



RETURN to an Order of the Honourable The House of Commons,  
dated 28 February 1867 —for,

## STATISTICAL ABSTRACT

OF THE

# HEALTH OF THE ROYAL NAVY,

BETWEEN THE

1ST DAY OF JULY 1865 AND THE 30TH DAY OF JUNE 1866.



---

*Ordered, by The House of Commons, to be Printed,  
28 February 1867.*

---

NOTE.—The terms “ratio of sickness” and “sick-rate,” in the following abstract, are to be understood as referring only to the ratio of cases placed on the sick list, and not to the loss of service, or number of days’ sickness occasioned by them.

---

THE following abstract gives a very favourable view of the Health of the Navy for the period for which it is compiled. In the ratio of cases placed upon the sick list, there was indeed a trifling increase as compared with the previous twelve months; but the ratios of invaliding and of mortality were the lowest that had occurred during a period of ten years. It is also gratifying to be able to report, that in that portion of the force which is at present attracting most attention—viz., the armour-clad vessels—the ratio of cases was lower than in any other class of sea-going vessels, with the exception of the second-rates. The ratio of invaliding was also low, and the only class of vessel in which the death-rate was lower was the first-rate, of which only one was in commission. The only iron-clad vessel, indeed, in which active disease prevailed to any extent was the Royal Oak. In the statistical abstract for the period embraced between the 1st of July 1864 and the 30th of June 1865, it was stated that the high sick-rate in that vessel, and in the Prince Consort, had been attributed to the absence of natural light, together with imperfect ventilation, on their mess decks, but that those defects had been remedied in both vessels. The result of the alterations made in this respect is observable in the improved sanitary condition of the Prince Consort; but in the Royal Oak, after a period of decided improvement, fever of a specific type and urgent character appears to have

Introductory  
Observations.

---

been contracted at Malta, and to have spread by communication of the infected with the healthy. The steps that were taken in consequence of this outbreak of disease resulted in its entire removal, and in a marked improvement in the health-rate of the ship's company, so that at the date of the conclusion of this report, the vessel might be considered in a very satisfactory condition in a sanitary point of view.

At the Home ports, although the extended powers conferred by the recent Contagious Diseases Act did not come into operation until after the date at which this report terminates, it may not be considered out of place here to state that up to the present time, and particularly in those localities in which the means for carrying them out are most ample, they appear to have had a decidedly beneficial influence in diminishing the spread of disease.

Yellow fever prevailed on the West Coast of Africa in 1865, and was unfortunately communicated to four vessels of the squadron, viz., the *Isis*, the *Rattlesnake*, the *Bristol*, and the *Archer*. No stronger evidence can be adduced of the danger of holding communication with localities or ships in which this deadly form of fever prevails than the epidemics in these vessels, the details of which will be found in the report on that station.

On the Cape of Good Hope and East Indian Station small pox prevailed in an epidemic form in the *Octavia*, having been brought into the ship by a Krooman, who had been under treatment in the General Hospital at Bombay, where he had been placed in a ward next to one in which there were some cases of that disease. The vessel being at sea at the time, every effort was made to isolate this man from the ship's company as much as possible, and during his illness, which terminated fatally, no other case appeared on board. Three days after his death, however, a second case occurred, and within five days thereafter no fewer than 102 cases of confirmed or suspected small-pox were placed on the sick list. The ship having arrived in Bombay, the most prompt measures were taken to check the further spread of the disease,

disease, and to the energy and judgment with which they were carried out, its arrest was doubtless attributable.

These were the only epidemics of preventible disease of any moment that occurred in the force throughout the year.

In the Michaelmas quarter of 1865 there was much sickness amongst the European population and in the garrison at Hong Kong; and on the arrival of the Adventure in that harbour, fever of a similar type to that prevailing on shore affected a large number of the crew. Fortunately, however, it occasioned no mortality. In Japan the squadron continues to suffer severely from those diseases which have heretofore been pre-eminently the opprobrium of our Home ports. Unfortunately the Japanese officials appear to be either too apathetic, or are absolutely averse to taking any steps towards their suppression.

During the twelve months embraced in the present report the average force was 50,495, and the number of cases of disease and injury entered on the sick list was 67,593, which is in the ratio of 1338·6 per 1,000 of mean force, a slight increase as compared with the preceding twelve months, but much below the average sick-rate of the Total Force taken for a period of ten years, that being 1472·6 per 1,000.

The following table shows the ratios on each station:—

STATIONS.	Ratio per 1,000 of Cases of Disease and Injury.
Home . . . . .	911·0
Mediterranean . . . . .	1477·2
North America and West Indies . . . . .	1662·7
South-east Coast of America . . . . .	1685·
Pacific . . . . .	1650·8
West Coast of Africa . . . . .	2370·4
East Indies and Cape of Good Hope . . . . .	1774·8
China . . . . .	1706·8
Australia . . . . .	1476·8
Irregular Force . . . . .	1729·0

It will be perceived that the stations showing the highest ratios of cases were the South-east Coast of America, the West Coast of Africa, the East Indies and Cape of Good Hope, and China, and that the ratio in the Irregular Force was also high.

Although a high ratio of cases appears in the squadron on the South-east Coast of America, it is, in fact, much below the average sick-rate of the station. There was very little disease, indeed, of any importance in the different vessels, ephemeral fevers, catarrh, and diarrhœa, being the affections of greatest numerical importance.

Reference has already been made to the deadly form of fever which prevailed in four vessels on the West Coast of Africa. The high ratio of sickness on that station was mainly consequent thereon: but in some of the vessels fevers of a remittent or of an ephemeral type, and diarrhœa, were prevalent. Had it not been for the epidemics of yellow fever, however, the sick-rate of the station would not have exceeded the decennial average.

Small-pox in the Octavia, previously alluded to; ephemeral fever and influenza in the Severn, not to any great extent or of much urgency, however; and remittent fever and diarrhœa in the Vigilant, while employed in the Mozambique Channel, were the chief causes of the high sick-rate on the Cape of Good Hope and East Indian Station.

Although the ratio of cases on the China Station is much above the average ratio of the Total Force, it is the lowest ratio of cases that has occurred on that station within a period of ten years. The squadron, indeed, was particularly healthy, a circumstance mainly attributable to its being principally employed in Japan. In the vessels stationed on the coast of China epidemics of ephemeral fever, of remittent fever, and of diarrhœa occurred. In Japan the prevailing disease was syphilis.

The number of cases entered on the sick list per man was, on the Home Station, .9; on the Mediterranean, 1.4; North America and West Indies, 1.6; South-east Coast of America, 1.6; Pacific, 1.6; West Coast of Africa, 2.3; East Indies and Cape of Good Hope, 1.7; China, 1.7; Australia, 1.4; and the Irregular Force, 1.7; giving an average of 1.3 for the Total Force, the decennial average being 1.4.

The following Table shows the average ratio of cases of disease and injury under treatment during the twelve months, in different classes of vessels, and in the marine detachments, serving abroad:

RATES.	Ratio per 1,000 of Force.	RATES.	Ratio per 1,000 of Force.
Ironclads . . . .	1166.8	Drill Ships . . . .	891.
First Rates . . . .	1252.4	Coast Guard Ships . .	1100.
Second Rates . . . .	1116.5	Training Ships . . . .	871.4
Third Rates . . . .	1827.5	Yachts . . . .	696.9
Fourth Rates . . . .	1780.6	Troop Ships . . . .	2001.6
Fifth Rates . . . .	1277.2	Training Brigs- . . . .	1688.
Sixth Rates . . . .	2208.2	Receiving Ships . . . .	1222.3
Sloops . . . .	1087.6	Surveying Vessels . . .	1682.3
Gun-vessels . . . .	2156.	Floating Battery . . . .	783.6
Steam-vessels . . . .	1443.7	Store Ships . . . .	1863.5
Gun-boats . . . .	1798.8	Marine Detachments . .	1261.5
Stationary Ships . .	663.2		

It thus appears that of all the sea-going vessels the lowest ratio of cases was in the second-rates, and next to them, the difference being very trifling, in the iron-clad vessels; while the highest ratios were in the sixth-rates, sloops, gun-vessels, and troop ships.

There were one or two frigates of the sixth-rate on every station, with the exception of the South-east Coast of America. The highest ratios shown by them were on the West Coast of Africa, Pacific, and Mediterranean Stations. On the West Coast of Africa, yellow fever prevailed in the two vessels of this class; on the Pacific, disease was referrible to

exposure on the coasts of Mexico and Central South America; and in the Mediterranean to service on the coast of Syria.

SLOOPs.

Vessels of the sloop class were employed on all, excepting the Home Station. The largest ratio of sickness in those vessels was on the West Coast of Africa, and was not referrible to any urgent form of disease. There were, indeed, only two vessels of the class on the station, and in the one to which the high sick-rate was mainly attributable the returns were only for about four months, so that the reduction of her ship's company, in correcting for time, gives an exaggerated value to the number of cases placed on her sick list. The other was a recently commissioned ship, so that her sick list would be naturally somewhat high.

GUN  
VESSELS.

The lowest ratio of cases in the gun-vessels was on the Australian Station, and the highest in China. As, during the previous twelve months, the lowest sick-rate in any particular vessel of the class was in the *Surprise*, on the Mediterranean Station, where it was 733·3, while in China, in the *Coquette*, it was as high as 3141· per 1,000.

TROOP SHIPS.

The high sick-rate in the troop ships was altogether attributable to the prevalence of fever, in an epidemic form, in *the Adventure*, in China. With that exception there was no particular sickness in those vessels.

INVALIDING.

The average ratio of invaliding in the Total Force, taken for a period of ten years, was 35·1 per 1,000 of mean force. During the twelve months embraced in this abstract 1,590 persons were invalided, which is in the ratio of 31·4 per 1,000, being the lowest ratio of invaliding that has occurred within a period of ten years.



The following Table shows the ratio of invaliding on the different stations :

STATIONS.	Ratio per 1,000 of Force Invalided.
Home . . . . .	21.6
Mediterranean . . . . .	40.
North America and West Indies . . . . .	29.
South-east Coast of America . . . . .	31.
Pacific . . . . .	27.
West Coast of Africa . . . . .	46.9
East Indies and Cape of Good Hope . . . . .	33.4
China . . . . .	34.8
Australia . . . . .	28.8
Irregular . . . . .	29.3

The Mediterranean, the West Coast of Africa, and China will thus be seen to be the only stations on which the ratio of invaliding exceeded the average of the Total Force for the decennial period.

The ratio of invaliding in the Mediterranean squadron, although high as compared with that of the Total Force, was almost precisely the average ratio of that station, taken for a period of ten years. Diseases of the organs of respiration were those which contributed most largely to invaliding, and after them rheumatic affections, the result for the most part of the peculiar influence of that climate, or occurring as the sequelæ of febrile attacks.

The ratio of invaliding on the West Coast of Africa is nearly double the average decennial ratio of that station. The sequelæ of fevers caused the largest loss of service by invaliding ; and it was mainly to that cause, indeed, that the high ratio shown above was attributable.

In China the ratio of invaliding was high, as compared with that of the Total Force ; but it was the lowest that had occurred on that station for a period of ten years. It is much to be deplored that, next to diseases of the respiratory organs and of the alimentary canal, the largest loss of



service by invaliding resulted from those diseases which have been alluded to as abounding in Japan, and exerting so destructive an influence on the force stationed there.

### DEATHS.

The average ratio of mortality of the Total Force for the decennial period was 15·5 per 1,000 of mean force. During the present period it was only 10·5, the total number of deaths being 595. Of these, 404 were the result of various forms of disease, and 131 of wounds, injuries, and drowning. The death-rate from disease alone was only about 8· per 1,000.

The following Table shows the ratio of mortality on the different stations during the period of this return :

STATIONS.	Ratio of Deaths per 1,000 of Force.
Home - - - - -	5·9
Mediterranean - - - - -	9·1
North America and West Indies - - - - -	9·8
South-east Coast of America - - - - -	11·3
Pacific - - - - -	10·
West Coast of Africa - - - - -	57·7
East Indies and Cape of Good Hope - - - - -	10·2
China - - - - -	21·2
Australia - - - - -	13·8
Irregular - - - - -	6·1

The observations already made upon the diseases prevailing on the West Coast of Africa are sufficient to explain the high rate of mortality on that station. On the East Indies and Cape of Good Hope Station the death-rate was slightly above the average of the station, and was altogether attributable to the ravages of small-pox in the Octavia; and in China the ratio of mortality was the lowest that had occurred on that command for ten years.

The deaths by violence on each station, and their nature, are shown in the following Table :

Introductory  
Observations.

STATIONS.	Killed by Falling from Aloft.	Drowned.	Wounds.		Suicide.	Various.			TOTAL.
			In Action.	Acci- dental.		Tetanus, from a Burr.	Alcoholic Poisoning.	Not stated.	
Hong Kong	8	11	-	6	2	-	-	8	27
Mediterranean	2	4	-	4	-	1	-	1	12
North America and West India	5	14	4	2	-	-	-	-	25
South-east Coast of America	-	3	-	-	1	-	-	-	4
Pacific	2	9	-	1	2	-	-	-	14
West Coast of Africa	2	6	-	1	-	-	-	-	9
East Indies and Cape of Good Hope	1	4	4	2	-	-	-	-	11
China	-	12	-	1	-	-	1	1	15
Australia	1	6	1	-	-	-	-	-	8
Irregular	2	3	-	1	-	-	-	-	6
<b>TOTAL</b>	<b>20</b>	<b>72</b>	<b>9</b>	<b>18</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>131</b>

It is gratifying to observe that under each of the above headings there is a very considerable decrease, as compared with the preceding twelve months.

ALEX. E. MACKAY, M.D.

Admiralty, Somerset House,  
1 February 1867.