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2-190

PLAGUE AT NAIROBI AND KISUMU

Two reports by the Acting P.M.O. showing the history of the epidemic and its incidence by population and locality.

S. Horn
H. J. R.
19/11

Mr. Patten

Both these reports are very interesting & good work has been done by all Dept in dealing with the outbreak.

The deplorable conditions wh. have been allowed to obtain in the Indian Bazaar are referred to at length in para 17 of the Nairobi Report. My comments on them are appended. They are small facts with those described as the case of the 1st of Jan. in 9 A. Prot. in connection with the outbreak, which were referred to by the I.C.S. in his despatch 26/7/12. In which the urgent necessity of instituting a special Sanitary Council was impressed upon the Governor.

The fact that the Indian Bazaar at Nairobi was the largest contributor of the local cases of Plague

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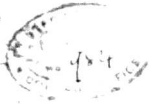
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GOVERNMENT HOUSE,
NAIROBI,
BRITISH EAST AFRICA.

GOVERNMENT HOUSE,
NAIROBI,
BRITISH EAST AFRICA.

EAST AFRICA PROTECTORATE.

February 6th. 1912.

No. 30
(Indis. 2)



Sir,

With reference to my despatch No. 5
of the 11th inst. recommending the grant of
a gratuity to the Officers principally responsi-
ble for the measures taken to combat the
epidemic of the 1909-10 at Nairobi and Kisumu
last year, I have the honour to transmit
herewith two reports by the Acting Princi-
pal Medical Officer on the outbreaks in
question, showing the history of the epide-
mic and its incidence by population and
locality.

I have the honour to be,
Sir,

Your humble, obedient servant,

[Handwritten Signature]
GOVERNOR.

RIGHT HONOURABLE
LEWIS HARCOURT, F.C.S., M.P.,
SECRETARY OF STATE FOR THE COLONIES,
DOWNING STREET, LONDON, S.W.

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(Handwritten)

ENCLOSURE

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6A

An Account of the Outbreak of Plague in Nairobi during the year 1911.

On the 14th May 1911 a case of Plague was reported as having been found in one of the back streets of the Indian Bazaar the victim being a Hindu.

For some little time previous to this occurrence there had been vague and unpleasant rumours of rat mortality in the above location but no definite information was available until the 17th of the same month when a pest infected rodent was discovered in the house which had been occupied by the first human case. In the succeeding days others were found in the neighbourhood of the same quarter either in houses, on roads, or in the plots of grass which lay adjacent to certain of the buildings. A situation had thus presented itself which rendered action imperative and the Township of Nairobi was, therefore, proclaimed an infected area on the 22nd May 1911. A scheme of organisation was next evolved for the purpose of following, limiting, or suppressing the outbreak and duties were distributed in accordance with these ends among the members of the local Medical Staff as well as among those others who expressed their readiness to assist. House-to-house inspection was instituted, an inoculation centre was established at the Civil Hospital, a refuge house was built, a fumigation chamber for exported goods was erected at the Railway Station, and the departure of Asiatics and Africans from Nairobi was made subject to compliance with certain conditions;

A campaign against rats was also instituted and efforts were made to destroy them either by trapping, poisoning, or digging them out of their burrows. The result of these measures bore fruit in the grain and flour shops of the western half of the bazaar, a large percentage of the bodies so found being pronounced

being pronounced after examination to be infected with the disease.

It was seen, however, to be learnt that the extent of the infection was not limited to the bazaar fer, within the next few days, plague-ridden rodents were found in such far apart places as the Police Lines, the Swamp gardens, and the neighbourhood of the Railway goods shed and the incidence on human being manifested itself in the occurrence of further cases in the Bazaar as well as of new cases among the Alice and the dwellers on a shamba near the Native Market.

The Police Authorities, however, quickly terminated the liability as a contributing factor by evacuating the infected buildings of their lines, ~~uprooting~~ and placing under canvas the men thus unheused.

Equally prompt was the action of the Jail Authorities who, on learning that infected rats had been found on their premises, organised a systematic search at the close of which they felt satisfied that none of these animals remained alive in the buildings. There is no doubt that this energetic procedure saved the situation as far as the prisoners were concerned, although, of course, it must not be forgotten that all had been Haffkinised.

Preventive measures were also taken by the Military Authorities who confined to barracks those under their charge and organised a series of successful rat hunts within their cantonment. Nor was the Public Works Department behind hand in its efforts to prevent invasion for its responsible heads caused to be dug out every rat burrow which could be located within their lines, their dislodged residents being all destroyed.

The Railway Landings were also made the object of special attention by the District Engineer and his staff, with the result that these buildings were, as far as possible, rendered rat proof.

Simultaneously 3

Simultaneously with these operations, the citizens of the Township were asked by circular to participate in the efforts which were being made to suppress the outbreak and it is satisfactory to note that this invitation was generally responded to.

Meantime the residents of the Indian Bazaar would seem to have awakened to a consciousness of their surroundings, for discovering that a number of women existed in their midst, dwelling in houses rented from members of the Asiatic community, they petitioned the Ag. Provincial Commissioner for their removal alleging, in support thereof, the filthy condition in which they maintained their houses and the consequent danger of invasion by the disease. Their prayer was acceded to and the women removed as soon as accommodation could be provided and the situation admitted of the step being taken. A further action on the part of these merchants about this time was their meeting at the Provincial Commissioner's office accompanied by a lawyer for the purpose of discussing the arrangements in force.

A fresh indication was now afforded of the extent to which the outbreak had spread by the discovery of an infected rat in Messrs McDonnell's store close to the Railway goods shed. That firm, however, quickly realizing the significance of the discovery, promptly turned out the contents of their store, subjected them to purification processes, and removed the entire floor of the building.

The body of an infected rat was also found about this time at the level crossing of the Railway near the Maintenance Yard; enquiry failed, however, to elicit any information concerning the whereabouts of its origin.

While efforts directed towards investigation and protection, inclusive of inspection and inoculation, were proceeding, the incidence of plague among human beings continued and the numbers of these affected slowly rose. By the 1st of June

4.

By the 1st of June there were on record seven cases with four deaths.

Owing to the disease having been pronounced to exist in the bodies of rats found in the neighbourhood of the Jeevanjee market, a portion of that mart was closed and subjected to a systematic inspection the result of which was the unearthing of sixteen infested dead and eight so putrefied as to render examination useless. In consequence of this discovery the building was purified and the owner called upon to take the necessary steps to render it as rat-proof as circumstances permitted.

A lull now ensued in the progress of human plague which continued up to the 5th of June when an Indian, resident on a shamba near Ngara Road, was found to have developed the disease. The anti-rat campaign, however, was maintained and all burrows found in the bazaar were fumigated and closed.

By the 9th of June the total number of cases had increased to fourteen, ten of which had ended fatally. One of the more recent was that of an African whose body was found on the plain not far from the Public Works yard and another—also that of an African—who was found dead in a house in the River Road area. Human Plague now manifested itself among the residents of certain huts in the neighbourhood of Messrs McDonnell's store and evidences of Rat Plague were found in the offices of the Agricultural Department as well as in the vicinity of the Uganda Railway Workshops. The Bazaar continued to afford signs of its infested state and on the 10th of June, the total number of cases in the Township was reported as seventeen with ten fatalities.

Numbers of bodies of putrefied rats were now unearthed in the floors of Bazaar shops situated not far from the house in which the first case had occurred and an infested animal was found dead in a dwelling on Whitehouse Road. In addition to these, another was killed in the Veterinary Quarantine Station which, on examination, was found to possess the disease. Two fresh cases were next reported from the Bazaar and, on the 17th of June the total had mounted to nineteen, the deaths remaining at ten.

Infested rats were next discovered in the Police Court Clerk's house, the premises of Unga Ltd, and the neighbourhood of the

Survey

And, according to Nationality or Tribe, :-

Indians.....	11	cases
Wakikuyu.....	16	"
Wakamba.....	2	"
Wakavirende.....	2	"

From the above it will be seen that up to the time referred to, the Indian Bazaar had been the largest contributor as far as locality incidence was concerned.

On the 28th of July an infected rat was discovered in the neighbourhood of the Municipal offices, on the 7th August the bodies of two putrefied rats were found in the roof of Messrs Jeevanjee's stables near Victoria Street, and, on the morning of the 8th of the latter month, an infected rodent was brought to notice in a house near River Road. On the 11th August plague-stricken rats were found on the road close to the Scottish Church and in the wine cellar of the Uganda Railway and, on the following day, an African, who was resident in the outhouses of the building occupied by the Oriental Press, Victoria Street, was seized with the disease.

On the 16th of August an Indian child resident in a house situated on the River Road was found to have developed the disease and, on the following day, an African in the employment of a merchant in Government Road presented the same ailment. These fresh cases brought up the total to thirty seven of which twenty had proved fatal.

On the 19th of August an African who had been working on a shamba close to the Slaughter House was brought to Hospital and, after examination, pronounced to be infected with Plague. He subsequently succumbed to the disease and, an inspection of the neighbourhood of the dwelling in which he had resided led to the discovery of the bodies of nine rats, seven of which were putrefied, and the remaining two free from infection,

The final incident of the outbreak was the finding on the 28th of August of the body of an African girl in the long grass on the South bank of the Nairobi River an examination of whose

remains revealed the fact that death had been due to Plague. Her identity was never traced.

During the second half of the same month a manifestation of rat plague occurred in the goods shed at Ulu, the third railway station to the East. Thanks to the promptness with which the Magadi Railway Survey Party in camp at that place called attention to the matter and the energetic co-operation which they cheerfully rendered to Dr Lamb the outbreak was quickly got under control with no ill results as far as human beings were concerned. It is thought that the infection was conveyed from Nairobi by means of rats having found their way into goods trucks and been thus conveyed to the station in question though this probability has never been definitely proved.

During September a number of these animals were caught in various parts of the town all of which were, on examination, found to be free from the disease and as no human manifestations had come to notice subsequent to the 25th August, Nairobi was declared to be free from Plague and the restrictions accordingly removed on the 26th September 1911. It remains to be seen, however, if this immunity continues and the Medical Officer of Health has been instructed to make the rat index a part of his daily routine in order that any future recrudescence may be known without delay.

The narrative of the outbreak now closes and the available statistics may be summarized as follows :-

Locality Incidences:-

Indian Bazaar.....	16	cases.
Vicinity of Victoria Street.....	5	"
Swamp.....	5	"
River Road.....	4	"
Government Road.....	4	"
Police Lines.....	2	"
Raccoon Road.....	2	"
Duke Street.....	1	case.
Total.....	59	cases.

Racial Incidence :-

Race.	No of Cases.	Mortality.	Deat Rate.
Coastese.	8	1	35.5 %
Asiaties.	18	7	58.5 %
Africans.	24	14	58.5 %
(a) Wakikuyu (17)			
(b) Wakamba (8)			
(c) Wakavirenda (4).			

Variety of the Disease :-

Number of Cases	Type.	Situation of Subs.
8	Bubonic	Right Armpit.
1	"	Left Armpit.
8	"	Neck.
16	"	Right Groin.
14	"	Left Groin.
2	Septicæmia	Nil.

Number of Patients whose Subsces suppurred :- 20.

Number of Haffrinised patients who subsequently developed the disease :- 9 of whom 8 recovered.

Total number of persons in the Township who submitted to inoculation :- 6,140.

Number of Sanitary Notices served on owners of property as a result of the outbreak :- 52.

Note :- These notices were served with a view to rectify insanitary conditions, the chief of which were overcrowding, defective floors, and lack of cleanliness. As a result of this proceeding 44 defects are reported as having been remedied, 10 are being so, and 8 remain to be accomplished.

Appended hereto is the Bacteriologist's Report of the results of his examination of the bodies of Bats brought to him for that purpose in connection with the Epidemic. Its perusal will show that the great majority of infected rodents came from the western part of the Indian Bazaar including the Jeevanjee Market and the blocks containing the Small Hotels. It may be added that this area also includes Hindu lodging houses and grain and flour shops. Of the total examined (1,016) 176 were found to be infected and 840 either

either uninfected or too decomposed to admit of any definite pronouncement being made.

While the origin of the infection cannot be traced with absolute certainty yet it is not unreasonable to assume that it came from Kisumu for it is known that Plague was prevailing in that Township at the time of its appearance in Hairebi and that amounts of foodstuffs are imported from the former place at frequent intervals. In addition to this, there is no record of mortality among rats having been observed since the last outbreak of the disease in Hairebi some years ago and it is scarcely possible that such should have occurred without evidence of its existence coming to notice even allowing for the secretiveness of the Bazaar denizens on subjects of the kind. It may therefore be stated with confidence that the late outbreak was the result of recent invasion.

And here, perhaps, it may not be inappropriate to allude to the insanitary condition of the place in which Plague in Hairebi first made its appearance. For some years past the state of the Indian Bazaar has been a matter of grave concern to all who have inspected it. Originally laid out on a scale which gave its dwellers every opportunity of manifesting their fitness to appreciate the facilities which were placed at their disposal, the genius of its inhabitants has largely converted it into a mass of squalid shanties and unsavoury open cesspools. Many of its sanitary passages have been adorned with maledorous drains and utilized as streets whereon to give the exits of these ill or unlit ~~cesspools~~ for which the soul of the bazaar ledger apparently yearneth. The principal sanitary lane of the location is favoured as a highway and the eye of the passing spectator is caught therein by an unwholesome medley of native restaurants, dilapidated pedlars' shops, filthy latrine buckets and ill laid drains whose capacities are well nigh overtaxed by their semi-stagnant contents. The open spaces in the rear of the majority of the main buildings are insufficient and this is not to be wondered at when one remembers the manner in which so many plots have been overwhelmed

overwhelmed

Overwhelmed with subsidiary structures.

It is impossible for anyone acquainted with sanitary rudiments to maintain that an unhealthy area such as that described can be permitted to remain in the centre of a township. Its complete removal or wholesale remodelling is, in my opinion, a matter of urgency. The former course is to be preferred for it will enable advantage to be taken of the lessons of experience in the establishment of a new location. Were the latter alternative to be adopted there is every reason to fear that it would be equally expensive and not at all satisfactory apart entirely from the fact that the continued association of different races would be thereby maintained ^{attitude} ~~attitude~~. The ~~attitude~~ ^{attitude} of the Oriental towards matters concerned with the prevention of disease and his complete inability to ~~take~~ rise to a sense of Public Duty on the occasion of epidemic prevalence render his neighbourhood both undesirable and dangerous. These peculiarities were displayed during the recent outbreak for, despite persistent rumours of the existence of rat mortality, no helpful information was obtained until the occurrence of the first human case by which time of course the infection had spread over a considerable area. It cannot be asserted that Basaar dwellers were ignorant of its existence for it was subsequently known that, for some time prior to the authorities becoming definitely aware of the presence of the disease, the tenants of the badly infected blocks had already sent their families to reside elsewhere owing to a mortality among rats having been observed by them. Another unfortunate ~~peculiarities~~ peculiarity was the practice of placing the bodies of infected rodents on or close to the public highways in order that their origin might be thereby concealed. Taking the above matters into consideration, I can only conclude that the sooner the Basaar is removed from its present central situation the better it will be for the future of the town. Should this proposal be received with approval and the means be forthcoming whereof to put it into execution it might be

might be of advantage to consider the possibility of establishing a municipalised non-residential bazaar for minor traders the tenants of whose stalls could take up their residence in an assigned location conveniently situated to their places of business. A scheme of this kind, no doubt, would demand the expenditure of a large amount of money but better control would be probably thereby secured for rules would be enforced and inspection insisted on. A privately owned bazaar, on the other hand, would not demand any outlay of public funds but its construction should be only permitted subject to very stringent conditions foremost of which should be a liability to inspection and denial of permission to sublet any portions of buildings whose plans have been approved of.

Before closing this report I should like to bring to notice the names of those who took part in the work of suppressing the outbreak or limiting its extension. Immediately that the township had been proclaimed an infected area a fumigation station was established at the Railway goods shed and Dr Lewinley placed in charge. Everything that left Nairobi by rail was inspected by him and subjected to a process of purification when such was considered desirable. In addition to this duty he had the further responsibility of issuing passes to all Asiatics and Africans desiring to leave the infected area. When not engaged in these labours he made it his business to follow up, as far as possible, every rumour which reached his ears concerning the existence of unreported cases of illness.

On Dr Robertson and his staff devolved the work of house to house inspection and rat extermination. Every rat burrow that could be located was either opened up and its inhabitants destroyed or else fumigated and then blocked up. The care of the sick as well as of the contacts also rested with him. As soon as any case of illness was diagnosed as Plague it was removed to the place set apart for its reception together with the other occupants of the house.

which letter was then closed and subjected to processes of cleaning.

To Dr Lumb and his staff at the Civil Hospital was assigned the task of inoculating all who presented themselves for that purpose and there is no doubt that the large numbers who thus received protection had the effect of limiting the manifestations of the disease as far as human beings were concerned.

Dr Hess at the Laboratory devoted his energies to the examination of the bodies of all rats sent to him for that purpose. As soon as the animals from a building were pronounced infested its inhabitants were immediately Haffkinized and the place searched for rat burrows. In some instances the houses were closed and the owner ordered to repair the floors and render them rat proof.

In addition to the above mentioned members of the Medical Staff, there were many belonging to other Departments who rendered valuable assistance in fact the entire official body resident in Nairobi were only too anxious to help in any way possible and one recalls with pleasure the valuable services rendered by the Acting Provincial Commissioner and his staff, as well as by the military, Police, Public works and Railway Departments. Dr Ribetre too, must not be forgotten for it was he who first brought news of the occurrence of a mortality among the rats in the Bazaar.

J. A. Havan

Nairobi,

28th October 1911.

Ag. Principal Medical Officer.

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19	Male	Asiatic (Hindoo)	Main St. Bombay	Subotic Plague	Left groin	Died
20	Male	African (Swirend)	Palace Lane	Subotic Plague	Right groin	Died
21	Male	Asiatic (Hindoo)	Pennance Road Main Road	Subotic Plague	Left groin	Died
22	Male	Asiatic (Hindoo)	...	Subotic Plague	Right side	Died
23	Male	Asiatic (Hindoo)	Main St. Bombay	Subotic Plague	Right groin	Cured
24	Male	Asiatic (Hindoo)	Maratha Shop Main St. Bombay	Subotic Plague	Left groin	Died
25	Male	Asiatic (Hindoo)	Main St. Bombay	Subotic Plague	Right groin	Cured
26	Male	Asiatic (Hindoo)	Main St. Bombay	Subotic Plague	Left groin	Died
27	Male	Asiatic (Hindoo)	Small New Street Main St. Bombay	Subotic Plague	Left groin	Died
28	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died

29	Male	Asiatic (Hindoo)	Maratha Shop Main St. Bombay	Subotic Plague	Left groin	Died
30	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
31	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
32	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
33	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
34	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
35	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
36	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
37	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
38	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
39	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
40	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
41	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
42	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
43	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
44	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
45	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
46	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
47	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
48	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
49	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died
50	Male	Asiatic (Hindoo)	...	Subotic Plague	Left groin	Died

51	Male	African (Kikuyu)	B.P.A. New Hill	Subotic Plague	Right groin	Died
52	Male	African (Kikuyu)	Oriental Press Victoria Street	Subotic Plague	Left Armpit	Cured
53	Male	African (Kikuyu)	River Road	Subotic Plague	Left groin	Cured
54	Male	African (Kikuyu)	Govt. Road	Subotic Plague	Right Armpit	Died
55	Male	African (Kikuyu)	Race Course Road	Subotic Plague	Right side of Neck	Died
56	Male	African (Kikuyu)	...	Subotic Plague	Left groin	Died
57	Male	African (Kikuyu)	...	Subotic Plague	Left groin	Died

column - negative or decomposed - came from the banner from badly infested buildings and had probably died of plague, but it is not possible to state so definitely.

Outbreak of rat plague at Ula.

On Aug. 21st. 9 rats were sent from Ula. One of these was found to be infested. On Aug. 23rd. 4 rats were sent from the same station all infested. On the 24th 1 rat spleen smear and on the 25th 10 rat spleen smears were received from Ula but all of them were negative. No further rats either infested or negative have been received from this station.

F.H. Ross
Bacteriologist

Oct. 6th 1911.

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date at Kisumu had reached ten, of which nine had proved fatal. The arrangements these had been made with the Fuel Porters' Shelters, the Cotton Ministry Lines, the Rice Landings and the Sailors' quarters.

The disease had manifested itself amongst the inhabitants of the island of Mombasa. Incidence of this particular section of the population was in the exception of that on those of the island villages, the disease had not been outbreak.

The disease of its presence was not forthcoming in the following districts: Mombasa, the Fuel Porters' Lines, the Cotton Ministry Lines, the Rice Landings and the Sailors' quarters, the total number of cases to date was thirteen.

It was remarkable that the disease was not reported in any of the several European forests. The occurrence of human cases at Ujale and close to a station in both of which districts infection had been reported in the previous year. It may be here observed that the several European villages located in or near the two latter districts were the subject of reports of a similar character.

About 1914-15 the authorities prepared invitations to a number of chiefs and other persons from various districts for the purpose of a tour of the Government. They were, unfortunately, compelled to leave their districts due to the continued prevalence of plague, a case of which had occurred in the vicinity of the Government station. In bringing up the total number of cases to date, the total is twelve.

In 1915, the Government authorities, in view of the further prevalence of the disease, decided to hold the Indian Bazaar. The date of the bazaar was fixed for the 1st of Hospital Assistant's name, the Kanjattu of Kisumu, the Raja, and the last bazaar.

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and the Peace Landings, there being the total number of cases on the 25th of June to twenty one, the rest to August.

On the 20th of the same month manifestations occurred in the Bazaar, in the Peace Landings, and among the Pier Workers, and, on the 1st of July, in the Indian Bazaar and the Russian Village. On the latter date, the total incidence, as recorded, was twenty three, the following, as follows, were:

The first group brought to light thirty-seven patients from the Bazaar and Contact cases; thus swelling the total of the first group to thirty-three cases with twenty six deaths. It was not possible to move evidence of an individual and prevent their being, respectively, made in their attempts into temporary hospital. The first group, proceeded with difficulty, being in search of materials, and the first of July the total incidence was increased to fifty, and the deaths to thirty eight.

About this time the total number of cases began to be noticeably fewer, as the 1st of July, the total number of cases was returned as fifty four, as against thirty to thirty eight only an addition of three since the 1st.

During the month of August the total number of cases and deaths recorded in the Indian Bazaar, the Russian Village and the Peace Landings, was 40, of which 10 were returned as a total of 50, and 10 were returned as a total of 60 of the total incidence of 110. The total number of cases recorded here is 110, and the total number of deaths is 60.

During the month of August the total number of cases of the disease were noticed and, where possible, were recorded and recorded.

A considerable number of cases of the disease were noticed in the Indian Bazaar from which latter place it became diffused.

The statistics

Locality.	Number of Cases.
Old Kisumu Indian Bazaar	1.
Old Kisumu Swahili Location	2.
S.A.M.'s Quarters	1.
Handi Location	1.
Pier Porters' lines	2.
Conceivancy Landai	1.
Arabia Location	50.
Cattle Boma A.A. Aisan	1.
Swahili Location	2.
Office Boys' Boma	3.
Small Location	1.
Malena's Boma (near town)	1.

(f). No. of persons vaccinated 6,898.

The measures instituted for the prevention of the spread of the disease were as follows:-

(a). The immigration with raffine's prophylactic of all was made to avail themselves of that measure of protection. The manifestation in the Arab Boma village was rapidly suppressed owing to it. The success of this measure of defence was so all the more necessary that the exit-lines should be carefully observed during seasons of plague prevalence as, where such manifestations are alone killed on, restrictions may be withdrawn with the absence of incidence and the disease thus have further opportunity of being carried elsewhere.

(b). During the year nearly nine thousand rats were caught in the locality; examined some of whom bodies gave useful indications as to the areas where preventive insulation could be best applied.

(c). Settlements and contacts were always isolated and their dwellings cleaned.

(d). Attempts were made to get the inhabitants of the various localities to keep closed the exit doors of their dwellings. These, however, met with but little success except as far as the Police lines were concerned.

(e). Persons & animals leaving the infected area were, prior to their departure, kept under observation for a short period.

affiliated

caffkinised, and their effects disinfected.

(f). All goods leaving the area were inspected, and, if necessary, fumigated.

and (g). The area surrounding the Pier and Goods sheds was isolated and the workers therein inoculated. The Lake Steamers provided their crews with cable net guards and pushed off at night.

From the above it will be seen that the precautions taken to prevent the spread of the disease were as complete as possible. The absence of a sanitary station led to a certain amount of epidemic occurring in the precincts of the Royal Hospital. The precautions which, in any epidemic, is undesirable. It is given in consideration that other institutions of the kind in India considered and the instructions may be seen appended.

With the close of the epidemic the Government is impelled to consider the probability of future occurrences in the same vicinity. It is, however, not at all clear that the disease will be finally brought under control. The population of the district, increased with numerous small, and generally, un-protected dwellings could be easily re-infecting the district. A campaign of destructive sanitation, and the removal of the insanitary dwellings, may be necessary. The Government and the managers of the district are to be congratulated for their attention to the subject. It is, however, a matter of great help of a valuable character to have the Government to be, so well as, necessary, to have local sanitary authorities to act popularly in the district and to gradually place definite responsibilities on the heads of the various locations. It should be possible for the authorities of each quarter to be periodically examined by these in charge and the burrows found in the course of such an examination and the burrows destroyed. I understand that at the beginning of the

...

7.

outbreak under consideration, the police adopted this course with the happiest results. The storing in cement receptacles of feed intended for human or other use should be also encouraged in every way. Hand in hand with these should go the remodeling of the Indian Bazaar and the municipalisation of feed storage as an alternative to its preservation in covered bins and tanks. The former is now rendered possible by the announcement of the Land Office that the site occupied by the present centre is regarded as part of the permanent Bazaar area. Under these circumstances a new, feeling some confidence in the future, may be induced to erect solid buildings. With the attainment of such a state, it would then be practicable to penalise those who ~~xxxxxxx~~ allowed feed stuffs to lie strewn about the ground.

It would be further of advantage were the Railway Authorities to have a fund reserved of labour so that on occasions of epidemic prevalence, the only carts should not be delayed at the goods sheds and ~~xxxx~~.

While these matters are being developed the Sanitary Staff will, of course, continue the lecture of rat destruction whether by traps, poisoning or virus. Considerable quantities of the rats have been caught within the past couple of years and it is their systematic examination which enabled us to detect the rabid ~~xxxx~~ of the ~~xxxx~~ outbreak. The routine sanitary movement has been so very maintained up to the present and is to be continued vigorously. Means for irritating proceedings involving inspection and investigation should be always at hand thus enabling us to be at ineffective foci immediately that the disease is observed to become acute among rats. I consider that the outlook for Alexandra district is hopeful, an opinion which I base on my knowledge of the fact that the administration of that Township is vigorous and that its population is predominantly African and, therefore, malleable.

W. H. ...
5/10/01

ENCLOSURE

In Dispatch No. 85 of

6/2/1923

A GROUP OF SHANTIES IN RIVER ROAD.

ENCLOSURE

This photograph illustrates the manner in which plots have been encumbered with buildings. Through the sanitary passage on the right one catches a glimpse of a house in Sixth Avenue, thus showing how close this insanitary area is to a central thoroughfare.

A view in SANITARY Lane.

(Observe the proximity of the
blackster's shop to the latrine-
bucket receptacle ramping which
latter is a native restaurant.)

ENCLOSURE

In Progress

1941

900 East



~~1/2~~

DRAFT.

Vol. No. 22

East

007

23 Apr. 1894

MINUTE.

- Mr. A. C. 27
- Mr. Fiddian 22
- Mr. Butler 22
- Mr. G. Fiddes.
- Mr. H. Just.
- Mr. J. Anderson.
- Lord Emmott.
- Mr. Hancock.

Have the honor to acknowledge the receipt of Mr Percy Germond's despatch No 805 of the 30th of Feb. containing two reports by the acting P. M. O. on the outbreak of plague last year at Haikou and Kisuang showing the history of the epidemic and its incidence by population & locality.

2. Have to read the reports with much interest

and I have to express
my appreciation of
the good work which
you have done
in really getting
the work done.