393	29,854	7.368	7.452	7.536

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 17. HOSPITALIZATION DATA ACROSS U.S. NAVY SHIPS

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	13	0.006	0.014	0.021	86	0.037	0.047	0.057
DIARRHEA	1	0.000	0.001	0.003	26	0.009	0.014	0.020
DYSENTERY/ENTERITIS	2	0.000	0.002	0.005	1	0.000	0.001	0.002
SEXUALLY TRANSMITTED DISEASES	2	0.000	0.002	0.005	13	0.003	0.007	0.011
DERMATOMYOSITIS	0		0.000		3	0.000	0.002	0.004
NEOPLASMS	4	0.000	0.004	0.008	4	0.000	0.002	0.004
ENDOCRINE, NUTRITIONAL & METABOLIC	1	0.000	0.001	0.003	6	0.001	0.003	0.006
BLOOD & BLOOD FORMING ORGANS	0		0.000		0		0.000	
BEHAVIORAL	34	0.024	0.036	0.048	64	0.026	0.035	0.043
ALCOHOL ABUSE	19	0.011	0.020	0.029	24	0.008	0.013	0.018
NERVOUS SYSTEM & SENSE ORGANS	10	0.004	0.011	0.017	14	0.004	0.008	0.012
OTITIS MEDIA/OTITIS EXTERNA	2	0.000	0.002	0.005	4	0.000	0.002	0.004
CIRCULATORY SYSTEM	4	0.000	0.004	0.008	19	0.006	0.010	0.015
RESPIRATORY SYSTEM	6	0.001	0.006	0.012	43	0.016	0.023	0.030
UPPER RESPIRATORY INFECTION	0		0.000		4	0.000	0.002	0.004
NASOPHARYNGITIS/PHARYNGITIS	1	0.000	0.001	0.003	4	0.000	0.002	0.004
INFLUENZA	0		0.000		3	0.000	0.002	0.004
DIGESTIVE SYSTEM	13	0.006	0.014	0.021	54	0.022	0.029	0.037
GENITOURINARY SYSTEM	2	0.000	0.002	0.005	85	0.036	0.046	0.056
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILDBIRTH, & PUERPERIUM	0		0.000		0		0.000	
SKIN & SUBCUTANEOUS TISSUE	6	0.001	0.006	0.012	65	0.027	0.035	0.044
CELLULITIS	3	0.000	0.003	0.007	46	0.018	0.025	0.032
DERMATITIS	1	0.000	0.001	0.003	4	0.000	0.002	0.004
MUSCULOSKELETAL SYSTEM	21	0.013	0.022	0.032	24	0.008	0.013	0.018
CONGENITAL ANOMALIES	0		0.000		4	0.000	0.002	0.004
SYMPTOMS & ILL-DEFINED	40	0.029	0.043	0.056	29	0.010	0.016	0.022
HEADACHE	0		0.000		2	0.000	0.001	0.003
ACCIDENTS, POISONINGS, & VIOLENCE	37	0.027	0.039	0.052	73	0.031	0.040	0.049
TOTAL	191	0.174	0.203	0.232	570	0.285	0.310	0.336

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 18. HOSPITALIZATION DATA FROM U.S. NAVY SHIPS DEPLOYED IN EAST ASIA

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	9	0.013	0.036	0.060	82	0.053	0.068	0.082
DIARRHEA	0		0.000		22	0.011	0.019	0.027
DYSENTERY/ENTERITIS	0		0.000		1	0.000	0.001	0.002
SEXUALLY TRANSMITTED DISEASES	2	0.000	0.008	0.020	13	0.005	0.011	0.017
DERMATOPHYTOSIS	0		0.000		3	0.000	0.002	0.005
NEOPLASMS	1	0.000	0.004	0.012	4	0.000	0.003	0.007
ENDOCRINE, NUTRITIONAL & METABOLIC	0		0.000		5	0.000	0.004	0.008
BLOOD & BLOOD FORMING ORGANS	0		0.000		0		0.000	
BEHAVIORAL	16	0.033	0.065	0.096	41	0.024	0.034	0.044
ALCOHOL ABUSE	11	0.018	0.044	0.071	18	0.008	0.015	0.022
NERVOUS SYSTEM & SENSE ORGANS	2	0.000	0.008	0.020	10	0.003	0.008	0.013
OTITIS MEDIA/OTITIS EXTERNA	0		0.000		4	0.000	0.003	0.007
CIRCULATORY SYSTEM	2	0.000	0.008	0.020	17	0.007	0.014	0.021
HEMORRHOIDS	1	0.000	0.004	0.012	8	0.002	0.007	0.011
RESPIRATORY SYSTEM	4	0.000	0.016	0.032	33	0.018	0.027	0.037
UPPER RESPIRATORY INFECTION	0		0.000		4	0.000	0.003	0.007
NASOPHARYNGITIS/PHARYNGITIS	1	0.000	0.004	0.012	3	0.000	0.002	0.005
INFLUENZA	0		0.000		3	0.000	0.002	0.005
DIGESTIVE SYSTEM	5	0.002	0.020	0.038	35	0.019	0.029	0.038
GENITOURINARY SYSTEM	2	0.000	0.008	0.020	78	0.050	0.065	0.079
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILDBIRTH, & PUERPERIUM	0		0.000		0		0.000	
SKIN & SUBCUTANEOUS TISSUE	2	0.000	0.008	0.020	54	0.033	0.045	0.057
CELLULITIS	1	0.000	0.004	0.012	40	0.023	0.033	0.043
DERMATITIS	0		0.000		3	0.000	0.002	0.005
MUSCULOSKELETAL SYSTEM	6	0.005	0.024	0.044	21	0.010	0.017	0.025
CONGENITAL ANOMALIES	0		0.000		3	0.000	0.002	0.005
SYMPTOMS & ILL-DEFINED	4	0.000	0.016	0.032	25	0.013	0.021	0.029
HEADACHE	0		0.000		2	0.000	0.002	0.004
ACCIDENTS, POISONINGS, & VIOLENCE	6	0.005	0.024	0.044	47	0.028	0.039	0.050
TOTAL	59	0.178	0.239	0.300	455	0.342	0.376	0.411

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 19. HOSPITALIZATION DATA FROM U.S. NAVY SHIPS DEPLOYED IN SOUTHWEST ASIA

	FREQUENCY	1985			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	0		0.000		0		0.000	
DIARRHEA	0		0.000		0		0.000	
DYSENTERY/ENTERITIS	0		0.000		0		0.000	
SEXUALLY TRANSMITTED DISEASES	0		0.000		0		0.000	
DERMATOPHYTOSIS	0		0.000		0		0.000	
NEOPLASMS	1	0.000	0.010	0.030	0		0.000	
ENDOCRINE, NUTRITIONAL & METABOLIC	0		0.000		0		0.000	
BLOOD & BLOOD FORMING ORGANS	0		0.000		0		0.000	
BEHAVIORAL	2	0.000	0.021	0.049	1	0.000	0.047	0.140
ALCOHOL ABUSE	2	0.000	0.021	0.049	0		0.000	
NERVOUS SYSTEM & SENSE ORGANS	1	0.000	0.010	0.030	0		0.000	
OTITIS MEDIA/OTITIS EXTERNA	0		0.000		0		0.000	
CIRCULATORY SYSTEM	0		0.000		0		0.000	
RESPIRATORY SYSTEM	0		0.000		0		0.000	
UPPER RESPIRATORY INFECTION	0		0.000		0		0.000	
NASOPHARYNGITIS/PHARYNGITIS	0		0.000		0		0.000	
INFLUENZA	0		0.000		0		0.000	
DIGESTIVE SYSTEM	1	0.000	0.010	0.030	0		0.000	
GENITOURINARY SYSTEM	0		0.000		0		0.000	
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILD BIRTH, & PUERPERIUM	0		0.000		0		0.000	
SKIN & SUBCUTANEOUS TISSUE	0		0.000		0		0.000	
CELLULITIS	0		0.000		0		0.000	
DERMATITIS	0		0.000		0		0.000	
MUSCULOSKELETAL SYSTEM	0		0.000		0		0.000	
CONGENITAL ANOMALIES	0		0.000		0		0.000	
SYMPTOMS & ILL-DEFINED	0		0.000		0		0.000	
HEADACHE	0		0.000		0		0.000	
ACCIDENTS, POISONINGS, & VIOLENCE	0		0.000		1	0.000	0.047	0.140
TOTAL	5	0.006	0.051	0.096	2	0.000	0.095	0.226

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 20. HOSPITALIZATION DATA FROM U.S. NAVY SHIPS DEPLOYED IN EUROPE

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	4	0.000	0.013	0.026	4	0.000	0.007	0.013
DIAPYRRIA	1	0.000	0.003	0.010	3	0.000	0.005	0.011
DYSENTERY/ENTERITIS	2	0.000	0.007	0.016	0		0.000	
SEXUALLY TRANSMITTED DISEASES	0		0.000		0		0.000	
DERMATOPHYTOSIS	0		0.000		0		0.000	
NEOPLASMS	1	0.000	0.003	0.010	0		0.000	
ENDOCRINE, NUTRITIONAL & METABOLIC	0		0.000		1	0.000	0.002	0.005
BLOOD & BLOOD FORMING ORGANS	0		0.000		0		0.000	
BEHAVIORAL	6	0.004	0.020	0.035	21	0.020	0.035	0.051
ALCOHOL ABUSE	2	0.000	0.007	0.016	6	0.002	0.010	0.018
NERVOUS SYSTEM & SENSE ORGANS	4	0.000	0.013	0.026	4	0.000	0.007	0.013
OTITIS MEDIA/OTITIS EXTERNA	2	0.000	0.007	0.016	0		0.000	
CIRCULATORY SYSTEM	1	0.000	0.003	0.010	2	0.000	0.003	0.008
RESPIRATORY SYSTEM	2	0.000	0.007	0.016	10	0.006	0.017	0.027
UPPER RESPIRATORY INFECTION	0		0.000		0		0.000	
NASOPHARYNGITIS/PHARYNGITIS	0		0.000		1	0.000	0.002	0.005
INFLUENZA	0		0.000		0		0.000	
DIGESTIVE SYSTEM	6	0.004	0.020	0.035	18	0.016	0.030	0.044
GENITOURINARY SYSTEM	0		0.000		7	0.003	0.012	0.021
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILD BIRTH, & PUERPERIUM	0		0.000		0		0.000	
SKIN & SUBCUTANEOUS TISSUE	3	0.000	0.010	0.021	11	0.008	0.019	0.030
CELLULITIS	2	0.000	0.007	0.016	6	0.002	0.010	0.018
DERMATITIS	1	0.000	0.003	0.010	1	0.000	0.002	0.005
MUSCULOSKELETAL SYSTEM	11	0.015	0.036	0.057	3	0.000	0.005	0.011
CONGENITAL ANOMALIES	0		0.000		0		0.000	
SYMPTOMS & ILL-DEFINED	35	0.077	0.115	0.153	4	0.000	0.007	0.013
HEADACHE	0		0.000		0		0.000	
ACCIDENTS, POISONINGS, & VIOLENCE	23	0.045	0.075	0.106	25	0.026	0.042	0.059
TOTAL	96	0.252	0.315	0.378	110	0.151	0.186	0.221

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 21. HOSPITALIZATION DATA ACROSS U.S. NAVAL SHORE STATIONS

	FREQUENCY	LOWER LIMIT	1985		FREQUENCY	LOWER LIMIT	1975	
			* RATE	UPPER LIMIT			RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	74	0.022	0.029	0.036	51	0.013	0.018	0.023
DIARRHEA	21	0.005	0.008	0.012	15	0.003	0.005	0.008
DYSENTERY/ENTERITIS	8	0.001	0.003	0.005	4	0.000	0.001	0.003
SEXUALLY TRANSMITTED DISEASES	4	0.000	0.002	0.003	4	0.000	0.001	0.003
DERMATOPHYTOSIS	1	0.000	0.000	0.001	1	0.000	0.000	0.001
NEOPLASMS	12	0.002	0.005	0.007	5	0.000	0.002	0.003
ENDOCRINE, NUTRITIONAL & METABOLIC	12	0.002	0.005	0.007	2	0.000	0.001	0.002
BLOOD & BLOOD FORMING ORGANS	2	0.000	0.001	0.002	3	0.000	0.001	0.002
BEHAVIORAL	137	0.045	0.054	0.063	122	0.036	0.044	0.052
ALCOHOL ABUSE	84	0.026	0.033	0.040	47	0.012	0.017	0.022
NERVOUS SYSTEM & SENSE ORGANS	23	0.005	0.009	0.013	15	0.003	0.005	0.008
OTITIS MEDIA/OTITIS EXTERNA	1	0.000	0.000	0.001	1	0.000	0.000	0.001
CIRCULATORY SYSTEM	24	0.006	0.009	0.013	24	0.005	0.009	0.012
RESPIRATORY SYSTEM	45	0.013	0.018	0.023	38	0.009	0.014	0.018
UPPER RESPIRATORY INFECTION	5	0.000	0.002	0.004	0	0.000	—	0.000
NASOPHARYNGITIS/PHARYNGITIS	2	0.000	0.001	0.002	1	0.000	0.000	0.001
INFLUENZA	0	—	0.000	—	3	0.000	0.001	0.002
DIGESTIVE SYSTEM	97	0.030	0.038	0.046	57	0.015	0.021	0.026
GENITOURINARY SYSTEM	62	0.018	0.024	0.030	58	0.016	0.021	0.026
URETHRITIS (NON-SPECIFIC)	0	—	0.000	—	0	—	0.000	—
PREGNANCY, CHILD BIRTH, & PUERPERIUM	185	0.062	0.073	0.083	19	0.004	0.007	0.010
SKIN & SUBCUTANEOUS TISSUE	36	0.010	0.014	0.019	38	0.009	0.014	0.018
CELLULITIS	22	0.005	0.009	0.012	19	0.004	0.007	0.010
DERMATITIS	1	0.000	0.000	0.001	0	—	0.000	—
MUSCULOSKELETAL SYSTEM	67	0.020	0.026	0.033	52	0.014	0.019	0.024
CONGENITAL ANOMALIES	2	0.000	0.001	0.002	3	0.000	0.001	0.002
SYMPTOMS & ILL-DEFINED	56	0.016	0.022	0.028	34	0.008	0.012	0.016
HEADACHE	1	0.000	0.000	0.001	1	0.000	0.000	0.001
ACCIDENTS, POISONINGS, & VIOLENCE	146	0.048	0.057	0.067	143	0.043	0.051	0.060
TOTAL	980	0.361	0.385	0.409	664	0.221	0.239	0.257

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 22. HOSPITALIZATION DATA FROM U.S. NAVAL SHORE STATIONS IN NORTHEAST ASIA (JAPAN)

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	1	0.000	0.003	0.010	2	0.000	0.006	0.014
DIARRHEA	0		0.000		1	0.000	0.003	0.008
DYSENTERY/ENTERITIS	0		0.000		0		0.000	
SEXUALLY TRANSMITTED DISEASES	0		0.000		0		0.000	
DERMATOMYOSITIS	0		0.000		0		0.000	
NEOPLASMS	1	0.000	0.003	0.010	2	0.000	0.006	0.014
ENDOCRINE, NUTRITIONAL & METABOLIC	1	0.000	0.003	0.010	0		0.000	
BLOOD & BLOOD FORMING ORGANS	0		0.000		0		0.000	
BEHAVIORAL	12	0.017	0.039	0.060	2	0.000	0.006	0.014
ALCOHOL ABUSE	9	0.010	0.029	0.048	2	0.000	0.006	0.014
NERVOUS SYSTEM & SENSE ORGANS	2	0.000	0.006	0.015	1	0.000	0.003	0.008
OTITIS MEDIA/OTITIS EXTERNA	0		0.000		0		0.000	
CIRCULATORY SYSTEM	0		0.000		1	0.000	0.003	0.008
RESPIRATORY SYSTEM	5	0.002	0.016	0.030	6	0.004	0.017	0.031
UPPER RESPIRATORY INFECTION	1	0.000	0.003	0.010	0		0.000	
NASOPHARYNGITIS/PHARYNGITIS	0		0.000		0		0.000	
INFLUENZA	0		0.000		0		0.000	
DIGESTIVE SYSTEM	1	0.000	0.003	0.010	4	0.000	0.012	0.023
GENITOURINARY SYSTEM	5	0.002	0.016	0.030	3	0.000	0.009	0.018
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILDBIRTH, & PUERPERIUM	8	0.008	0.026	0.044	4	0.000	0.012	0.023
SKIN & SUBCUTANEOUS TISSUE	1	0.000	0.003	0.010	3	0.000	0.009	0.018
CELLULITIS	1	0.000	0.003	0.010	1	0.000	0.003	0.008
DERMATITIS	0		0.000		0		0.000	
MUSCULOSKELETAL SYSTEM	7	0.006	0.023	0.039	3	0.000	0.009	0.018
CONGENITAL ANOMALIES	0		0.000		0		0.000	
SYMPTOMS & ILL-DEFINED	1	0.000	0.003	0.010	2	0.000	0.006	0.014
HEADACHE	0		0.000		0		0.000	
ACCIDENTS, POISONINGS, & VIOLENCE	6	0.004	0.019	0.035	14	0.019	0.040	0.062
TOTAL	51	0.119	0.164	0.209	47	0.097	0.135	0.174

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 23. HOSPITALIZATION DATA FROM U.S. NAVAL SHORE STATIONS IN SOUTHEAST ASIA (PHILIPPINES)

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	28	0.032	0.051	0.070	22	0.020	0.034	0.048
DIARRHEA	3	0.000	0.005	0.012	2	0.000	0.003	0.007
DYSENTERY/ENTERITIS	2	0.000	0.004	0.009	3	0.000	0.004	0.010
SEXUALLY TRANSMITTED DISEASES	2	0.000	0.004	0.009	2	0.000	0.003	0.007
DERMATOMYOSITIS	1	0.000	0.002	0.005	0		0.000	
NEOPLASMS	4	0.000	0.007	0.014	1	0.000	0.002	0.005
ENDOCRINE, NUTRITIONAL & METABOLIC	1	0.000	0.002	0.005	0		0.000	
BLOOD & BLOOD FORMING ORGANS	0		0.000		1	0.000	0.002	0.005
BEHAVIORAL	26	0.029	0.047	0.065	32	0.032	0.050	0.067
ALCOHOL ABUSE	17	0.016	0.031	0.045	22	0.020	0.034	0.048
NERVOUS SYSTEM & SENSE ORGANS	4	0.000	0.007	0.014	2	0.000	0.003	0.007
OTITIS MEDIA/OTITIS EXTERNA	0		0.000		0		0.000	
CIRCULATORY SYSTEM	7	0.003	0.013	0.022	3	0.000	0.004	0.010
RESPIRATORY SYSTEM	15	0.013	0.027	0.041	8	0.004	0.012	0.021
UPPER RESPIRATORY INFECTION	3	0.000	0.005	0.012	0		0.000	
NASOPHARYNGITIS/PHARYNGITIS	1	0.000	0.002	0.005	0		0.000	
INFLUENZA	0		0.000		0		0.000	
DIGESTIVE SYSTEM	30	0.035	0.054	0.074	15	0.012	0.023	0.035
GENITOURINARY SYSTEM	17	0.016	0.031	0.045	23	0.021	0.036	0.050
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILDBIRTH, & PUERPERIUM	17	0.016	0.031	0.045	0		0.000	
Skin & SUBCUTANEOUS TISSUE	13	0.011	0.024	0.036	19	0.016	0.030	0.043
CELLULITIS	8	0.004	0.014	0.024	11	0.007	0.017	0.027
DERMATITIS	0		0.000		0		0.000	
MUSCULOSKELETAL SYSTEM	12	0.009	0.022	0.034	12	0.008	0.019	0.029
CONGENITAL ANOMALIES	0		0.000		0		0.000	
SYMPTOMS & ILL-DEFINED	16	0.015	0.029	0.043	5	0.001	0.008	0.015
HEADACHE	0		0.000		0		0.000	
ACCIDENTS, POISONINGS, & VIOLENCE	33	0.039	0.060	0.080	54	0.062	0.084	0.106
TOTAL	223	0.351	0.404	0.457	197	0.263	0.306	0.349

*RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 24. HOSPITALIZATION DATA FROM U.S. NAVAL SHORE STATION IN SOUTHWEST ASIA (EMIRAIN)

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER LIMIT	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	0		0.000		0		0.000	
DIARRHEA	0		0.000		0		0.000	
DYSENTERY/ENTERITIS	0		0.000		0		0.000	
SEXUALLY TRANSMITTED DISEASES	0		0.000		0		0.000	
DERMATOPHYTOSIS	0		0.000		0		0.000	
NEOPLASMS	0		0.000		0		0.000	
ENDOCRINE, NUTRITIONAL & METABOLIC	0		0.000		0		0.000	
BLOOD & BLOOD FORMING ORGANS	0		0.000		0		0.000	
BEHAVIORAL	2	0.000	0.068	0.163	0		0.000	
ALCOHOL ABUSE	2	0.000	0.068	0.163	0		0.000	
NERVOUS SYSTEM & SENSE ORGANS	0		0.000		0		0.000	
OTITIS MEDIA/OTITIS EXTERNA	0		0.000		0		0.000	
CIRCULATORY SYSTEM	0		0.000		0		0.000	
RESPIRATORY SYSTEM	0		0.000		0		0.000	
UPPER RESPIRATORY INFECTION	0		0.000		0		0.000	
NASOPHARYNGITIS/PHARYNGITIS	0		0.000		0		0.000	
INFLUENZA	0		0.000		0		0.000	
PNEUMONIA	0		0.000		0		0.000	
DIGESTIVE SYSTEM	0		0.000		0		0.000	
GENITOURINARY SYSTEM	0		0.000		0		0.000	
URETHRITIS (NON-SPECIFIC)	0		0.000		0		0.000	
PREGNANCY, CHILDBIRTH, & PUERPERIUM	0		0.000		0		0.000	
SKIN & SUBCUTANEOUS TISSUE	0		0.000		0		0.000	
CELLULITIS	0		0.000		0		0.000	
DERMATITIS	0		0.000		0		0.000	
MUSCULOSKELETAL SYSTEM	3	0.000	0.103	0.219	0		0.000	
CONGENITAL ANOMALIES	0		0.000		0		0.000	
SYMPTOMS & ILL-DEFINED	1	0.000	0.034	0.101	0		0.000	
HEADACHE	0		0.000		0		0.000	
ACCIDENTS, POISONINGS, & VIOLENCE	0		0.000		0		0.000	
TOTAL	6	0.041	0.205	0.370	0		0.000	

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 25. HOSPITALIZATION DATA FROM U.S. NAVAL SHORE STATIONS IN EUROPE

	FREQUENCY	1965			FREQUENCY	1975		
		LOWER UPPER	* RATE	UPPER LIMIT		LOWER LIMIT	RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	32	0.018	0.027	0.037	25	0.012	0.019	0.027
DIARRHEA	11	0.004	0.009	0.015	12	0.004	0.009	0.015
DYSENTERY/ENTERITIS	5	0.000	0.004	0.008	1	0.000	0.001	0.002
SEXUALLY TRANSMITTED DISEASES	1	0.000	0.001	0.003	2	0.000	0.002	0.004
DERMATOPHYTOSIS	0	—	0.000	—	—	0.000	0.001	0.002
NEOPLASMS	4	0.000	0.003	0.007	1	0.000	0.001	0.002
ENDOCRINE, NUTRITIONAL & METABOLIC	4	0.000	0.003	0.007	1	0.000	0.001	0.002
BLOOD & BLOOD FORMING ORGANS	2	0.000	0.002	0.004	1	0.000	0.001	0.002
BEHAVIORAL	69	0.045	0.059	0.073	59	0.034	0.046	0.058
ALCOHOL ABUSE	47	0.029	0.040	0.052	17	0.007	0.013	0.020
NERVOUS SYSTEM & SENSE ORGANS	11	0.004	0.009	0.015	7	0.001	0.005	0.010
OTITIS MEDIA/OTITIS EXTERNA	1	0.000	0.001	0.002	0	—	0.000	—
CIRCULATORY SYSTEM	11	0.004	0.009	0.015	10	0.003	0.008	0.013
RESPIRATORY SYSTEM	13	0.005	0.011	0.017	16	0.006	0.012	0.019
UPPER RESPIRATORY INFECTION	1	0.000	0.001	0.002	0	—	0.000	—
NASOPHARYNGITIS/PHARYNGITIS	1	0.000	0.001	0.002	0	—	0.000	—
INFLUENZA	0	—	0.000	—	2	0.000	0.002	0.004
DIGESTIVE SYSTEM	44	0.027	0.038	0.049	24	0.011	0.019	0.026
GENITOURINARY SYSTEM	21	0.010	0.018	0.026	22	0.010	0.017	0.024
URETHRITIS (NON-SPECIFIC)	0	—	0.000	—	0	—	0.000	—
PREGNANCY, CHILDBIRTH, & PERIPARTUM	141	0.101	0.121	0.141	13	0.005	0.010	0.016
SKIN & SUBCUTANEOUS TISSUE	17	0.008	0.015	0.022	14	0.005	0.011	0.017
CELLULITIS	11	0.004	0.009	0.015	7	0.001	0.005	0.010
DERMATITIS	1	0.000	0.001	0.002	0	—	0.000	—
MUSCULOSKELETAL SYSTEM	32	0.018	0.027	0.037	25	0.012	0.019	0.027
CONGENITAL ANOMALIES	2	0.000	0.002	0.004	3	0.000	0.002	0.005
SYMPTOMS & ILL-DEFINED	21	0.010	0.018	0.026	17	0.007	0.013	0.020
HEADACHE	1	0.000	0.001	0.002	1	0.000	0.001	0.002
ACCIDENTS, POISONINGS, & VIOLENCE	86	0.058	0.074	0.090	59	0.034	0.046	0.058
TOTAL	510	0.400	0.438	0.476	297	0.205	0.231	0.258

* RATES ARE PER 1,000 STRENGTH PER DAY.

TABLE 26. HOSPITALIZATION DATA FROM U.S. MARINE SHORE STATIONS IN EUROPE (ITALY)

			1984	
	FREQUENCY	LOWER LIMIT	* RATE	UPPER LIMIT
INFECTIVE AND PARASITIC	4	0.001	0.050	0.099
DIARRHEA	1	0.000	0.012	0.037
DYSENTERY/ENTERITIS	0		0.000	
SEXUALLY TRANSMITTED DISEASES	0		0.000	
DERMATOMYOSITIS	0		0.000	
NEOPLASMS	0		0.000	
ENDOCRINE, NUTRITIONAL & METABOLIC	0		0.000	
BLOOD & BLOOD FORMING ORGANS	0		0.000	
BEHAVIORAL	3	0.000	0.038	0.080
ALCOHOL ABUSE	2	0.000	0.025	0.060
NERVOUS SYSTEM & SENSE ORGANS	1	0.000	0.012	0.037
OTITIS MEDIA/OTITIS EXTERNA	0		0.000	
CIRCULATORY SYSTEM	0		0.000	
RESPIRATORY SYSTEM	1	0.000	0.012	0.037
UPPER RESPIRATORY INFECTION	0		0.000	
NASOPHARYNGITIS/PHARYNGITIS	0		0.000	
INFLUENZA	0		0.000	
DIGESTIVE SYSTEM	3	0.000	0.038	0.080
GENITOURINARY SYSTEM	1	0.000	0.012	0.037
URETHRITIS (NON-SPECIFIC)	0		0.000	
PREGNANCY, CHILD BIRTH & PUERPERIUM	0		0.000	
SKIN & SUBCUTANEOUS TISSUE	1	0.000	0.012	0.037
CELLULITIS	0		0.000	
DERMATITIS	0		0.000	
MUSCULOSKELETAL SYSTEM	1	0.000	0.012	0.037
CONGENITAL ANOMALIES	0		0.000	
SYMPTOMS & ILL-DEFINED	1	0.000	0.012	0.037
HEADACHE	0		0.000	
ACCIDENTS, POISONINGS, & VIOLENCE	10	0.048	0.125	0.203
TOTAL	26	0.200	0.325	0.450

* RATES ARE PER 1,000 STRENGTH PER DAY.

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19. ABSTRACT (Continue on reverse if necessary and identify by block number) The effectiveness of Medical Resource planning is dependent upon the reliability of the Disease and Non-Battle Injury (DNBI) rates used to project personnel and supply requirements. An appraisal of the Medical Information Sources available yielded three separate bases of information: 1). Sickcall data collected during various ship deployments between 1967 and 1979, 2) Monthly morbidity reports filed by ships and shore based clinics, 3) Chronological histories of medical inpatient information. Rates of illnesses and injuries for Navy personnel over various geographical theaters were computed. Sickcall data across Navy ships yielded an overall rate of 11.2 per 1000 strength per day with specific geographical areas ranging from 8.8 to 11.9. Monthly morbidity data yielded an overall shipboard rate of 11.9 with rates for various theaters ranging from 8.6 (Southwest Asia) to 21.8 (Southeast Asia). Shore station morbidity rates varied from 10.2 to 22.6. Hospital admission data indicated an overall afloat rate of 0.203 and an ashore rate of 0.315. A patient encounter system that would allow a wider range of illnesses to be recorded, distinguish between Navy and					
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Marine personnel, and indicate illness disposition has been recommended.