SECTION
7

HEALTH

MONTHLY PROGRESS REPORT

DATA AS OF 30 SEPT 1943

ARMY SERVICE FORCES, WAR DEPARTMENT

CONTROL APPROVAL SYMBOL

CG-14

HEALTH

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OFFICE OF THE SURGEON GENERAL

HEADQUARTERS, ARMY SERVICE FORCES, WAR DEPARTMENT

HEALTH

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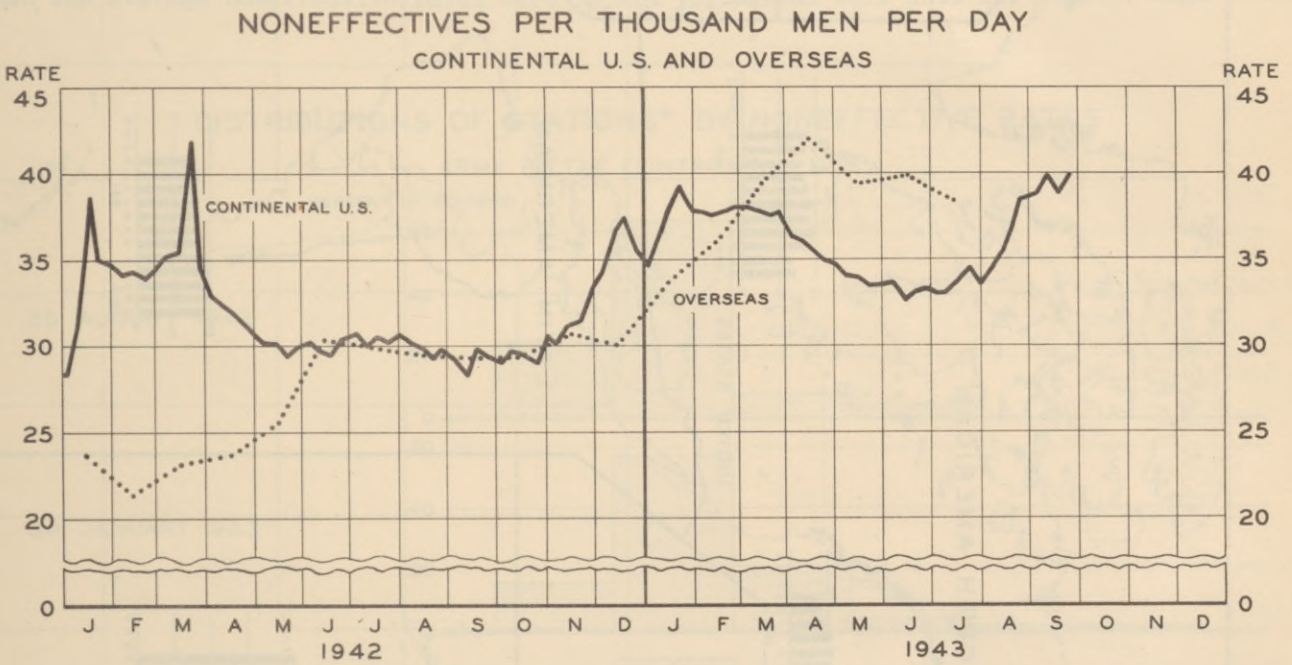
DISEASE AND INJURY

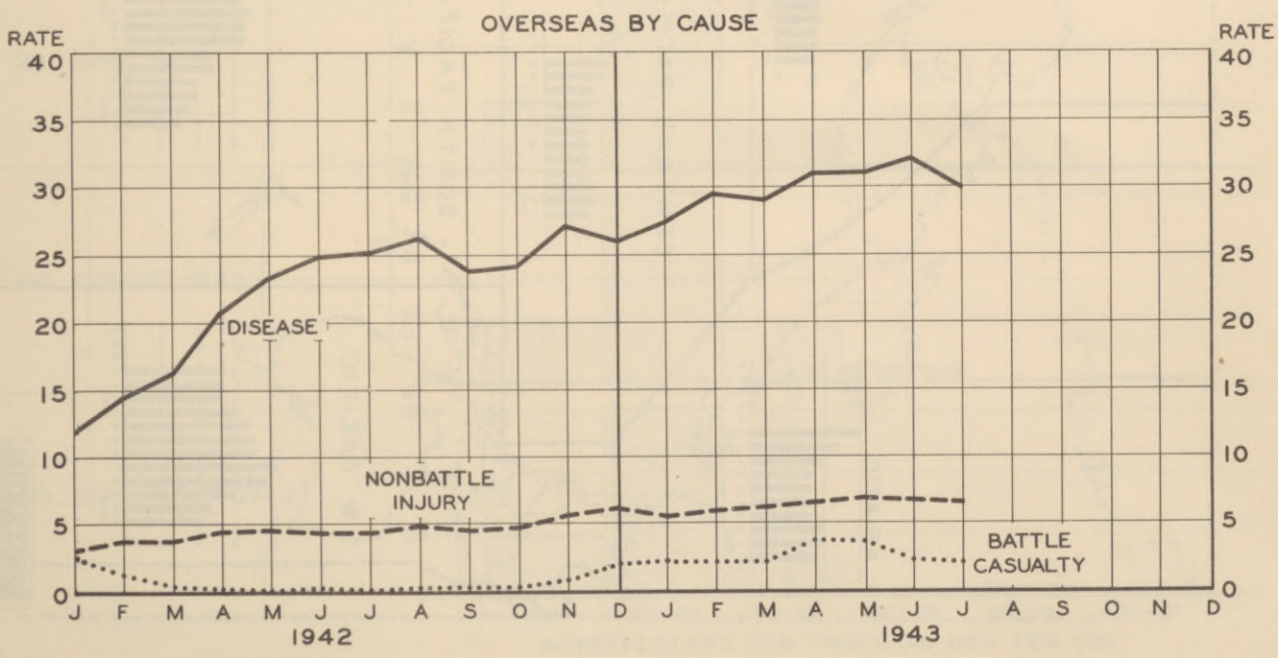
NONEFFECTIVE RATES, U. S. AND OVERSEAS

Following its sharp advance during August, the average daily noneffective rate for the Continental U. S. increased only slightly during September. On 11 September it reached about 40 noneffectives per thousand men per day, the highest it has been in more than a year. The scale of the first chart below is such as to magnify the changes which occur.

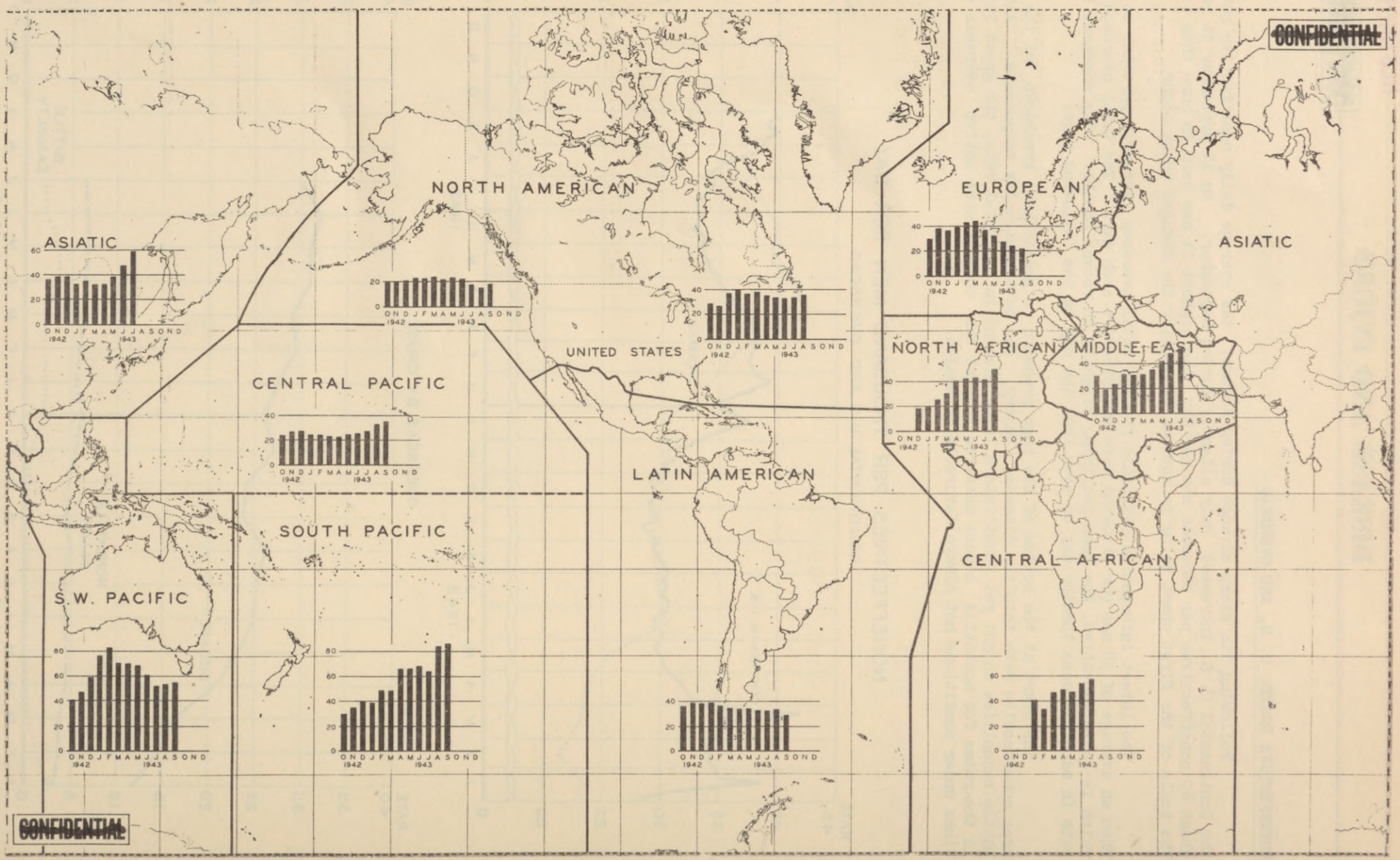
The latest information available for the total overseas strength pertains to July, when an average of 38 men per thousand were noneffective each day. The total overseas rate, which is quite tentative, has been declining slightly in recent months. The movement of the rate in each overseas theater may be seen from the map on the following page.

The chart at the bottom of the page presents a preliminary breakdown of the overseas noneffective rate into its disease, injury, and battle-casualty components. Although battle casualties do not yet constitute a large element in the total rate, the great increase in the rates for nonbattle causes measures in part the cost of more active overseas operations under conditions not always favorable to health.





NONEFFECTIVES PER THOUSAND MEN PER DAY



DISEASE AND INJURY

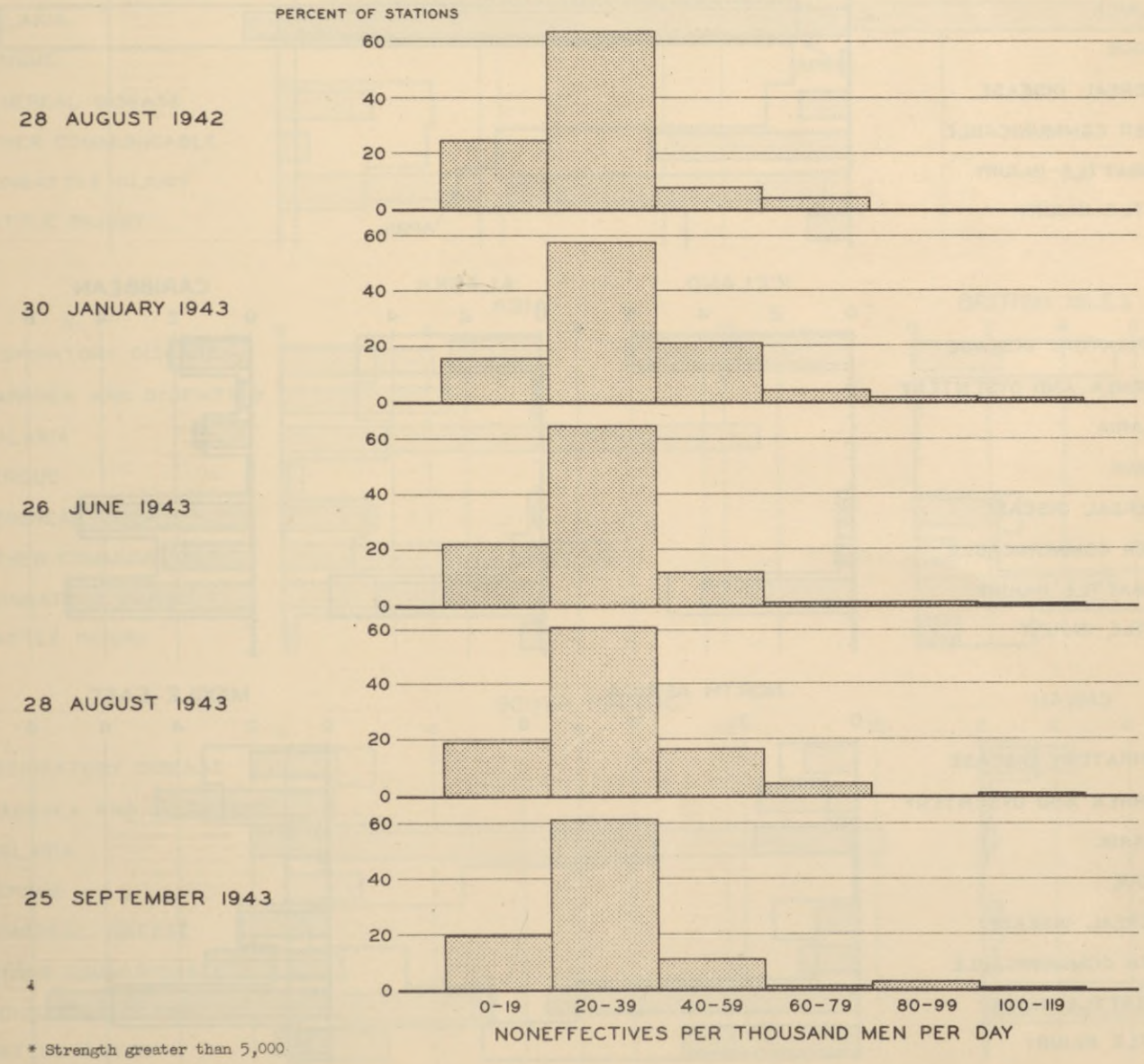
NONEFFECTIVE RATES AMONG POSTS, CAMPS, AND STATIONS, CONTINENTAL U. S.

The average noneffective rate conventionally employed as an index to the health of the Army is generally higher than the median rate which divides the stations into two equal parts on the basis of the magnitude of their rates. This is because there tends to be a small set of stations with relatively high rates, and one which has no equivalent counterpart in stations with relatively low rates. It is in large part the movement of this group of stations into the zone of high rates which elevates the average noneffective rate. These facts are most conveniently illustrated with reference to distributions of stations according to their noneffective rates at different dates. In the accompanying chart such distributions are shown for five dates for purposes of comparison.

On 28 August 1942, when the average noneffective rate was only 30, there were relatively few stations with rates of 60 or more, four percent in fact. Correspondingly more stations had lower rates, as shown by the height of the two bars to the left of this point and for this date. By the end of January 1943 the first two bars had been greatly reduced in favor of those to the right, many stations having moved into the zone of high rates. A few even reported rates of 80 or more. The distribution for 26 June shows considerable contraction on the part of the bars for high values. However, those for 28 August and 25 September, when the average noneffective rates were 38 and 40, extend well into the zone of high values.

DISTRIBUTIONS OF STATIONS* BY NONEFFECTIVE RATES

ARMY IN THE CONTINENTAL U. S.



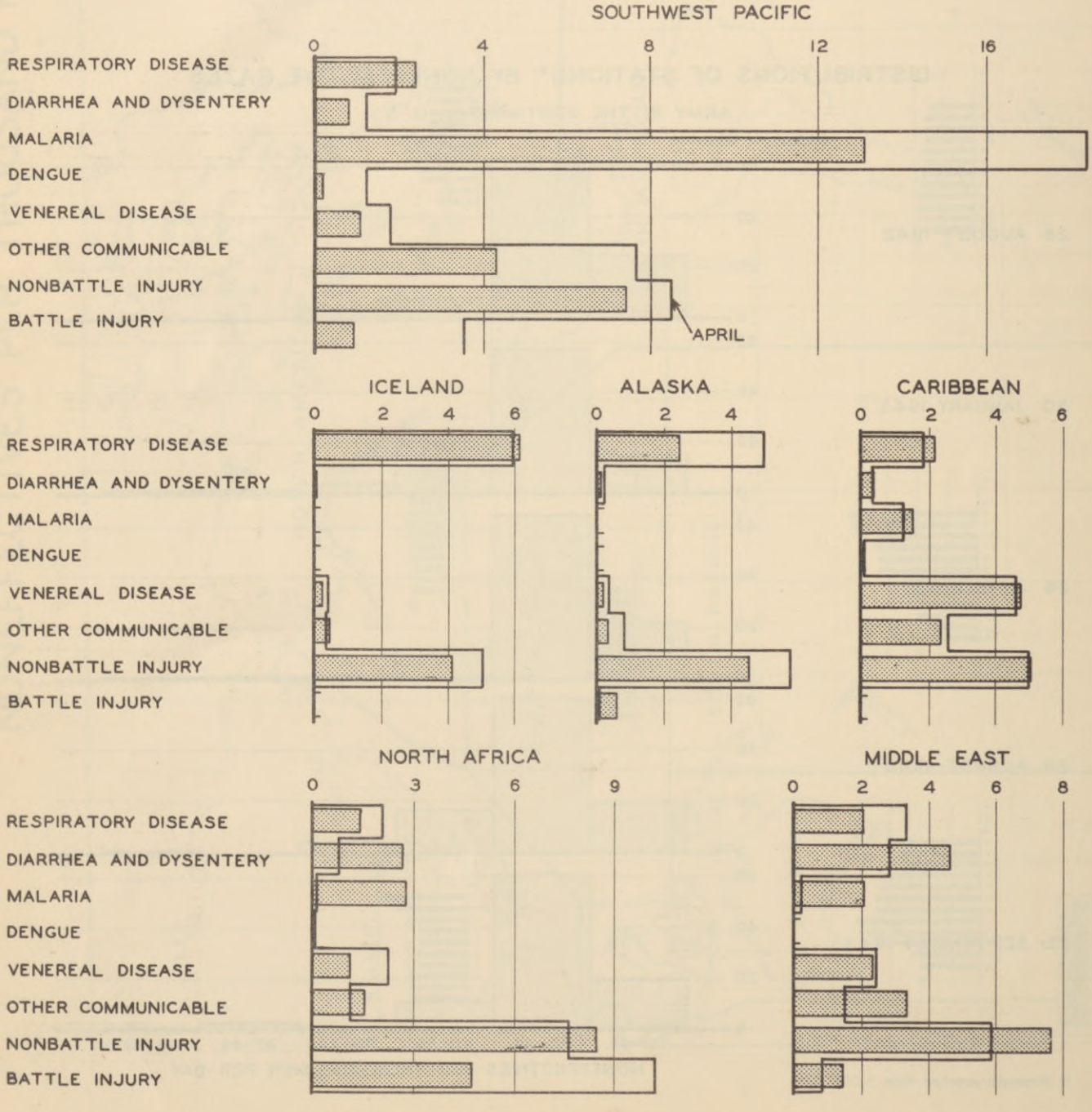
* Strength greater than 5,000

CAUSES OF NONEFFECTIVENESS OVERSEAS

The extensive geographical dispersion of U. S. Army forces overseas has placed them in a wide variety of climates ranging from tropical to arctic in character. There are corresponding variations in the disease picture, and the incidence of battle and nonbattle injury also differs widely by reason of geography, terrain, composition of forces, weather, equipment, and tactical situation. In consequence, the noneffective rates of each theater or other command tend to have a characteristic pattern when subdivided according to major causes of noneffectiveness. The distinctive character of noneffectiveness in each area is represented in the charts below and on the following page. They give the most recent rates available, principally for July, against those for April which are shown in outline form. Seasonal variations and changes in the tactical situation are continually operating to influence the relative importance of certain causes in some theaters. Omitted from each panel is that portion of the noneffective rate which is attributable to noncommunicable diseases, an important group for which no breakdown is currently available.

MAJOR CAUSES OF NONEFFECTIVENESS IN OVERSEAS COMMANDS, JULY

RATES PER THOUSAND MEN PER DAY



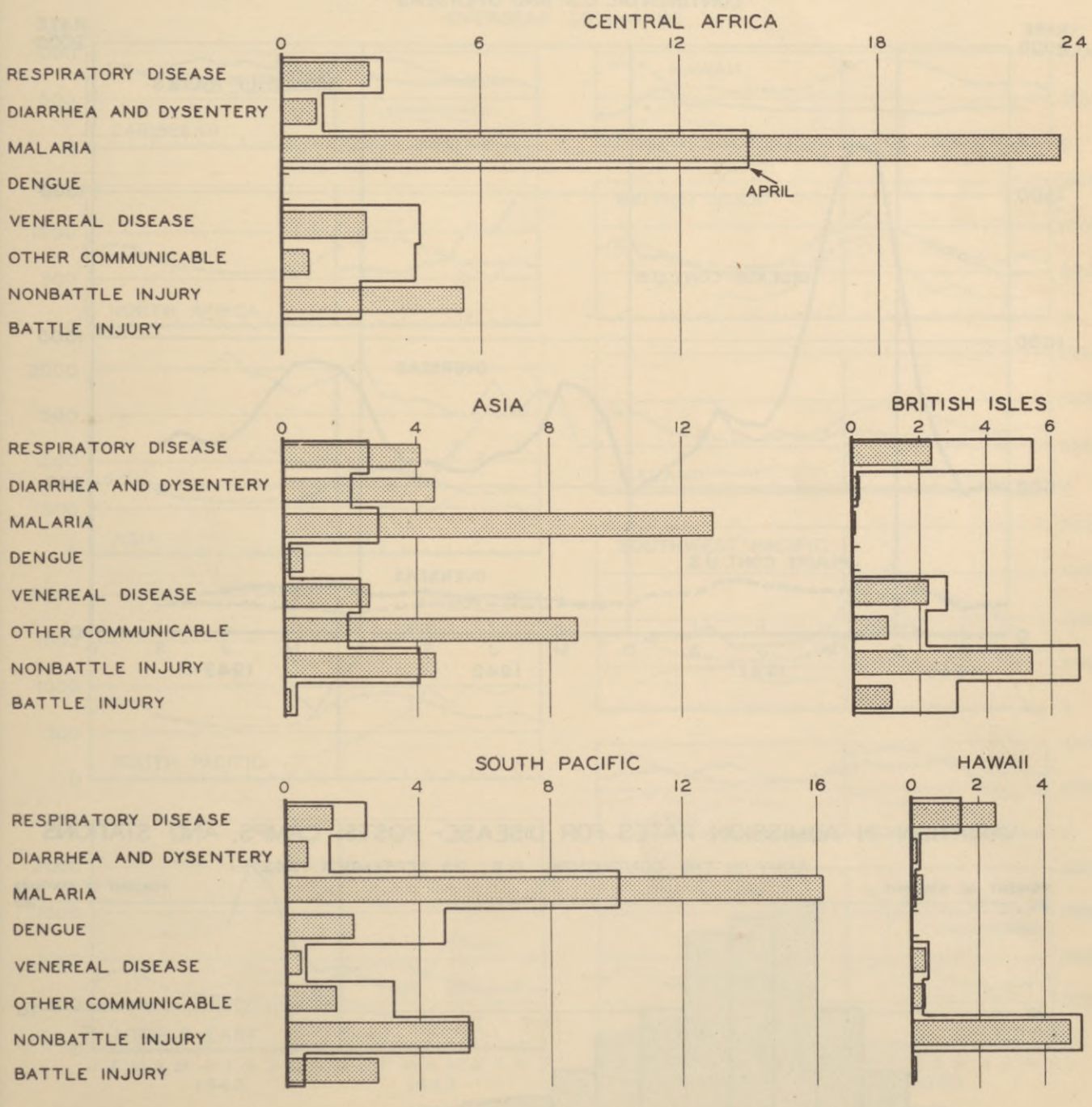
CAUSES OF NONEFFECTIVENESS OVERSEAS (Continued)

In the Southwest Pacific, the South Pacific, Central Africa, and Asia the picture is dominated by malaria, which was many times as important as battle casualty as a cause of noneffectiveness during the months concerned. Malaria has become much more of a problem in the South Pacific, Asia, and Central Africa during the periods contrasted in the charts, but the noneffective rate for malaria in the Southwest Pacific declined from about 18 in April to 13 in July. In North Africa it was about three per thousand men per day in July, but in August it had risen to about five.

In Iceland and Alaska only nonbattle injury and respiratory infection stand out among the causes listed. In most theaters nonbattle injury is an outstanding factor in noneffectiveness, but battle injury has been a leading cause only in North Africa in recent months. Diarrheal disease was the second most important cause of noneffectiveness in the Middle East during July from the standpoint of the diseases shown, and also highly important in Asia and North Africa.

MAJOR CAUSES OF NONEFFECTIVENESS IN OVERSEAS COMMANDS, JULY

RATES PER THOUSAND MEN PER DAY



DISEASE AND NONBATTLE INJURY

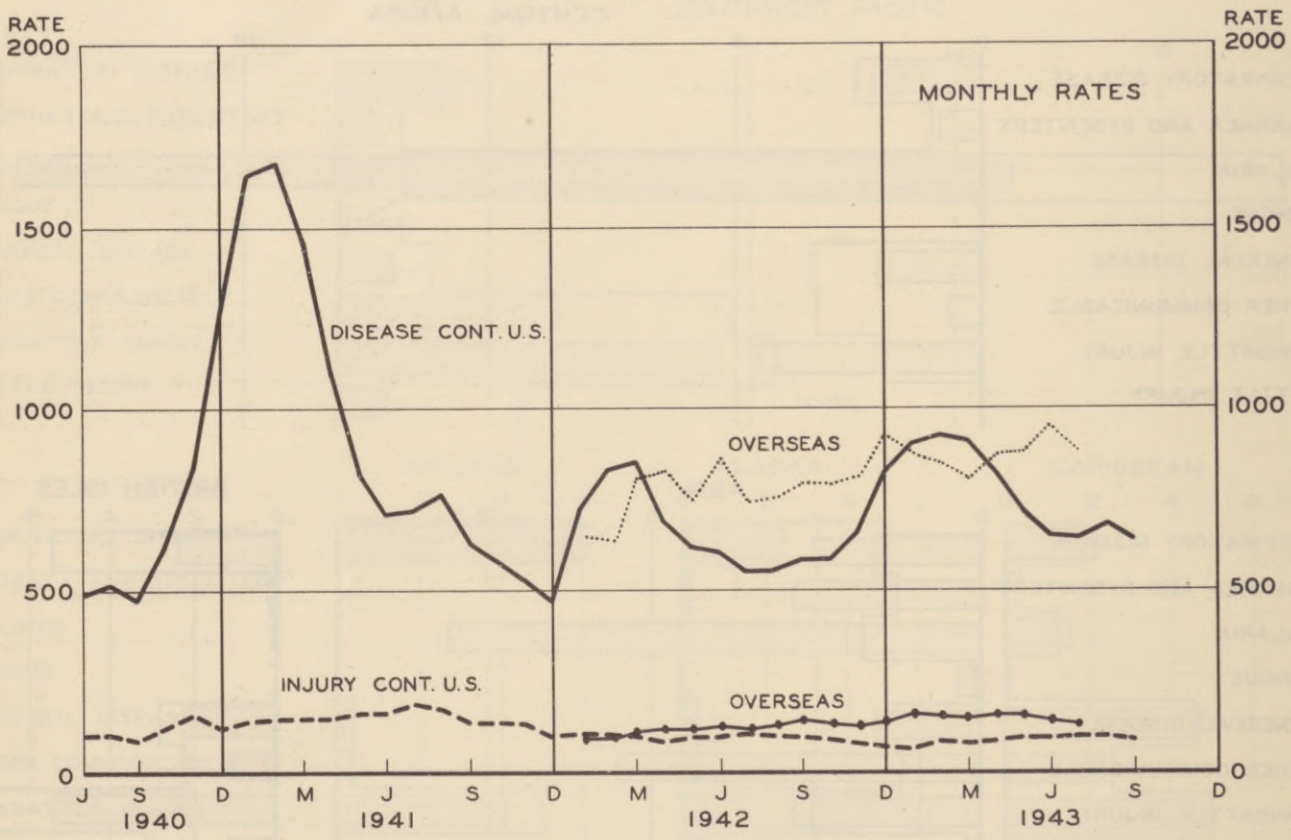
During September the preliminary admission rate for disease among troops in the Continental U.S. decreased about 8.5 percent to 634 admissions per thousand men per year, below any other monthly rate for 1943. The rate of admission for nonbattle injury in the Continental U. S. was 86 in September, a little more than ten percent below the rates for June, July, and August.

July is the latest month for which reasonably complete reports are available for the total overseas strength. The rates of admission decreased somewhat for both disease and injury. For disease the overseas rate exceeded the July Continental U. S. rate by about 35 percent, and for injury the excess was about 25 percent.

At the bottom of the page there appears a distribution of posts, camps, and stations according to their rates of admission for disease during the week ending 25 September. Only stations of approximately 5,000 or more strength were tabulated. Despite a marked concentration below 700 admissions per thousand men per year, 28 percent reported higher rates, and 5.5 percent had rates of 1,000 or more.

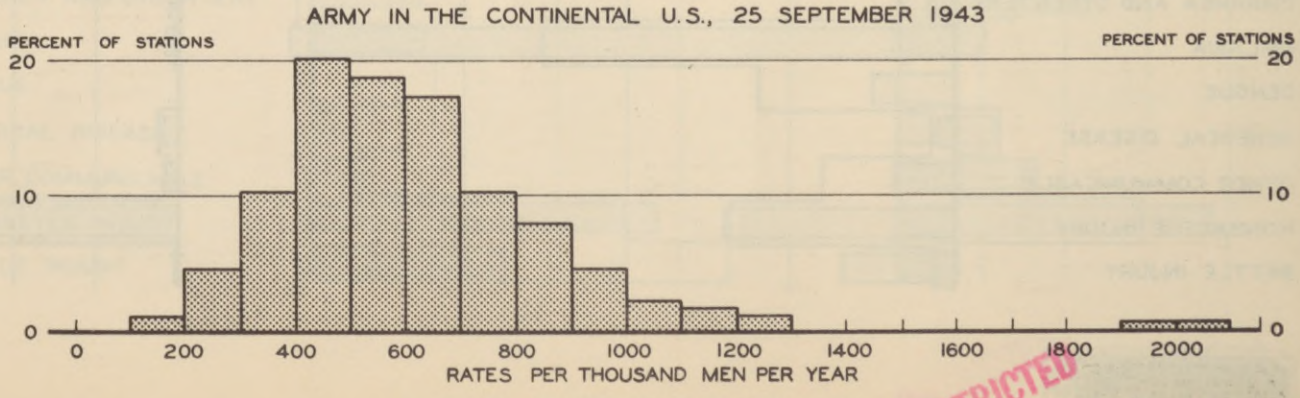
DISEASE AND INJURY, ADMISSIONS PER THOUSAND MEN PER YEAR

CONTINENTAL U.S. AND OVERSEAS



VARIATION IN ADMISSION RATES FOR DISEASE – POSTS, CAMPS, AND STATIONS

ARMY IN THE CONTINENTAL U.S., 25 SEPTEMBER 1943



DISEASE AND INJURY

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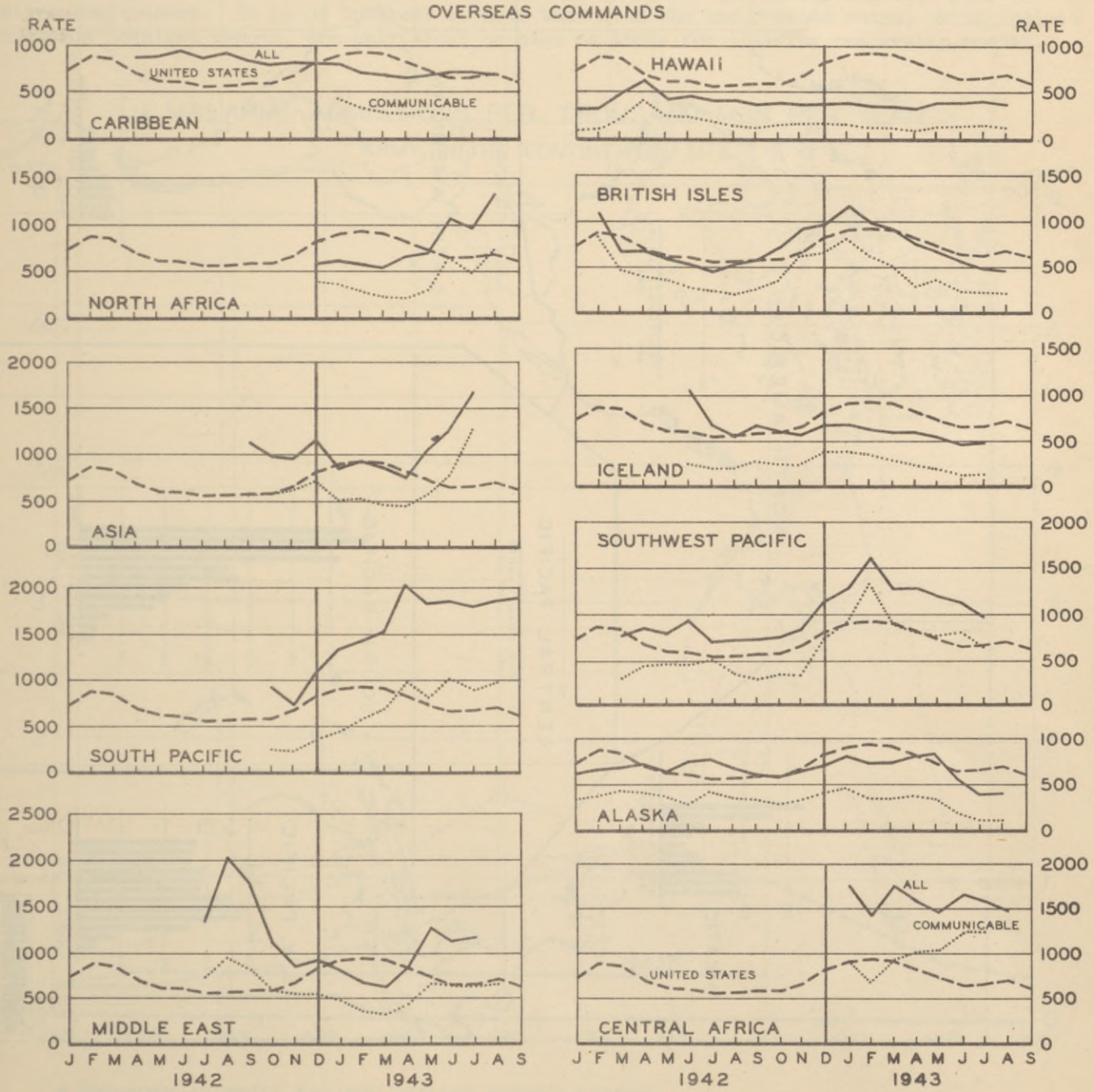
ADMISSION RATES FOR DISEASE, OVERSEAS COMMANDS

Disease continues to cause more admissions to hospital and quarters overseas than do nonbattle injury and battle casualty combined. Although the troops in some areas enjoy rates as low as or lower than those reported for troops in the Continental U. S., for the most part the rates abroad are higher than those at home. The charts below compare each area with the United States in this respect, and also include a line representing the incidence of communicable disease in the particular overseas area. It is primarily this component which causes fluctuation in the disease rates.

Especially high rates in recent months have been reported for the South Pacific, North Africa, the Southwest Pacific, Asia, the Middle East, and Central Africa, areas where malaria and diarrheal disease are especially frequent. The August increase in North Africa is partly attributable to malaria diagnosed as such and to malaria and other diseases temporarily classified as undiagnosed fever. Current disease rates are especially favorable for the British Isles, Iceland, Hawaii, and Alaska.

ADMISSIONS PER THOUSAND MEN PER YEAR FOR ALL DISEASES, AND FOR COMMUNICABLE DISEASES

OVERSEAS COMMANDS



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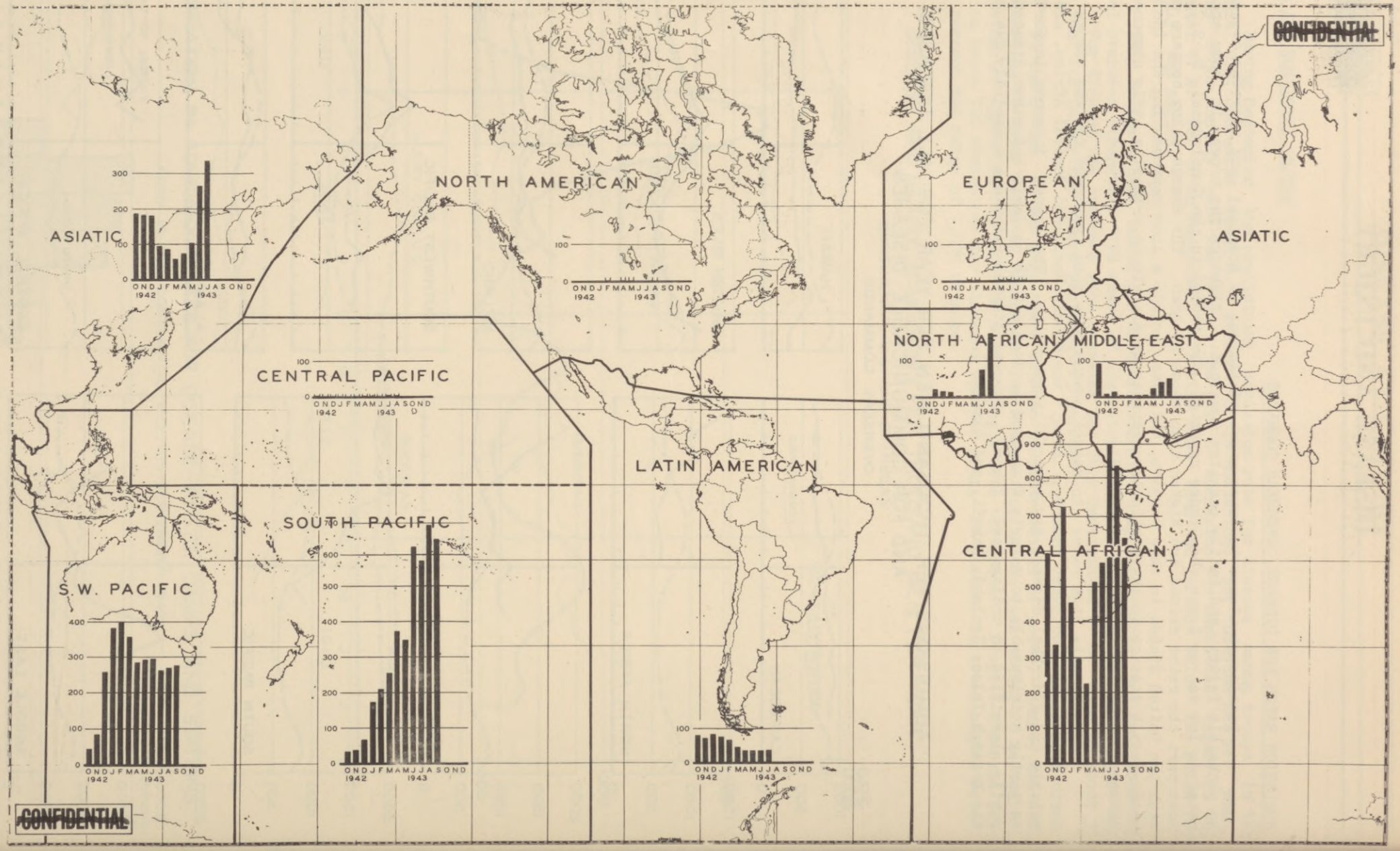
MALARIA, ADMISSIONS PER THOUSAND MEN PER YEAR



MALARIA

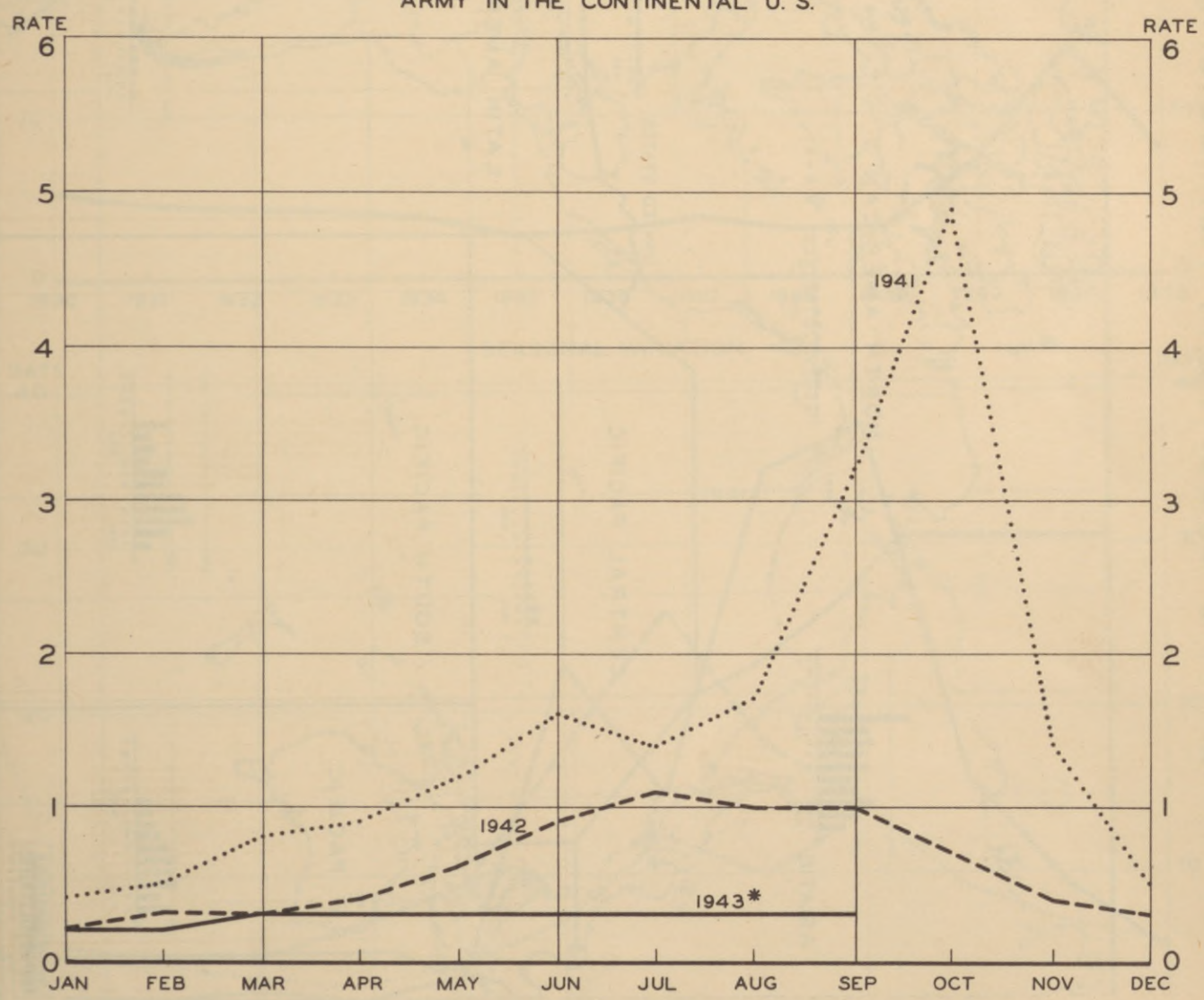
Recent outstanding changes in the malaria picture overseas include a marked rise in the incidence of malaria among troops in Asia and North Africa, and a continuation of the exceptionally high rates for troops in the South and Southwest Pacific, as may be seen from the map on the opposite page. The vertical bars there represent diagnosed malaria only, and would be higher in some cases were adjustments made for the amount of malaria temporarily escaping classification as such. Recent investigations in the North African Theater indicate, however, that much of the undiagnosed fever there, and even some of the diagnosed malaria reported in statistical summaries, is probably sand-fly fever.

During June the provisional admission rate for China, India, and Burma more than doubled, and by July it had reached a height of 337 admissions per thousand strength per year. This level is exceeded only by the peak rates reported earlier for the Southwest Pacific and by the current rates for the South Pacific and Central Africa.

The evacuation to the United States of overseas patients with malaria has complicated the problem of estimating the incidence of infection acquired in the United States. Provisional estimates, shown below against the figures for 1941 and 1942, suggest that the 1943 experience has been even more favorable than that of 1942, previously the best year in the entire Army record. It is of interest to note that even the uncorrected rates, which include infection acquired abroad, are only about as high as those for 1941 for comparable months.

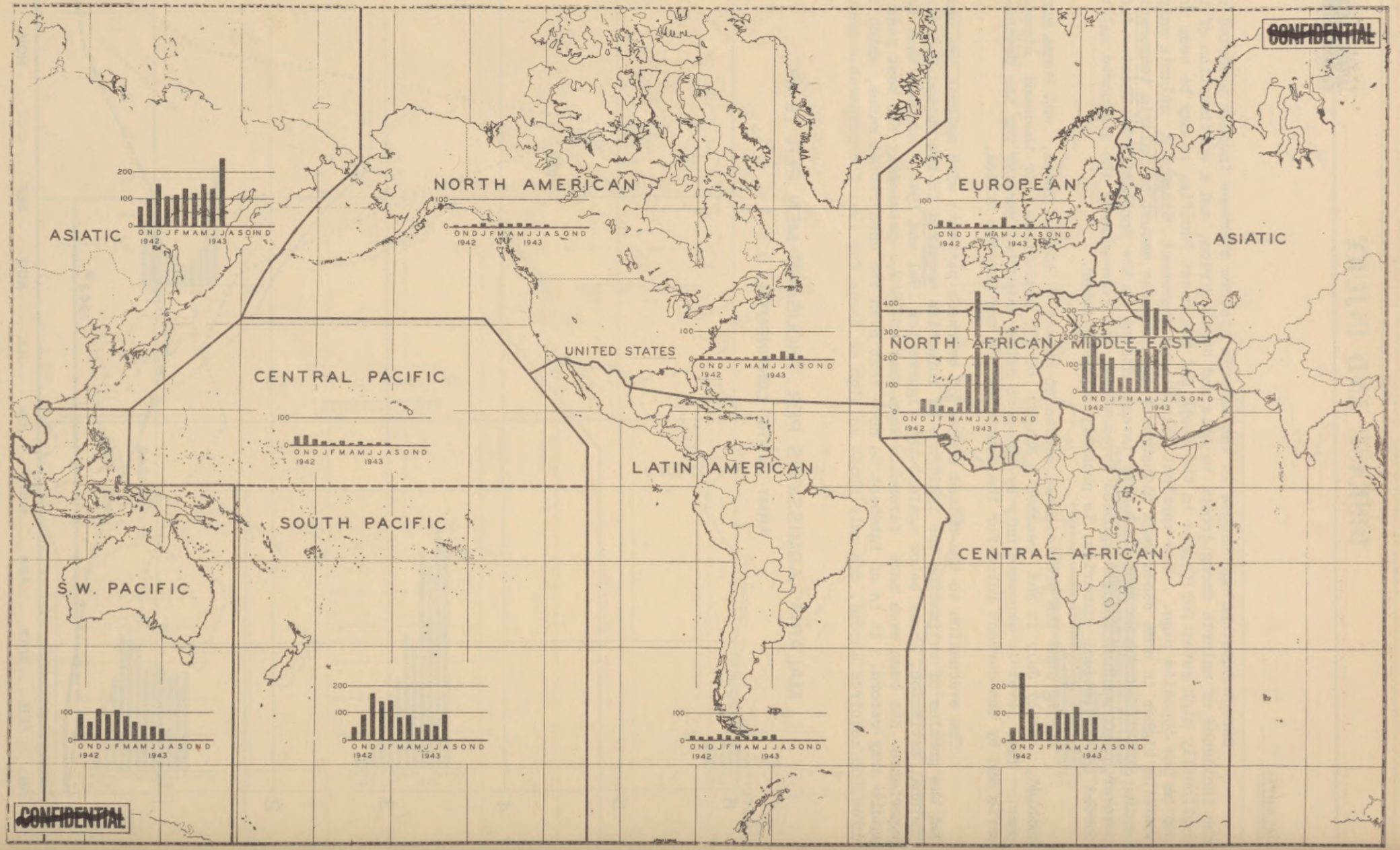
MALARIA, ADMISSIONS PER THOUSAND MEN PER YEAR

ARMY IN THE CONTINENTAL U. S.



* PROVISIONAL ESTIMATES, EXCLUDING INFECTION ACQUIRED OVERSEAS

DIARRHEA AND DYSENTERY, ADMISSIONS PER THOUSAND MEN PER YEAR



DIARRHEA AND DYSENTERY

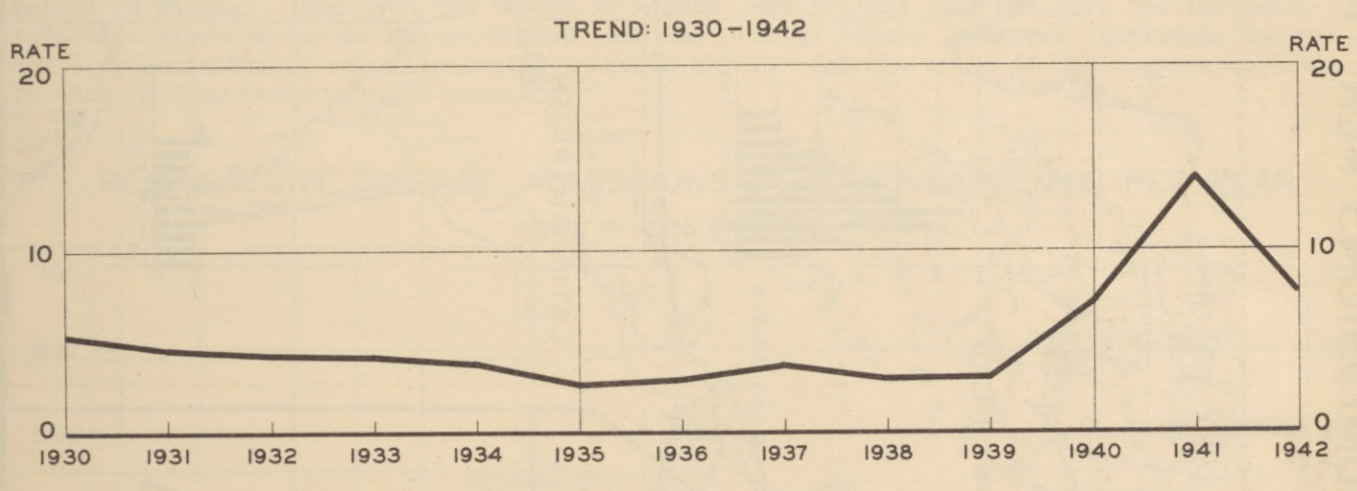
The map on the opposite page has been drawn to compare the various theaters of operations and the United States with respect to the reported incidence of diarrhea and dysentery among U. S. Army troops. These diseases continue to present an important problem among troops overseas, especially those stationed in the Middle East, Asia, Central Africa, the South and Southwest Pacific, and North Africa.

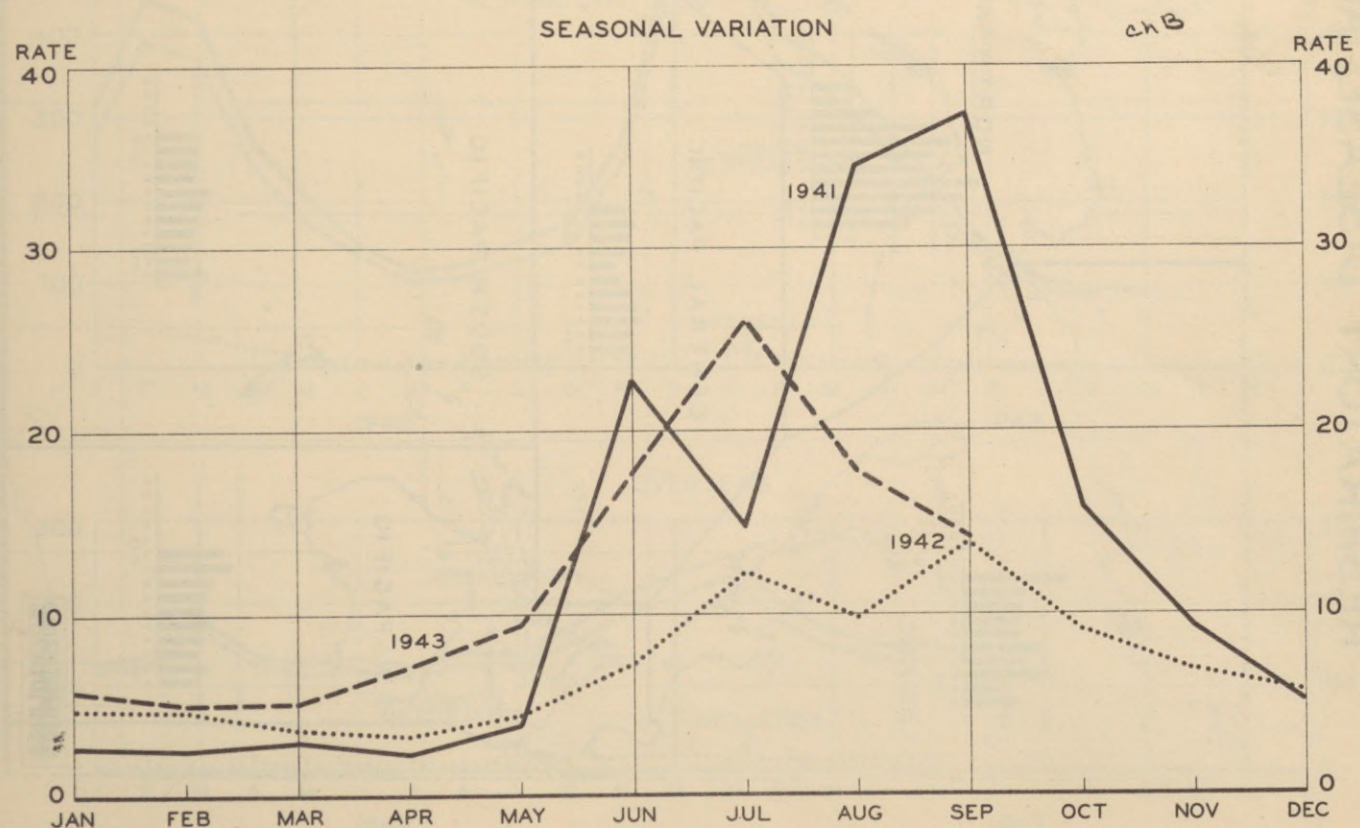
The most recent reports indicate that the incidence in North Africa has declined from the high peak of 445 for June to 196 for August. For the Middle East the July rate of 281 represents some decline below the rate of 339 reported for May. The provisional July rate of 249 for Asia is almost twice that for June, however.

In the United States the recent experience has been more favorable than the early summer rise had suggested. The July rate of 26 was evidently the high point of the seasonal upswing, August and September having rates of 18 and 14 admissions per thousand men per year. The chart below compares the rates for the past three years.

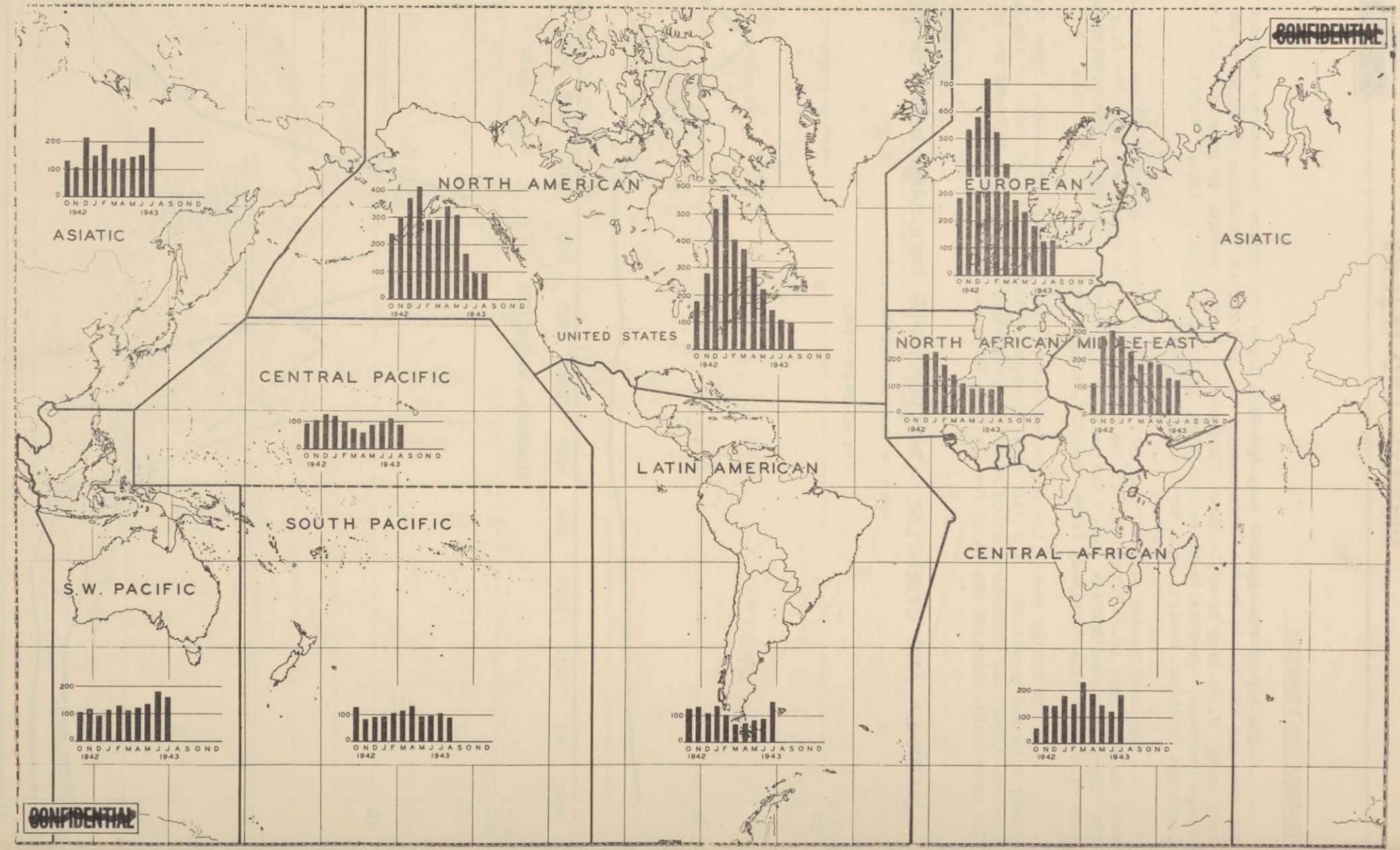
DIARRHEA AND DYSENTERY, ADMISSIONS PER THOUSAND MEN PER YEAR

ARMY IN THE CONTINENTAL U. S.





RESPIRATORY DISEASE, ADMISSIONS PER THOUSAND MEN PER YEAR



RESPIRATORY DISEASE, U. S. AND OVERSEAS

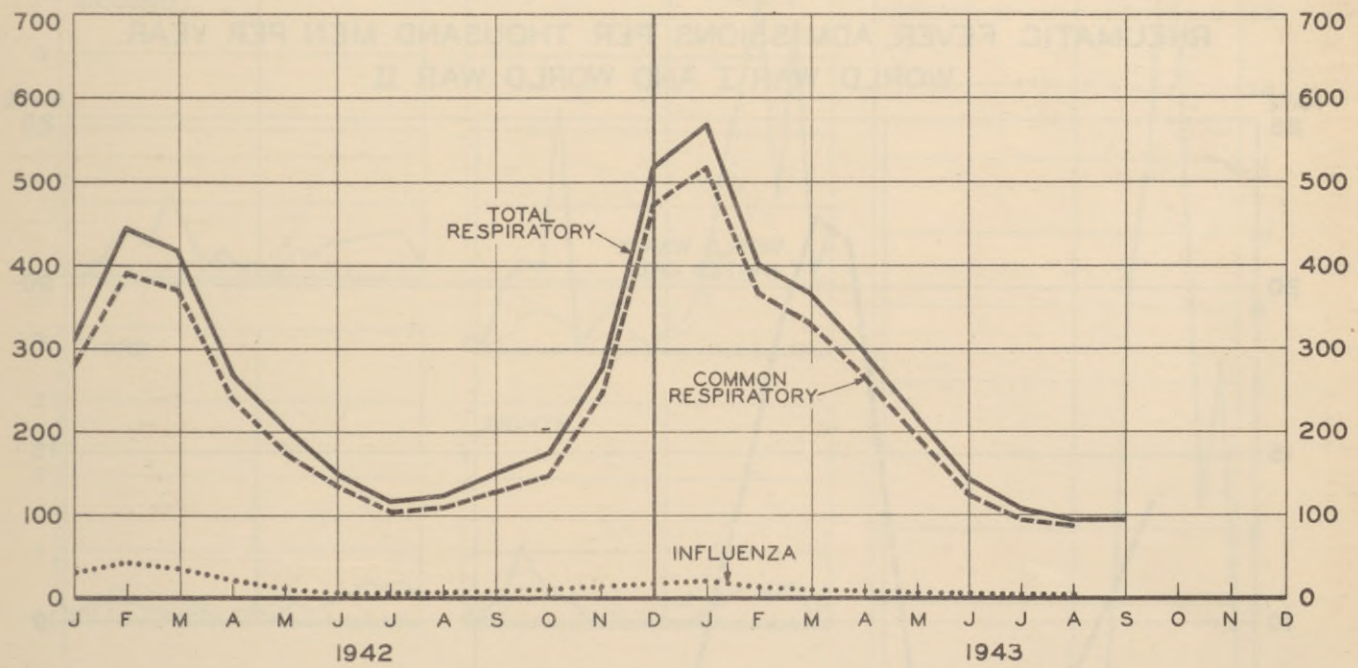
The respiratory diseases, including the common cold, influenza, pneumonia, and atypical pneumonia, are of great importance for the health of troops both at home and abroad. However, respiratory infection normally tends to have more importance in the United States than in most overseas theaters.

In the first chart which follows, the experience of troops in the Continental U. S. is shown for 1942 and 1943, the rates for common respiratory disease and for influenza being shown separately. Clinical distinction between influenza and common respiratory infection is sometimes not reliably made, and the true level of the influenza rates may differ slightly from that shown below. Comparison of the two troughs indicates that the summer season has been slightly more favorable this year than last, and the future course of the rates will be watched with interest.

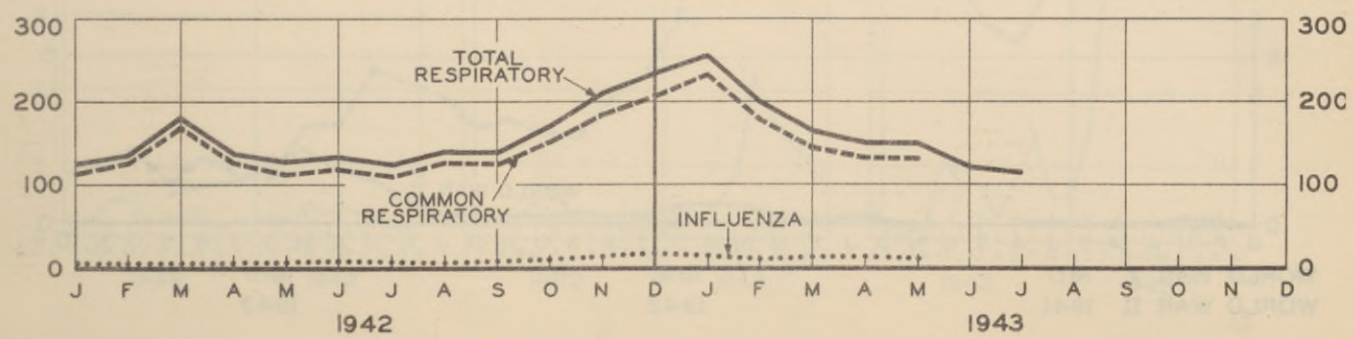
The second chart is similar in design and presents comparable rates for U. S. forces overseas. Although both the U. S. and the overseas series tend to approach the same seasonal low point, the amplitude of the expected fluctuation is much less for the overseas rates. The map on the opposite page gives the details by theater, the rates being total rates comparable in coverage to those drawn below. Only in the European Theater do the respiratory diseases present a problem of magnitude comparable with that faced by troops in the United States. Many troops are stationed in tropical and subtropical regions where the usual hazard is minimal, and even the troops in Alaska and Iceland may not have the incidence of infection expected in the United States and the British Isles. However, influenza has pandemic potentialities, as illustrated in World War I, and the trend of the respiratory rates in each theater bears careful scrutiny.

RESPIRATORY DISEASE ADMISSIONS PER THOUSAND MEN PER YEAR

ARMY IN CONTINENTAL U.S.



OVERSEAS

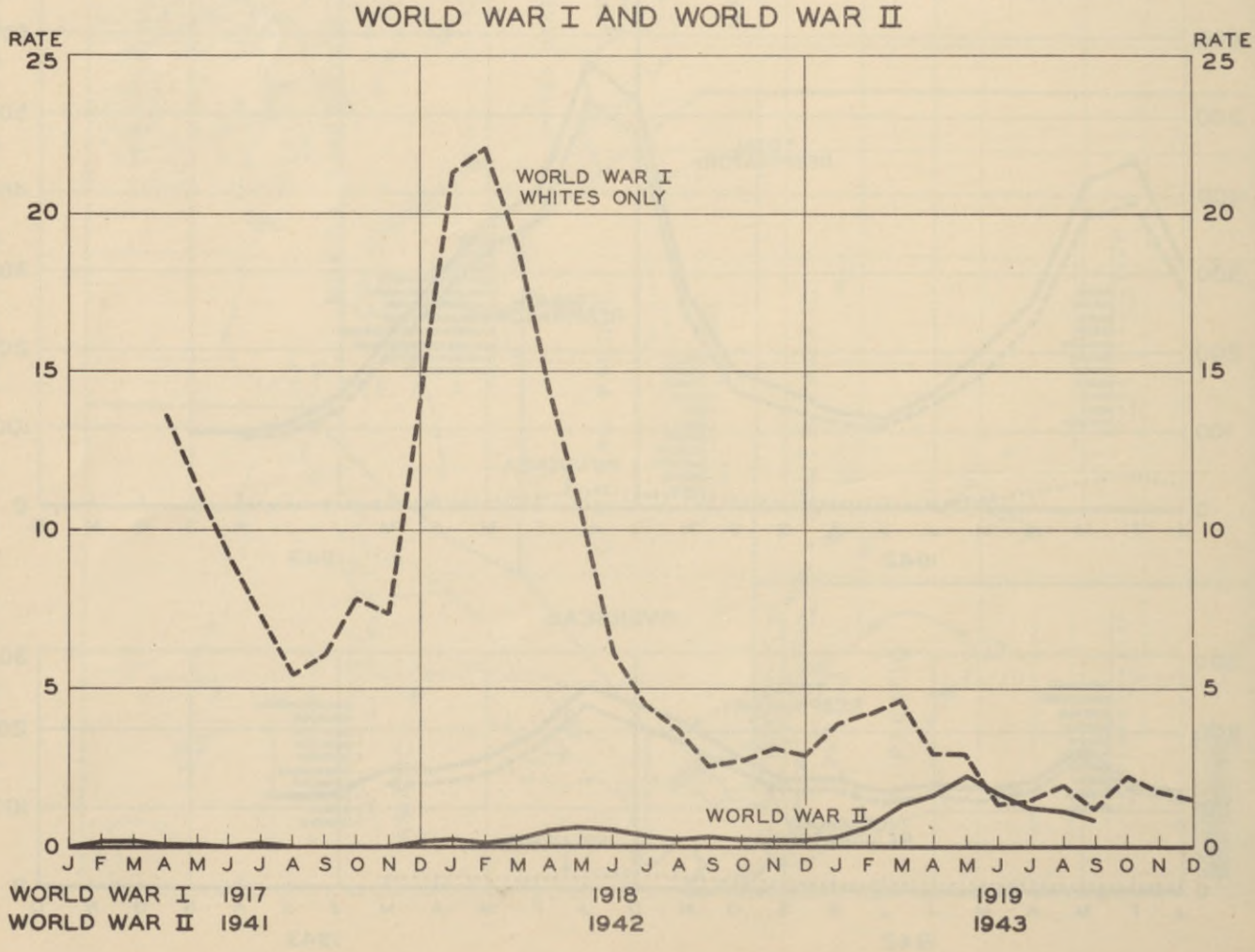


RHEUMATIC FEVER

Rheumatic fever is not a serious disease in the Army from the point of view of its noneffective rate, but it is of special medical interest because of its concentration in certain regions of the United States, its uncertain etiology, its definite relation to certain common acute infections, and its disabling sequelae. Of particular concern is the fact that the incidence of the disease in the Army appears to have increased since the outbreak of the war. This is indicated by the admission rates for 1941, 1942 and 1943, shown as the bottom line of the chart below.

The exact cause of rheumatic fever is still unrecognized. Its well known association with acute sore throat suggests a causal relationship with hemolytic streptococci. Recent research furnishes some indication that the characteristic symptoms of rheumatic fever are allergic manifestations on the part of sensitized body tissues to invasion by this microorganism or its products. A relationship with acute tonsillitis is well illustrated by the correlated rates for acute articular rheumatism and septic sore throat in World War I. Admittedly, figures on the incidence of rheumatic fever in World War I and World War II are not strictly comparable because of differences in the criteria of diagnosis. Formerly, cases of what is now designated as rheumatic fever were comprehended under the term acute articular rheumatism, which presumably included other conditions which would not be classified as rheumatic fever today. With this qualification it is interesting to compare, as in the chart below, the admission rates for acute articular rheumatism in World War I with those for acute rheumatic fever in World War II. A seasonal variation in the admission rate is evident in each series. The reason for this variation is not known, but a relationship with acute upper respiratory infections is believed indicated. It will be noted that the peak incidence of rheumatic disease occurred earlier in each year of World War I than in the corresponding years of World War II and that the rates for World War I were generally higher by a wide margin. The reasons for these variations are not clear. Difference in diagnostic standards probably accounts for some of the variation, but it is believed that there has been a true decline in the incidence of the disease.

RHEUMATIC FEVER, ADMISSIONS PER THOUSAND MEN PER YEAR, WORLD WAR I AND WORLD WAR II



RHEUMATIC FEVER (Continued)

Of chief immediate concern is the unusual incidence of acute rheumatic fever in certain sections of the country. In the first nine months of 1943 roughly 4500 cases of rheumatic fever were reported, almost 60 percent of them by the Seventh Service Command with less than 10 percent of the Continental U. S. strength. The following table gives the provisional rates for the Service Commands for this interval, and the accompanying chart gives the movement of the rates in detail.

RHEUMATIC FEVER, ADMISSIONS PER THOUSAND MEN PER YEAR, BY SERVICE COMMAND, JAN-SEP. 1943

S. C.	I	II	III	IV	V	VI	VII	VIII	IX	U. S.
Rate	.55	.42	.38	.27	.19	2.52	7.82	.37	.99	1.22

RHEUMATIC FEVER, ADMISSIONS PER THOUSAND MEN PER YEAR

RHEUMATIC FEVER (Continued)

Within the Seventh Service Command the incidence was especially high in Colorado. During May, when admissions were most frequent, camps with especially high rates included Kearns, Utah; Lowry Field, Colorado; Fort Warren, Wyoming; Camp Crowder, Missouri; Sioux Falls AAB, South Dakota; Buckley Field, Colorado; Camp Carson, Colorado; and Lincoln, Nebraska. On the previous page, the panel charts for the various Service Commands show that only the Sixth and Seventh Service Commands deviated greatly from the average picture for the Army. There were noticeable increases in the First and Ninth Service Commands, however.

In the absence of a clear understanding of the cause and factors in the spread of rheumatic fever, it is impossible to specify the precise reason for the concentration of disease in the localities noted. Ninety percent of the cases admitted at one Colorado hospital with an unusually high admission rate gave a history of recent upper respiratory tract infection. It is noteworthy that 30 percent of these cases had had previous attacks of the disease. This suggests that Army induction stations had paid insufficient attention to the history of previous rheumatic fever. It is likewise in accord with the fact that, in general, rheumatic fever tends to recur.

Although rheumatic fever is traditionally a disease of cold or wet climates, and its occurrence in the civilian population has been conspicuous in the Great Lakes region and in the North Atlantic states, mortality figures suggest that the geographic distribution of the disease does not differ greatly for the Army and the civilian population. Recent statistics from the Metropolitan Life Insurance Company, which are presumably representative of the general population, mark the Rocky Mountain region as well as the Great Lakes region and the North Atlantic states as areas of high prevalence. It is noteworthy that the majority of cases in the Seventh Service Command developed in men who had been in the Service Command several months. There has come to light no evidence that men from any particular section of the country were especially susceptible.

Treatment of the acute manifestations of the disease has been satisfactory. The majority of cases have been characterized by severe arthritis affecting several joints. The joint manifestations have yielded promptly to the usual medical therapy. Of graver concern, however, has been the effect on the heart. Twenty percent of the cases at one hospital developed evidence of at least transient injury to the heart and its lining membranes. The disposition of the more severe cases has presented a problem. According to current direction (SGO Circular Letter No. 144, dated 7 August 1943) cases with cardiac damage are to be separated from the service and a specified period of close observation is required in all cases before returning to full duty.

Prevention of relapse constitutes the chief medical problem in the convalescence of rheumatic fever patients. The Commission on Hemolytic Streptococcal Infections and the Commission on Air-Borne Infection, operating under the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, appointed by the Secretary of War, is cooperating with Army hospitals in a study of the problem. Recently published investigations indicate that systematic administration of sulfonamide drugs may be effective in preventing attacks. There is reason to believe that avoidance of relapse will reduce the incidence of late cardiac sequelae of the disease.

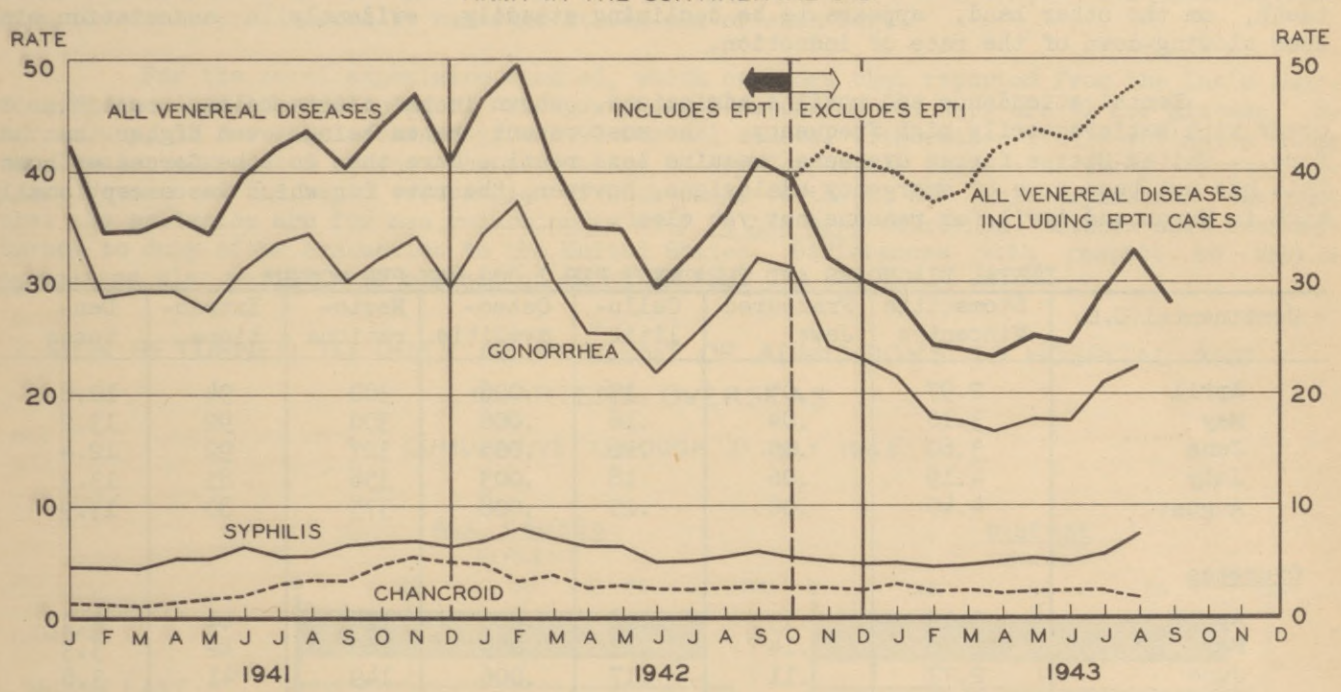
VENEREAL DISEASE IN THE U.S. AND OVERSEAS

The preliminary admission rate for all venereal diseases in the Continental U. S., corrected to exclude cases infected prior to induction into the Army, decreased during September from 32.1 to 28.3 admissions per thousand men per year. Corrected rates for gonorrhea and syphilis are now available for August. They decreased slightly to 22.5 and 7.5 admissions per thousand men per year.

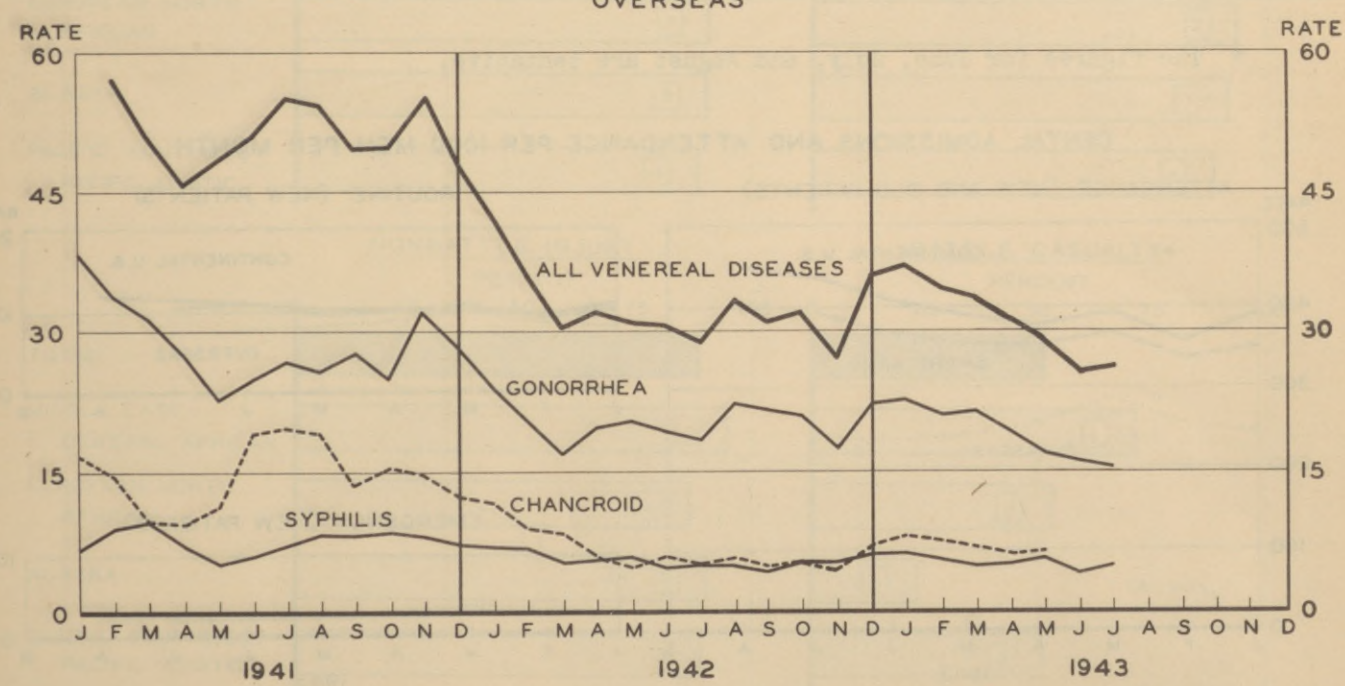
The incidence of venereal infection among troops overseas changed very little from June to July, the latest month for which reasonably complete reports are available. Gonorrhea admissions declined to 15.4 admissions per thousand men per year, while the preliminary rate for syphilis advanced fractionally to 4.8 admissions per thousand men per year.

VENEREAL DISEASE ADMISSIONS PER THOUSAND MEN PER YEAR

ARMY IN THE CONTINENTAL U.S.



OVERSEAS



DENTAL ADMISSIONS AND TREATMENTS

During July and August there has been some increase in the rate of admission for Stomatitis Vincent's infection among troops in the Continental U. S. The present rate is approximately 75 percent above those for corresponding periods in 1940, 1941, and 1942. However, the August rate of 4.4 admissions per thousand men per month is satisfactorily low as an index to dental health. The total overseas rates are comparable with those reported for peace-time years. The table below presents recent figures for this disease as well as other diagnoses and for the more important dental treatments.

The incidence of jaw-fracture is now about twice as high for troops overseas as for those at home, the rates shown below for overseas forces having increased sharply during 1943 in response to intensified training, transportation, and contact with the enemy.

The tabled rates for restoration and denture-construction reveal an unprecedented incidence of these remedial measures among troops in the Continental U. S. The extraction of teeth, on the other hand, appears to be declining steadily, evidently in association with some slowing-down of the rate of induction.

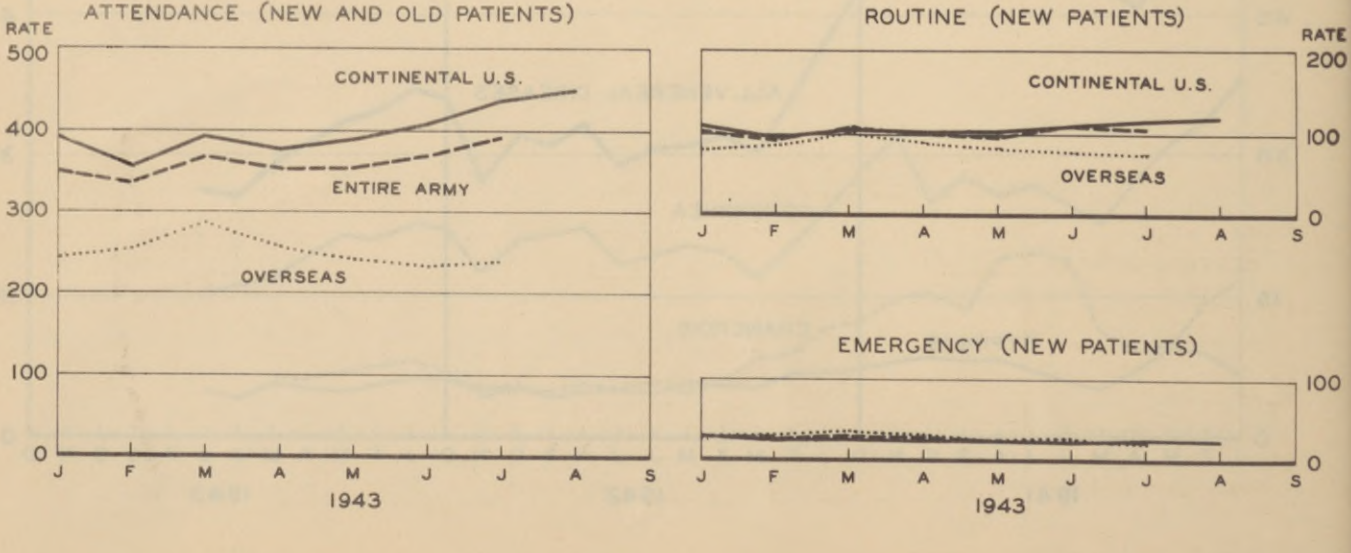
Dental attendance and routine admissions, shown in the charts below, continue to occur with satisfactorily high frequency, the most recent rates being even higher than before. United States forces overseas require less routine care than do the forces at home. This has not been true of emergency admissions, however, the rate for which was exceptionally high in March and April for reasons not yet clear.

DENTAL DIAGNOSES AND TREATMENT PER 1,000 MEN PER MONTH*

Continental U.S.	Stomatitis Vincent's	Fractured Jaws	Cellu-litis	Osteo-myelitis	Resto-rations	Extrac-tions	Den-tures
April	2.97	.05	.17	.006	300	94	10.8
May	3.10	.04	.16	.006	300	92	13.2
June	3.60	.05	.16	.005	327	92	12.4
July	4.19	.06	.18	.003	356	85	13.3
August	4.40	.06	.15	.008	375	80	13.9
Overseas							
April	3.12	.13	.18	.006	124	44	3.3
May	2.76	.14	.17	.009	160	42	3.3
June	2.77	.11	.17	.006	149	41	3.6
July	2.64	.13	.20	.005	149	35	3.5
August							

* The figures for June, July, and August are tentative.

DENTAL ADMISSIONS AND ATTENDANCE PER 1000 MEN PER MONTH



PROPORTIONS OF ADMISSIONS RETURNING TO DUTY

From the reports of admissions and patients returned to duty in each theater overseas it is possible to derive rough estimates of the proportions of men returning to duty after having been admitted for disease, injury, or battle casualty. The charts below present this information in percentage form. The period covered is January 1942 through July 1943, except that the December 1941 battle casualties were included in the series for Hawaii.

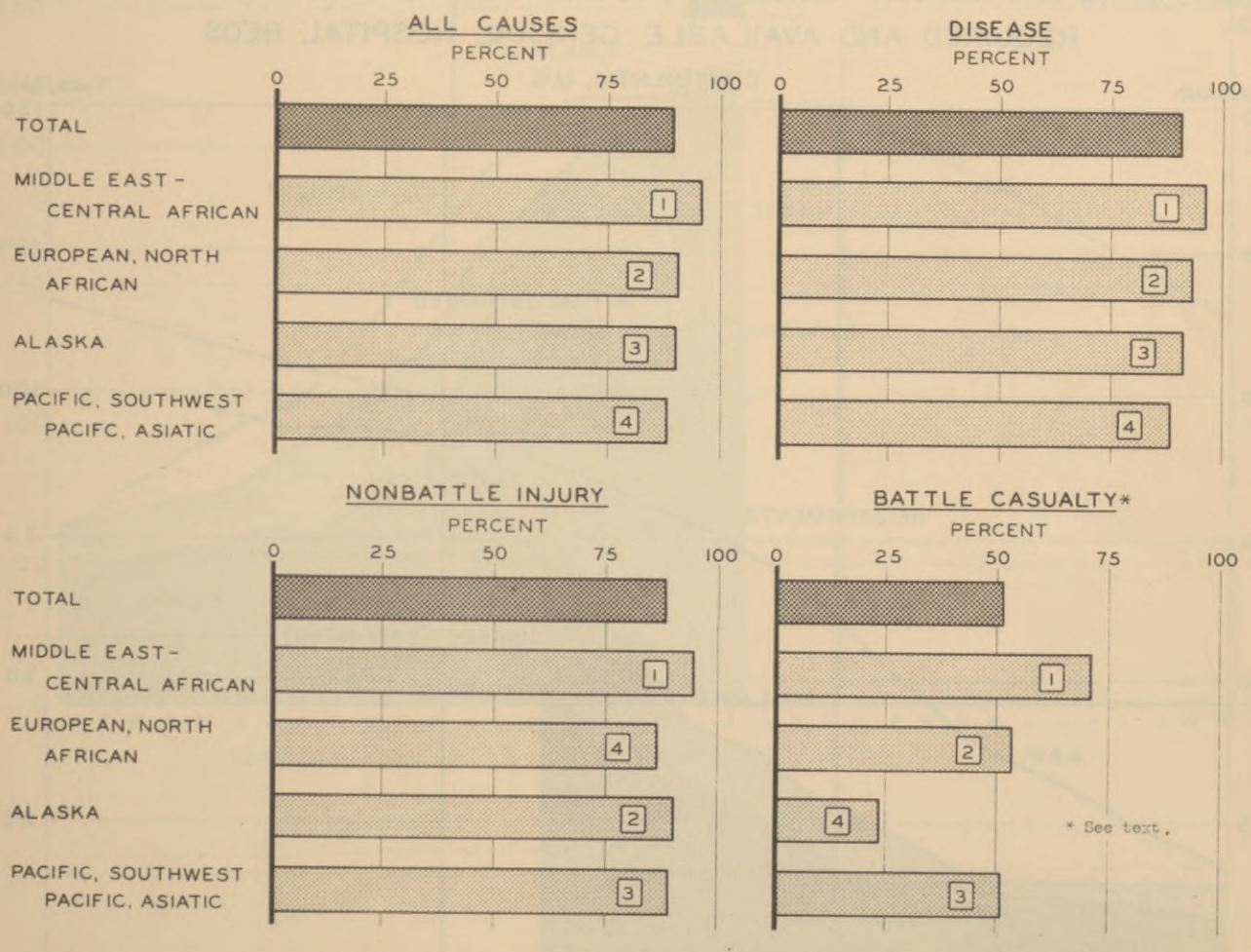
Theaters receiving evacuees originally admitted elsewhere occasionally report more men returned to duty than would be expected from the reported numbers of admissions. This is particularly true of the British Isles. In the absence of reliable estimates of such inter-theater transfers, certain theaters have been combined for purposes of estimation.

Each chart below presents the percent returned to duty by 31 July 1943 among the cumulated admissions for either disease, injury, battle casualty, or all causes combined. The bars are ranked according to the percent among admissions for disease. For other categories the ranks are denoted by numerals at the end of each bar.

For the total experience studied, which excludes that reported from the Latin American Theater and the Philippines, the percentages returning to duty are 91 for disease, 89 for injury, 51 for battle casualty, and 90 for all causes, with rather little variation among the theater aggregates shown. The percentage is low for battle casualties among troops in Alaska because of the rapid evacuation of such cases to the U. S. This emphasizes the fact that the estimates are for men returning to duty in the area concerned. Others have been returned to duty after evacuation to the United States. Differences with respect to battle casualties also reflect the recency of major action.

MEN RETURNED TO DUTY AS PERCENT OF ADMISSIONS TO HOSPITAL AND QUARTERS, OVERSEAS

CUMULATIVE THROUGH 31 JULY 1943



UTILIZATION OF AND REQUIREMENTS FOR BEDS IN NAMED GENERAL HOSPITALS

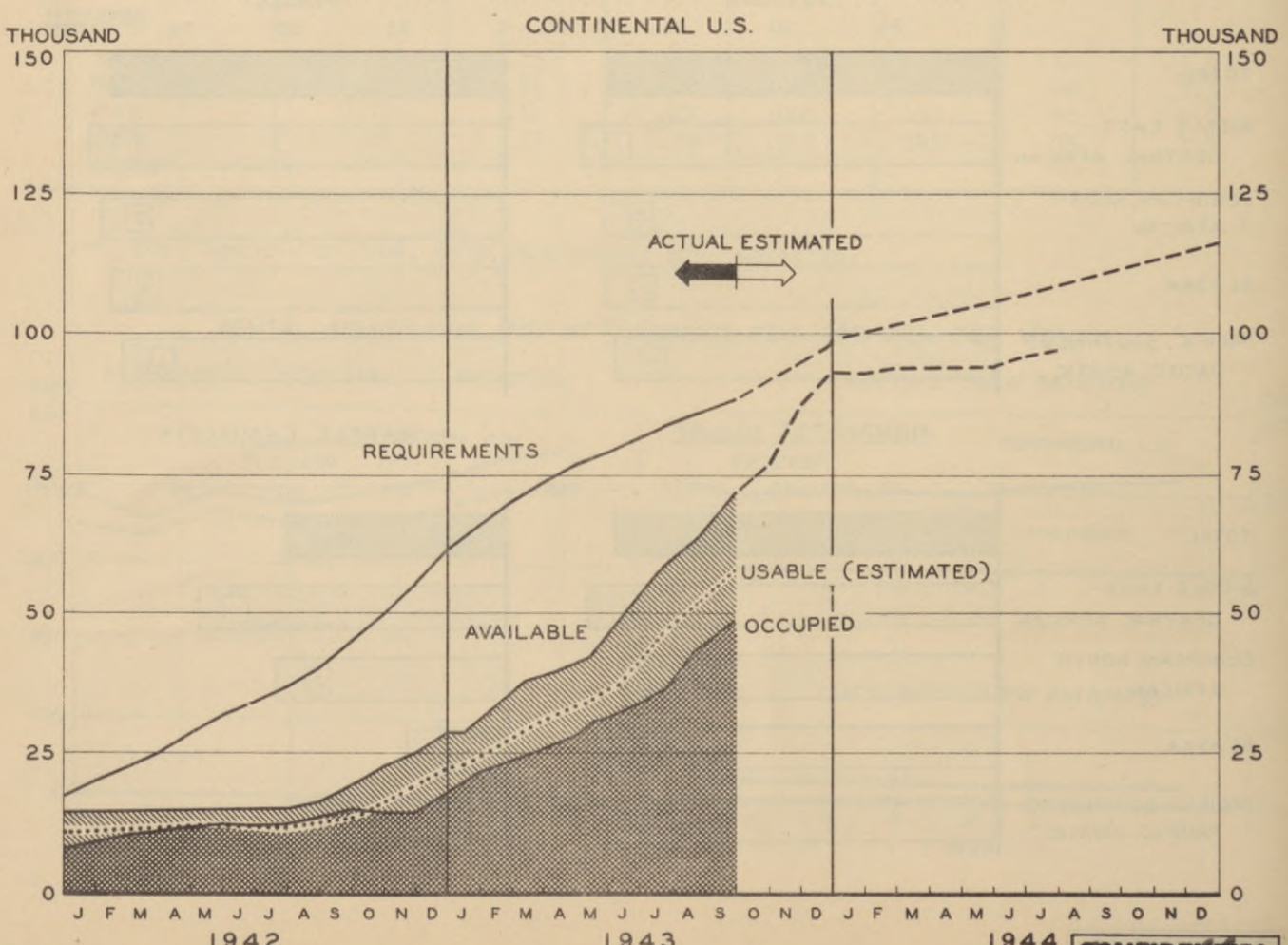
The requirements for beds in general hospitals are calculated at one percent of total Army strength plus 0.7 percent of the troops overseas. The estimated needs for the period January 1942 to December 1944 are shown in the chart below. The line of projected availability reflects construction and conversion in progress, and is revised as estimated dates of occupancy become available for new facilities. Attainment of the present schedule would provide about 93,000 beds by the end of December, or 94 percent of the requirement for that date.

The anticipated needs for beds in general hospitals have not yet developed because the Army has enjoyed excellent general health and especially because the flow of evacuees from overseas has not yet attained the proportions which planning has necessarily assumed. However, the occupancy figures have mounted very rapidly during 1943 and there is no reason to believe that the calculated requirements for the future are too low. A margin of unoccupied beds represents an indispensable safety factor, whereas a deficit would justifiably open the War Department to censure by an informed public expecting unprecedented hospital facilities for Army personnel. In fact, the trend of utilization suggests that a very rapid approximation to the scheduled requirements for the future may be needed to accommodate the increasing numbers requiring hospitalization of this type.

The broken line close to the line of occupancy represents the average limit of normal utilization without overcrowding, since at any one time about 20 percent of the available beds cannot be used because of the importance of maintaining specialized wards, e. g. for women, surgical cases, patients suffering from contagious and infectious diseases, and the like. When more than 80 percent of the normal beds are occupied, the average hospital has found it necessary to crowd beds into corridors and solaria, or to place patients in expansion barracks.

The number of available normal beds in named general hospitals increased about 12 percent from 64,500 for 28 August to 72,100 for 25 September. The average number of normal beds occupied advanced slightly from 67 to 68 percent. Had there been no increase in beds available during this interval, the intensity of utilization would have advanced to 77 percent.

REQUIRED AND AVAILABLE GENERAL HOSPITAL BEDS

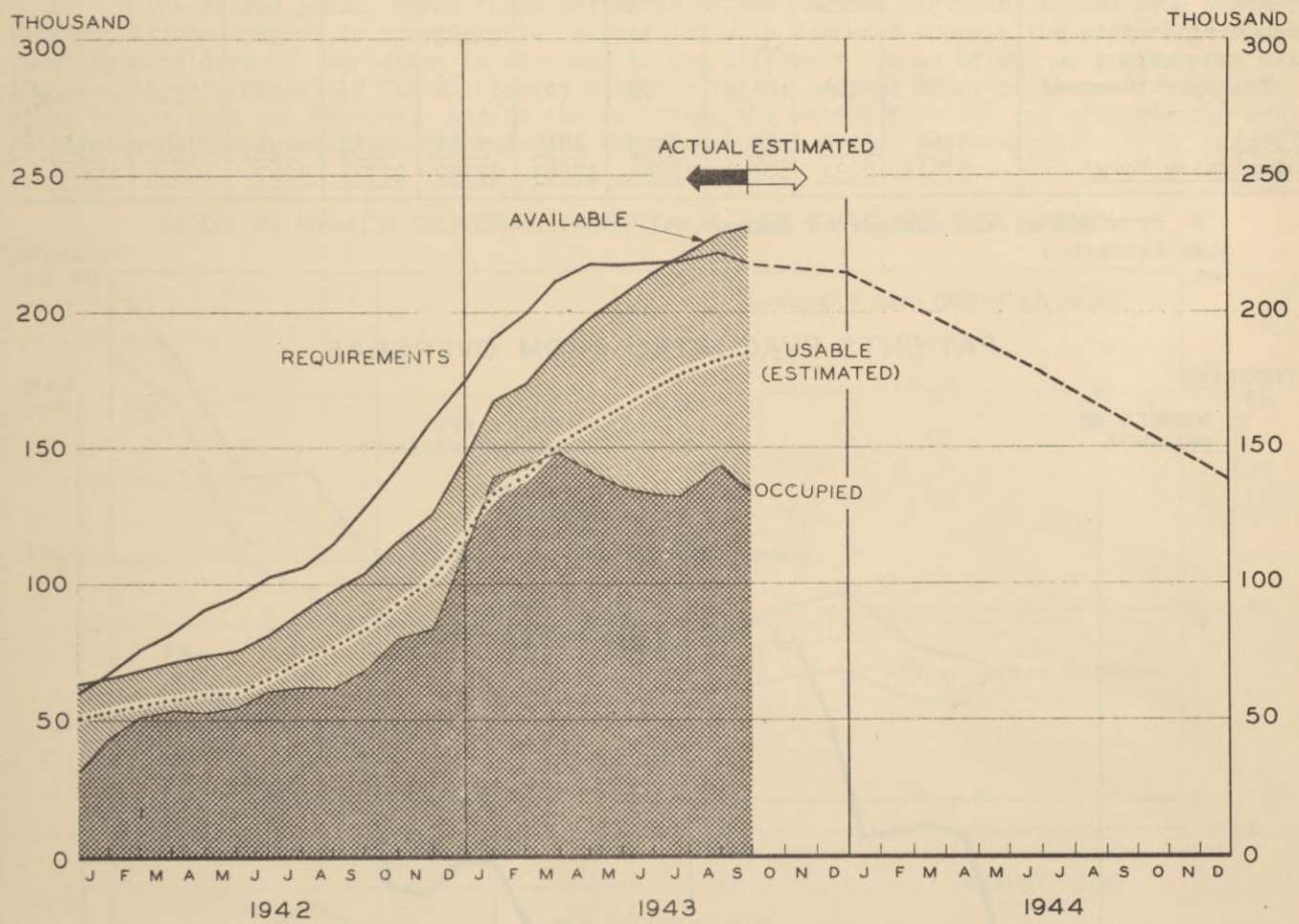


UTILIZATION OF AND REQUIREMENTS FOR BEDS IN STATION HOSPITALS

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, with an allowance for prisoners of war. The size of the P.O.W. population as of 30 September adds about 6,500 beds to the calculated requirement. The solid portion of the requirements line has been redrawn to include this increment for the past several months. 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.

The curves for available and occupied beds exclude those reported from the several maneuver areas, since they belong chiefly to numbered units, but include some beds more properly classified as dispensary beds. On this basis the number of normal beds available in station hospitals was 230,600 on 25 September, about one percent higher than the 227,800 reported for 28 August. The average number of beds occupied declined from 63 to 58 percent of normal beds available. The requirements, of course, are based on the expected load during the winter season, the needs of late summer being minimal.

REQUIRED AND AVAILABLE STATION HOSPITAL BEDS
CONTINENTAL U. S.



EVACUATION OF PATIENTS FROM OVERSEAS

The number of patients evacuated to the Zone of the Interior increased again during September, reaching a new peak of 9,400 patients, according to provisional estimates. This number represents an evacuation rate of approximately five patients per thousand men overseas per month. The series to date is shown graphically below in both absolute and relative form.

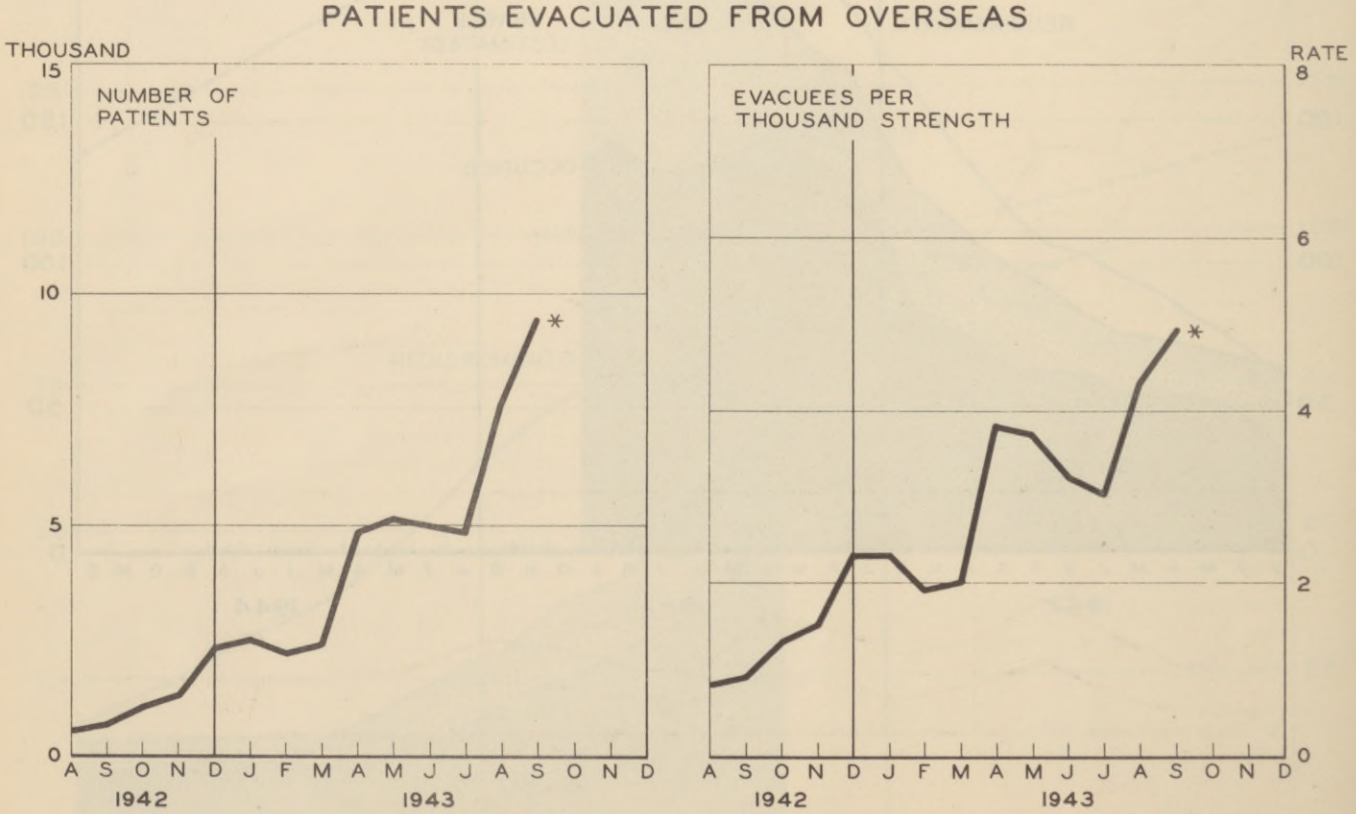
New York and San Francisco continue to be the chief ports of debarkation for patients received from overseas, as may be seen from the table which follows. Since the end of 1942 the relative importance of New York in this respect has increased rapidly. Seattle and Boston also received a large number of patients during September, according to provisional estimates.

NUMBER OF PATIENTS ARRIVING IN U. S. PORTS FROM OVERSEAS, BY PORT OF ARRIVAL

Port	1942	1943								
	Aug-Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep*
Baltimore	38	-	51	9	78	-	30	-	-	7
Boston	1161	66	39	209	170	250	837	1087	145	1387
Charleston	10	-	-	-	-	-	-	-	-	-
Hampton Roads	438	12	3	-	25	218	88	423	455	18
Los Angeles	68	9	184	-	-	-	243	-	405	68
New Orleans	455	179	31	155	178	105	105	95	125	47
New York	991	426	238	296	2566	1780	873	1081	2704	2510
San Francisco	1773	1462	1406	1344	1362	2152	2189	1361	3072	3439
Seattle	708	212	184	288	333	345	540	431	324	1489
Tampa	53	-	-	-	-	-	-	-	-	-
San Diego	-	-	-	11	-	193	-	240	1	1
Air Evacuation, Transport Command	66	104	72	93	107	44	76	225	370	400/
Total	5761	2470	2208	2405	4819	5087	4981	4943	7602	9366
Cumulative Total	5761	8231	10439	12844	17663	22750	27731	32674	40276	49642

* Provisional and subject to change
/ Estimated

PATIENTS EVACUATED FROM OVERSEAS



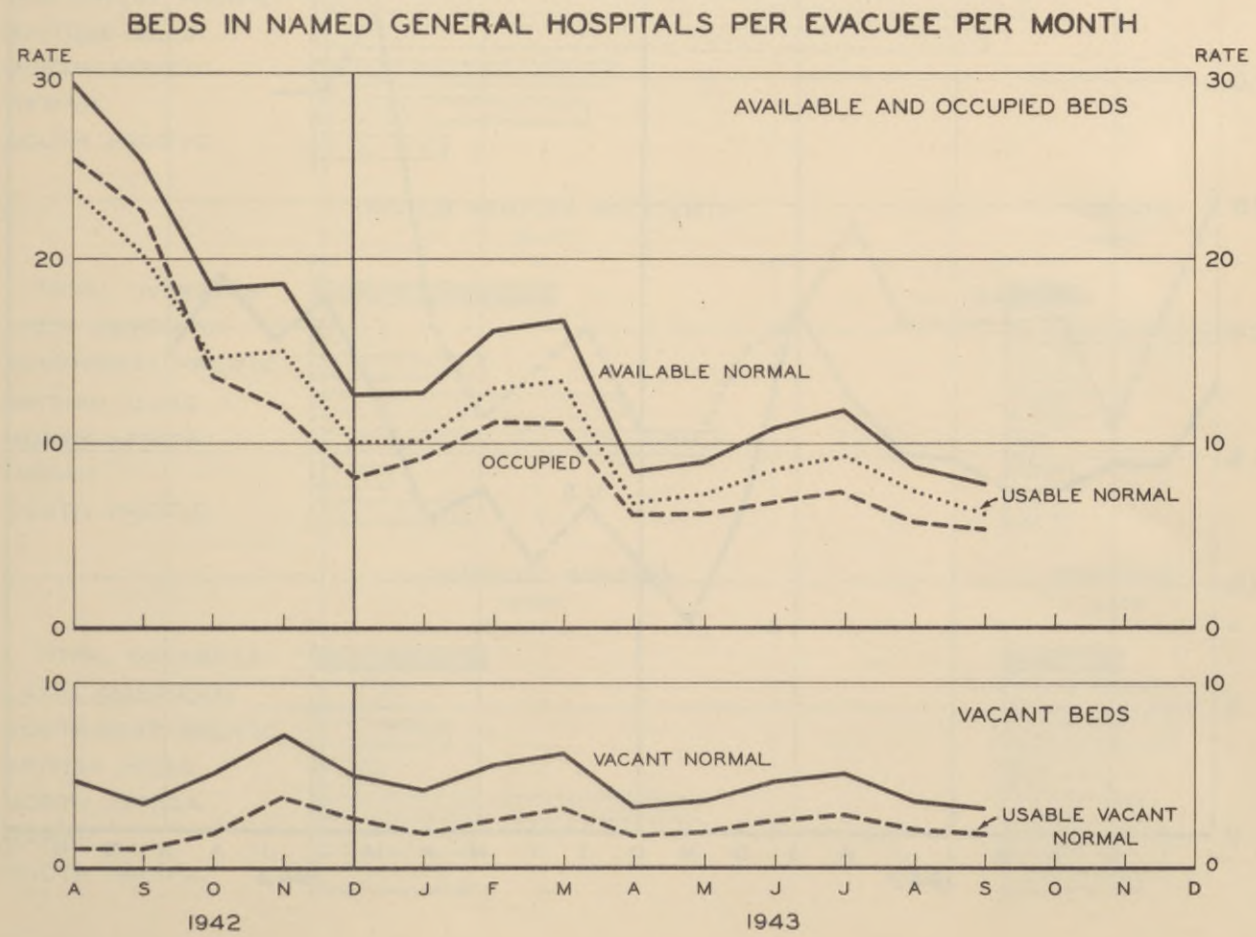
* Provisional

HOSPITALIZATION OF EVACUEES FROM OVERSEAS

A primary purpose of the named general hospital is to relieve the burden upon overseas facilities by accepting overseas patients for definitive treatment or convalescence. Each theater has an evacuation policy under which it transfers to the Zone of the Interior patients requiring long-term hospitalization or unfit for further military service. To provide such hospitalization, the estimated requirements for general hospital beds are increased by 0.7 percent of overseas strength over and above the 1 percent of strength of the entire Army, including the portion overseas. For the end of September, for example, the overseas component of the estimated requirement is roughly 35,000 beds.

Although by the end of September about 50,000 evacuees had been received from overseas, the average length of hospitalization is such that perhaps only 12 to 18 thousand were still hospitalized on that date. Nevertheless, the flow of evacuees from overseas is beginning to attain such proportions as to press upon the available bed supply. The accompanying charts show the more important relationships between beds and patients from overseas, giving them in the form of beds per evacuee per month. The first panel provides the number of normal beds available, the number of normal usable beds, and the number of occupied beds, all as ratios to the number of evacuees received during a given month. All three indices have moved rapidly downward during the past year, the number of evacuees having increased at a much faster rate than available beds. At the end of September the general hospitals had about eight normal beds for each evacuee received during September, or about six usable normal beds per evacuee. Usable normal beds have been estimated at 80 percent of the normal beds available. Vacant usable (and normal) beds have been estimated by subtracting total beds occupied from the usable normal beds. In terms of occupied beds, roughly one patient in seven was an evacuee received during the month of September.

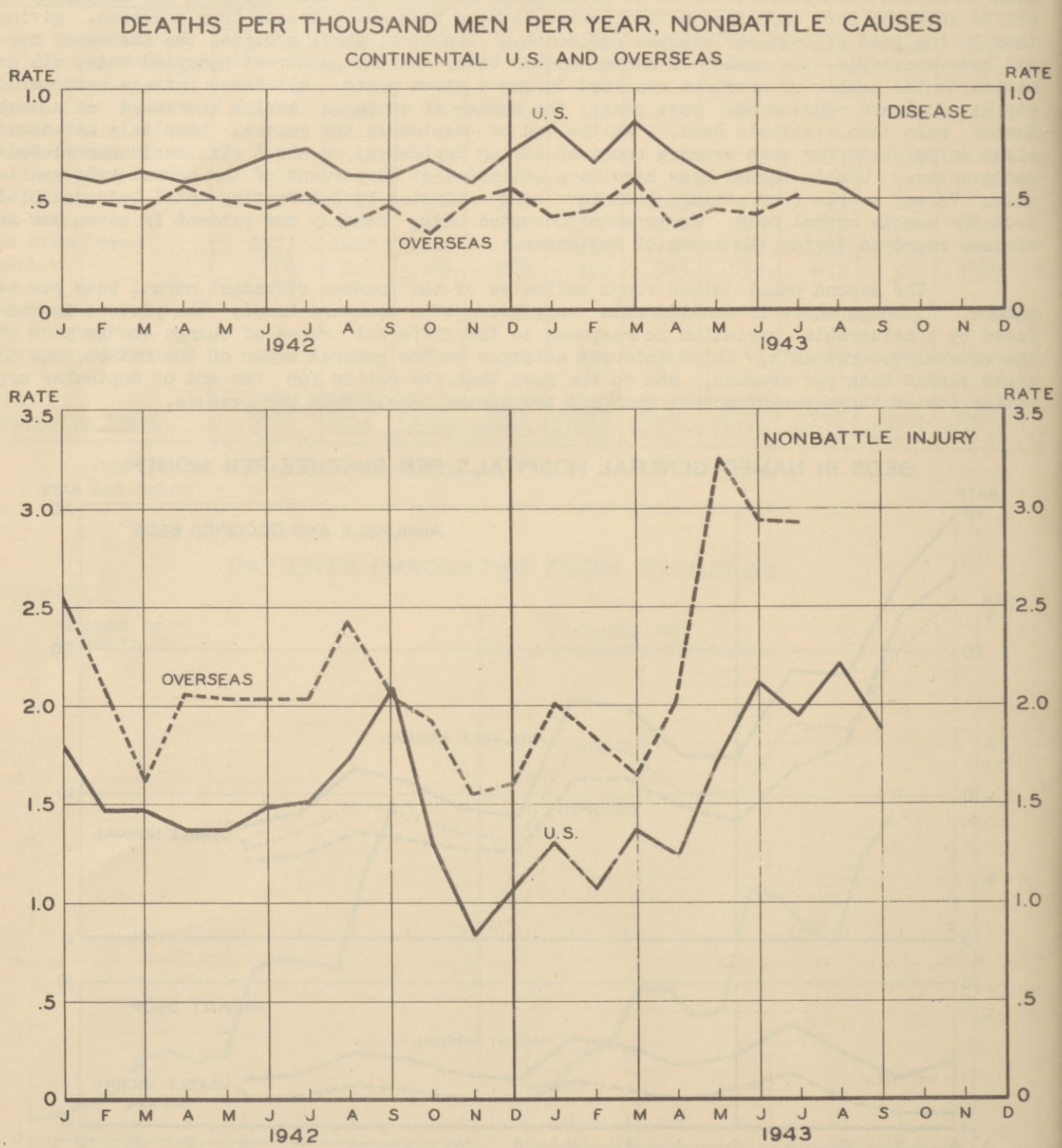
The second panel gives rough estimates of the number of vacant normal beds per evacuee. Although there is considerable suggestion of a downward trend, the picture is confused by considerable variation in response to the different rates of change on the part of the several determinants. Chief interest attaches to the general order of the ratios, one to eight vacant beds per evacuee, and to the fact that the ratios for the end of September are rather low at three vacant normal beds and two vacant usable beds per evacuee.



MORTALITY FROM NONBATTLE CAUSES

The death rate from disease among troops in the Continental U. S. declined during September for the third consecutive month to reach 0.45 deaths per thousand men per year, the lowest it has been since 1941. The preliminary total overseas rate of 0.52 for July represents some increase above that of 0.43 reported for June.

Nonbattle injuries continue to cause many more deaths than do disease. The September death rate of 1.87 for injuries to troops in the U. S. is about four times that for disease. For troops overseas during July the ratio is almost six to one. The two series shown below in the second panel continue to differ widely in response to the greater accident-hazards overseas, especially those incident to transportation and the handling of firearms.



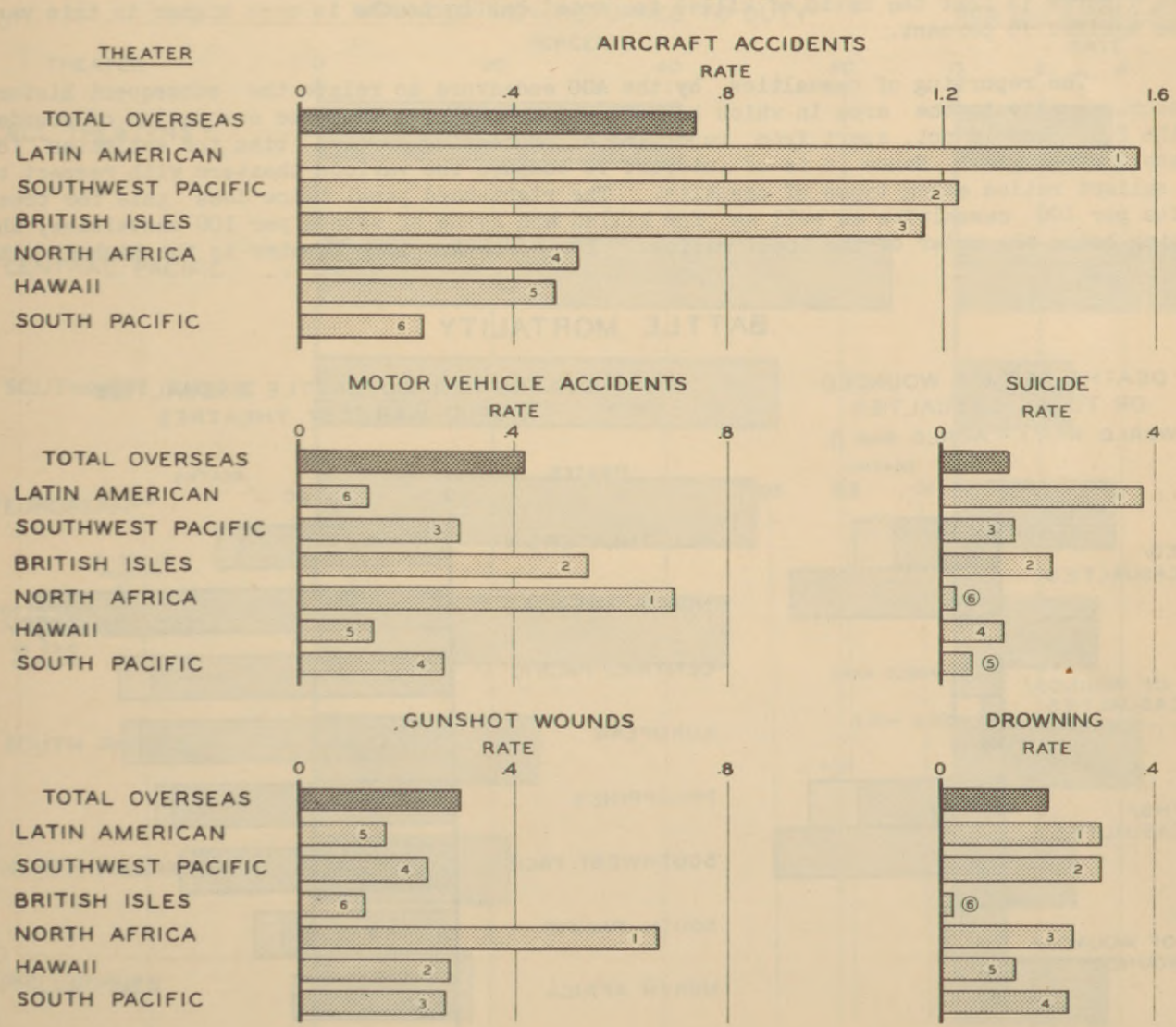
CAUSES OF ACCIDENTAL DEATH, OVERSEAS COMMANDS

The five leading causes of death from nonbattle injury overseas during the first half of 1943 were aircraft accidents, motor vehicle accidents, gunshot wounds, drowning, and suicide. The relative importance of these individual causes of death varied widely among the larger overseas commands and provides an approximate measure of the differential hazards to which troops have been exposed.

Each chart below gives the experience of six large commands with respect to a given cause, the order of the chart being governed by the rate for aircraft accidents. The ranks for each cause except aircraft accidents are shown by the numerals associated with each bar. The variation in mortality from aircraft accidents is noteworthy. Although the provisional character of the data forbids highly invidious comparisons among theaters, the number of deaths involved is large and the differences are well outside the range of chance. It is not expected that the final rates will reverse the more obvious patterns revealed by the study.

Aircraft accidents have been especially serious in Latin America, the Southwest Pacific, and the British Isles, where the concentration of AAF personnel has been above average. Motor vehicle accidents have caused relatively more deaths in North Africa and the British Isles than elsewhere. North Africa has contributed more than its share of deaths from gunshot wounds, and suicide has been more frequent in Latin America than in the other theaters. Troops in the British Isles have suffered proportionately fewer deaths from drowning than have men stationed in the other commands.

DEATHS FROM SELECTED NONBATTLE INJURIES PER THOUSAND MEN PER YEAR, OVERSEAS THEATERS



PROPORTIONS OF MEN KILLED, WOUNDED, AND DYING OF WOUNDS

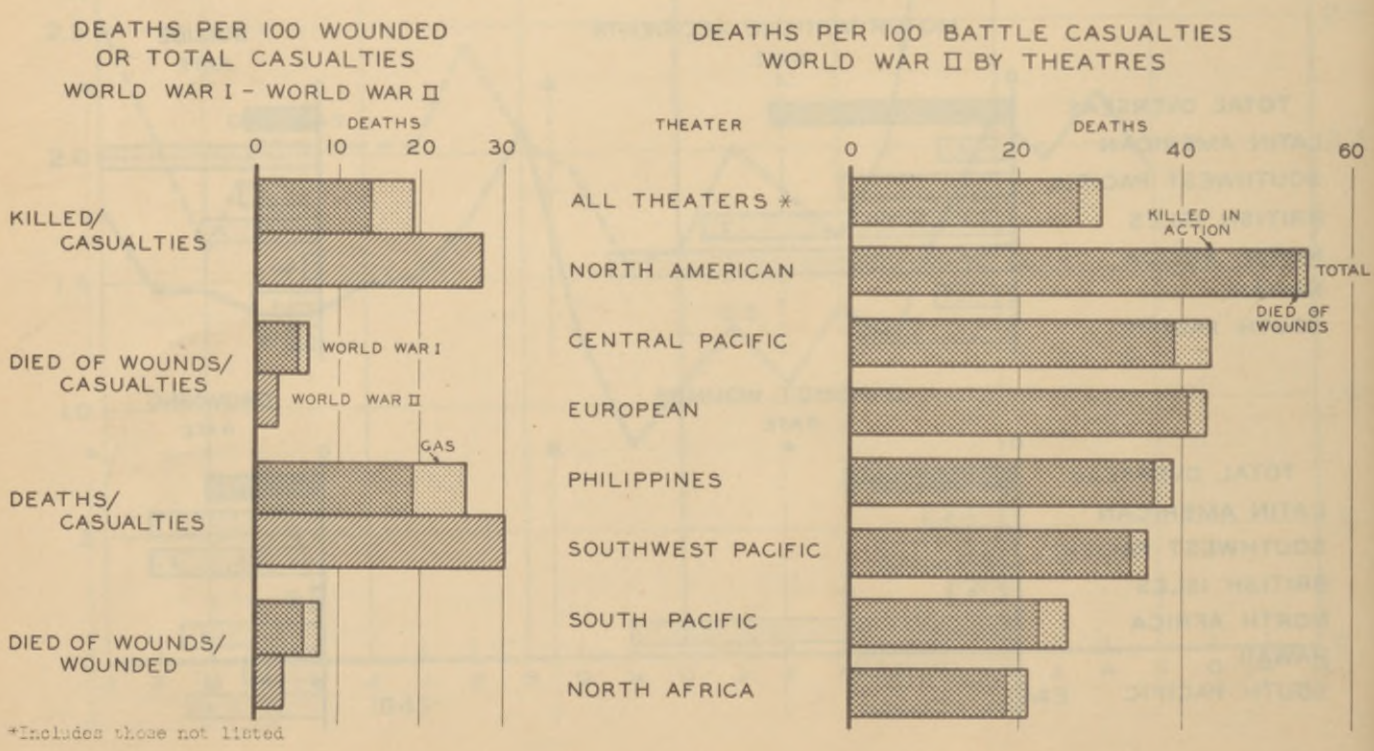
In World War I, 36,700 men were killed in action, 224,100 men were wounded, and 13,700 died of wounds. Considerable interest surrounds the interrelationships among these figures and their comparison with the World War II experience thus far. The Adjutant General publishes monthly a report of casualties, including those taken prisoner or reported as missing, and it is this report for 31 August 1943 which underlies the brief analysis which follows.

With the inclusion of the Philippine campaign the AGO figures are 9,000 killed, 24,000 wounded, and 900 died of wounds. It is also reported that 9,900 of the wounded have already returned to duty. It is essential to note that the reports of wounded men include only those with wounds of sufficient severity to require hospitalization. Throughout the discussion and the charts which follow the term wounded will include those later dying of wounds or returning to duty, and the term battle casualty will refer to a man either killed or wounded. Because 70,600 wounded men with 1,200 deaths (here treated as equivalent to dying of wounds) received their injuries from gas in World War I, it makes some difference whether this set, with its low fatality rate, be included. In the chart below, comparing World War I and II, the earlier experience is given both ways, but the discussion excludes gas casualties.

Among each hundred battle casualties in World War I, 19 were killed in action and 7 died of wounds, making 26 deaths per hundred casualties. The comparable figures for World War II are 27, 3, and 30 per hundred casualties. The higher proportion of men killed in action in World War II is partly compensated by the lower proportion of men dying of wounds. Whereas the fatality rate of World War I was 8.1 percent for wounded men, that for World War II is only 3.7 percent according to current AGO figures. Another relationship inherent in these figures is that the ratio of killed to total battle deaths is much higher in this war, 91 as against 75 percent.

The reporting of casualties by the AGO endeavors to relate the subsequent history of each casualty to the area in which he became a casualty. Thus the evacuation of wounded to the Z.I. should not, apart from reporting or processing errors, bias the estimates for theaters of origin. Hence it is of interest to compare the various theaters with respect to the salient ratios among types of casualty. The right-hand panel below does this for total deaths per 100 casualties as well as for killed and dying of wounds per 100 casualties, the ranking being the order of the total ratios. The North American Theater is the highest with

BATTLE MORTALITY



*Includes those not listed

MORTALITY

CONFIDENTIAL

PROPORTIONS OF MEN KILLED, WOUNDED, AND DYING OF WOUNDS (Continued)

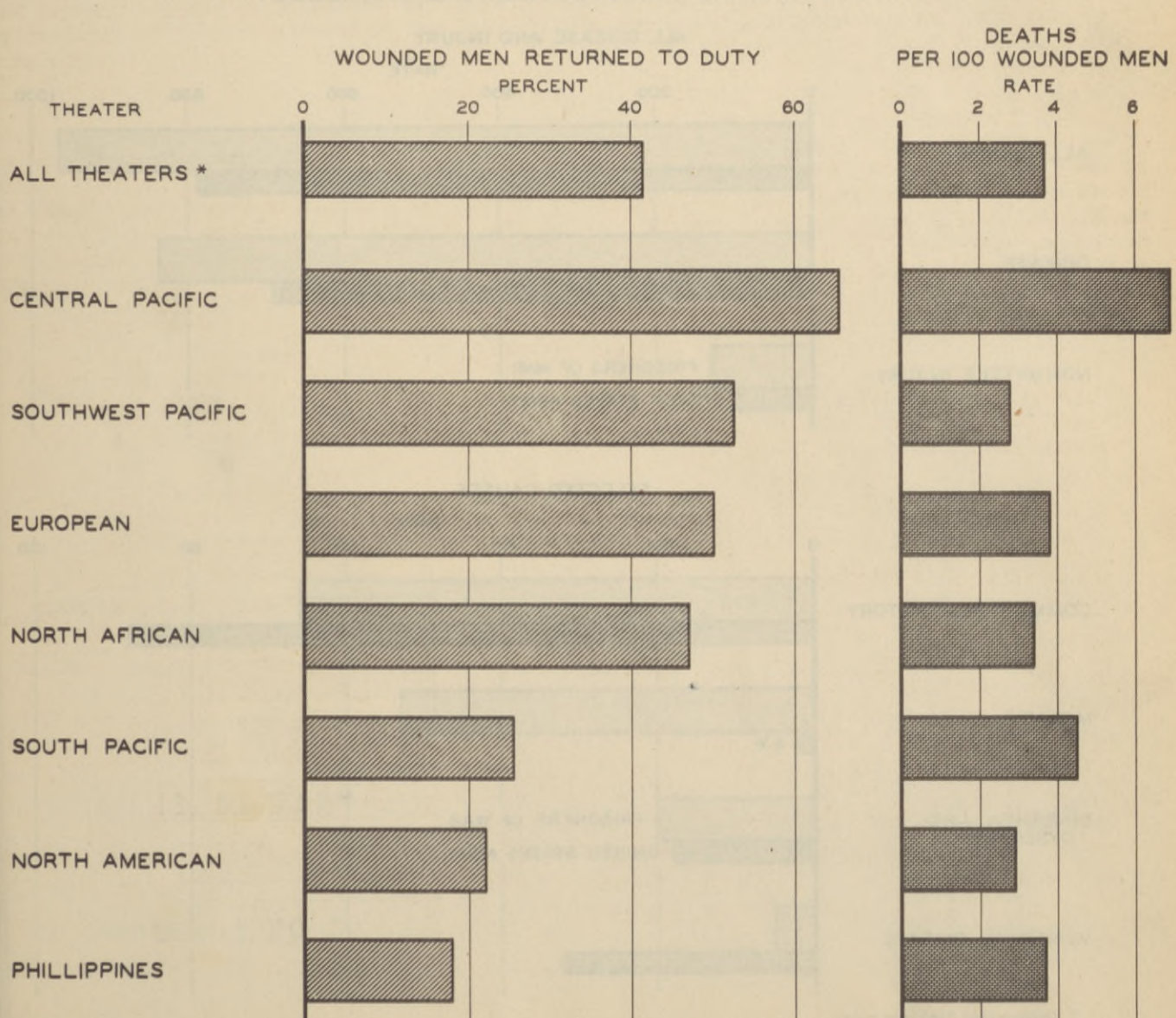
1200 deaths among 2200 casualties, roughly 55 percent. Europe and the Central Pacific rank next with 43 percent. The experience of troops in Latin America, Asia, the Middle East, and Central Africa is not shown separately because of the small frequencies involved.

The percentages of wounded who have died of wounds are detailed in the second chart below. The Central Pacific has a high percentage with 32 deaths among 463 wounded, but of course the numbers are small and the major action occurred so long ago that men who were going to die of their wounds have done so, in the main. The opposite situtation in more active theaters may operate to make the present estimate of 3.7 artifically low. The South Pacific ratio is somewhat high, with 168 dying among 3,700 wounded.

The ratio of killed to wounded has averaged about one to three. The principal exception is the North American Theater with a ratio of 1.2 killed to 1 wounded.

About 40 percent of the wounded have returned to duty, 9,900 among 23,900. This percentage is, of course, highly variable, and lowest for the Philippine Island Area. About 65 percent of the Central Pacific total of 463 wounded men have already returned to duty, which suggests ultimately higher ratios than those presently reported. The general level shown here differs somewhat from that discussed on a previous page, by reason of definitions governing reporting and also because of evacuation to the Z.I.

BATTLE CASUALTIES, WORLD WAR II, BY THEATER



* Includes those not listed.

MISCELLANEOUS

HEALTH OF PRISONERS OF WAR IN THE UNITED STATES

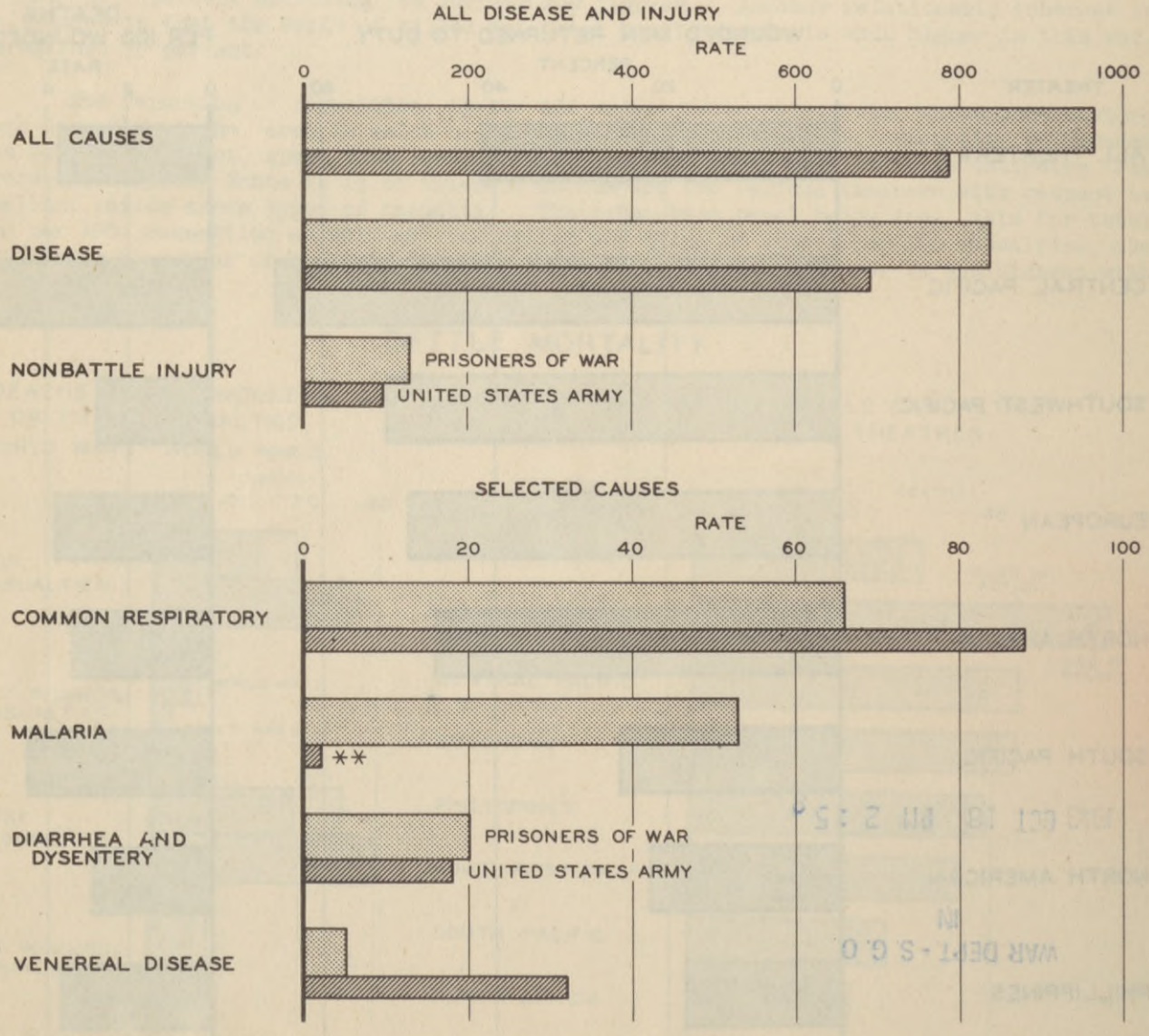
The prisoner-of-war population in the Continental U. S. has reached a point where its size has a noticeable influence upon Army requirements for hospitalization and medical care. Preliminary reports for the month of August are summarized in the charts below together with comparative data for U. S. Army troops in the United States.

The total rates for the prisoners of war are somewhat higher than those for the Army in the Continental U. S., but no great stress may be placed upon the differences because of the size of the prisoner population. Among the diseases included in the second panel below, particular interest attaches to malaria. Most or perhaps even virtually all of the malaria among prisoners was contracted overseas. Separate tabulation by nationality reveals that the incidence of malaria is much higher among Italian than among German prisoners.

During the month there were 27 hospitalized prisoners per thousand strength, on the average, in contrast to about 35 for U. S. Army troops in the Continental U. S.

There are many reasons why the health of prisoners should not be expected to equal that of U. S. troops who have enjoyed a continuously more favorable environment. It is also possible that health is involved in the selection of prisoners to be sent to the U. S.

ADMISSIONS PER THOUSAND MEN PER YEAR, PRISONERS OF WAR* AND THE U.S. ARMY, CONTINENTAL U.S., AUGUST



* Germans and Italians only.
** For infection acquired in the U.S. the rate was only about 0.3