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XVIII

SECTION

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DATA AS OF 31 JULY 1943

ARMY SERVICE FORCES, WAR DEPARTMENT

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HEALTH

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DISEASE AND INJURY

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NONEFFECTIVE RATES

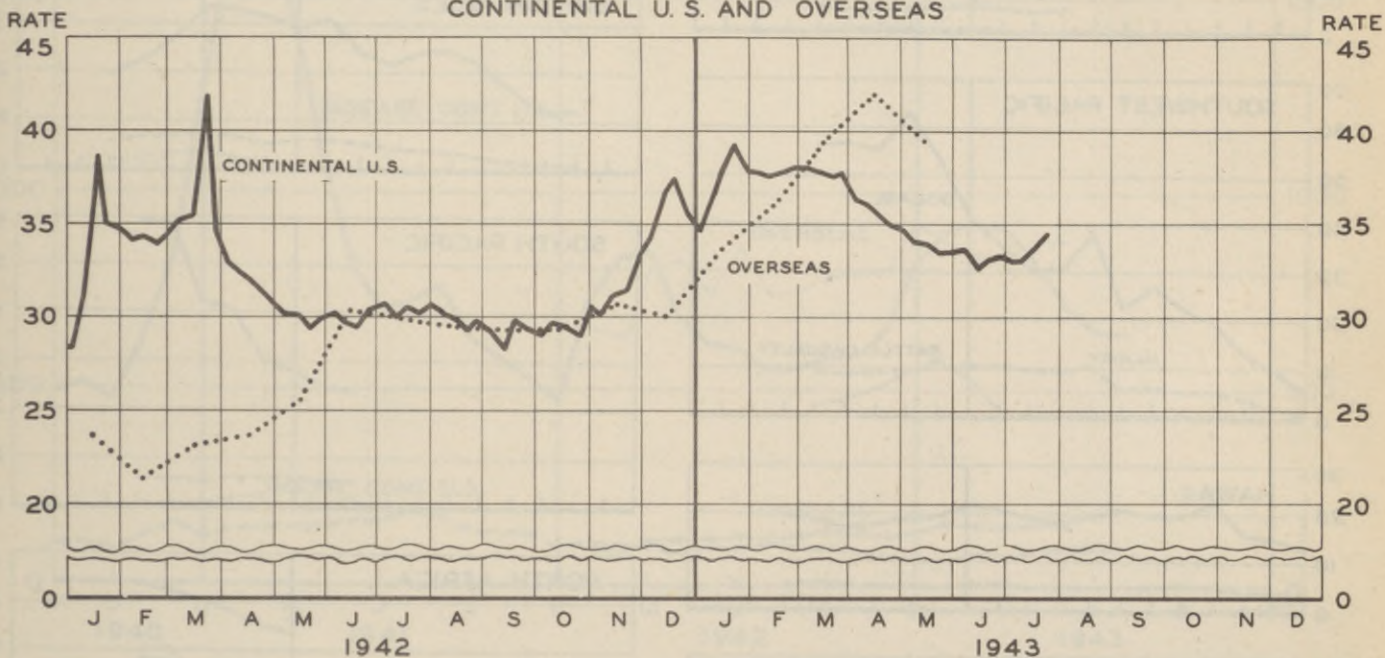
Advance information is now available on the trend of the average noneffective rate overseas, and a tentative line has been added to the chart below to permit comparison of the experience at home and abroad. The climb during 1942 and early 1943 reflects the changed distribution of forces overseas and later the influence of combat conditions, especially in the highly malarious portions of the South and Southwest Pacific. In March for the first time the overseas rate advanced well ahead of that for troops at home and subsequent rates have been even higher.

The average daily noneffective rate for the Continental U. S. reached a low point of 33.0 per thousand men during the first half of July. During the next two weeks it rose slightly and stood at 34.4 on 24 July. If the low point for 1943 was actually reached in July, it was considerably higher than that of about 28 recorded for 1942.

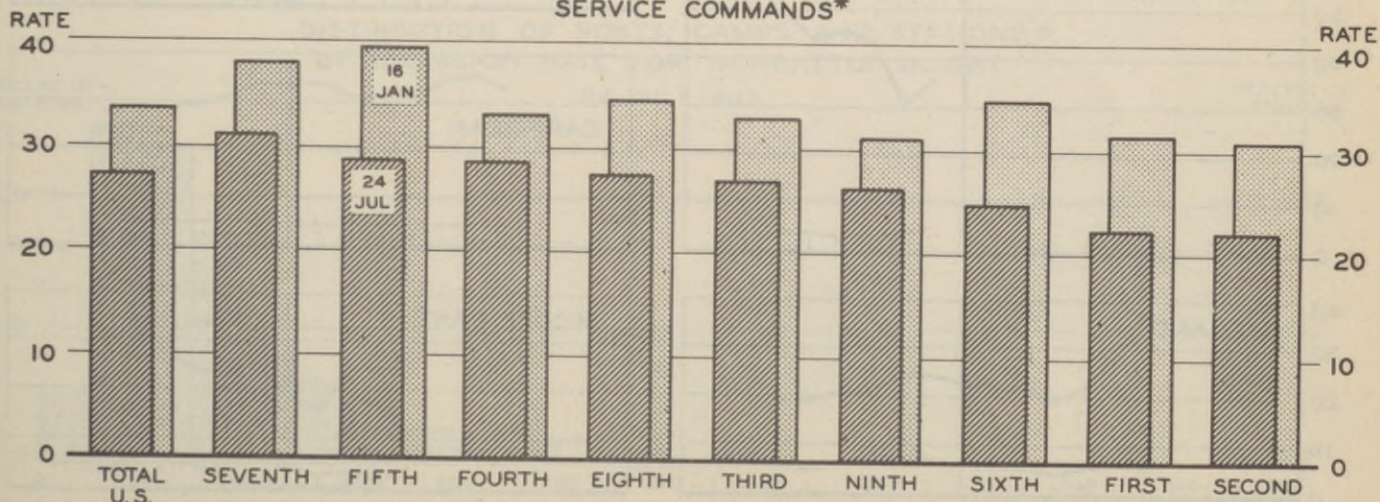
The chart at the bottom of the page compares the nine service commands with respect to their noneffective rates on 16 January and 24 July 1943, showing the extent to which each has shared in the general decline which occurred during this interval. Comparison of service commands in this fashion is complicated by the fact that any service command, e.g. the fifth, having a high proportion of general hospital beds, will by that token tend to have a high noneffective rate. In order to permit a meaningful comparison it is necessary to exclude the general hospital patients from the noneffective rates for each service command. This explains why the general level of the rates is so much lower than that plotted in the chart above for the total U. S. on the same dates.

NONEFFECTIVES PER THOUSAND MEN PER DAY

CONTINENTAL U. S. AND OVERSEAS



SERVICE COMMANDS*



* Less patients in General Hospitals

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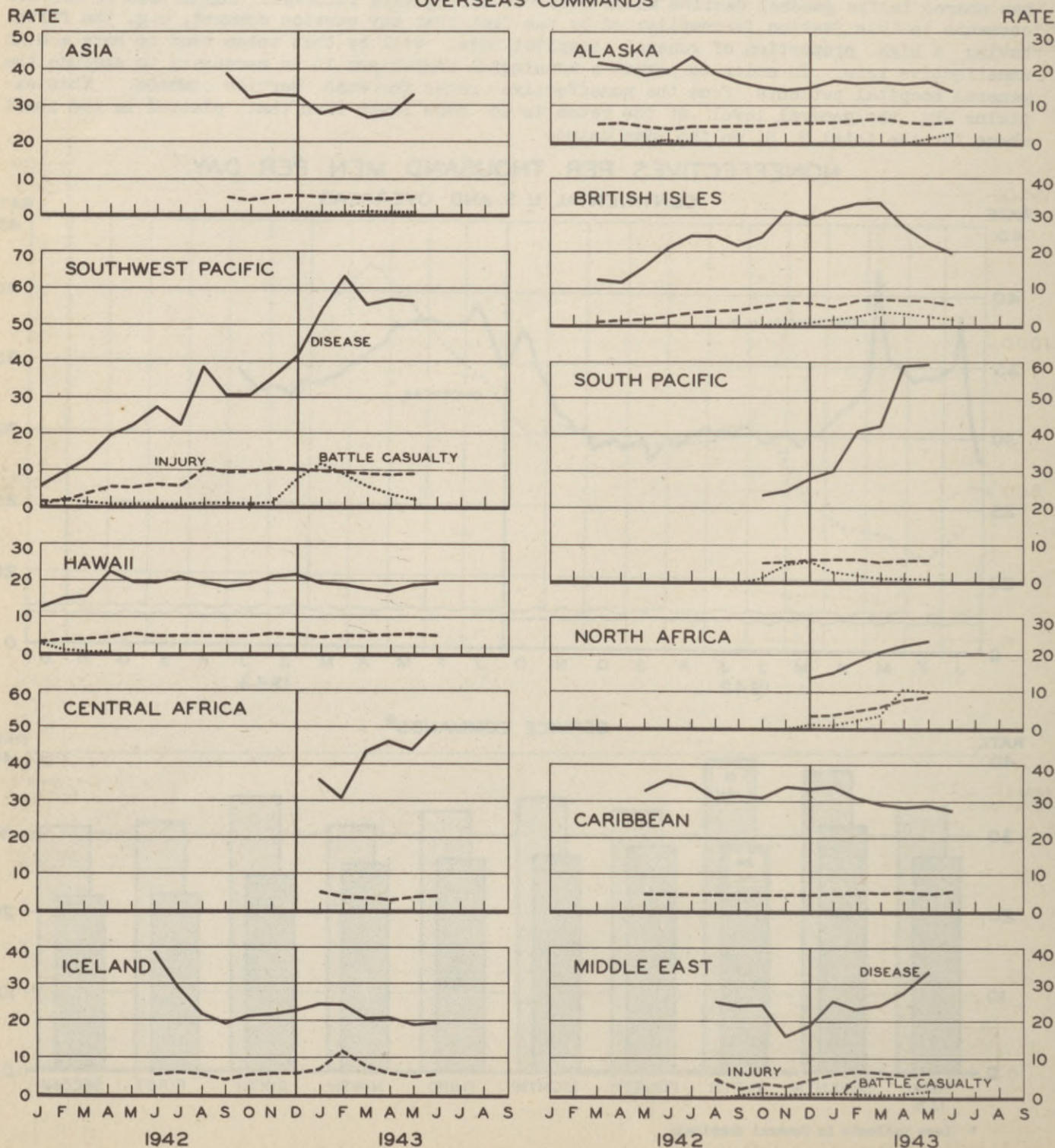
DISEASE AND INJURY

NONEFFECTIVE RATES OVERSEAS

In the charts which follow the noneffective rate for each theater or other command is subdivided into the components attributable to disease, nonbattle injury, and battle casualty. In each instance disease is the major factor making for noneffectiveness. Only in the South Pacific, the Southwest Pacific, and North Africa has noneffectiveness from battle casualty approached that caused by nonbattle injury.

The relative importance of disease as a cause of noneffectiveness, especially in the South and Southwest Pacific, and in Central Africa, underscores the problem of controlling communicable disease, especially malaria, diarrhea and dysentery, venereal diseases, and dengue. The high winter rates among troops stationed in the British Isles have now declined to a more satisfactory level. In the Middle East noneffectiveness has climbed steadily since February. The influence of the diarrheal diseases alone has been sufficient to increase the rate by four per thousand since February.

NONEFFECTIVES PER THOUSAND MEN PER DAY OVERSEAS COMMANDS



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DISEASE AND INJURY

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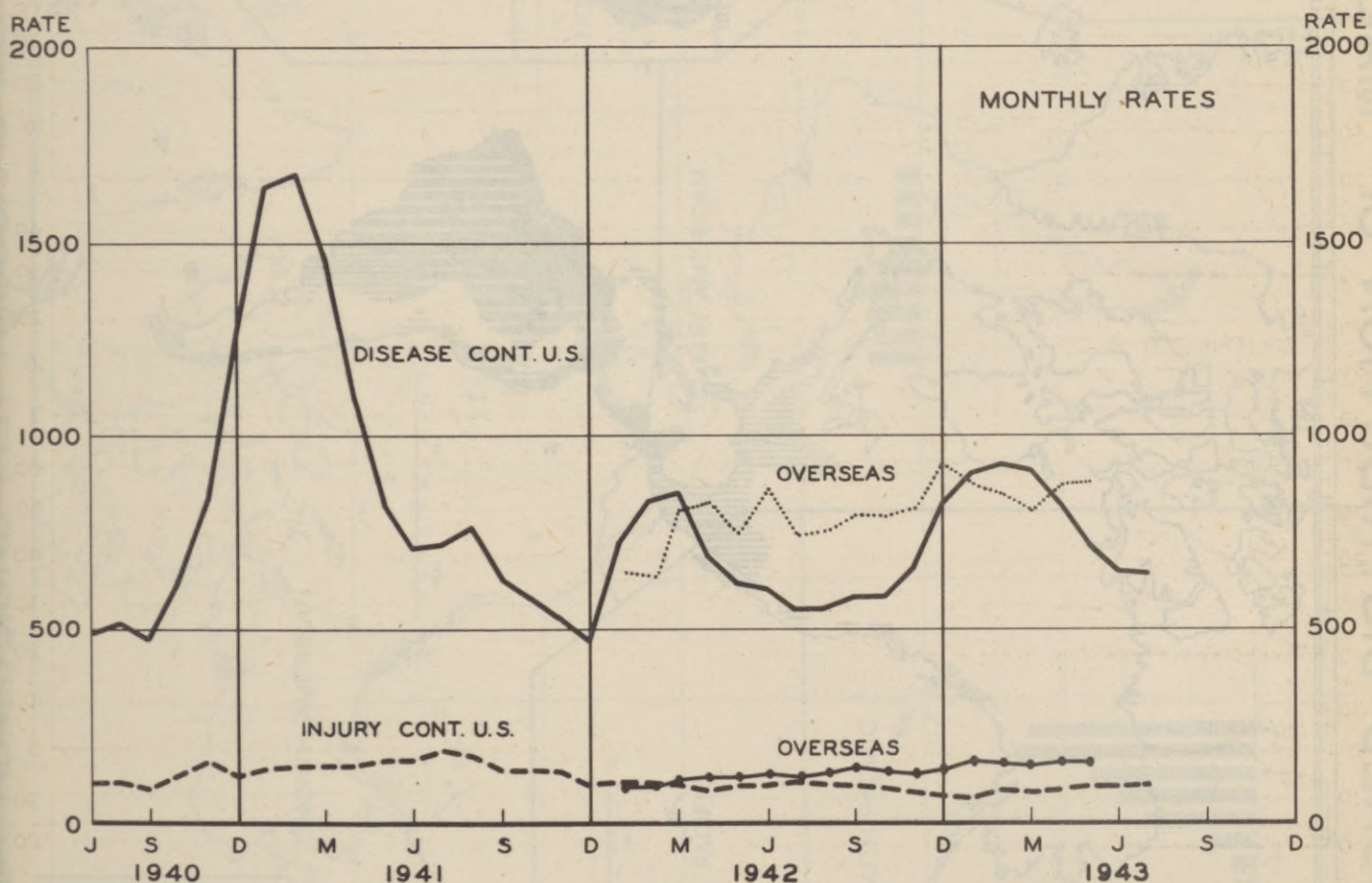
DISEASE AND NONBATTLE INJURY

The preliminary admission rate for disease among troops in the Continental U. S. advanced only slightly from 640 during June to 644 during July. The rate of admission for injury also increased by a small amount to 98 admissions per thousand men per year.

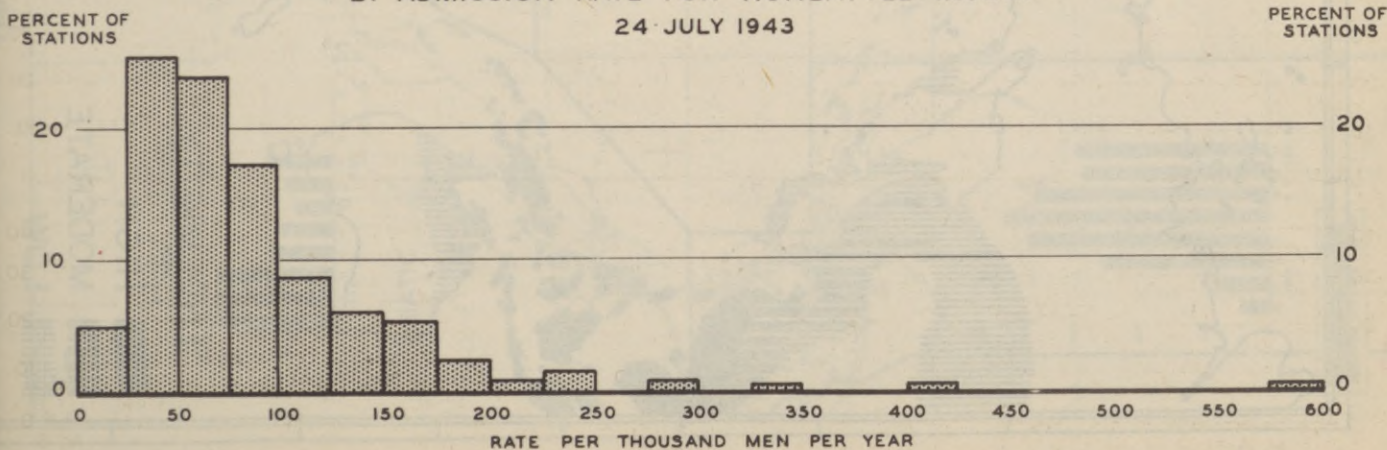
For U. S. troops overseas May is the latest month for which preliminary rates are available. These differ very little from those reported for April and remain appreciably higher than the corresponding rates for the U. S.

The bottom chart suggests the extent to which posts, camps, and stations in the U. S. differ in their admission rates for injury. Although the average rate is 98 for July, 55 percent fell below 75 and half of the stations were concentrated between 25 and 75 during the week ending 24 July. A few reported comparatively high rates.

DISEASE AND INJURY, ADMISSIONS PER THOUSAND MEN PER YEAR CONTINENTAL U.S. AND OVERSEAS



DISTRIBUTION OF POSTS, CAMPS AND STATIONS * BY ADMISSION RATE FOR NONBATTLE INJURY 24 JULY 1943



* Having strengths greater than or equal to 4000

WORLD DISTRIBUTION OF MALARIA



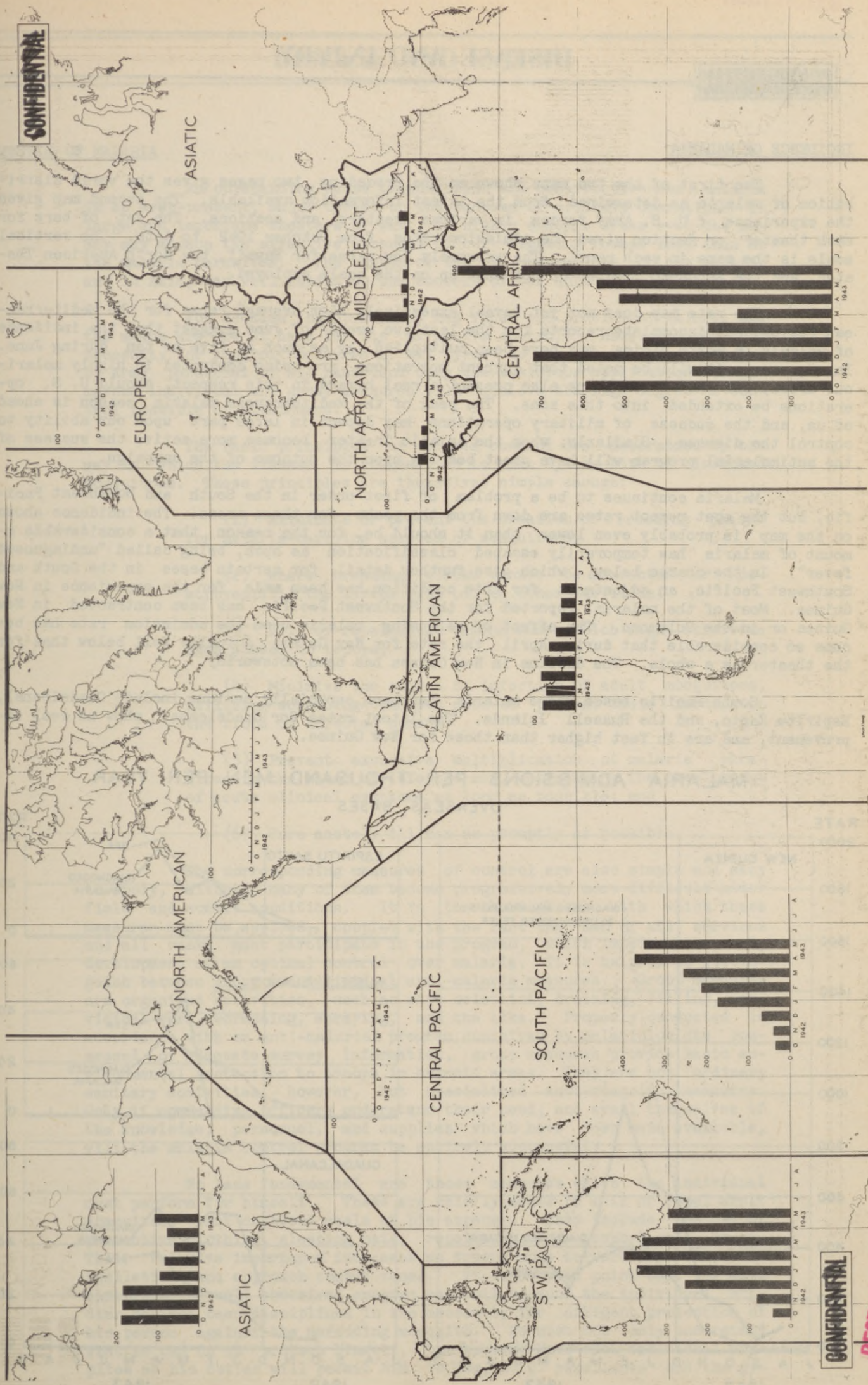
ENDEMICITY

- HIGH
- MODERATE
- LOW

Prepared by
 The Medical Intelligence Branch
 Preventive Medicine Division
 Office of The Surgeon General
 U.S. Army
 1943

MALARIA, ADMISSIONS PER THOUSAND MEN PER YEAR

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DISEASE AND INJURY

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INCIDENCE OF MALARIA

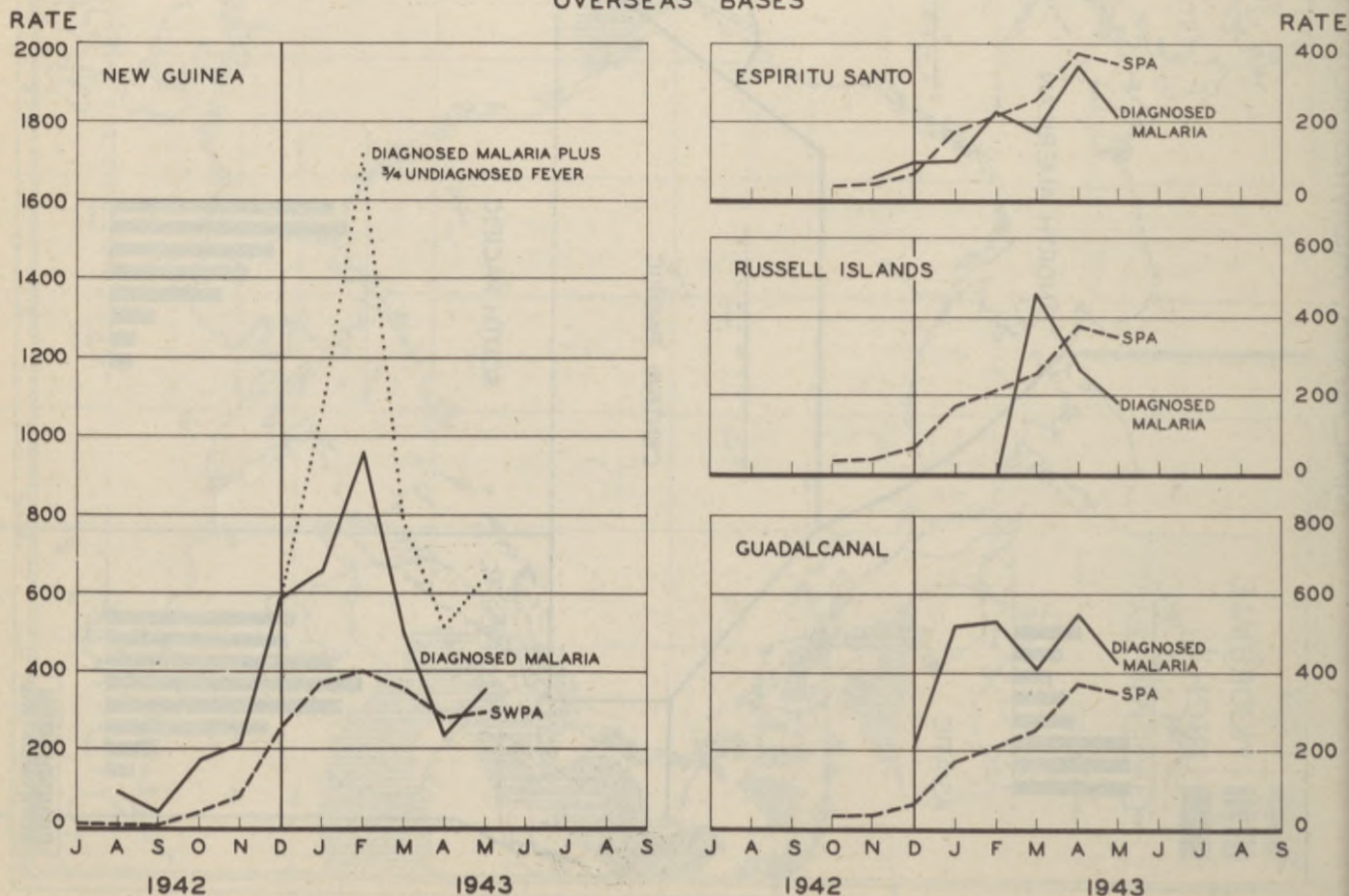
The first of the two maps shown on the preceding two pages gives the world distribution of malaria as determined from the latest information available. The second map gives the experience of U. S. Army forces in various theaters and sections. The set of bars for each theater or section gives the admission rates from October 1942 to date. The vertical scale is the same in each panel. The extremely low rates for Hawaii, the North American Theater, and the European Theater do not show up on the scale employed.

The rate map does not yet reveal excessively high average rates for the Mediterranean region, but incomplete reports for the last two weeks of June suggest that the incidence of malaria in North Africa may have been multiplied by as much as five or ten during June. In any event, it will be noted that current operations are being conducted in highly malarious areas, and that the Balkans also present a real hazard in this respect, should U. S. operations be extended into this zone. The peak of the Mediterranean malaria season is ahead of us, and the success of military operations may depend in large part upon our ability to control the disease. Similarly, when the Asiatic Theater becomes more active the success of the antimalarial program will have great bearing upon the outcome of the campaign.

Malaria continues to be a problem of first order in the South and Southwest Pacific, but the most recent rates are down from the peaks for these areas. The incidence shown on the map is probably even lower than it should be, for the reason that a considerable amount of malaria has temporarily escaped classification as such, being called "undiagnosed fever". In the charts below, which give further detail for certain bases in the South and Southwest Pacific, an adjustment has been made for the experience in New Guinea. Most of the malaria reported for the Southwest Pacific has been contracted in New Guinea or in the Solomons. The effect of relapsing malaria upon the admission rate has become so considerable that during April the rate for New Guinea actually fell below that for the theater as a whole. The decline in New Guinea has been noteworthy.

South Pacific bases where malaria has been especially serious include Guadalcanal, Espiritu Santo, and the Russell Islands. The latest rates for Guadalcanal show no real improvement, and are in fact higher than those for New Guinea.

MALARIA ADMISSIONS PER THOUSAND MEN PER YEAR
OVERSEAS BASES



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DISEASE AND INJURY

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CONTROL OF MALARIA

An outstanding cause of admission and noneffectiveness, malaria is an ever-present, major threat to the success of military operations in large and important theaters of war. In highly endemic areas even the enemy may menace the effective strength of our fighting forces less than do the malaria parasites. The length of the war, especially in the Pacific and in Asia, may well depend on the success of our anti-malarial campaign.

For decades the U. S. Army has faced the problem of malaria and the means are now at hand for its effective control. However, the full necessity for control measures of all types is not yet fully appreciated by Army personnel of all ranks and only the assiduous application of numerous individual and group measures will achieve the high degree of control possible of attainment.

The basic principles of malaria control are determined by the way in which the disease is transmitted to man by the bite of infected mosquitoes. These principles are themselves simple enough:

- (1) Eliminate or prevent the creation of breeding places for malaria-carrying species of mosquitoes;
- (2) Where breeding places cannot be prevented or destroyed, kill the larvae with oil or other larvicide;
- (3) Kill or repel adult mosquitoes which might otherwise have access to troops;
- (4) Minimize the chance of infection of adult mosquitoes, utilizing screening and bed nets to prevent their feeding on the blood of infected humans;
- (5) Prevent excessive multiplication of malaria parasites in the blood of infected men, suppressing the development of acute clinical symptoms as long as possible; and
- (6) Cure acutely ill men as promptly as possible.

The corresponding measures of control are also simple and easy to apply, although many of them become progressively more difficult under field and combat conditions. It is the thoroughness with which these measures must be applied, coupled with the fact that men of all services and all ranks must participate in the program, which impedes the ready development of an optimal control over malaria. It is helpful to distinguish between group and individual anti-malaria measures. Group measures are organized activities, such as site selection, draining, filling, larvicidal work, screening, spraying, and the like. Properly conducted in accordance with an anti-malarial program conceived by malariologists possessed of adequate survey information, group measures provide basic environmental protection to troops in endemic areas. They are not ordinary sanitary activities, however, but specialized anti-mosquito measures. Only if commanding officers understand their need, and avail themselves of the knowledge, personnel, and supplies which have been made available, will the malaria control program be entirely successful.

No less fundamental are those measures which the individual must perform for himself. These are chiefly means to kill or repel adult mosquitoes bent on blood meals at his expense. They include the use of protective clothing, sleeping nets, repellents, and prophylactic drugs. Their relative importance increases as troops move forward from fixed installations and approach combat zones. It is at this point that the most elaborate and well conceived program may fail because the individual soldier has not been disciplined in the necessity for diligent protection of his person against the marauding mosquito. He must not only understand what he can do to protect himself, but he must have such individual supplies as his duties will permit him to use, e. g. repellents and the py-

DISEASE AND INJURY

CONFIDENTIALCONTROL OF MALARIA (Continued)

rethrum aerosol spray. Moreover, he must want to apply these measures in rigorous and diligent fashion. Unless he is convinced that it is important for him to avoid infection and to remain effective as long as possible, his efforts may not be pushed with the zeal which effective control demands. In this sense good malaria discipline requires not only understanding but also good basic morale. With proper support the man in the fox-hole in a highly malarious area can protect himself fairly well. He can also acquire malaria in short order unless he wills otherwise.

The so-called prophylactic drugs, quinine and atabrine, although useful in therapy, do not actually prevent infection. A truly causal prophylaxis has not yet been evolved. The value of quinine and atabrine is twofold. By slowing the progress of the infection they prevent the appearance of the clinical symptoms which render the soldier noneffective. Also, having taken suppressive drugs at the time of infection, the malaria patient generally suffers less severe symptoms when his clinical symptoms do develop.

On the basis of long experience in fighting malaria, and depending upon the most modern knowledge of the disease, the Medical Department has developed a well-rounded program of control. Trained malariologists have been secured, and anti-malarial survey and control units have been established. The newest advances in insecticides and repellents have been made available promptly in practical form. Steps have been taken to assure an adequate supply of atabrine. The supplies are available. Educational material has been prepared for distribution to medical officers, and no opportunity has been lost to press home the dangers of the disease if uncontrolled. But The Surgeon General exercises no command function over units in malarious areas. He cannot initiate requisitions for personnel and supplies. He cannot set priorities on their movement, whether to or within the theater. Officers of the Medical Department can do no more than to help and to advise commanding officers cognizant of the need for protecting their troops against the ravages of malaria. Fortright and intelligent command action is required to develop the high malaria discipline which is the key to the control of the disease in forward areas. All branches of the Army, and men of all ranks, must be united in an unremitting fight against the Anopheles mosquito wherever it is found.

DISEASE AND INJURY

DENTAL ATTENDANCE AND TREATMENT

During June dental attendance among troops in the Continental U. S. rose above 400 per 1,000 men per month for the first time this year and almost attained the peak of 417 reported for April 1942. Attendance overseas also continued to increase, the latest rate of 256 for April being well in excess of those for previous months.

The rates of admission for routine and emergency care have pursued a fairly even course during the first six months of 1943, but the preliminary April rate for emergency admissions among overseas forces exceeded that for the troops at home for the first time.

The number of restorations (fillings) has continued its steady increase from a low point of 141 per 1,000 total Army strength per month during April 1942, to 269 for May 1943. This increase is common to both overseas and Continental U. S. forces, but the overseas rates remain at a much lower level. Further increases are anticipated in view of the fact that younger men are being inducted in larger numbers and that the backlog of prosthetic work, which takes precedence over some restorations, should soon be dissipated. An increasing proportion of men should then be free from such dental defects as interfere with Army duty.

There has been a real decline in the rate of extraction in recent months, suggesting progress in the direction of eliminating the backlog accumulated by the virtual eradication of dental standards for induction.

The latest information available on the construction of dentures indicates that prosthetic appliances are still being fabricated at a very high rate, but the June figure for troops in the U. S. is slightly lower than that reported in May.

Comparison of the number of teeth extracted and the number replaced by dentures and bridges reveals a replacement index of 29 percent for 1942. In January 1943 the percentage advanced to 58, and by June it had increased to 102 percent. Replacement ratios above 100 percent arise through progress made in consuming the backlog of dental work and through the fact that some men require fewer extractions than replacements.

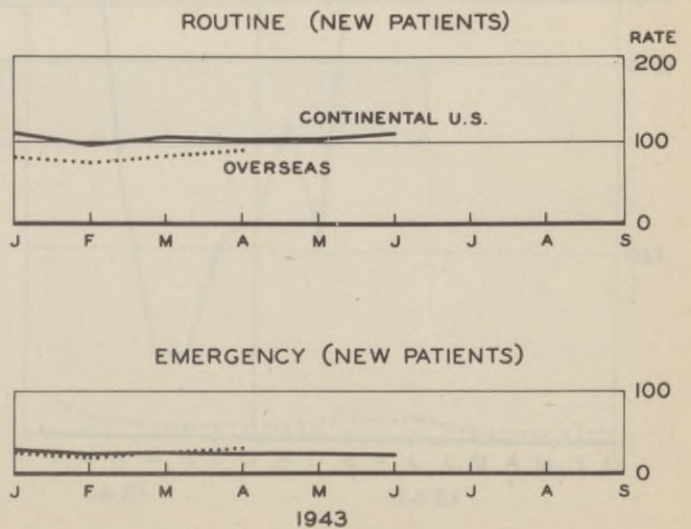
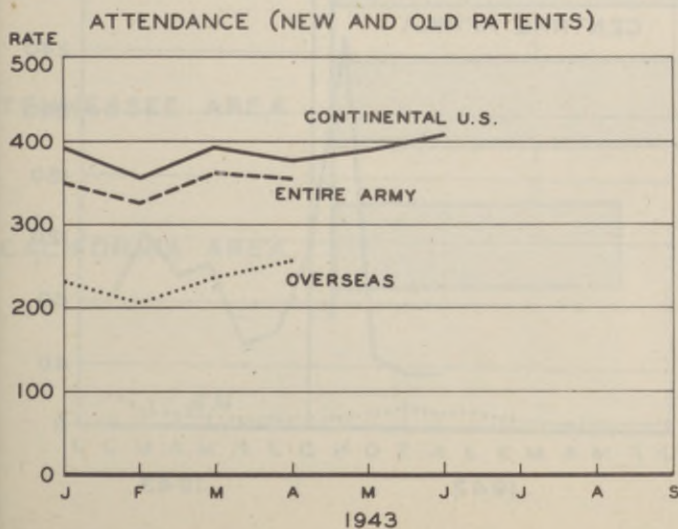
DENTAL TREATMENTS PER 1,000 MEN PER MONTH

Month and Year	Restorations			Extractions			Dentures		
	Total Army	U. S.	Overseas	Total Army	U. S.	Overseas	Total Army	U. S.	Overseas
Jan. 1943	262	294	141	104	120	43	7.1	8.3	2.4
Feb.	225	254	124	88	101	38	7.4	8.7	2.8
Mar.	263	276	151	94	101	45	9.1	10.0	3.2
Apr.	268	300	124	85	94	44	9.4	10.8 *	3.3
May **	269	300	159	81	92	42	11.1	13.2	3.3
June		327			92			12.4	

* Corrected figure

** Data for total Army and overseas are preliminary.

DENTAL ADMISSIONS AND ATTENDANCE PER 1000 MEN PER MONTH



DISEASE AND INJURY

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DIARRHEA AND DYSENTERY

There was a marked increase in admissions for diarrhea and dysentery among troops in North Africa and the Middle East during the month of May. Certain other areas, notably the British Isles, Asia, and Central Africa reported only a temporary increase during May in their admission rates from this cause, and returned to former levels in June. The panel charts below give the experience of various theaters and other overseas commands during 1942 and 1943, with the U.S. experience as a reference line.

DIARRHEA AND DYSENTERY, ADMISSIONS PER THOUSAND MEN PER YEAR



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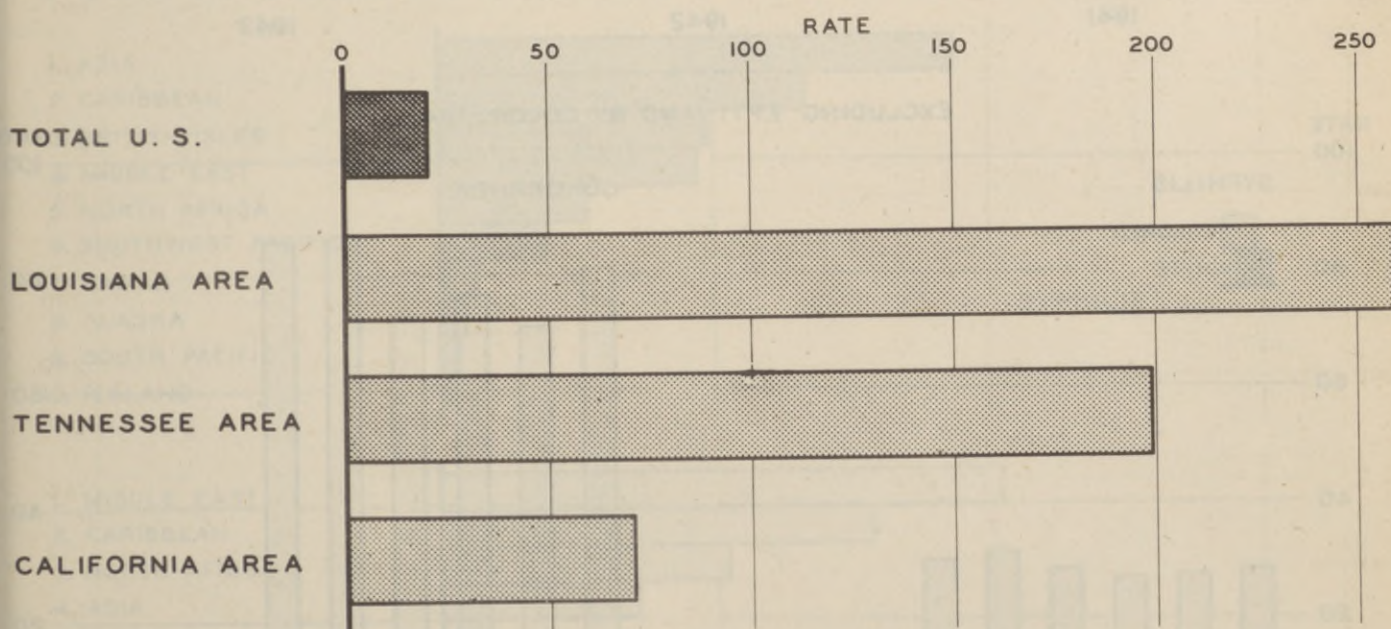
DIARRHEA AND DYSENTERY (Continued)

The prevalence of diarrhea and dysentery in a command reflects its sanitation. Contamination of food may occur at any stage in its preparation and the employment of native kitchen helpers or mess attendants introduces an additional risk. Temporary kitchens in semi-permanent camps require immediate screening as do the latrines. Water supplies need to be protected against contamination by careless troops as carefully as against pollution from other sources. The dangers of all types of contamination are greater when troops are encamped near crowded native villages where sanitation is at low levels. Personal hygiene is included in the soldier's basic training, but the importance of hygienic habits is often submerged by the mass of other required training. Commanders must maintain the proper perspective throughout the training program so that the soldier will know how to protect himself from preventable disease as well as from enemy action.

The relationship between flies and diarrhea deserves emphasis. In combat areas where large numbers of natives are carriers of dysentery, the spread of disease to troops can be prevented only by eliminating all avenues of contamination. In Africa, Asia, and the Pacific Islands the disposal of human waste by natives is extremely primitive and flies are always at hand to carry fecal contamination to mess equipment and food. Reports from the field indicate that units are aware of the hazards offered by flies, but action based on such awareness is too often taken only after dysentery has broken out among the troops. Under combat conditions, exposure to diarrheal diseases may be prolonged through delay in bringing forward and putting into use sanitation equipment and supplies, such as screening and insecticides.

Maneuvers provide an excellent test of the effectiveness of previous training in sanitation. Serious outbreaks of bacillary dysentery have occurred in units on maneuvers in this country. These outbreaks usually subside as soon as proper attention is given ordinary measures of mess and latrine sanitation. The accompanying chart compares the recent experience of the three maneuver areas with that of the U. S. as a whole.

**DIARRHEA AND DYSENTERY, ADMISSIONS PER THOUSAND MEN PER YEAR
MANEUVER AREAS**



DISEASE AND INJURY

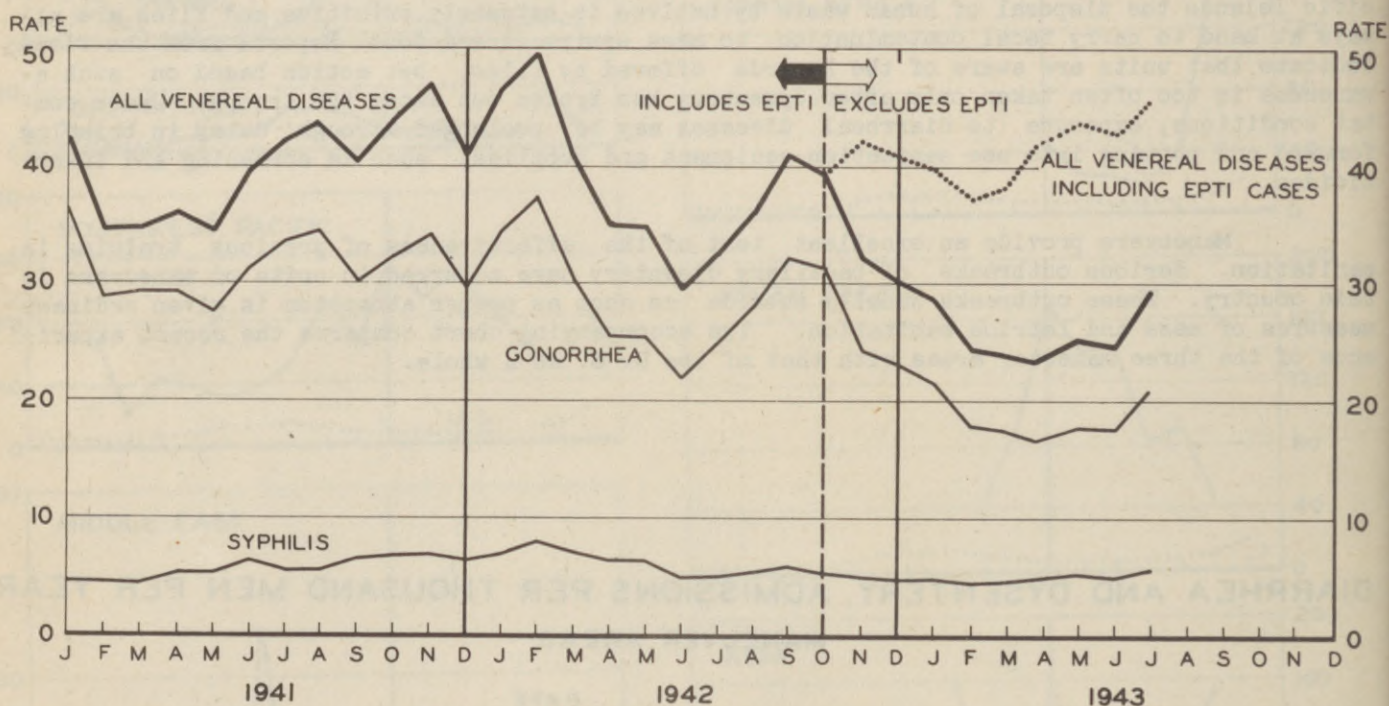
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VENEREAL DISEASE, CONTINENTAL U. S.

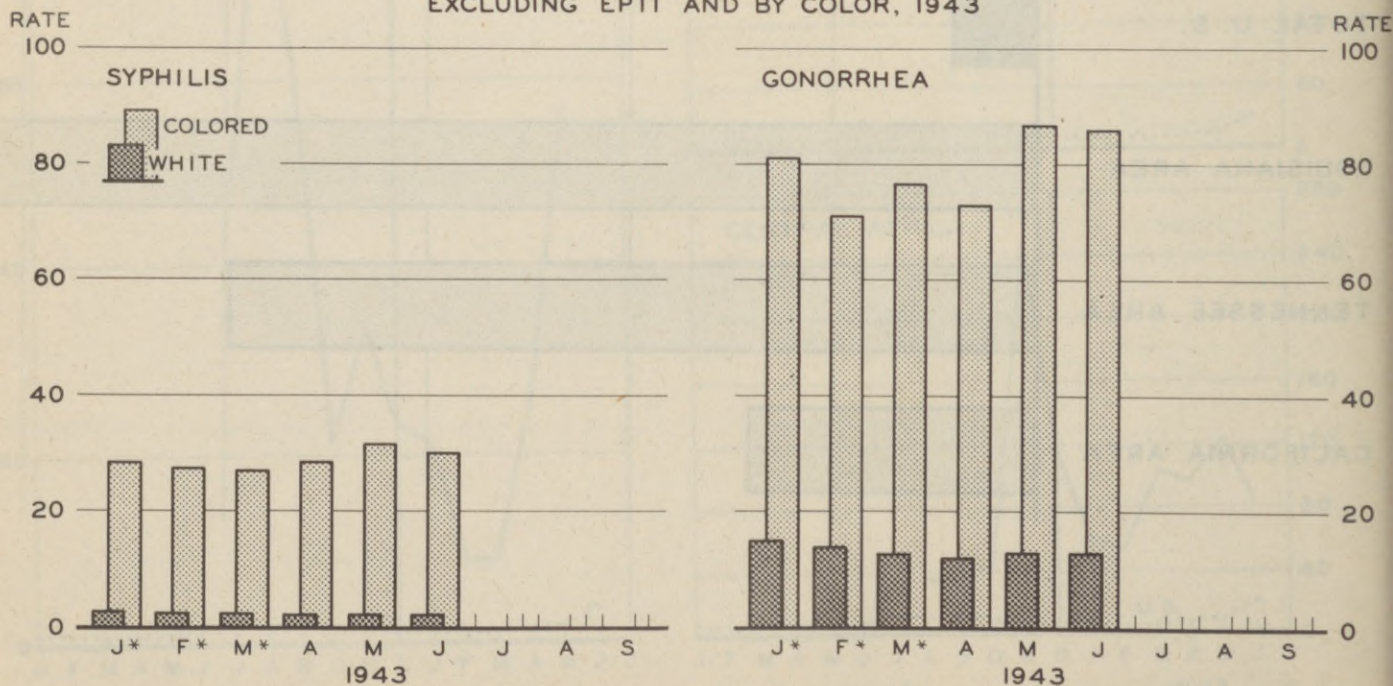
The preliminary admission rates for venereal disease increased somewhat during July. This was true not only of the uncorrected rate (shown as a dotted extension of the top line of the first chart below) but also of the corrected rates which exclude EPTI cases (exposed prior to induction). For July the preliminary uncorrected rate for all venereal diseases is 45.5, and the corrected rate 29.1. The corrected rates for gonorrhea and syphilis are 21.0 and 5.7 admissions per thousand men per year.

The charts at the bottom of the page compare the gonorrhea and syphilis rates for whites and Negroes during the first six months of 1943. In June, the syphilis rate of 30 for Negroes was 15 times that for whites, and the gonorrhea rate was about seven times the corresponding rate for whites.

VENEREAL DISEASE ADMISSIONS PER THOUSAND MEN PER YEAR
ARMY IN THE CONTINENTAL U.S.



EXCLUDING EPTI AND BY COLOR, 1943



* Excluding the Third Service Command and the Military District of Washington

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DISEASE AND INJURY

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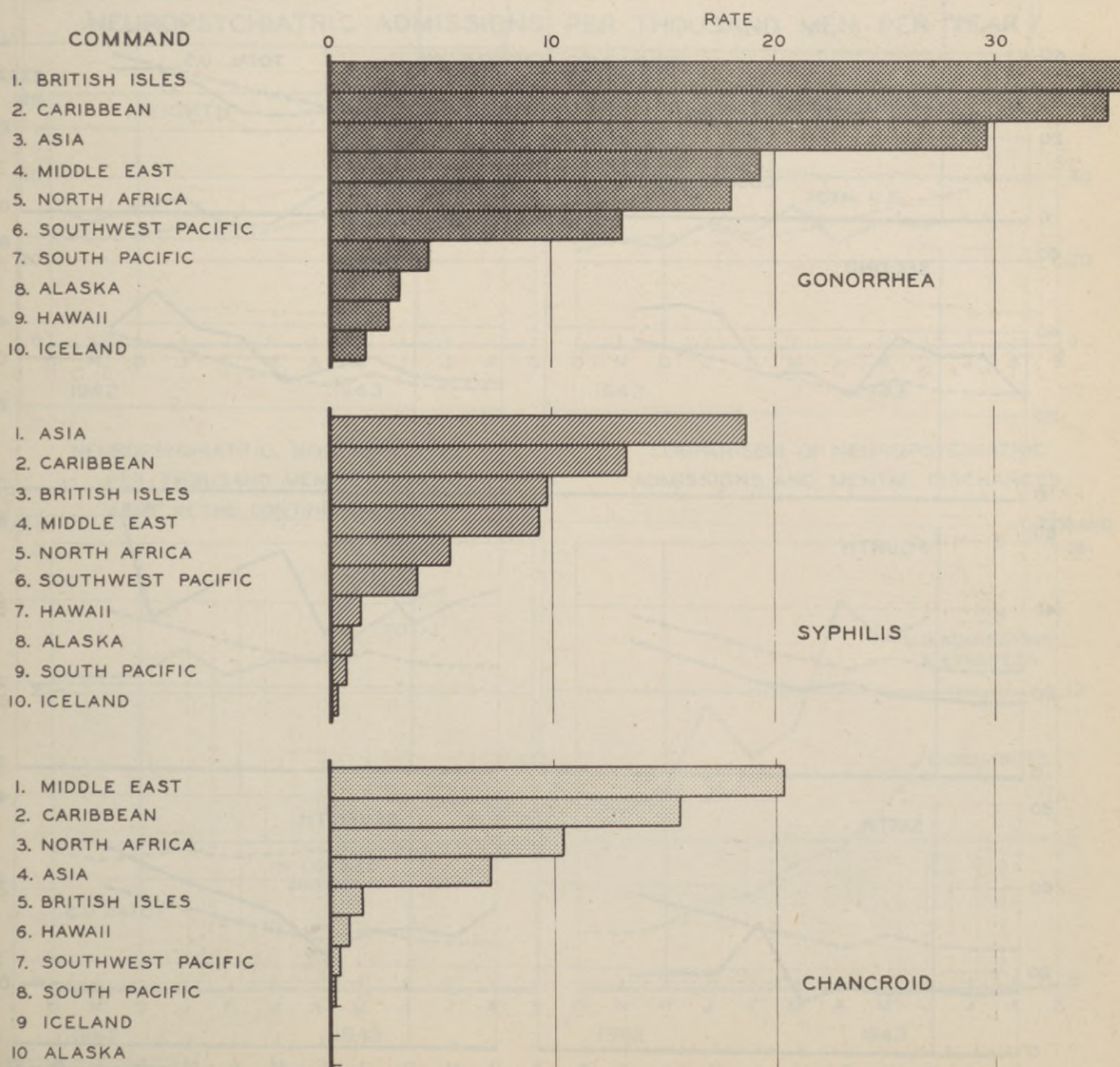
VENEREAL DISEASE, OVERSEAS COMMANDS

The venereal diseases present a continuing problem of control for troops overseas. Although their incidence has been as low or lower than the corrected rates for troops in the Continental U. S., there is wide variation among theaters and other commands with respect to the frequency of infection. The basic variables, only some of which are subject to control, include the color composition of the U. S. troops, the type of duty, the prevalence of infection among the civilian population, and the degree of contact with sources of infection.

Gonorrhea is the most prevalent venereal disease among U. S. troops abroad, as it is at home, but the variation among commands is extreme. The top panel in the chart below gives the May experience of ten selected commands.

Although chancroid presents a relatively minor problem for troops stationed in the Continental U. S., in certain areas abroad it assumes high importance. These are the Middle East, the Caribbean area, North Africa, and Asia. The May rate for the Middle East is about of the same order as the July rate of admission for gonorrhea among troops in the Continental U. S. The experience of the ten commands is detailed below in the bottom panel. The middle panel compares the same commands from the standpoint of their admission rates for syphilis during May.

VENEREAL DISEASE, ADMISSIONS PER THOUSAND MEN PER YEAR
OVERSEAS COMMANDS, MAY 1943



DISEASE AND INJURY

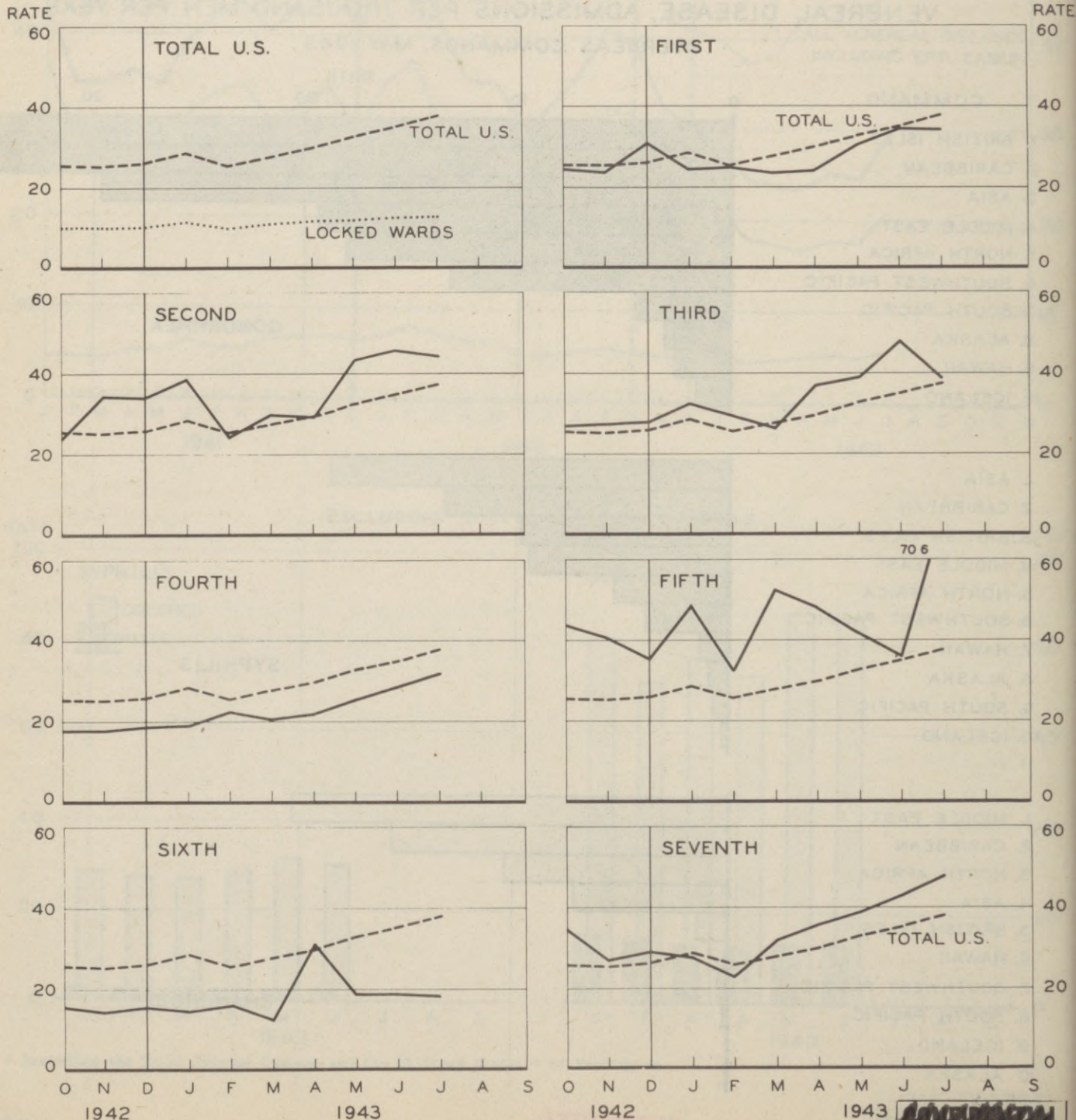
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ADMISSIONS FOR NEUROPSYCHIATRIC DISEASE

Despite the considerable effort which has been made to eliminate at the induction station those men who would be most likely to develop neurological or psychiatric symptoms, the preliminary admission rate for troops in the continental U. S. has been rising rapidly in recent months. The rate of 37.4 for July is 33 percent higher than that of 25.1 reported for October 1942, as shown in the first panel in the series below.

The fact that there has been little change in the rate of admission to locked wards suggests that the rising number of admissions may reflect chiefly an increase in the number of psychoneurotic patients. Potential psychoneurotics and psychopaths are more difficult than some psychotics to eliminate through induction screening. Supplementary procedures have been instituted in an effort to find these cases and to discharge them from the Army before they are sent overseas. However, in so far as "normal" men are developing psychoneurotic reactions to the stresses of Army life, screening alone cannot be expected to prevent all casualties. Leadership, discipline, and ideological orientation are the factors upon which preventive measures must be based. The Surgeon General is pursuing measures designed to assist commanders in mentally toughening the "normal" soldier.

NEUROPSYCHIATRIC ADMISSIONS PER THOUSAND MEN PER YEAR BY SERVICE COMMANDS



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DISEASE AND INJURY

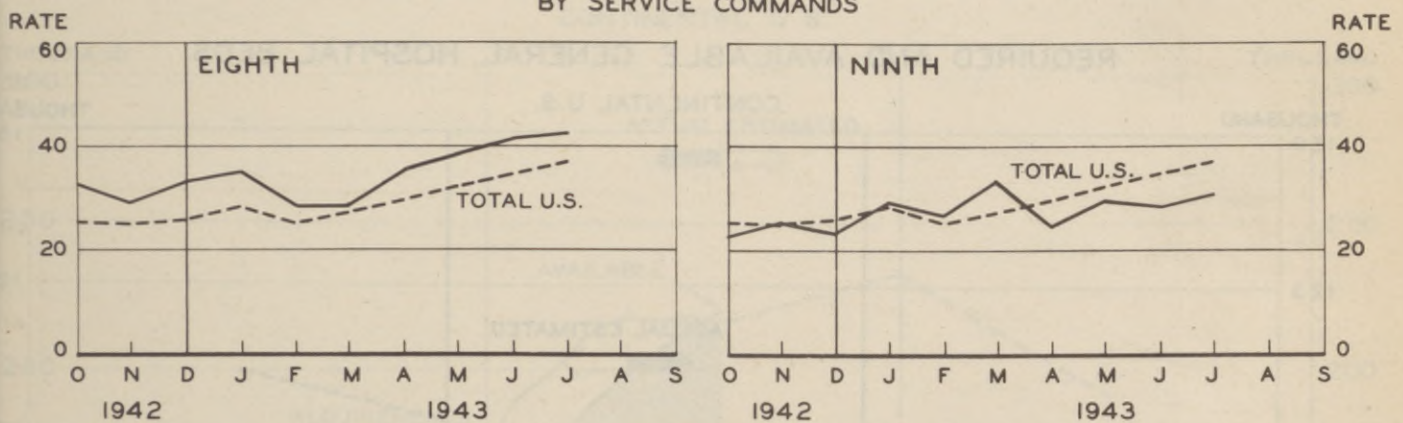
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ADMISSIONS FOR NEUROPSYCHIATRIC DISEASE (Continued)

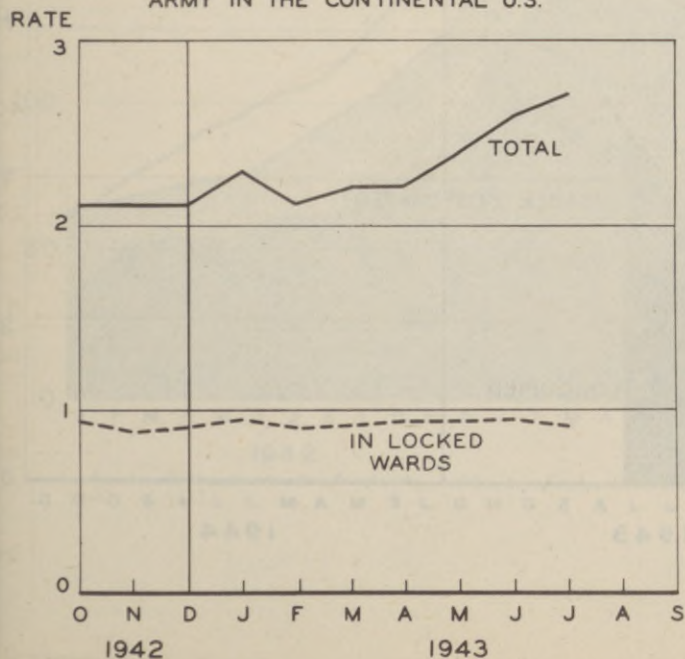
Much of the variation among service commands shown in the accompanying charts appears to be associated with the presence or absence of special facilities for hospitalization and diagnosis, as indexed by the ratio of general hospital beds to strength. The most extreme instance is the Fifth Service Command with a general hospital specializing in the care of neuropsychiatric patients and more than double the average ratio of general hospital beds to strength. There are other factors operating to produce the considerable variation among service commands but the important point is that the increase in the admission rate is common to all service commands.

The noneffective rate from neuropsychiatric causes is given in the bottom left-hand panel. With the rapid increase in neuropsychiatric admissions among troops in the Continental U. S., and in neuropsychiatric casualties from overseas, the preliminary noneffective rates continue to rise. From about 2.1 per thousand men per day in October, it has increased to 2.7 for July. Had discharges for neuropsychiatric disability not increased greatly over this period the noneffective rate would have been even higher. The chart to the lower right shows in absolute form the relationship between neuropsychiatric admissions plus overseas evacuees on the one hand and discharges for mental disease and deficiency on the other. During June the number discharged was more than 60 percent of the number admitted and received from overseas. It is highly important to effect prompt discharge of neuropsychiatric cases unable to fulfill the obligations of Army life. In this connection the average number of days lost per neuropsychiatric admission appears to have declined about 10 percent during the first six months of 1943.

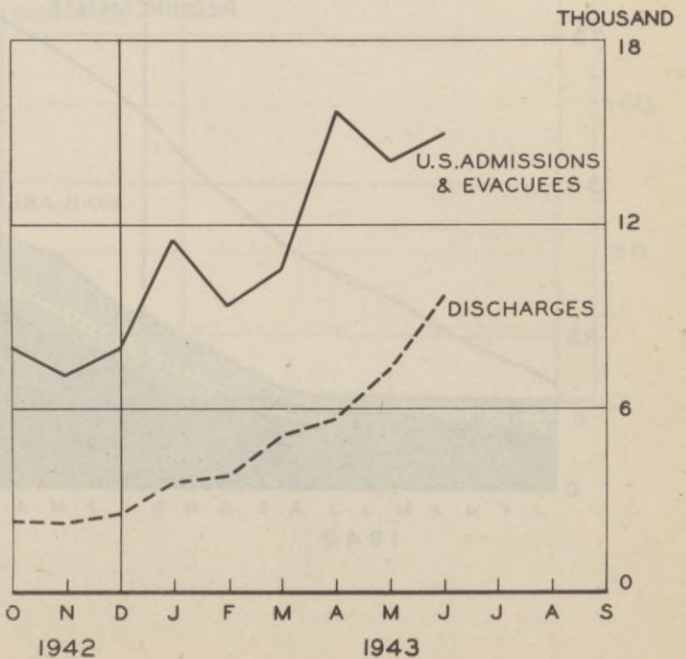
NEUROPSYCHIATRIC ADMISSIONS PER THOUSAND MEN PER YEAR BY SERVICE COMMANDS



NEUROPSYCHIATRIC NONEFFECTIVES PER THOUSAND MEN PER DAY ARMY IN THE CONTINENTAL U.S.



COMPARISON OF NEUROPSYCHIATRIC ADMISSIONS AND MENTAL DISCHARGES



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HOSPITALIZATION

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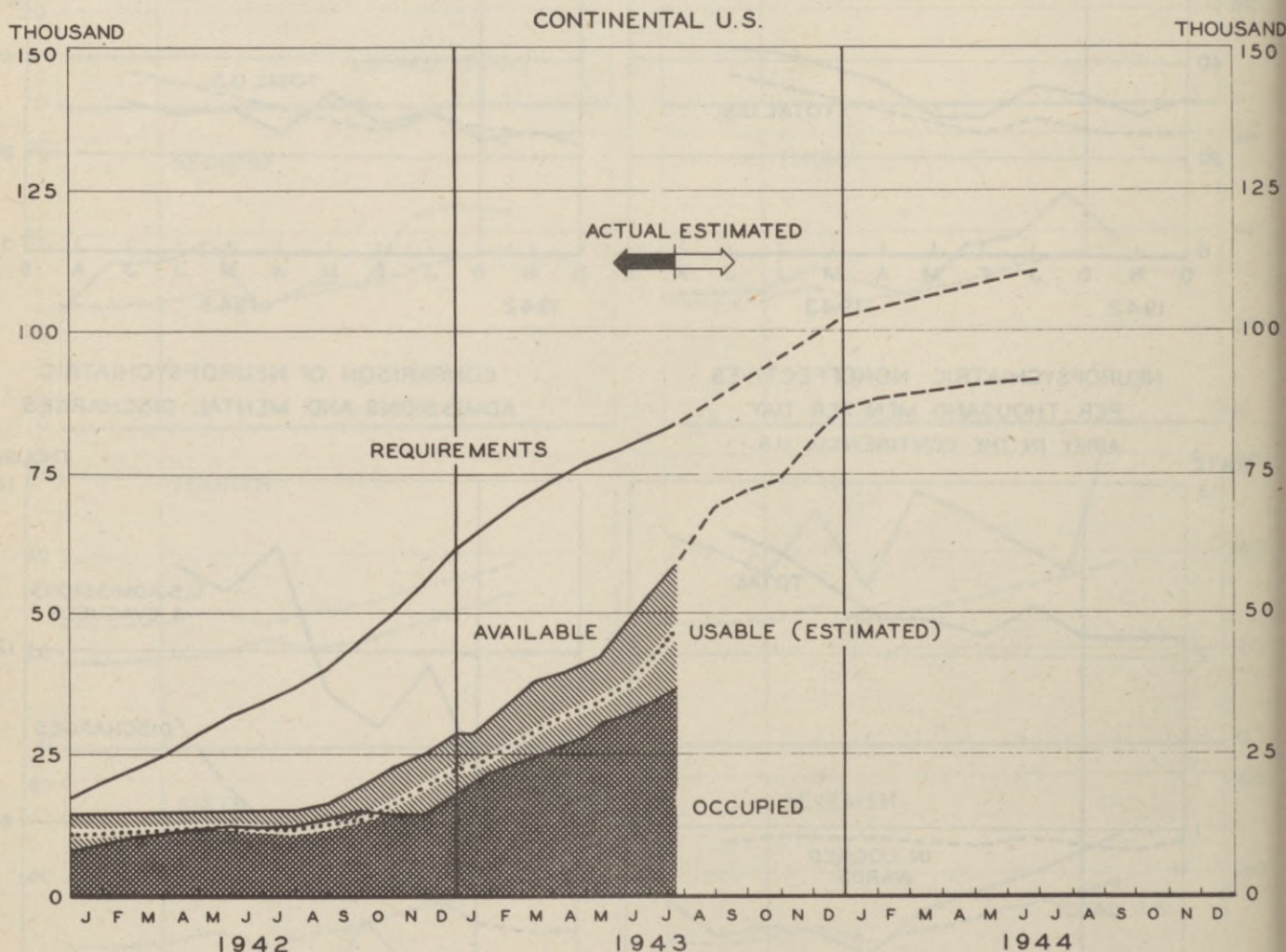
UTILIZATION OF AND REQUIREMENTS FOR BEDS IN NAMED GENERAL HOSPITALS

The requirements for beds in general hospitals are calculated at one percent of total Army strength plus 0.7 percent of the troops overseas. The estimated needs for the period January 1942 to June 1944 are shown in the chart below. The line of projected availability reflects construction in progress, and is revised each month as new sites are selected and construction begun. Attainment of the present schedule would provide about 86,000 beds by the end of December, or 86 percent of the requirement for that date.

Since the Army has enjoyed excellent general health, and since the flow of evacuees from overseas became appreciable only in April, no penalty has attached to the failure to meet the calculated requirements. The total number of occupied beds is shown by the bottom solid line. The broken line close to it represents the average limit of normal utilization without overcrowding, since at any one time about 20 percent of the available normal beds cannot be used because of the importance of maintaining specialized wards. When more than 80 percent of the normal beds are occupied, it indicates that in the average hospital emergency beds have been crowded into corridors and solaria, or that patients have been placed in expansion barracks.

The number of normal beds available in named general hospitals increased from 53,800 on 26 June to 58,300 on 24 July. On the latter date about 62 percent of the normal beds were occupied, no real change having occurred during the month.

REQUIRED AND AVAILABLE GENERAL HOSPITAL BEDS



HOSPITALIZATION

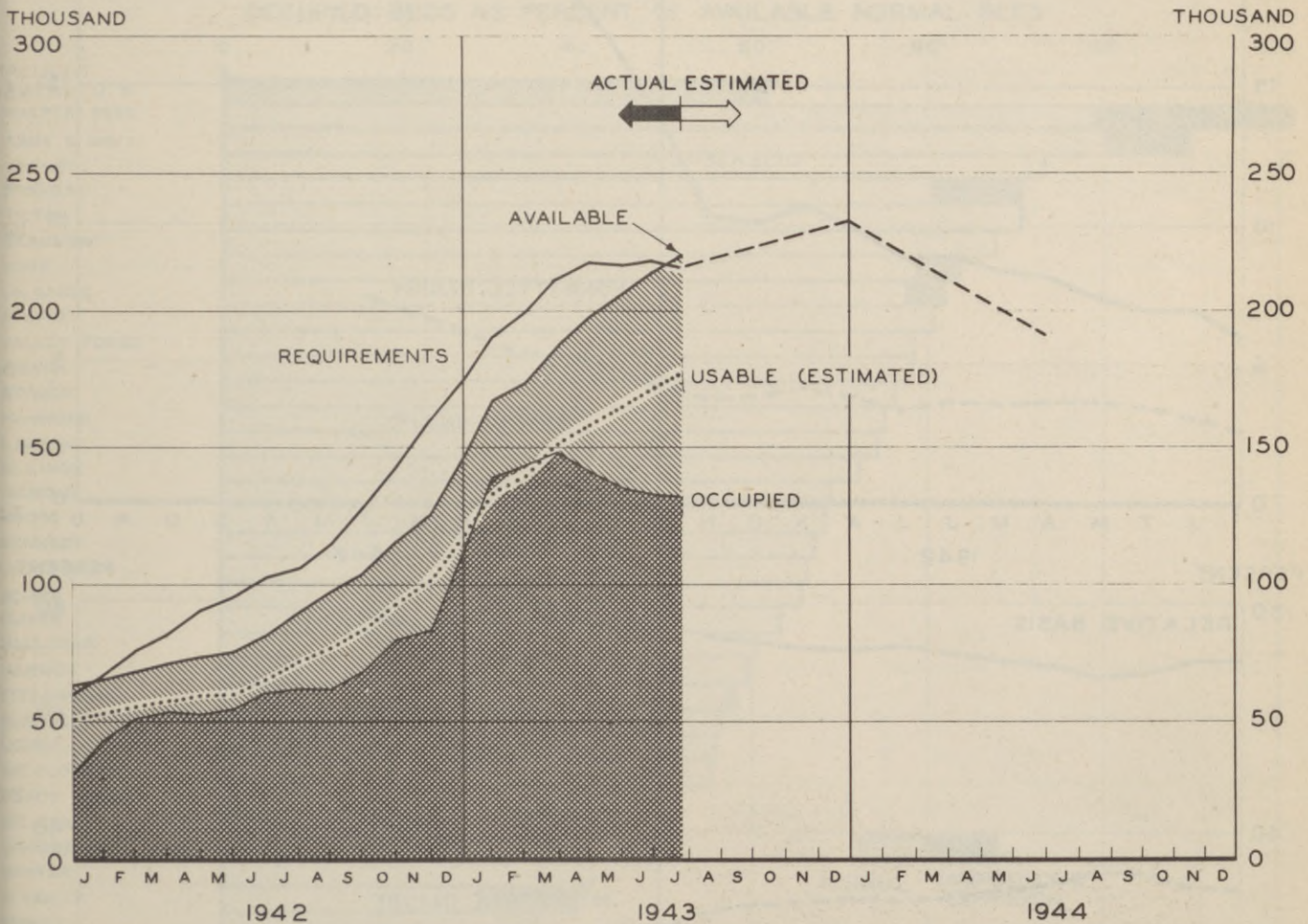
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UTILIZATION OF AND REQUIREMENTS FOR BEDS IN STATION HOSPITALS

The requirements for beds in station hospitals in the Continental U. S. are calculated on the basis of 4 percent of the strength of the troops to be stationed here. The uppermost line on the chart below gives the estimated need for beds in station hospitals from January 1942, to June 1944. The other lines show the total number of occupied beds, the number of available normal beds, and the estimated number of usable normal beds (80 percent of the number of available normal beds), to indicate average utilization without overcrowding.

With the increasing strength in certain maneuver areas, especially those in Tennessee and California, it becomes important to exclude from the totals shown for available normal beds in station hospitals the numbers reported from these areas, which are chiefly in numbered units. The correction amounts to about 6,500 beds for the month of July. On this basis the number of normal beds available in station hospitals was 219,000 on 24 July, an increase of about 4,000 over the total reported for 26 June and just above the estimated requirement for 1 August 1943. The percentage utilization on 24 July was 62, the same as that reported for 26 June.

REQUIRED AND AVAILABLE STATION HOSPITAL BEDS
CONTINENTAL U. S.



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HOSPITALIZATION

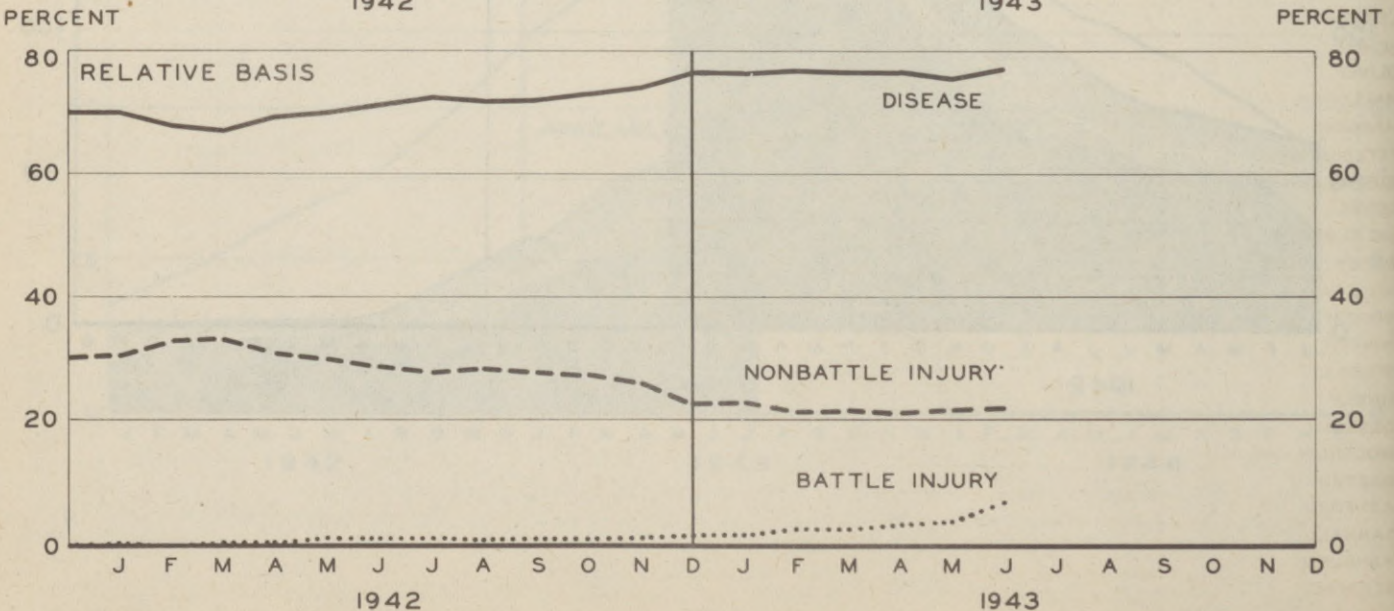
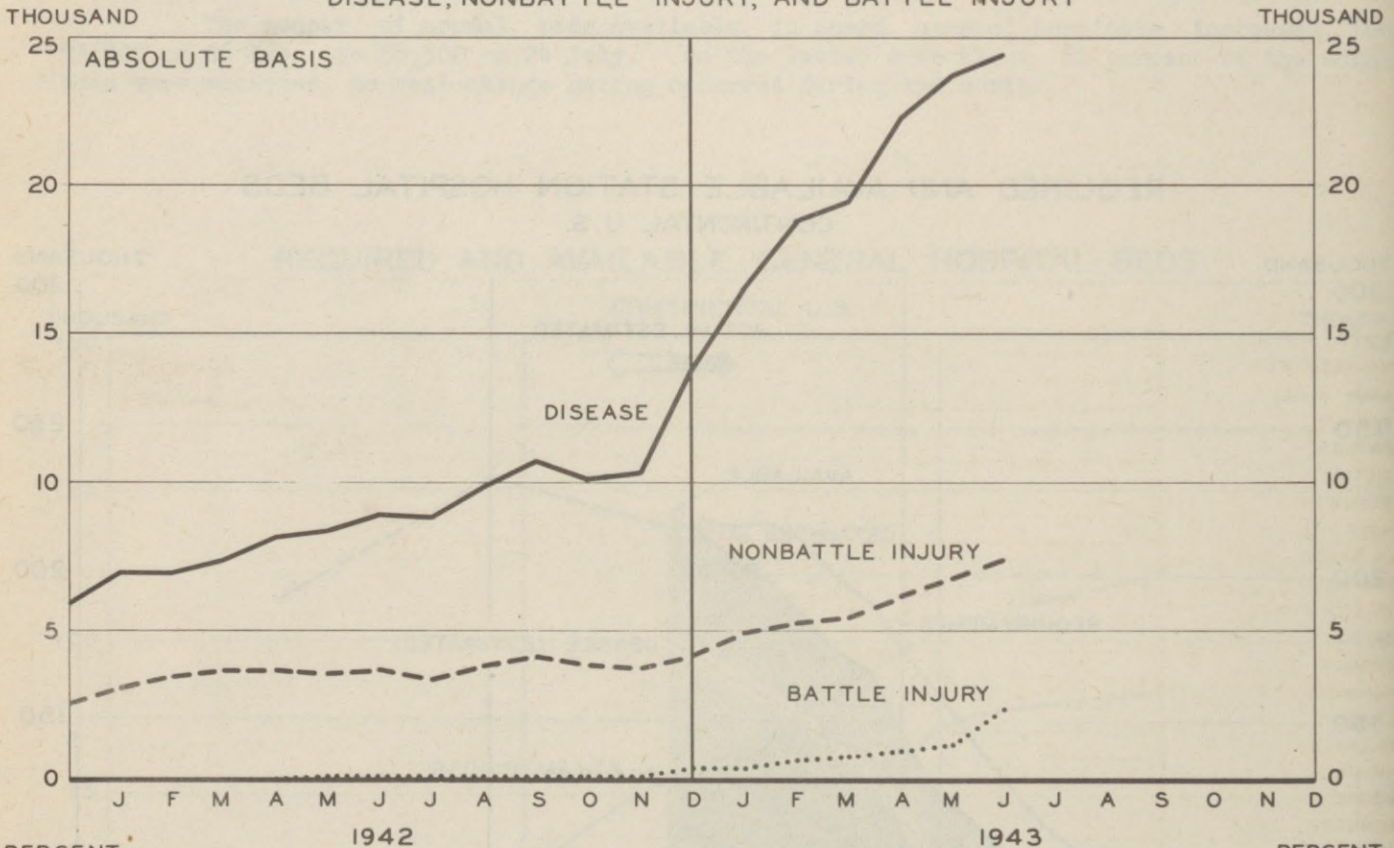
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COMPONENTS OF THE GENERAL HOSPITAL LOAD

The number of patients in general hospitals has about doubled since the end of 1942, there being about 36,000 at the end of July in contrast to about 18,000 at the end of December. There has been rather little change, however, in the proportions of beds occupied by patients suffering from disease, nonbattle injury, and battle casualty. The charts which follow depict the growth of each of these three major components of the hospitalization load since January 1942. At that time 70 percent of the beds were occupied by patients suffering from disease, 30 percent by patients suffering from nonbattle injury, and none by patients classified as battle casualties. Throughout the year and a half covered by the chart, the percentage of beds occupied by nonbattle injury patients declined to almost 20 percent, and that occupied by battle casualties rose to about 7 percent. On the latest date shown on the chart there were roughly 24,400 patients afflicted with disease, 7,300 patients recovering from nonbattle injury, and 2,300 battle casualties. The number of patients originating overseas is, of course, well in excess of the 2,300 classified as battle casualties.

PATIENTS IN GENERAL HOSPITALS

DISEASE, NONBATTLE INJURY, AND BATTLE INJURY



HOSPITALIZATION

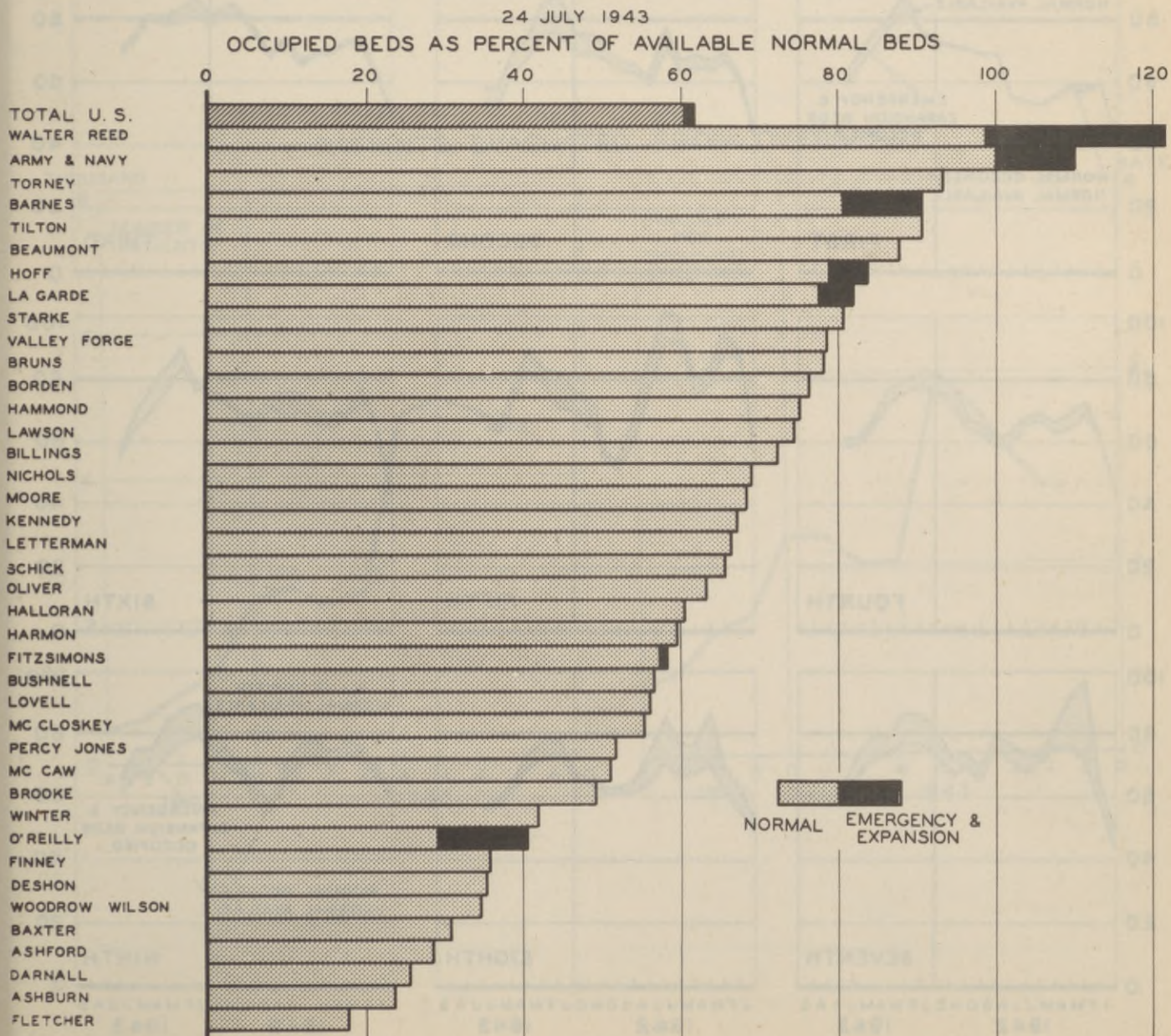
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VARIATION AMONG GENERAL HOSPITALS IN UTILIZATION OF NORMAL BEDS

Although the average utilization of beds in named general hospitals was 62 percent on 24 July, the intensity of utilization varied greatly among the individual hospitals. The following bar chart ranks the named general hospitals (except Pilgrim) according to the percentage of normal beds occupied on that date. The dark extensions measure the extent to which expansion or emergency beds were in use. Walter Reed, Army and Navy, and Barnes reported fairly extensive resort to emergency and expansion beds, but the average for all named general hospitals was only 1.7 percent. Much of the variation results from the fact that full utilization of the newer hospitals must necessarily await the presence of all supplies and equipment, as well as a full complement of personnel, and the completion of arrangements for transferring patients to their care. It is for such reasons that some, but by no means all, of the older and better established hospitals tend to be more crowded than the average general hospital. A more even distribution of the general hospital load may be expected for the future, although at any one time certain hospitals may be forced to accept a disproportionate number of evacuees from overseas because of circumstances beyond immediate control. The disposition of evacuees has been so worked out, however, that their flow into the named general hospitals will not interfere either with their care or with that of other seriously ill patients already hospitalized here.

An average of 80 percent is ordinarily assumed as the limit of effective utilization of normal beds without overcrowding, but the chart shows how much individual hospitals vary in this respect

UTILIZATION OF BEDS IN NAMED GENERAL HOSPITALS



HOSPITALIZATION

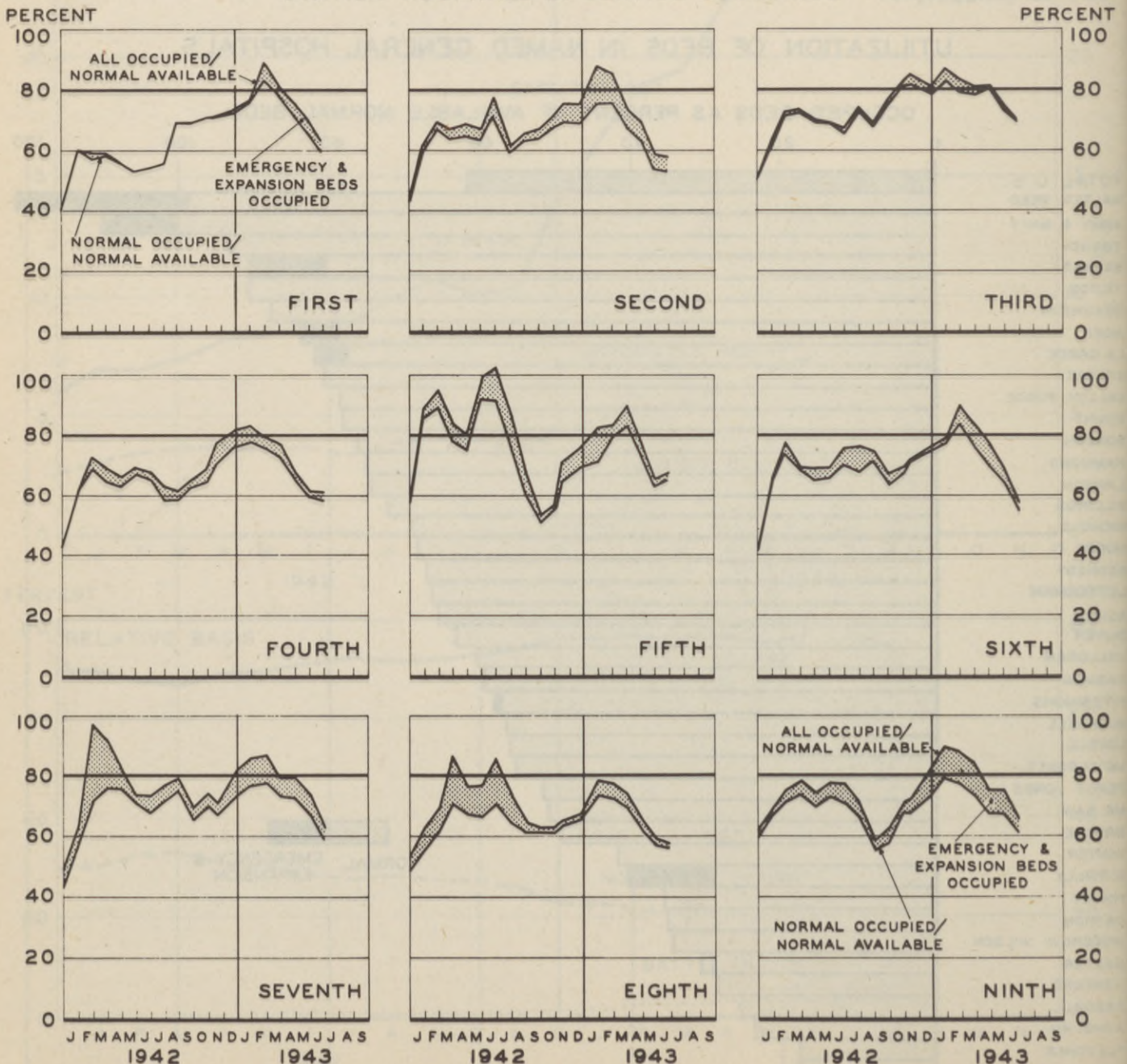
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UTILIZATION OF STATION HOSPITAL BEDS, BY SERVICE COMMAND

In view of the success achieved in meeting the calculated requirements for beds in station hospitals, both for the Continental U. S. as a whole and for the individual service commands, it is not surprising that the pressure upon station hospital facilities has rarely been excessive during the past year and a half, except in individual stations. The charts which follow give the movement of two indices of bed utilization for each service command. The upper line gives the ratio of all occupied beds (normal, emergency, and expansion) to available normal beds, and the lower line gives the ratio of occupied normal beds to available normal beds, both being in percentage terms.

Except during the peak of the recent winter season, the ratio of utilization has rarely exceeded the 80 percent limit beyond which the average individual hospital shows signs of crowding. The shaded area shows the relative extent to which emergency and expansion beds were utilized throughout the period. The Seventh, Eighth, and Ninth Service Commands have reported the most extensive use of emergency and expansion beds, but the Eighth Service Command has used very few beds of this variety since the first of the year. The margin of emergency and expansion beds arises because some hospitals in any service command may be crowded even though the average hospital is not.

OCCUPIED BEDS AS PERCENT OF NORMAL BEDS STATION HOSPITALS BY SERVICE COMMANDS



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HOSPITALIZATION

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EVACUATION OF PATIENTS FROM OVERSEAS

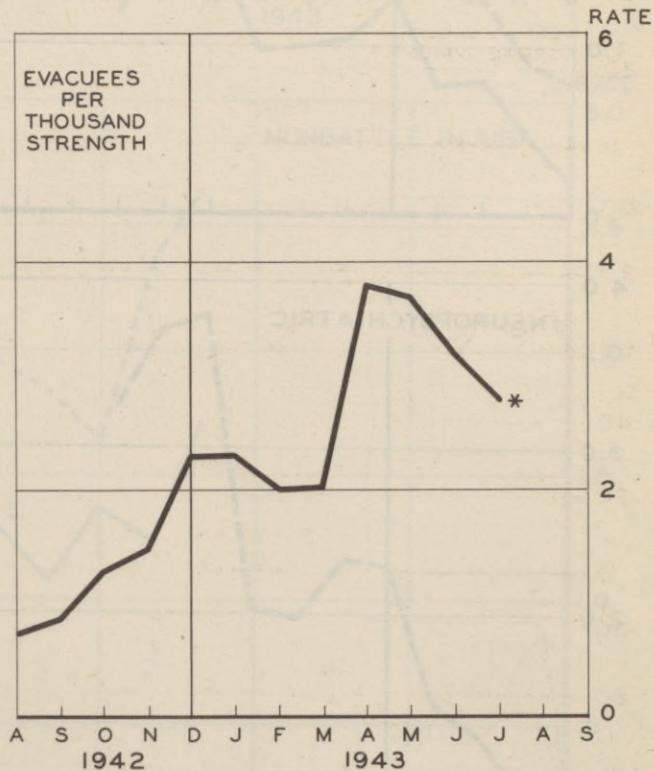
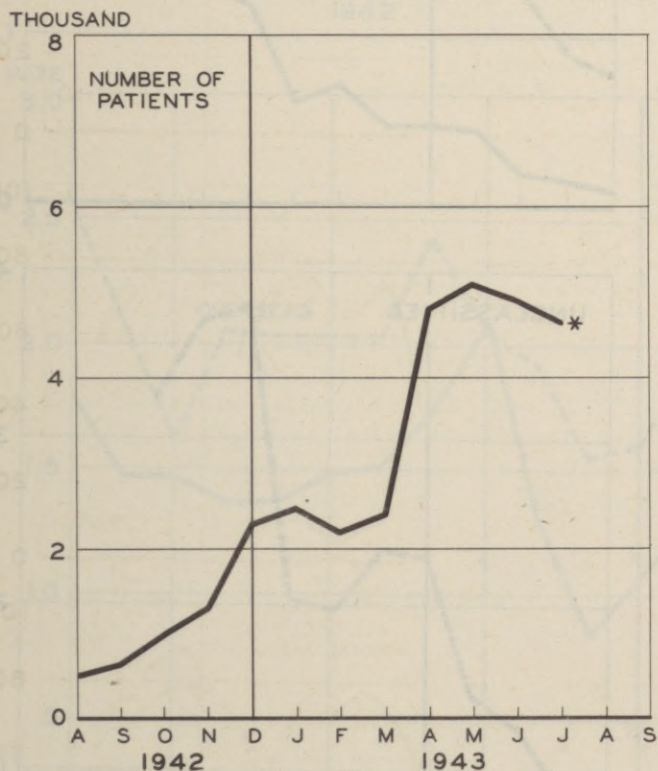
The rate of evacuation of patients from overseas declined from the high point of 3.8 per thousand in April to 2.8 for July. The absolute number of evacuees fell off noticeably in July to about 4,700, according to preliminary reports. The following table gives the monthly totals, in both simple and cumulative form, since August 1942. The monthly totals are plotted in the charts at the bottom of the page in both absolute and relative form.

NUMBER OF PATIENTS ARRIVING IN U. S. PORTS FROM OVERSEAS

Month 1942	Number	Cumulative Total	Month 1943	Number	Cumulative Total
Aug	515	515	Jan	2,470	8,231
Sep	663	1,178	Feb	2,208	10,439
Oct	1,019	2,197	Mar	2,405	12,844
Nov	1,311	3,508	Apr	4,819	17,663
Dec	2,253	5,761	May	5,087	22,750
			Jun	4,981	27,731
			Jul *	4,690	32,421

* Preliminary only.

PATIENTS EVACUATED FROM OVERSEAS



HOSPITALIZATION

CONFIDENTIAL

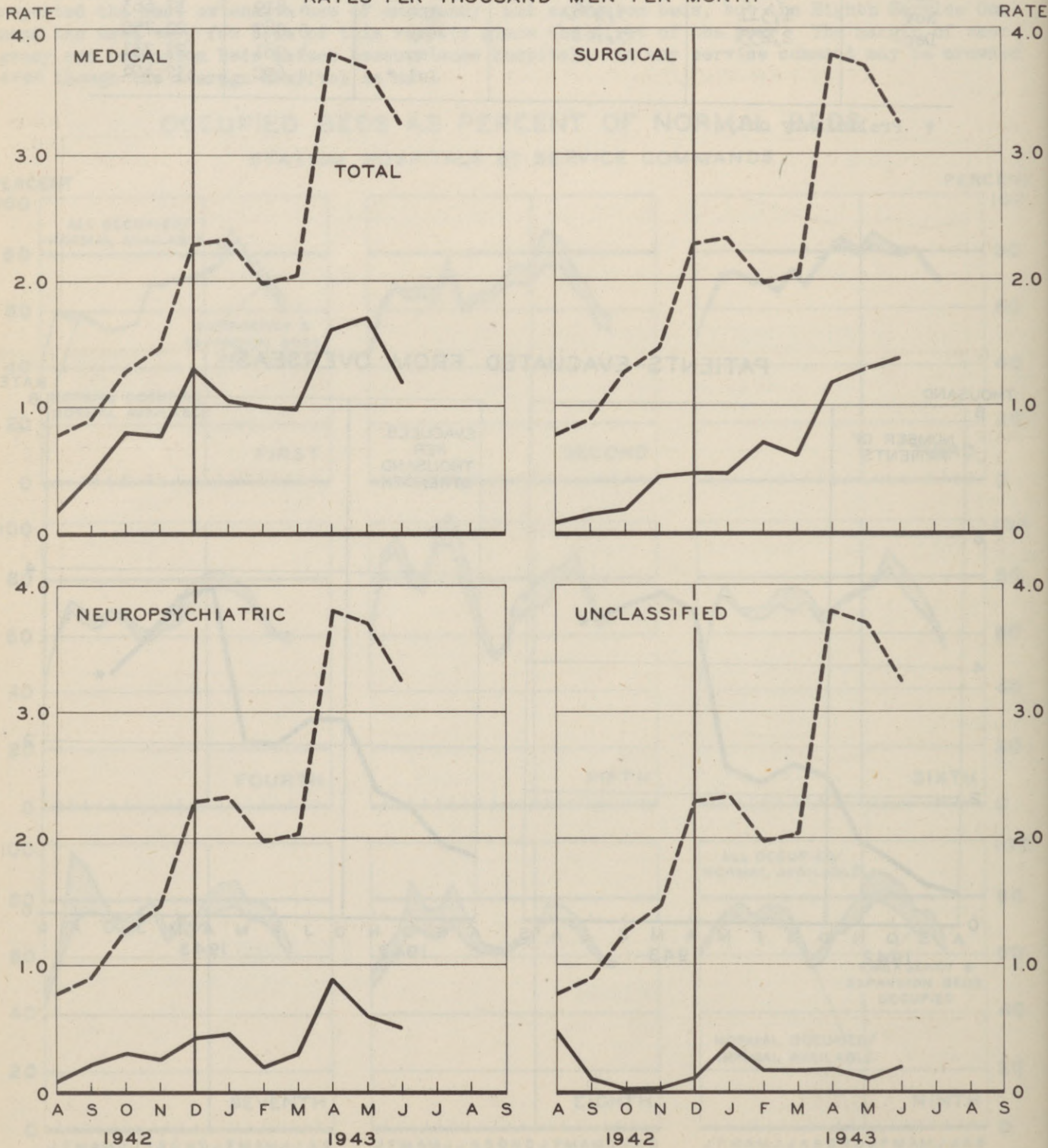
EVACUATION OF PATIENTS FROM OVERSEAS (Cont'd.)

Reports of patients received in U. S. ports from overseas distinguish among medical, surgical, and neuropsychiatric patients. A small number is usually unclassified. The following charts give in rate form the number received in each category and permit ready comparison with the rate of evacuation for all types of patients.

Since April there has been a steady fall in the rate of evacuation for all types of patients, from 3.8 to 3.2 for June. This reflects the lowered rates for medical and neuropsychiatric patients which have been only partly offset by the rising rate for surgical patients.

PATIENTS EVACUATED FROM OVERSEAS, BY TYPE

RATES PER THOUSAND MEN PER MONTH



MORTALITY

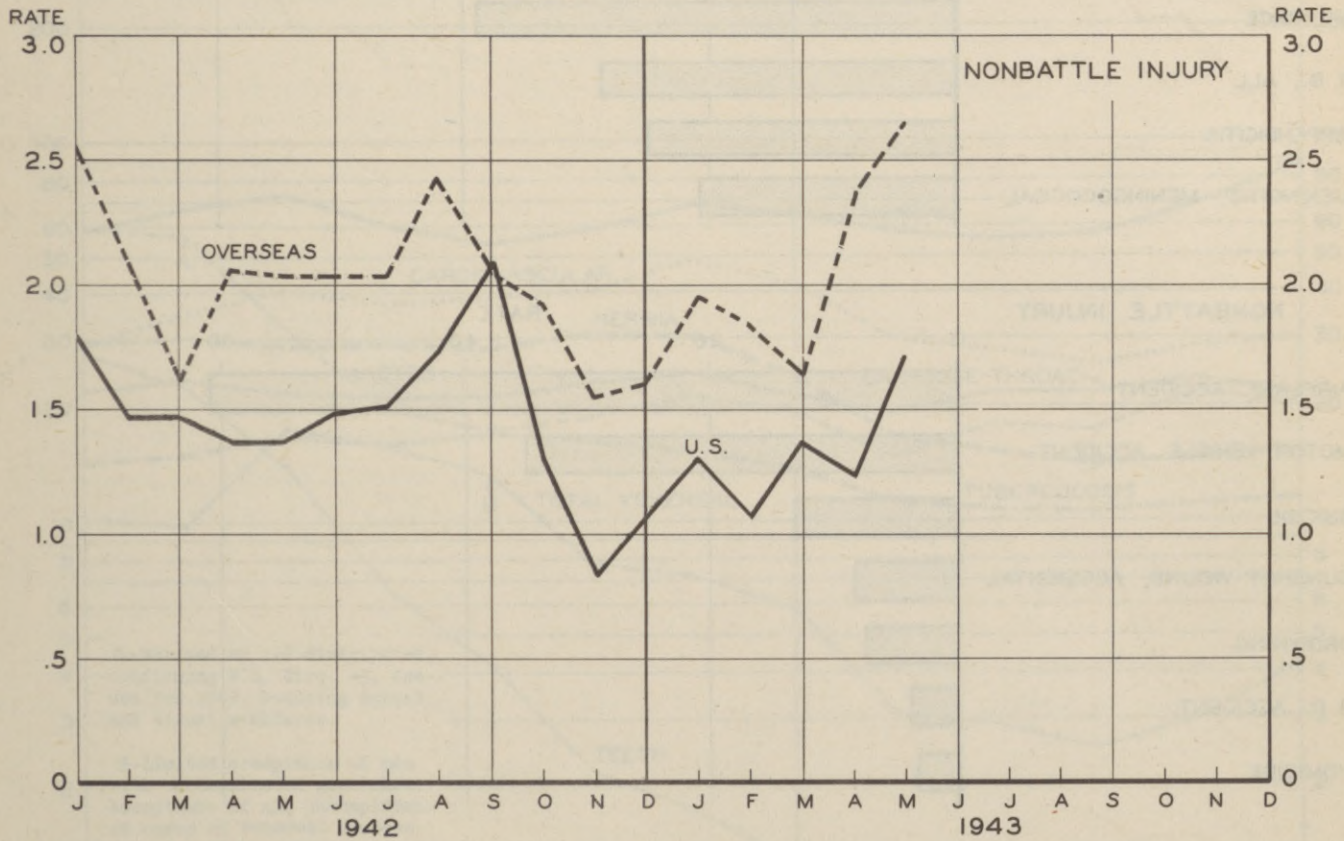
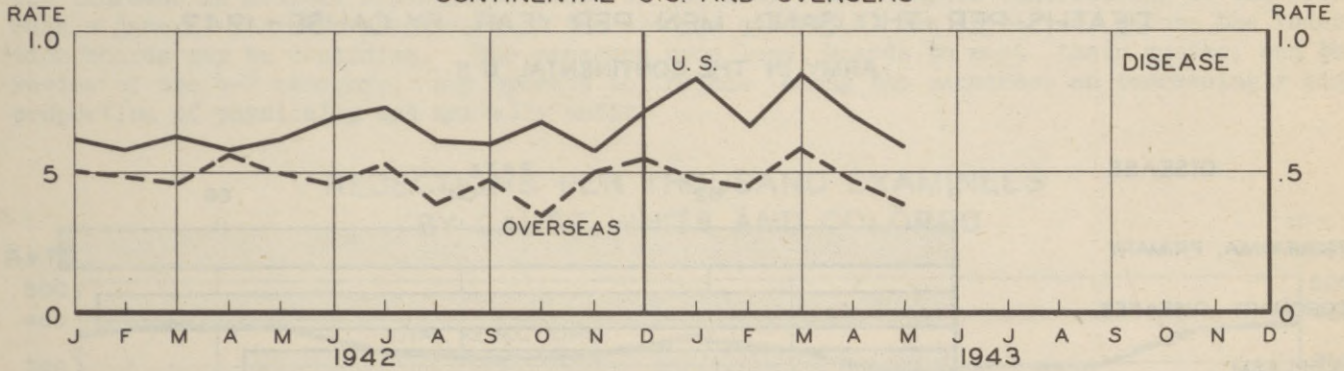
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MORTALITY FROM NONBATTLE CAUSES

Death rates from disease declined during May for U. S. Army forces both at home and abroad, but those attributable to nonbattle injuries increased. There is not yet available a detailed breakdown of overseas deaths by cause, without which it is impossible to specify precisely why the mortality experience of troops overseas is more favorable with respect to disease. However, the apparent advantage may reflect in part the physical and age selection of men assigned to duty overseas as well as the policy of evacuating some patients to the U.S.

The preliminary overseas death rate from nonbattle injury during May is the highest recorded over the seventeen-month interval, and about 50 percent higher than that for troops stationed in the Continental U. S. The ratio of deaths from injury to deaths from disease was seven to one for troops overseas and three to one for troops at home.

DEATHS PER THOUSAND MEN PER YEAR, NONBATTLE CAUSES
CONTINENTAL U.S. AND OVERSEAS



RESTRICTED

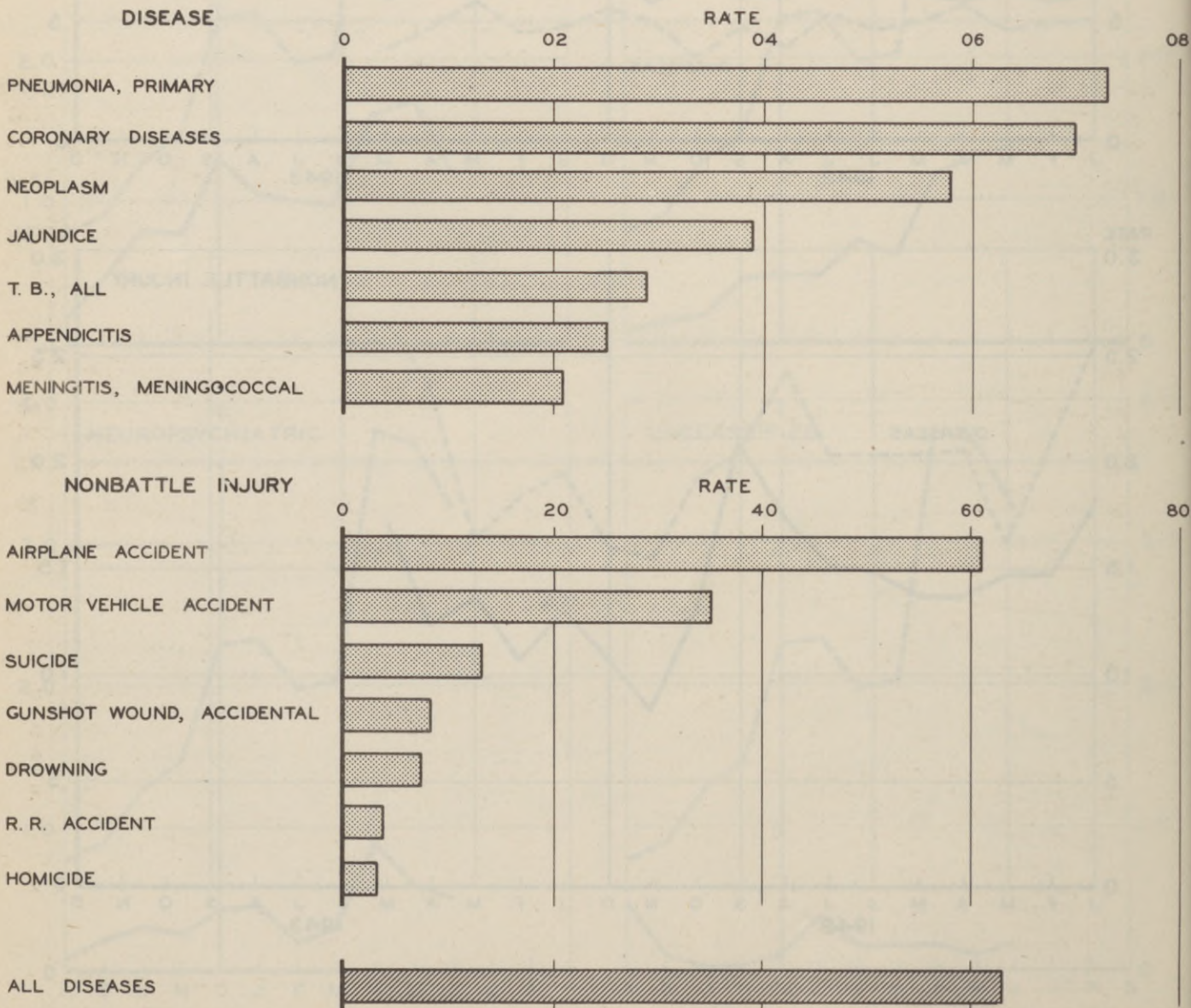
MORTALITY

CAUSES OF DEATH, CONTINENTAL U. S.

Preliminary information is now available on causes of death among troops in the Continental U. S. during 1942. The rate of 0.63 for deaths from disease is especially low, about one-fourth of that for 1931. The leading causes of death from disease are arrayed in the first chart below. About half of the deaths from disease were attributed to categories other than those set forth there. Pneumonia was the leading cause, but it accounted for only about 12 percent of the deaths. Coronary diseases were second, with 11 percent, and neoplasm (tumors, cancerous growths, etc.) third with 9.5 percent.

The average death rate from nonbattle injury has also been declining during the past decade, but not so sharply as has that for disease. Its fall would have been much more precipitate in the past two years were it not for the great increase in deaths from airplane accidents, the leading cause of accidental death in 1942. This is in marked contrast to 1940, when deaths from motor vehicle accidents were more than three times those from airplane accidents. The seven leading causes of accidental death are shown in the second chart below, with a bar for all diseases included for comparison. They include over 90 percent of all accidental deaths to Army troops stationed in the Continental U. S., airplane accidents alone comprising over 42 percent of the reported total. The rates shown for deaths from motor vehicles and from suicide are about half of those recorded for 1940.

DEATHS PER THOUSAND MEN PER YEAR, BY CAUSE - 1942
ARMY IN THE CONTINENTAL U.S.



RESTRICTED

MISCELLANEOUS

CONFIDENTIAL

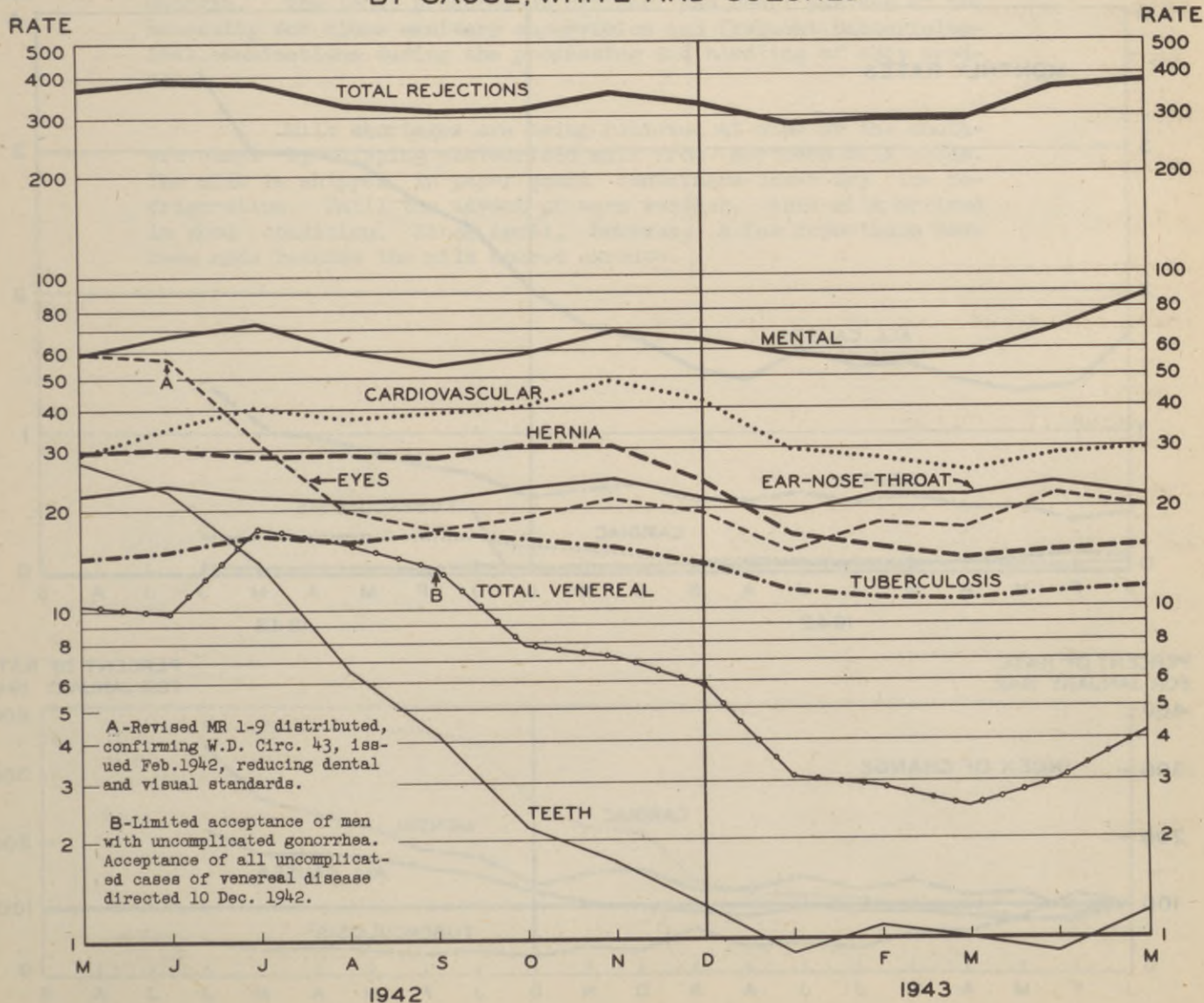
INDUCTION STANDARDS

The mobilization of a large Army from a limited supply of manpower tends to discourage the maintenance of rigorous physical and mental standards for induction. Although some relaxation has become necessary, especially with respect to teeth, vision, and venereal disease, for the most part the physical standards today are as high or higher than those which governed the onset of the mobilization.

Although the physical status of men appearing before induction boards may not be entirely constant, by virtue of changes in age and review of 4-F pools of previously rejected men, the gross rejection rates throw some light on the ability of the Army to preserve its high standards for induction. The chart below is drawn to show the rates at which some of the more important medical causes of rejection have varied over the past year. Only the rates for teeth, eyes, and venereal disease have declined greatly, and in each instance the change has followed an announced revision of standards. The acceptance of men with uncomplicated venereal infection is actually no relaxation in physical standards, for such men can be cured readily.

The total rejection rate, which comprises medical, administrative, and educational rejections, has been on the increase since the first of the year. The chief factor has been the increase in medical rejections, most of the individual causes contributing to the rise. Such a general increase suggests that the average quality of men appearing before the induction boards may be declining. The pressure upon local boards to meet their quotas, and the review of the 4-F category, may operate to include among the examinees an increasingly high proportion of physically and mentally unfit.

REJECTIONS PER THOUSAND EXAMINEES
BY CAUSE, WHITE AND COLORED



MISCELLANEOUS

CONFIDENTIAL

DISABILITY DISCHARGES FROM THE ARMY

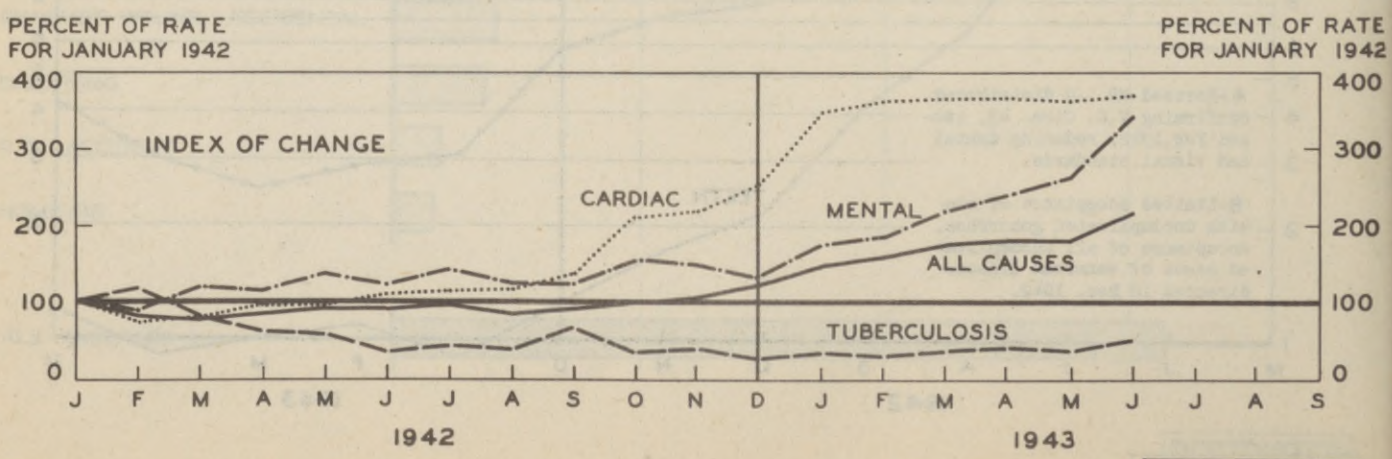
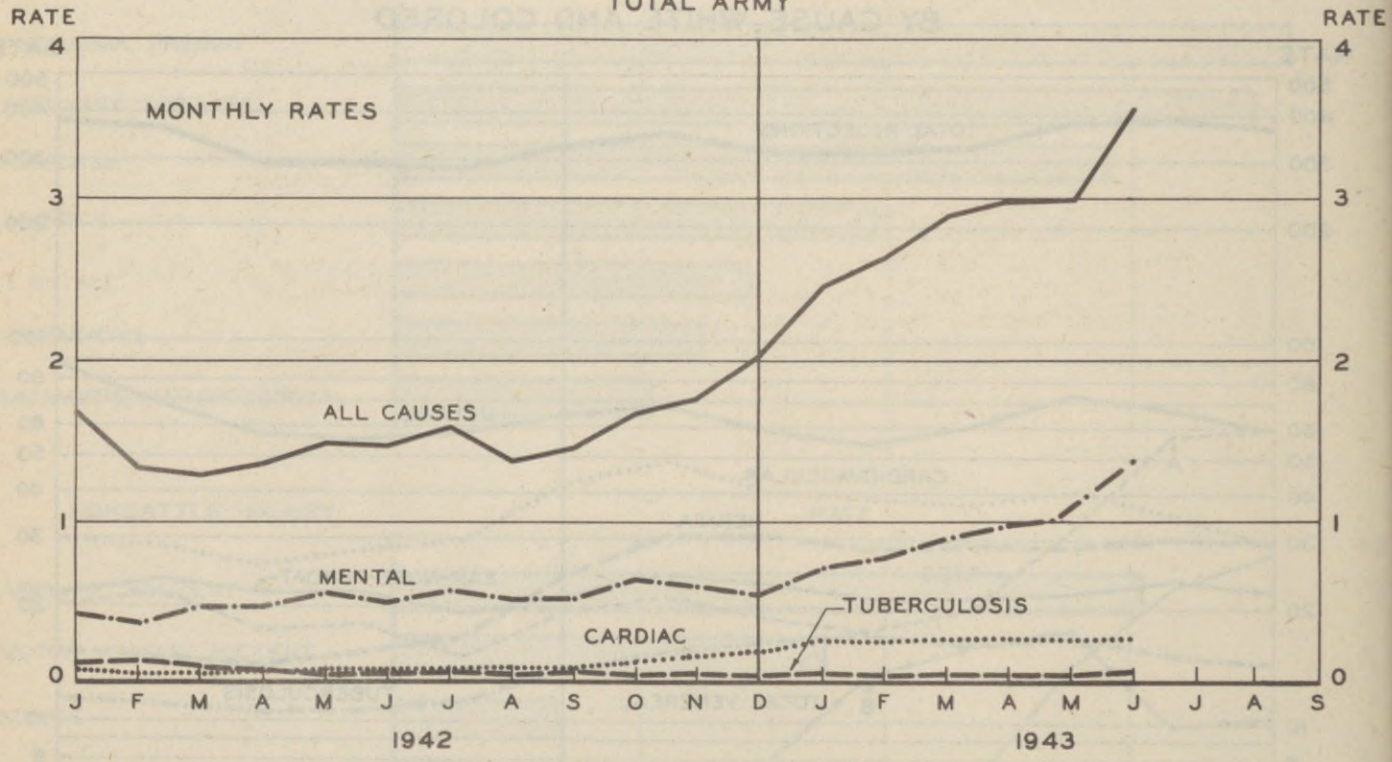
During the first six months of 1943 the rate of discharge for disability has almost doubled. Discharge rates are by no means definitive indices of health. They may be high either because the unfit are being rapidly eliminated or because the proportion of unfit is large. The first chart below gives the total rate and some of its chief components. The rates, which are provisional, give the number of men discharged each month per thousand average strength for the entire Army.

Discharges for mental disease and deficiency have risen notably since December 1942 from 27 to 38 percent of all discharges, and from 0.5 to 1.4 discharges per thousand strength per month. Cardiac disease accounted for 0.27 discharges per thousand men per month during June, three or four times the level which prevailed during the early months of 1942. Discharges for tuberculosis, on the other hand, have declined about 50 percent over this interval. Rates for visual impairment and for traumatism are also available but not plotted on the chart. The June rates for these two causes were .10 and .01 discharges per thousand strength per month. No diagnostic breakdown has been made on the remaining 50 percent of the discharges.

In order to reveal better the relative changes which have been taking place in the rates, the second chart below presents them as percentages of the rates for January 1942. These curves show how marked was the recent relative increase in discharges attributed to cardiac disease, and how little change there has been since January 1943. The June index for visual impairment is 164 percent, and that for traumatism only 27 percent.

DISABILITY DISCHARGES FOR SELECTED CAUSES

TOTAL ARMY



CONFIDENTIAL

MISCELLANEOUS

QUALITY AND AVAILABILITY OF MEAT AND DAIRY FOODS

During May food inspectors of the Army Veterinary Corps examined 439 million pounds of meat, meat-food, and dairy products in the Continental U. S. for the Army, Navy, Marine Corps, and other agencies. Of this total quantity about 15.5 million pounds, or 3.5 percent of that inspected, were rejected. Reports from the South Pacific Area for the month of May indicate that approximately 20 percent of the canned evaporated milk inspected while in storage there was rejected. This high rate of rejection appears to have been caused by damage incident to shipment and by inadequate storage facilities. Studies in packaging are being conducted in order to evolve methods which will minimize the losses now caused by exposure and rough handling.

Study of the meat and dairy hygiene reports for the month of May 1943 indicates that the average daily consumption of fresh milk by troops in the Continental U. S. is approximately 0.55 of a pound per man. The importance of fresh milk in the menu is such that tentative specifications covering pasteurized reconstituted milk, pasteurized blended milk, and pasteurized milk standardized with reconstituted skim milk, have recently been developed to guide the procurement of milk for beverage purposes in areas where critical milk shortages exist or may develop. These specifications are to be used only under specific authorization by the Office of The Quartermaster General, Washington, D. C. A trial of pasteurized reconstituted milk, prepared in accordance with the tentative specifications, is now under way at Camp Gordon, Georgia. The local procurement officer has been advised of the necessity for close sanitary supervision and frequent bacteriological examinations during the processing and handling of this product.

Milk shortages are being relieved at some of the southern camps by shipping pasteurized milk from northern milk sheds. The milk is shipped in paper quart containers under dry ice refrigeration. Until the advent of warm weather, this milk arrived in good condition. Since April, however, a few rejections have been made because the milk soured enroute.

DATA AS OF 31 AUGUST 1943

