the most unhealthful, while the late fall and early winter gives the least sickness. The monthly prevalence of disease in our army, in time of peace, as given in the figures for the year 1892, is shown in the following table.

	Total admissions to hospital, per thousand of mean strength, for disease and injury.	Constantly non-effective, per thousand of mean strength, from disease and injury.
January	148.65	49.54
February	107.87	41.69
March	108.03	39.27
April	92.53	37.34
May	98.66	37.67
June	101.94	38.34
July	108.26	37.46
August	108.37	36.86
September	108.57	38.42
October	97.48	38.79
November	91.97	39.08
December	98.34	40.44

For the year 1898, when the army, if not entirely engaged in active military operations, was, after the month of March, still in the field and on a war footing, the monthly rates per thousand strength were as follows:

	Admissions from disease.	Discharges from disease.	Deaths from disease.	Total losses from disease.
January	68.11	0.40	0.33	0.73
February	59.68	.40	.18	.58
March	65.75	.50	.21	.71
April	65.12	.95	.24	1.19
May	80.90	.31	.21	.52
June	68.25	.29	.36	.65
July	150.15	.31	1.81	2.12
August	254.61	.41	6.14	6.55
September	271.79	.35	4.73	5.08
October	200.48	.79	2.06	2.85
November	186.06	1.11	1.07	2.18
December	212.63	1.14	.84	1.98

Branch of Service as Affecting Health.—It has long been noted that troops of certain arms are more prone to disease and death than are others; this being explainable by the character of the duties each is required to perform, as well as by the diverse conditions of environment under which they are, through military necessity, forced to exist. As compared with infantry and artillery, the cavalry service may be considered to be somewhat more unhealthful and dangerous to life: this being due to the more arduous nature of the service, to the greater opportunity for accident, and to the uncleanly nature of a large part of the duties of the mounted soldier. In time of peace, for all armies, the mortality and sickness in the infantry is usually less than in any other of the main branches of the service, but in war this favorable showing does not continue.

In the United States army, for the seven years 1890–1896, the rates for disease alone, per thousand enlisted men, according to branch of service, were:

	Admissions to hospital.	Constantly non-effective.	Discharges for disability.	Deaths.	Total losses.
Infantry	916.27	27.96	13.67	4.34	18.01
Cavalry	1,076.56	30.87	13.36	3.98	17.34
Artillery	1,163.61	31.81	15.61	2.94	18.55
Ordnance	1,007.15	25.69	9.79	7.20	16.99
Engineers	1,371.55	29.88	7.56	2.84	10.40
Medical department	468.85	14.99	11.24	5.14	16.38
All others	941.51	30.23	10.15	5.07	15.22

The high death rate noted in the enlisted strength of the Ordnance Department is probably largely dependent on the greater age of these men; many being old soldiers, superannuated, unfit to stand hard service and broken in constitution by the hardships of a former active life.

For the period above noted the rates for all causes were:

	Admissions to hospital.	Constantly non-effective.	Discharges for disability.	Deaths.	Total losses.
Infantry	1,154.21	35.36	16.72	6.49	23.21
Cavalry	1,464.10	43.92	17.61	7.25	24.86
Artillery	1,457.87	41.11	18.47	5.30	23.77
Ordnance	1,187.38	31.81	11.23	10.65	21.88
Engineers	1,684.92	38.45	7.88	4.73	12.61
Medical department	527.04	17.08	12.19	6.09	18.28
All others	1,100.02	34.77	12.12	6.13	18.25

The high rate of admissions among the engineer troops was due to injuries and malarial fevers, with a considerable excess of alcoholism, bronchitis, diarrhœa, and rheumatism. The disabling causes which produced the high rate in the cavalry as compared with infantry were injuries, which gave a rate of 387.54 as compared with the infantry rate, 237.94; but the excess of admissions among the cavalry was not thus entirely accounted for, since disease also gave a slightly higher death rate. Malarial affections were the principal causes of this excess, but diarrhœa, boils and abscesses, and conjunctivitis also aided in making up the total.

Among the officers, for the above period, the sick rate was largest in the artillery, 980.11 per thousand. Non-efficiency was greatest among officers of the cavalry and artillery—53.90 and 52.57 respectively. Medical officers had a higher rate (47.07) than infantry officers (46.05). The death rate per thousand among officers, according to branch of service, was as follows:

Infantry	8.81
Cavalry	10.34
Artillery	6.08
Ordnance	17.41
Engineers	11.07
Medical department	10.20
All others	12.32

Death from injury was relatively more frequent among ordnance officers than in those of other corps.

Marvaud gives the following figures as showing the comparative mortality in different branches of the French service for the six years 1880–1885, inclusive.

	Death rate.	Loss by invaliding.	Total losses.
Engineers	5.2	14.4	19.6
Light infantry	7.0	11.7	18.7
Artillery	7.4	12.9	20.3
Cavalry	8.8	13.2	22.0
Infantry of the line	10.2	16.6	26.8
African light infantry	17.2	14.5	31.7
Foreign legion	19.8	8.7	28.5

In the English service, in 1897, the following rates per thousand obtained for troops on the home stations.

	Deaths.	Constantly non-effective.
Infantry	2.78	44.79
Royal engineers	3.64	17.75
Cavalry	3.98	42.39
Royal artillery	4.00	32.49
Foot guards	4.20	63.03

The Influence of Length of Service upon Morbidity and Mortality.—The most extensive figures for the United States army upon this subject, compiled to include a period of seven years, merely divide the men into those who have had less and those who have had more than one year of service—and these show that recruits during their first year with the colors are especially liable to sickness. For the entire period (1890–1896), the admission rate to hospital of this first class was 2,122.17, while that

of the older soldiers was only 1,093.07—or about one-half as much. The non-efficiency for recruits was 61.76 as compared with 32.99 for men of longer service; and their sickness was of such a character as to cause 24.96 per thousand of their number to be discharged on certificates of disability, as compared with a discharge rate of 14.76 among the others.

As to the causes affecting the above figures, the vaccination practised in the case of recruits brought a considerable number of cases on sick report, a little over 200 per thousand strength being thus added to their admission rate. With the exception of alcoholism, these young soldiers appear to have been more susceptible to all disabling causes than their more experienced comrades. As illustrative of this may be cited their admission rate for injuries, 414.91, as compared with 242.93 among the others; for venereal diseases, 156.52, as compared with 65.81; malarial diseases, 137.84, as compared with 70.97, and typhoid fever, 11.22, as compared with 4.68.

For the single year of 1885 the admissions to hospital in the United States army, according to length of service, were divided as follows:

Period.	Absolute number in each class.	Rate of admissions per 1,000 strength.
First year and under	6,205	2.254
Second year	3,632	1,064
Third year	2,645	984
Fourth year	2,249	967
Fifth year	1,053	1,064
Sixth year	1,148	901
Seventh year	897	970
Eighth year	629	1,057
Ninth year	738	927
Tenth year	921	991
Twelfth year	1,351	1,007
Fifteenth year and over	4,587	823

For the same year the discharges for disability, divided according to length of service, were as follows:

Service.	Discharges for disability, per 1,000 strength.
Under 1 year	64.9
1 year	41.5
2 years	33.3
3 years	29.0
4 years	16.8
5 years	22.2
6 years	23.2
7 years	15.3
8 years	16.1
9 years	12.2
10 years	19.6
12 years	23.1
15 years and over	22.1

For the same year the death rate per thousand strength, according to length of service, was determined to be:

Less than one year of service	10.90
One year of service	4.80
First five years of service	4.54
Second five years of service	5.22

While the absolute number of men in the army of the United States during the year 1885 can scarcely be considered as sufficiently large to warrant any exact deductions, it is certainly safe to assume that the processes of elimination in our army are most active by far during the first twelvemonth of service; after which the total losses fall below the general rate for the whole army, not to rise again until the more mature men of ten years' or longer service succumb to infirmity.

Viry states that in the French service the annual losses by death and discharge for disability amount approximately to 40 per thousand during the first year of service, 30 per thousand during the second year with the colors, and 20 during each of the subsequent years. According to Ordronaux, statistics for the French army some years ago showed the following to be the average annual mortality:

Service.	Loss per 1,000.
1 year	7.5
2 years	6.5
3 years	5.2
4 years	4.3
5 years	3.0
6 years	2.0
7 years	2.0

In comparing the amount of sickness among French soldiers of one year of service with those of two or three, Viry found that in 1888 there were, per thousand of each class, 866 admissions among the former and 432 among the latter; in 1889 the numbers were 859 and 483, and in 1890 they were 826 and 559 respectively.

The proportionate mortality in the German army for the year 1889–90, out of each 1,000 deaths, was as follows:

Less than 1 year of service	432.0
From 1 to 2 years' service	248.0
From 2 to 3 years' service	143.8
From 3 to 4 years' service	29.5
4 years' service and upward	146.7
Total	1,000.0

In the discharges for disability in the German army for the same year, out of 8,740 men so discharged 78.3 per cent. owed their incapacity for service to causes existing prior to enlistment. Hence it is not surprising that the majority of men so discharged should have been less than one year with the colors. The percentage of discharges according to length of service was as follows:

First year	84.4
Second year	8.6
Third year	5.0
Fourth year	2.0

Under conditions of tropical service the raw and unseasoned recruits are proportionately even more prone to disease than is the case in temperate climates, as is well shown in the following rates for the British troops in India during the year 1897.

Length of Service in India.	Average strength.	Admissions.	Deaths.	Invaliding.	Ratios per 1,000 Strength. Admissions.	Deaths.	Invaliding.
Under 1 year	11,680	21,700	344	302	1857.9	29.45	25.86
1 to 2 years	11,580	18,795	217	423	1623.1	18.74	36.53
2 to 3 years	11,368	17,929	208	475	1577.1	18.30	41.78
3 to 4 years	10,099	14,886	124	446	1472.0	12.28	44.16
4 to 5 years	8,013	10,548	131	265	1316.4	16.35	33.07
5 to 10 years	8,874	11,728	151	288	1321.6	17.02	32.45
10 years and upward	1,806	1,222	31	59	676.6	17.17	32.67
Not stated	1,111	36	8	....	32.4	7.20	
Total	64,531	96,824	1,214	2,258	1500.4	18.81	34.99

Age as Influencing Sickness and Mortality.—In the United States service, for the seven years 1890–1896 inclusive, the relation between disease and age among the enlisted strength existed as follows:

Age.	Admissions to hospital from disease per 1,000 strength.	Constantly non-effective from disease per 1,000 strength.	Discharged for disability from disease, per 1,000 strength.	Deaths from disease per 1,000 strength.	Total losses from disease per 1,000 strength.
19 years and less.	2,244.79	60.73	22.61	5.32	27.95
20 to 24 years	1,359.63	39.52	14.42	2.93	17.35
25 to 29 years	896.65	26.06	11.96	3.13	15.09
30 to 34 years	755.64	21.53	10.69	3.73	14.42
35 to 39 years	718.43	21.32	10.32	4.32	14.64
40 to 44 years	798.09	24.87	16.65	7.46	24.11
45 to 49 years	755.01	24.16	15.26	10.97	26.23
50 to 54 years	843.48	28.96	31.11	13.18	44.29
55 to 59 years	875.22	34.93	43.55	16.75	60.30
60 years and over	1,265.31	72.91	122.64	66.04	188.68

The younger men, both officers and soldiers, appear particularly susceptible to disease as well as prone to injury. For the period noted above typhoid fever was observed to be much more prevalent among those under 30 years of age. The rate for this disease in men from 20 to 24 years of age was 10.31; from 25 to 29 years, 5.74; from 30 to 34 years, 2.58. Enlisted men under 25 years of age suffered more from malarial fevers than did officers of the same age; but with the advance of years the rates of the men came to differ but little from those of their superiors. The higher rates for venereal disease were given by men under 30 and particularly by those under 25 years of age; but, on the other hand, the rates for alcoholism increased with age. Tuberculosis appeared to be equally distributed among men between the ages of 20 and 50 years, but the excess of diarrhœal troubles was confined to soldiers under 25 years. Rheumatic fever was not specially prevalent among young men, susceptibility being increased after the age of 40 or 50 years. The rates for pneumonia were considerably larger after 45 years of age—as were also those for kidney disease.

In the French army, for the decade 1875–1884, per 1,000 strength, the average annual death rate for all causes, as given by Marvaud, was:

Under 20 years of age	6.72
From 20 to 22 years of age	10.92
From 22 to 23 years of age	9.38
From 23 to 26 years of age	8.59
From 26 to 30 years of age	7.14
From 30 to 35 years of age	8.51

The class less than 20 years old is not only a very small one, amounting, according to Bertillon, to only about three per cent. of the whole, but the young men composing it are all volunteers and before enrolment are subjected to an exceptionally severe physical examination, so that only the best lives are accepted. Hence for the French army at large the first year of service may be considered to begin at the age of 20–22 years. In commenting on the excessive mortality of the younger soldiers, Marvaud says: "It is during the first year of service that the number of deaths attains its maximum, a fact which proves the dangers provoked by acclimation to a military life." The influence of age upon sickness, in time of war, is even more marked than during peace. According to Gayet, in the campaign of Benin the total losses by deaths and disease from repatriation were as follows:

	Per Cent.
Foreign legion	9.7
Artillery of the marine	23.3
Engineers	24.2
Infantry of the marine	39.0
African battalion	47.9

In the two last classes the men were young and illy developed, ranging from 19 to 22 years of age; in the foreign legion the men were older, being between the ages of 25 and 35 years.

Influence of Military Rank as Affecting Health.—The report of the surgeon-general for 1897 gives statistics for our army to include the seven years 1890–1896, this being equivalent to a total strength for one year of 14,859 officers and 174,988 enlisted men. These figures show a sick rate of 765.69 per thousand for the officers and 1,258.90 for the men; but the inefficiency rate of the former class was much greater than that of the latter, being 44.27 per thousand as compared with 37.63 per thousand in the case of the enlisted force. The average death rate for officers was 9.56 per thousand, while among the enlisted men the annual mortality was only 6.52 per thousand. Such an unfavorable showing made by the officers as regards the rates for death and inefficiency is largely to be explained by the fact that the military life of the enlisted soldier practically ceases at the age of 44 years, only 6.50 per cent. of this class remaining in service after that age; while of the officers included in the tabulation referred to, 37.25 per cent. were over 44 years of age. The latter class, then, while sharing largely with the enlisted men in the hygienic disadvantages of immaturity, had, in addition, the diseases of beginning old age and the results of long years of hard service to increase its death rate It is to be noted that during this same period young officers under 25 years had only 784.20 admissions per thousand for disease, where the soldiers of the same age had an admission rate of 1,359.63; while the non-efficiency rate of the former was 29.61, as compared with the rate of 39.52 for the latter. This would indicate that if the same attention was given to sanitary details by the young soldier as by the young officer, his rate of constant sickness would be correspondingly reduced.

The influence of petty rank and length of service on sickness in the French army is shown in the subjoined table, constructed from data given by Marvaud covering the year 1888:

	Admissions per 1,000 strength.	
	Detention rooms.	Hospitals.
Non-commissioned officers	111	248
Men having more than one year of service	260	172
Men having less than one year of service	567	269

The proportionately large number of non-commissioned officers treated in hospital is explained by Marvaud as being due to lack of suitable accommodations in the detention rooms for this class.

Health of Troops in Peace.—The individual significance of the several factors which, taken together, determine the sanitary condition of our army in time of peace will be readily appreciated by reference to the subjoined table. Diarrhœal affections have the highest admission rate for sickness, but the mortality from this cause is not great. Malarial diseases rank second in frequency, but, as shown by statistics, they are not of severe type and are readily amenable to treatment. Venereal diseases occupy third place in importance as regards admissions, but the constant non-efficiency through their influence is much greater than that from any other cause. Rheumatism and myalgia together furnish a large proportion of admissions and discharges, as does also bronchitis. The admissions for alcoholism are slightly above the general mean, but the rates for death and non-efficiency from this cause are small. All the rates for typhoid fever are low. As to injuries, the several figures for contusions and sprains are all large—those for wounds, excluding gunshot injuries, being considerably lower than those for contusions, but still somewhat in excess of the general average. (See Table A, p. 503.)

With regard to sickness, deaths, and non-efficiency in the British service for the home stations, the fact which at once attracts attention is the high ratio given by venereal affections; the admissions from this cause being more than half again as high as from any other affection or group of diseases. For gonorrhœa, primary and tertiary syphilis, the individual rates for non-efficiency are much higher than for such diseases as are summarized as affections of the respiratory and digestive systems. The rates for rheumatism and influenza are high, while diseases of the skin and of the connective tissue are common. Alcoholism is a minor factor in increasing the rates for sickness, deaths, and non-efficiency. (See Table B, p. 504.)

Decrease in Rates under Conditions of Peace.—That improvement in the sanitary administration and state of armies is constantly being made will be unhesitatingly admitted, but few are aware of the stupendous progress in this respect which, particularly during the past generation, has been accomplished by military hygiene. Not only is this the case in our own service, but in foreign armies also, and, on reviewing the sanitary conditions which for their time were considered to be excellent, it is apparent that still further decrease in the several rates may justly be anticipated for the future.

For the U. S. army the accompanying charts (see pp. 505 and 506) so well illustrate the remarkable decrease in sickness and death which has occurred during the past three-score years that any extended discussion of the matter would seem to be superfluous. Suffice it to say that the death rate for the five years preceding the Spanish-American war was about three and one-half times less than that for the five years preceding the war with Mexico, while the rate for sickness underwent a diminution of about two and one-third times during the period included by these dates. Since 1872 the death rate from all causes has dwindled to about forty per cent. of what it was at that time, while the death rate from sickness alone has fallen almost as much; and during the same period the rate for admissions to sick report has diminished more than one-half.

In the German army, according to official figures recently submitted to the Reichstag, the number of admissions to hospital from disease, per thousand strength, underwent a decrease from 1,496 in the year 1868 to 867 in 1894. In 1868 the annual death rate per thousand was 6.9, 4.82 in 1879, 3.24 in 1888, and only 2.60 in 1896—a magnificent result, in the attainment of which the due observance of sanitary detail, and especially the careful selection of recruits, were main factors. Military epidemics, in this showing of the German army, have above all lost ground. Smallpox is rare, and caused only two deaths during the twenty years 1873–1893. Dysentery was reduced from 6.8 per thousand strength in 1874 to 0.39 in 1894. Typhoid fever gave a rate of sickness of 33.8 per thousand strength in 1868 and 2.4 per thousand in 1894. The typhoid death rate was 2.2 per thousand in 1868 and 0.81 per thousand in 1894. Malaria showed a rate of sickness of 27.6 in 1868 and

A.—Ratios of Admission to Sick Report, Discharge, Death, and Constantly Non-Effective of the United States Army for the Decade 1886–95.

For the Decade 1886–95.	White.				Colored.				Indian.				Total.			
Mean strength	A. G., 24,301. S. G., 22,071				A. G., 2,379. S. G., 2,188				A. G., 227. S. G., 213				A. G., 26,907. S. G., 24,472			
Causes of admission to sick report.	Admissions.	Discharges.	Deaths.	Constantly non-effective (a).	Admissions.	Discharges.	Deaths.	Constantly non-effective (a).	Admissions (b).	Discharges (b).	Deaths (b).	Constantly non-effective (b).	Admissions.	Discharges.	Deaths.	Constantly non-effective (a).
Special.																
Vaccinia	33.76	0.004	.....	1.06	26.24	.....	.....	0.76	106.25	.....	.....	4.14	33.72	0.004	.....	1.06
Typhoid fever	5.94	.01	0.64	.91	2.10	.....	0.50	.29	.47	.....	.....	.02	5.55	.01	0.62	.84
Malarial infections	96.20	.09	.14	2.48	64.50	0.04	.38	1.74	32.91	.....	.....	.47	92.82	.08	.16	2.40
Rheumatic fever	5.11	.07	.02	.59	5.76	.04	.....	.53	4.23	0.44	.....	.58	5.16	.07	.02	.58
Tuberculosis of the lungs	2.93	1.32	.44	.70	3.93	1.85	.84	.97	25.39	11.44	7.04	3.55	3.21	1.63	.54	.75
Syphilis	17.45	1.98	.02	1.68	20.98	3.36	.04	2.02	15.51	2.64	.....	1.76	17.75	2.11	.02	1.71
Gonorrhœa	38.97	.26	.....	2.30	32.41	.04	.....	1.52	63.00	.....	.....	3.17	38.60	.24	.....	2.24
All venereal diseases	75.89	2.30	.02	5.26	78.48	3.40	.04	5.21	98.26	2.64	.....	5.77	76.32	2.40	.02	5.26
Alcoholism and direct results	42.37	.07	.22	.47	4.89	.04	.....	.05	4.70	.....	.....	.07	38.69	.07	.20	.43
Neuralgia	24.69	.16	.....	.62	36.94	.04	.....	.57	15.05	.....	.....	.17	25.70	.14	.....	.62
Tonsillitis	41.35	.004	.01	.66	54.49	.....	.....	.73	29.82	.....	.....	.41	42.42	.004	.01	.66
Colic and constipation	32.10	.02	.....	.29	49.18	.04	.....	.41	31.50	.....	.....	.34	33.62	.02	.....	.30
Diarrhœal diseases	115.68	.22	.13	1.34	99.75	.17	.13	1.14	45.61	.....	.....	.55	113.65	.21	.13	1.32
Diseases of the heart	5.79	1.36	.42	.53	4.94	1.18	.25	.30	2.35	.88	.44	.16	5.69	1.34	.41	.51
Coryza	33.56	.....	.....	.29	41.36	.....	.....	.30	12.69	.....	.....	.11	34.08	.....	.....	.29
Bronchitis	67.94	.23	.02	1.37	69.26	.17	.....	1.20	56.89	.....	.....	.82	67.97	.22	.02	1.35
Pneumonia	3.88	.06	.66	.41	6.90	.08	1.51	.60	10.34	.....	.88	.76	4.20	.06	.74	.43
Diseases of the kidneys	1.72	.20	.23	.21	2.83	.20	.34	.22	.....	.....	.....	.....	1.80	.20	.24	.21
Rheumatism and myalgia	73.28	1.59	.02	3.65	116.33	2.02	.....	4.56	50.78	1.32	.....	1.54	76.94	1.63	.02	3.71
Boils and abscesses	43.74	.02	.004	.99	26.51	.04	.....	.67	42.31	.....	.....	1.21	42.18	.02	.004	.97
Conjunctivitis	11.86	.06	.....	.32	14.49	.21	.....	.45	44.67	.....	.....	1.21	12.88	.07	.....	.34
All diseases of the eye	17.95	.98	.....	.78	26.74	1.13	.....	1.04	62.06	.44	.....	1.98	19.13	.99	.....	.82
All diseases of the ear	7.67	.54	.004	.34	3.70	.13	.....	.16	8.46	.....	.44	.16	7.32	.50	.01	.33
Contusions and sprains	130.04	.23	.01	3.33	145.86	.21	.04	3.36	128.32	.....	.....	3.02	131.46	.23	.01	3.33
Dislocations	2.57	.11	.004	.20	1.87	.13	.....	.11	6.11	.....	.....	.52	2.54	.11	.004	.20
Fractures, not gunshot	6.99	.53	.10	1.20	5.12	.34	.08	.88	11.75	.....	1.76	1.52	6.86	.50	.11	1.17
Wounds, not gunshot	50.21	.20	.05	1.48	68.07	.21	.08	1.99	91.20	.....	.....	2.10	52.16	.20	.05	1.53
Wounds, gunshot	3.30	.64	.96	.57	7.27	.80	1.60	.97	7.05	.88	4.84	1.05	3.69	.66	1.05	.61
Grouped.																
Infectious diseases, general and local	302.66	4.15	1.73	13.18	276.73	5.76	2.40	11.55	350.26	15.41	7.04	17.45	300.76	4.39	1.84	13.09
Diseases of nutrition, general	2.55	.59	.09	.23	2.10	.38	.04	.18	1.41	.....	.44	.03	2.50	.56	.09	.22
Diseases of the nervous system	96.67	3.12	.79	2.32	77.07	2.14	.46	1.57	41.38	1.32	.44	.68	94.44	3.02	.76	2.24
Diseases of the digestive system	278.10	.75	.65	4.40	300.59	.76	.38	4.08	180.54	.....	.....	2.57	279.26	.73	.62	4.35
Diseases of the circulatory system	7.14	1.71	.51	.69	5.30	1.26	.50	.36	2.35	.88	.44	.16	6.93	1.66	.51	.66
Diseases of the respiratory organs	113.00	.58	.78	2.49	130.55	.34	1.81	2.57	92.15	1.32	.88	2.46	114.39	.56	.87	2.50
Diseases of the genito-urinary system	11.33	.81	.24	.85	14.49	.97	.34	.93	7.99	.44	.....	.21	11.58	.82	.25	.85
Diseases of the lymphatic system and ductless glands	5.35	.07	.004	.44	6.95	.....	.....	.47	11.28	.....	.....	.93	5.54	.06	.004	.45
Diseases of the muscles, bones, and joints	79.16	2.67	.01	3.74	121.41	3.24	.04	4.89	53.60	1.76	.....	1.38	82.70	2.71	.01	3.83
Diseases of the integument and subcutaneous connective tissue	79.47	.23	.02	2.11	50.47	.25	.08	1.58	71.93	.....	.....	2.19	76.81	.23	.02	2.06
Diseases of the organs of special sense	27.53	1.65	.01	1.27	31.45	1.39	.....	1.26	72.40	.44	.44	2.19	28.37	1.62	.01	1.28
Unclassified	2.79	.....	.004	.07	5.21	.....	.....	.08	2.82	.....	.....	.01	3.00	.....	.304	.07
General injuries	3.25	.02	1.02	.08	1.87	.04	.42	.04	.....	.....	.44	.....	3.10	.03	.96	.07
Injuries to special parts	245.13	3.36	1.26	8.47	289.26	3.45	1.98	9.35	302.30	2.64	6.60	9.76	249.57	3.36	1.37	8.57
Total for diseases	1,005.77	16.34	4.84	31.80	1,022.31	16.48	6.05	29.53	888.11	21.57	9.68	30.27	1,006.22	16.39	4.99	31.62
Total for injuries	248.38	3.39	2.28	8.54	291.13	3.49	2.40	9.39	302.30	2.64	7.04	9.76	252.67	3.39	2.33	8.64
Total for all causes	1,254.15	19.72	7.12	40.34	1,313.43	19.97	8.45	38.92	1,190.41	24.21	16.72	40.03	1,258.89	19.78	7.32	10.26

(a) For 1887–95—nine years of decade; (b) for 1891–95—four years of decade.

B.—Table Showing the Average Strength, Admissions into Hospital, Deaths, Numbers Invalided and Constantly Sick among the British Troops Stationed in the United Kingdom during the Year 1897, with the Ratios per 1,000, the Strength, and the Average Ratios for Ten Years.

Average Strength in Annual Returns, 96,526. Average Strength, Including Men Detached, 98,290.

Diseases.	Admission to hospital.	Deaths. With the regiment.	Deaths. Absent from the regiment.	Deaths. Total.	Invalids discharged from the service.	Average number of constantly sick.	Ratio per 1,000. Admissions.	Deaths.	Invalids finally discharged.	Constantly sick.	Average Ratio per 1,000 from 1887 to 1896. Admissions.	Deaths.	Invalids finally discharged.	Constantly sick.
General Diseases.														
Smallpox	....	....	..	....	....	....	....	....	....	....	0.1	....	....	0.01
Other eruptive fevers	1,057	10	..	10	....	92.43	11.0	0.10	....	0.96	8.6	0.06	....	.65
Influenza	591	..	..	..	....	17.25	6.1	....	....	.18	16.1	.03	....	.44
Diphtheria	44	4	..	4	.....	2.37	.5	.04	....	.02	.7	.02	....	.05
Enteric fever	88	20	1	21	....	15.11	.9	.21	....	.16	1.3	.25	....	.21
Other continued fevers	360	1	..	1	....	13.59	3.7	.01	....	.14	4.1	.01	....	.15
Cholera	....	..	..	..	....	.05	....	....	....	....	....	....	....	....
Dysentery	47	1	..	1	5	4.15	.5	.01	.05	.04	.6	.02	.04	.06
Yellow fever	....	..	..	..	....	.....	....	....	....	....	....	....	....	....
Malarial fever	500	2	..	2	1	19.27	5.2	.02	.01	.20	6.1	.01	.02	.22
Septic diseases	54	3	..	3	....	3.69	.6	.03	....	.04	1.8	.08	....	.12
Tuberculous diseases	236	45	6	51	142	40.02	2.4	.52	1.44	.42	3.8	.85	1.91	.60
Syphilis, primary	3,218	..	..	..	....	327.42	33.3	....	....	3.39	59.2	....	.01	5.60
Syphilis, secondary	2,919	5	1	6	102	316.11	30.2	.06	1.04	3.27	35.9	.05	.87	3.55
Gonorrhœa	6,176	..	..	..	16	464.99	64.0	....	.16	4.82	86.2	....	.05	5.88
Hydrophobia	....	..	..	..	....	.....	....	....	....	....	....	....	....	....
Parasitic diseases	2,277	1	..	1	....	73.75	23.6	.01	....	.76	26.3	....	....	.74
Scurvy	1	..	..	..	....	.02	....	....	....	....	.1	....	....	....
Alcoholism	158	2	..	2	....	5.33	1.6	.02	....	.06	2.2	.03	.01	.07
Rheumatism	2,515	7	..	7	63	167.57	26.1	.07	.64	1.74	34.6	.05	.64	2.19
Debility	654	..	..	..	90	49.19	6.8	....	.92	.51	7.2	.01	.90	.50
Other general diseases	544	11	..	11	42	36.56	5.6	.11	.42	.38	5.2	.12	.19	.35
Local Diseases.														
Diseases of the nervous system / Mental	623	17	2	19	125	48.09	6.5	.19	1.27	.50	7.2	.30	1.13	.49
	121	2	..	2	86	18.30	1.3	.02	.88	.19	1.3	.02	.90	.23
Eye	1,066	..	..	..	85	65.06	11.0	....	.87	.68	11.4	....	.69	.69
Other organs of special sense	908	2	..	2	142	63.81	9.4	.02	1.44	.66	7.8	.01	.85	.50
Circulatory system	1,053	31	4	35	368	104.68	10.9	.36	3.74	1.08	9.9	.37	3.50	.96
Respiratory system	4,435	51	4	55	73	229.37	46.0	.56	.74	2.38	60.2	1.16	.81	3.02
Digestive system	9,085	17	1	18	179	305.83	94.1	.18	1.82	3.17	105.7	.32	.98	3.20
Lymphatic system	956	..	..	..	14	105.93	9.9	....	.14	1.10	15.8	.01	.12	1.70
Urinary system	186	11	1	12	37	19.96	1.9	.12	.38	.21	2.2	.14	.27	.20
Generative system	2,330	1	..	1	38	162.19	24.1	.01	.39	1.68	34.2	.01	.29	2.24
Organs of locomotion	1,239	2	..	2	197	89.10	12.8	.02	2.01	.92	8.3	.02	1.06	.65
Connective tissue	2,350	1	..	1	6	101.92	24.3	.01	.06	1.06	23.6	.01	.08	1.05
Skin	5,029	..	..	..	28	222.47	52.1	....	.29	2.30	46.3	....	.21	2.01
Injuries.														
General	35	27	..	27	2	2.86	.4	.28	.02	.03	.2	.35	.01	.01
Local	10,616	35	1	36	110	457.86	110.0	.37	1.12	4.74	98.5	.32	.73	4.06
In action	....	..	..	..	....	.....	....	....	....	....	....	....	....	....
Poisons	14	6	..	6	2	.97	.1	.06	.02	.01	.1	.05	....	.01
No appreciable disease	356	..	..	..	....	14.19	3.7	....	....	.15	3.1	....	....	.10
Cause unknown (refers to death only)	....	..	..	..	....	.....	....	....	....	....	....	....	....	....
General total	61,841	315	21	336	1,953	3,662.96	640.6	3.41	19.87	37.95	735.9	4.68	16.27	42.51

0.81 per thousand in 1894; while contagious eye inflammations fell from 7.0 to 1.5 per thousand.

Decrease of Rates for the German Army.

Year.	Morbidity per 1,000.	Mortality per 1,000.	Invalided per 1,000.
1879–80	1,174.8	4.82	....
1880–81	1,190.2	4.82	....
1881–82	1,135.5	4.53	....
1882–83	849.6	4.25	20.6
1883–84	830.1	4.16	20.7
1884–85	850.3	3.93	20.4
1885–86	849.2	3.73	23.9
1886–87	808.0	3.79	20.6
1887–88	804.1	3.24	21.5
1888–89	758.9	3.19	19.6
1889–90	897.2	3.30	25.9

According to Boisseau the mortality of the British army on the home station prior to 1853 was 17.5 per thousand strength. After the improvement in the sanitary surroundings of the soldier in that service following the Crimean war, the rates for death and sickness were much diminished, and for the decade 1875–1884 had fallen to 7.20 deaths per thousand strength. In 1889 the death rate was 4.57, the sickness 730.4. In 1890 the deaths rose to 5.53 and the sick rate to 810. For the decade 1887–1896 the admissions were 735.9 and the ratio of deaths per thousand strength was 4.68. In 1897 there died only 3.42 per thousand of strength, while the admission rate had fallen to 640.6 per thousand strength.

The reduction in the rates for sickness and death in the Italian army during the past twenty-five years has been steadily progressive and probably presents less fluctuation than is the case in any other military service.

Year.	Admissions to hospital or infirmary per 1,000.	Death rate per 1,000.	Year.	Admissions to hospital or infirmary per 1,000.	Death rate per 1,000.
1875	1,031	13.3	1887	760	8.7
1876	1,001	11.2	1888	732	8.7
1877	987	10.6	1889	749	8.0
1878	947	10.6	1890	796	7.5
1879	936	9.9	1891	811	9.0
1880	935	11.0	1892	758	7.1
1881	928	10.6	1893	735	6.6
1882	833	10.2	1894	723	5.2
1883	842	11.8	1895	743	7.0
1884	779	11.6	1896	741	5.8
1885	791	10.3	1897	694	4.2
1886	798	9.3			

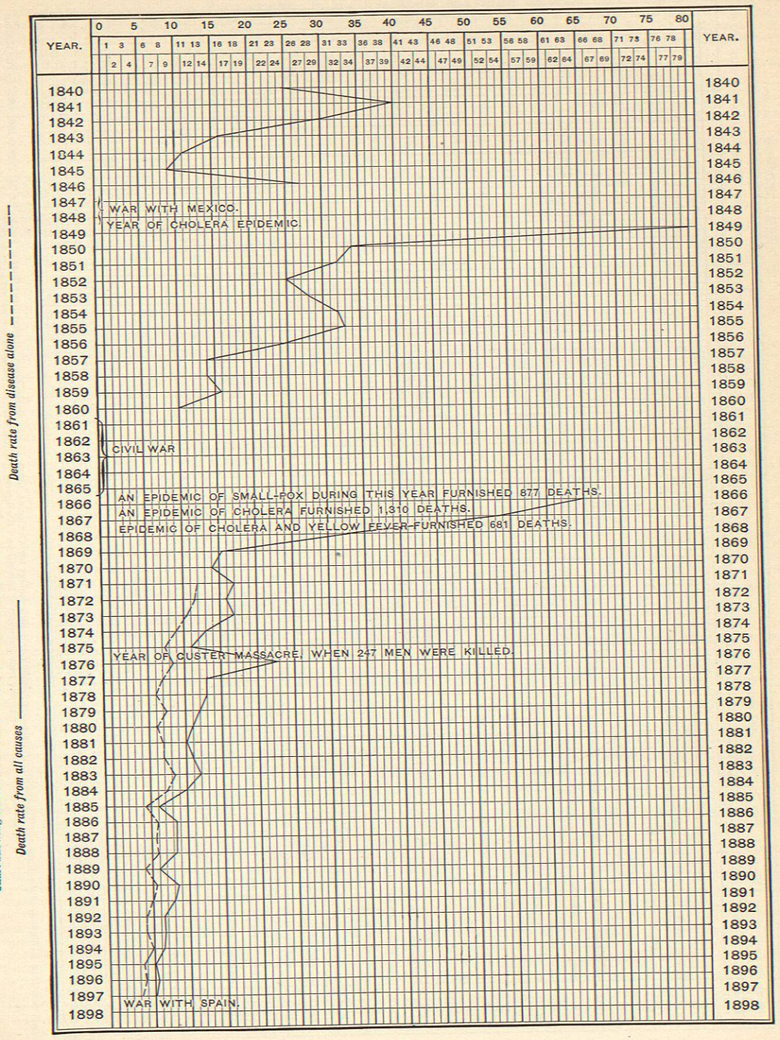

Chart Showing Reduction in Death Rate, per Thousand Strength, in the United States Army, under Conditions of Peace, for the Period 1840-1898.