Annual medical and sanitary report / Swaziland.

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For the Year ended
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S W A Z I L A N D.

ANNUAL MEDICAL AND SANITARY REPORT

for the

YEAR ENDED 31st DECEMBER 1934.

1. ADMINISTRATION.

(a) STAFF.

EUROPEAN.

1 Principal Medical Officer.

2 Medical Officers.

2 Doctors (subsidized).

3 Hospital Assistants and Dispensers.

5 Female Nurses.

NATIVE.

7 Male Nurses.

8 Female Nurses.

2 Cooks.

2 Laundresses.

3 Male Orderlies.

(b) PROCLAMATIONS AFFECTING PUBLIC HEALTH ENACTED DURING THE YEAR.

Nil.

(c) FINANCIAL.

The total expenditure on Medical and Sanitary Services was :- £13,827. 8. 8

The total revenue received was :- £ 510. 18. 2

The proportion of Medical Expenditure to the total revenue of the territory was :- 1 to 11.53

II. PUBLIC HEALTH.

(a) GENERAL REMARKS.

It can safely be said that 1934 was a healthy year. There was no serious outbreak of infectious disease, the annual outbreak of Aestivo-autumnal malaria was much less severe than that of the two previous years and the incidence of general diseases was not above the average.

(1) GENERAL DISEASES.

The outstanding feature of chest complaints is the amount of Asthma; the Medical Officer at Hlatikulu did some investigations along the line that malaria might be to some extent responsible for the prevalence of this complaint, and when he found parasites in the blood he often got good results from the administration of quinine. Unfortunately, Asthma is quite as common in the non-malarial highlands as it is in the malarial areas, probably more common, so that malaria alone cannot be a very potent factor in causing the trouble.

Bronchitis is fairly prevalent in the cold and wet parts of the country and here too a few cases of pneumonia occur, mostly in the winter, but this is far from being a frequent disease. Pleurisy is comparatively rare.

Chronic rheumatism is very common, but rheumatic fever is seldom seen, so there is little organic cardiac trouble due to this.

The most common disease is gastro-enteritis due to improper food, poor cooking and lack of cleanliness. Judging from the number of cases seen at the hospitals it was not as prevalent as usual, but still far too many cases occurred. It is of course found chiefly in native infants and young children but it is common in adults. Appendicitis and Gastric or duodenal ulcers are very rare amongst the natives but gastritis is very common. Kidney troubles, especially pyelitis are fairly common. Schistosomiasis is the cause of many of these. Epilepsy, as I have often remarked, is exceedingly prevalent; the Medical Officer at Hlatikulu refers to its probable association with the amount of taeniasis; this relationship has long been known in South Africa. Although cases of severe scurvy are rare there can be no doubt that a considerable proportion of the native population suffers from a deficiency of Vitamin C, especially towards the end of winter and in the spring. Diabetes is rare amongst the Swazis and the same applies to cancer.

(2) COMMUNICABLE DISEASES.

Mosquito or Insect-borne.

The chief of these is malaria. The annual epidemic was much less severe than that of either of the two preceding years and very few deaths resulted from it. It was confined to the areas where it is normally expected to occur and did not spread to any that are normally malaria free. Its occasional spread to these areas always causes a high mortality such as we had in 1932. There were more cases than usual of what is known in South Africa as "tick-bite fever". This is a Rickettsia disease of the typhus type. It is caused by the bite of the larval forms of certain ticks. Its usual course is a moderate fever of about ten days duration but in a European case it took a very severe form with a temperature up to 105° and a typhus like rash. His blood gave the serological reactions for tick-bite fever.

(3) INFECTIOUS DISEASES.

Nineteen cases of enteric were reported from the Southern District, thirteen from the Central and only one from the Northern. Thirty-three in the whole of the territory is not a large number; it does not represent the actual number of cases, but means of communication have improved so much and the Medical Service has been so extended that many cases are now reached which a few years ago would never have been heard of, so that it certainly represents a large proportion of the total number. There was no epidemic of the disease in any part of the country. The comparative freedom of the Northern District is due to the fact that it is largely hilly country and the natives live mostly in the valleys lying between the hills. Each valley has a clear running stream and the number of kraals drawing their water supply from each stream is small; also no part of the north is densely populated, so the kraals are more widely separated and visitors to each kraal are fewer so the chance of an infected kraal spreading the disease either by means of drinking water or by flies is less than in most other parts of the country.

The incidence of amoebic dysentery remains about the same but it is certain that hospital returns do not give an adequate indication of the prevalence of the disease. The Medical Officer of the Southern District at one time made a microscopic examination of a series of cases complaining of abdominal symptoms whether there was a history of dysentery or not, and found the Entamoeba Coli present in quite a number of cases.

The number of cases of Leprosy remains about the same. Diphtheria is rare but two proved cases were admitted into the Hlatikulu Hospital. There may have been more cases in the Southern district as the Medical Officer states that he had reports from a few areas in his district of native children dying from throat complaints.

There is no reason to suppose that there were more cases of any form of tuberculosis than in the previous year. There was a small increase in the number of cases treated in the various hospitals but this was not out of proportion to the increase in the total number of patients.

An increase in the incidence of syphilis is reported from the Central and Southern Districts, and unfortunately this increase is caused by a spread of the disease to the rural areas. There is undoubtedly a diminution of the disease in the Northern District, this is partly due to the fact that it is a rural district in which the disease is less likely to spread, but probably the real reason is that a venereal disease clinic was established here some years before one came into being in any other part of the country. I think this is the real explanation of the decrease in the number of both out-patient and inpatient syphilitics at the Mbabane hospital. Gonorrhoea is very common indeed but there is a tendency shared by much more civilized communities, to regard this as a minor complaint and to resort to quacks, herbalists, witch doctors and all sorts of unqualified people for treatment so that only a very small percentage of the cases is seen at the hospitals.

There was an epidemic of measles during the year. It started in the extreme North and gradually spread to the Central District. The disease itself was not more serious than usual but in many cases it was followed by gastro-enteritis which caused far more deaths than the original disease.

The epidemic of whooping-cough which had existed for fully two years died out during the year. A few cases of Alastrim were reported from the Central District.

4. HELMINTHIC DISEASES.

Taeniasis and Ascariasis are very common. Schistosomiasis Haematobium is common at all altitudes under 3,500 feet. It is not found in any part of the country above that altitude, in fact there is very little above 3,000 feet, although in adjoining areas of the Transvaal it is very prevalent in areas attaining an altitude of just over 4,000 feet. As a result of persistent treatment there is very little of the disease amongst European children, but repeated warnings do not prevent them from bathing in streams that are known to be infected, so many of them have become re-infected and have had more than one course of treatment.

Many natives undergo treatment but there are so many infected streams that fresh infections and re-infections are constantly occurring and there is no appreciable diminution in the number of cases. Two cases of Schistosomiasis Mansom were found in the Central District.

Sporadic cases of sandworm infection occur all over the low and middle veld.

VITAL STATISTICS.

1. General Native Population.

Native (estimated)	125,920
Eurafrican (estimated)..	770
Indian (estimated)	10

Registration is not compulsory and no figures can be given about birth and death rates.

2. General European Population (estimated)	2,833
Total European births...	78
Total European deaths...	20

3. The health of both European and Native Officials was excellent. No special disease was prevalent amongst them and no special factor influenced their health.

4. European Officials.

Table showing the Sick, Invaliding, and Death Rates of European Officials.

	1932	1933	1934
Total number of officials resident ...	96	95	97
Average number resident	94	93	95
Total number on sick leave.	12	8	11
Total No. of days of sick leave granted.	381	267	365
Average daily No. on sick list	1.04	0.73	1
Percentage of sick to average No. resident	1.1	0.77	1.05
Average number of days on sick list for each patient	31.75	33.28	33.18
Average sick time to each resident ...	3.97	2.81	3.84
Total number invalided	Nil	Nil	Nil
Percentage of invaliding to total residents	Nil	Nil	Nil
Total deaths	-	1	-
Percentage of deaths to total residents	-	1.05	-
Percentage of deaths to total average number of residents	-	1.07	-
Number of cases of sickness contracted away from residence	2	Nil	Nil

5. Native Officials.

Table showing the Sick, Invaliding and Death Rates of Native Officials.

	1932	1933	1934
Total number of residents...	149	148	145
Average number resident	140	142	140
Total number on sick leave..	58	67	93
Total number of days of sick leave granted	1106	828	628
Average daily number on sick list	3.03	2.27	1.71
Percentage of sick to average number resident	2.16	1.53	1.22
Average number of days of sick leave for each patient	19.07	12.36	6.75
Average sick time to each resident. ...	7.42	5.59	4.33
Total number invalided	-	-	-
Percentage of invaliding to total residents	-	-	-
Total deaths	1	-	-
Percentage of deaths to total residents ..	.67	-	-
Percentage of deaths to average number resident	.71	-	-
Number of cases of sickness contracted away from residence.	1	-	-

III. - HYGIENE AND SANITATION.

(a) GENERAL REVIEW OF WORK DONE AND PROGRESS MADE.

MOSQUITO AND INSECT-BORNE DISEASES.

Practically the only insect-borne disease is Malaria. This was not severe during the year. It is dealt with by free distribution of quinine to the natives through their Chiefs, Missionaries, police posts, schools etc., in the affected area. This free issue of quinine was only about 20% of the totals of the two preceding years.

There is no Trypanosomiasis, Yellow Fever, Filariasis or Typhus.

EPIDEMIC DISEASES.

The only serious epidemic disease which ever affects the country is smallpox. There is no plague or cholera. It was hoped that some vaccination might be done during the year, but staff changes disorganized the service considerably and this could not be managed. The water-borne diseases are well under control in the towns but it is impossible to adopt general preventive measures amongst the natives. Fortunately their kraals are usually well apart and only a few get their water from each stream or spring, so these diseases are not severely prevalent.

The Tuberculosis presents a different problem. There is no doubt this disease is slowly but surely on the increase and there is no provision whatever for methods of dealing with it; a sanatorium should be established in the country; many young adults now affected with the disease in an early stage would be saved, their removal from the kraals would diminish the risk of the other inhabitants becoming infected and the cured individuals would be an example to all of the effects of good food, fresh air and general hygiene in the treatment and prevention of the disease.

Another disease against which no measures are taken is leprosy, and there must be at least 100 lepers in the territory. A leper settlement alone would not provide enough work for a whole time European Medical Officer and staff, but a combined sanatorium and leper colony would keep them fully occupied

A small settlement was started in the Mankaiana district for the few Swazi lepers who had been sent to Pretoria for treatment some years before. Some had recovered and had been repatriated. The others were very dissatisfied with their condition and were brought back. The Hospital Assistant at Mankaiana visits them at least once a week and gives them injections.

HELMINTHIC DISEASES.

Schistosomiasis is the most serious helminthic disease. Bremersdorp used to be one of the worst centres of infection but the installation of a proper water supply is rapidly diminishing the number of cases at any rate amongst European children. In the country areas it is quite impossible to control it, the true nature of the disease is not believed by the natives and no warnings or threats will prevent the children from bathing in infected pools in the hot summer days.

(b) GENERAL MEASURES OF SANITATION.

Sewage disposal in the towns is by the bucket system, and is, on the whole, satisfactory. The buckets are emptied every night, the contents being placed in trenches in a place approved by the Medical Officer.

The Medical Officer of the Southern District considers that the disposal pits at Hlatikulu are in an unsuitable position as there is a danger that they might contaminate a stream which supplies water for natives living further down its course. He recommends another site which he considers quite safe. He also suggests that native latrines should be erected at intervals along the bus routes especially at Dwaleni and Goedgegun. This excellent idea might be applied to the Central and Northern districts too. The hospital and some of the larger hotels and private houses have septic tanks. At farm houses and other isolated buildings the usual system is the pit latrine, it works very well when the pit is deep enough and well covered in, but too often it is defective in both respects. The sanitary arrangements of many of the poor white families in the south are extremely unsatisfactory.

Refuse is collected regularly, deposited in pits and periodically burned.

All the townships are situated on ground with good natural drainage, so that there is no necessity for dealing with accumulations of either surface or subsoil water.

Bremersdorp is the only place with a really satisfactory water supply. Frequent references have been made to the Mbabane supply; it is conveyed in an open furrow for 4½ miles, it is unfiltered, and bacteriological analysis has proved that it is quite unfit for human consumption. The European section of the population never uses it except for watering gardens; their water for domestic purposes is drawn from three springs in different parts of the township. The water from these and from the supply to the Native Location has been tested and in every case found to be remarkably free from bacteriological impurities. The Medical Officer of the Southern District reports that the Hlatikulu and Goedgegun supplies are pure but are inadequate, he considers that the spring from which the Hlatikulu supply is drawn should be sealed and that some of the water now running to waste be harnessed to augment the present reservoir supply. The Stegi supply is eminently unsatisfactory. At the best of times water is scarce along the whole of the plateau on the top of the Lebombo range and the sequal to ten consecutive years of comparative drought is that the springs have dried up and in Stegi itself there has not been enough rain to keep the tanks and underground cement reservoirs supplied, so water has to be carted from a shallow well in the sandy bed of a dry stream, and the well is open to any infection that may be washed into the stream when rain does fall.

When we come to the question of sanitary arrangements, water supplies etc., for natives we soon find that nothing can be done. If they lived in towns or villages of some size, concerted measures might be taken, but fortunately most of them still live under the primitive conditions their ancestors were accustomed to; that is in kraals well isolated from each other and rarely containing more than a dozen inmates; under these circumstances infection is much less likely to be either acquired or spread. A standard of civilization has not yet been reached which would enable the benefits of sanitation and water supply to be appreciated at the kraal. In addition the Swazis are a consertive race so I am afraid it will be a long time before we see modern sanitary conveniences in general use.

There are no offensive trades, and the clearing of bush and

undergrowth is unnecessary. The sanitary arrangements in the towns are under the control of the Town Inspectors, who make regular inspections.

(c) SCHOOL HYGIENE.

A medical report on all the European schools and school children was made during the year. The universal defect was dental caries, a very high percentage being reported from every school.

In the central District, especially at Stegi, there was a considerable number of cases of enlarged tonsils. At Bremersdorp where Schistosomiasis is very prevalent no child who had been resident in thetown for at least a year was found to have this infection, thanks to the efficient treatment by the Medical Officers of the Raleigh Fitkin Memorial hospital, also no child resident in the district for the same time had an enlarged spleen.

In the Southern District the amount of dental caries was even greater while in some parts, notably Hluti, many children had enlarged spleens and secondary anaemia due to chronic malaria.

There is no dentist in the territory and no school is nearer a dentist than 24 miles and some of them are as far as 100 miles away, so that the teeth of the vast majority of the children receive no attention whatever, and in the course of time just decay away, causing a lot of pain and ill health with consequent underdevelopment and lack of ability to concentrate during the years they are receiving their education, and chronic bad health in the ensuing years from inability to masticate food properly. I consider one of the greatest needs of the territory is a resident dentist.

(d) LABOUR CONDITIONS.

The Administration and the Tin Mines are the only employers of native labour on a fairly large scale. As the Tin Mines are alluvial there is no underground mining and the work is healthy. The Public Works Department of the Administration employs fairly large gangs on public works. The work is healthy except in the low veld where malaria is endemic; only natives who live in those parts work there and as they have acquired a considerable degree of immunity they do not suffer much.

There are no estates, factories or plantations. The great employers of Swazi labour are the Mines in the Union of South Africa - over these we have no control.

(e) HOUSING AND TOWN PLANNING.

Bremersdorp is the only place where new buildings were erected during the year. The fact that it is the Swaziland centre of the Road Motor Service of the Union Department of Railways has led to a large influx of Europeans employed in that service. New houses have had to be built for them and the increased trade has led to the openings of new shops to supply the demands of these people; the local Village Advisory Board sees that no building is allowed to go up which does not comply with regulations.

Although there was no building in any of the other townships, the Village Advisory Boards see that the towns are kept in good order, in Mbabane especially serious attempts have been made to beautify the town through the bestowal of great care on the public gardens and the

replacement of the old wooden electric light poles on the side of the street by a line of metal standards in a garden strip down the middle of the main street.

(f) FOOD IN RELATION TO HEALTH AND DISEASE.

The outstanding feature of the diet of the natives is the fact that it consists far too much of maize. Often for days on end maize porridge is the only food consumed. Pumpkins are practically the only food vegetable grown. Spinach is made from the tender shoots of certain herbs in the spring. Underground beans are grown but not to nearly a sufficient extent, and as little meat is consumed there is a shortage of proteid in the diet. Very few natives plant fruit trees. Apart from maize, there is very little imported food.

Cases of marked scurvy appear every year. They are not in great numbers but undoubtedly a large percentage of the population is on the verge of scurvy in the Spring. The Medical Officer of the Southern District makes the following comment on this :-

"The commonest form of the disease encountered takes the form of sub-
"cutaneous abscesses and occurs as often among the native adults as
"among native children. These cases respond at once to treatment with
"orange or tomato juice".

A few cases of pellagra occur every year, but they never seem to reach a serious stage, and it is many years since a case accompanied by mental symptoms was seen.

An up to date abattoir was erected in Bremersdorp and a similar one should be put up in Mbabane. The slaughtering arrangements there are very primitive. A moderate charge for each animal slaughtered would amply repay sinking fund and interest on a loan for this purpose.

2. MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION.

Beyond the teaching of elementary hygiene in the schools, very little has been done in the past. Lectures to school teachers do a little good, but lectures to ordinary natives are a waste of time. The training of native nurses and dispensers to which I shall refer in section 5 should eventually help in this line.

3. TRAINING OF SANITARY PERSONNEL.

The above remarks regarding the training of native nurses and dispensers for work amongst their own people apply here.

4. RECOMMENDATIONS FOR FUTURE WORK.

It was found impossible to carry out vaccination during the year. It is sincerely hoped that this will be attended to in the near future.

Beyond free and adequate distribution of quinine, nothing has been done to deal with the Malaria problem. There are endemic foci on the borders of the bushveld from which the disease spreads out to the middle veld especially up the river valleys, nearly every Autumn.

I feel certain that something might be done to diminish the amount of fever in these endemic areas by dealing with the breeding places of Anopheles Funestus. If the amount of fever here were gradually diminished its epidemic spread to surrounding areas in the autumn would be at least retarded and in many years altogether prevented. Schistosomiasis is very common indeed below the 3,000 feet level; it is, as I have explained, impossible to prevent it, but it is the one disease which would lend itself to treatment by a travelling dispensary in the winter months. The Swazis do not attach enough importance to the disease to make them travel long distances for treatment at a hospital, but I have no doubt they would willingly attend a dispensary to which they would only have to travel a few miles.

The Mbabane water supply is a serious public danger, a proper system should be installed. The Hlatikulu one ought to be augmented. A few more Medical Outposts should be established but the difficulties of staffing them limits the number very rigidly.

5. MATERNITY AND CHILD WELFARE.

The only place at which there is a Maternity and Child Welfare Clinic with a staff devoted entirely to that work is Bremersdorp, where there is one in connection with the Raleigh Fitkin Memorial Hospital. At the Government hospitals, dispensaries etc., it can be done only as a part of the ordinary day's work. That the native women appreciate the maternal side is shown by the yearly increasing number of those who come to hospital for their confinements, and those who during the ante-natal period come for examination and advice; this applies especially to those who have had syphilis.

Child Welfare work is more difficult; practically all the native children are breast-fed, but there is a pernicious national custom, followed by nearly every mother, of supplementing this from birth with thin sour porridge. This with the flies and the generally insanitary conditions in and about the kraal are the causes of so much sickness - particularly enteritis - in the first two years of life. The seriousness of the position is shown by the following figures gathered at the Bremersdorp Welfare Centre :-

Total number of pregnancies (202 mothers)	681
" number of abortions	72
" " " still-births	54
" " died during first year	147
" " died during second and third years	38
" " died during fourth and fifth years	15
" " living	354

IV. HOSPITALS, DISPENSARIES, AND VENEREAL CLINICS.

The work done at all the hospitals again exceeded that of the previous year. This was especially noticeable at the Hlatikulu hospital. The Medical Officer there attributes this to three factors:-

1. The closing down of the Mahamba Mission Hospital in May.

2. The presence of clinics under trained European nurses at Goedgegun and Mahamba from which cases are constantly being sent into hospital that previously would not have come under observation at all.

3. An increasing willingness on the part of natives to avail themselves of hospital treatment.

At one time there were 42 native inpatients although there are only 25 beds, and at another time 9 European patients although there are only 3 beds for Europeans. On many occasions tents had to be put in the hospital grounds for the accommodation of patients. Funds have been provided from the Colonial Development Fund for extensions to the hospital.

Work began on the new nurses' quarters at the Mbabane hospital towards the end of the year; when the building is completed, two badly needed rooms in the hospital will be set free for patients and when the new block comprising dispensary, office and store-rooms is finished, two more will be set free for the same purpose.

The busiest of all the hospitals is the Raleigh Fitkin Memorial hospital at Bremersdorp. It had the largest number of both inpatients and outpatients', the largest Venereal Disease Clinic, a very busy Maternal and Child Welfare branch and altogether does most invaluable work in the Centre and East of the Country.

Amongst inpatients the most common ailments treated were malaria, syphilis, gynoecological troubles, gastro-intestinal disorders and injuries of various kinds. Amongst the out-patients the prevalent complaints were gynoecological troubles, gastro-intestinal disorders, skin diseases, especially scabies in children, chronic rheumatism, mild chest complaints, venereal diseases and minor injuries.

The Mankaiana dispensary continues to do excellent work. Natives suffering from Schistosomiasis and syphilis who would not go thirty or forty miles for treatment at Mbabane or Bremersdorp are attended to there.

A dispensary was opened at Goedgegun in the Southern district and put in charge of a European nurse, who in addition to a wide experience of all classes of nursing had the great asset of perfect knowledge of English, Afrikaans and Swazi languages. It has proved successful to an extent that was never anticipated.

Another dispensary was started at Mahamba in place of the Wesleyan Mission Hospital which unfortunately had to close down. The Administration was fortunate in being able to retain, at any rate for a time, the services of the matron of the hospital, who was put in charge of the dispensary. Her extraordinary ability in the training of coloured and native nurses has now no chance of further demonstration, but in its place she has taken up Maternity and Child Welfare work, and started a class for the instruction of native women who attend to confinements in the kraals. She reports that three woman attended the first class, and at the fifth the number was fourteen.

Their keenness and intelligence was amazing. Only one could read or write, but all could and did ask intelligent questions, and they allowed no point to pass until all understood it. Home nursing and first aid classes were also started for adult women and senior school girls.

These two dispensaries have been a great help to the Medical Officer of the Southern district who is very over-worked. In his area is fully two thirds of the European and about two fifths of the native population, and he is the only doctor, whereas there are five in the rest of the territory. One of these is a non-subsidised Mission doctor. As soon as a house is built at Hluti he will receive much needed help from the presence of an additional Medical Officer there.

During the year an innovation of a somewhat experimental nature was introduced in the form of medical outposts in charge of natives in native areas far removed from hospitals or dispensaries. Two of them were opened during the year, and a third one was completed and ready for opening early in 1935. To a certain extent they have proved successful, the sick in surrounding kraals are visited and those who are seriously ill are sent to the nearest hospital; instruction in the proper feeding and care of children is given and advice in regard to general hygiene, but that the natives expect more is shown by the fact that there is a very distinct tendency for the sick who can manage it to wait for the fortnightly visit of a medical officer. As at the hospitals, a shilling is charged for advice and medicine and there is no doubt that the natives are of the opinion that a shilling is too much for the help received, consequently when at all possible they wait for the visit of a medical officer,who usually sees more people in an hour or so than are seen by the dispenser or nurse in charge of the post in the course of a week.

So although these outposts are to a certain extent doing valuable work, I feel certain that the natives will never acquire full confidence in them until they are manned by men of a much higher standard of general education, and particularly a more extensive knowledge of General Biology, of Bacteriology, of the Anatomy and Physiology of the healthy human being, and the Pathology of the diseased one, so that they can give reasons for their advice and treatment, instead of the more unexplained rule of thumb measured which are all that can be adopted by the present occupants of the posts.

The Venereal clinics unfortunately continue to do an increasing amount of work. Fortunately this does not apply to the Mbabane area. I am certain that the decrease in the number of cases there reflects a decrease in the incidence of the disease in the Northern district. The Medical Officer of the Southern District reports an increase in the attendances at the Hlatikulu, Goedgegun and Mahamba clinics. He considers, however, that these attendances represent only a small percentage of the cases and advocates stronger measures to get control of syphilis in that district.

The largest number of treated cases came from the Central district, especially from its Eastern side. The officials in charge of that part of the territory consider that the high incidence rate is maintained by the large influx of mine labourers from neighbouring territories on their way to and from their work in the Transvaal gold mines.

The end of this section seems a suitable time to refer to the scheme for the training of native nurses - men and women - in the three Protectorates, which should start early in 1935. This is made

possible by the munficent grant of £10,000 made by the Gold Producers Committee of the Witwatersrand Chamber of Mines to Sir Herbert Stanley for the furtherance of medical work amongst the natives of the Protectorates. With the £2,000 which is Swaziland's share of this grant, it is proposed to give native men and women four or five years training in elementary Anatomy and Physiology, nursing, hygiene, maternal and child welfare work etc., and then send them out to take charge of Medical Outposts, do nursing in the various hospitals and generally assist the Authorities in any way that may be considered advisable. They should be of immense help to their people.

V. PRISONS AND ASYLUMS.

Mental cases requiring institutional treatment are sent to the Union. At present there are 25 natives and three Europeans in institutions there, and as the natives cost 2/6d per day and the Europeans 4/- per day, their maintenance is a big item in the medical expenditure of the territory.

The health of the prisoners was excellent, but some of the gaols are very overcrowded. This applies to Mbabane and Stegi especially, though at the latter place extra cells were built and the cooking and sanitary arrangements much improved during the year.

Formerly prisoners with a bad record or with a large number of convictions were sent to gaols in the Union. This practice has now ceased and these men are now all kept at Mbabane, and though every effort is made to keep them from coming in contact with the ordinary prisoners, the accommodation is so limited that complete segregation is quite impossible. A separate building for this class of convict is urgently required.

VI. METEOROLOGICAL.

The records for Mbabane in the Northern District and Kubuta in the Southern District are to be found in Table IV.

TABLE I.

Dr. R. Jamison	Principal Medical Officer.
Dr. H. Heydenreich	Medical Officer.
Dr. G. W. Brammer	Medical Officer.
Dr. P. W. Esterhuysen	Temporary Medical Officer.

SUBSIDIZED DOCTORS.

Dr. D. Hynd.	Bremersdorp.
Dr. N. Downes	Mahamba.

PRINCIPAL MEMBERS OF THE SUBORDINATE STAFF.

Mr. H. R. Barnard	Hospital Assistant & Dispenser.
Mr. A. G. Lunnis	" " "
Mr. C. B. Hands	" " "
Mrs. A. Rose	Nurse.
Miss E. E. H. Kuhn	"
Miss A. D. Kielblock	"
Miss D. H. Coring	"
Miss M. McCorkindale	"
Miss D. Swarbreck	"
Miss L. Vialls	"

SUBSIDIZED.

Nurse in charge of the Mission Dispensary at Stegi.

Nurse in charge of the Mission Dispensary at Pigg's Peak.

Nurse in charge of the Mission Dispensary at Mahamba.

NATIVE STAFF.

7 Male Nurses. 8 Female Nurses

PRINCIPAL CHANGES IN STAFF.

Dr. G.W. Brammer was appointed to the service and stationed at Mbabane, Dr. H. Heydenreich, Medical Officer of the Southern District, resigned, and Dr. Brammer was sent to take his place. Dr. P. W. Esterhuysen was taken on as temporary Medical Officer in place of Dr. Brammer. Dr. Nellie Downes left the country when the Mahamba Mission Hospital closed down in May.

Nurse Kielblock left and her place was taken by Nurse Swarbreck who left in December and was succeeded by Nurse Vialls. Miss McCorkindale was appointed to take charge of the Goedgegun dispensary and act as District Nurse. Miss Bannister, who had been Matron of the Mahamba hospital remained after the hospital closed down and took charge of the Mahamba dispensary.

TABLE II.

FINANCIAL.

Expenditure :-

Personal Emoluments	£6,749. 5. 8
Travelling Expenses	£ 845.16. 5
Maintenance of Patients	£5,828. 0. 2
Equipment for Hospitals	£ 359. 2. 9
Uniforms for Native Staff	£ 45. 3. 8
	£13,827. 8. 8

Revenue :-

Total Receipts	£ 510.18. 2

TABLE III.

Cannot be completed as the only records are those of the births and deaths of Europeans.

TABLE IV.

Meteorological Return for the year 1934.

Station - MBABANE.

Long. 31°09"; Lat. 26°19"; Alt. 3,800 Feet.

	Temperature.			Rainfall.
	Max.	Min.	Mean.	Inches.
January	76.8	59.8	68.3	15.30
February.	74.9	57.4	66.2	5.19
March	75.8	58.3	67.1	7.20
April	75.4	51.8	63.6	4.69
May.	73.5	44.9	59.2	1.30
June	63.8	43.8	53.8	2.67
July	66.8	42.5	54.7	1.46
August	73.3	47.0	60.2	2.09
September	72.2	45.7	59.0	1.68
October	76.0	51.0	63.5	3.03
November.	74.0	55.7	64.9	6.35
December.	75.0	56.7	65.9	8.61
				59.57

Station - KUBUTA.

Long. 31°29"; Lat. 26°53"; Alt. 2,300 Feet.

	Temperature.			Rainfall.
	Max.	Min.	Mean.	Inches.
January	81.1	66.0	73.6	4.42
February	83.4	64.4	73.9	1.08
March	81.6	64.6	73.1	5.49
April	79.3	62.2	70.8	0.66
May	77.0	57.2	67.1	0.56
June	71.8	52.7	62.3	0.61
July	71.0	50.7	60.9	1.30
August.	74.7	56.0	65.4	2.90
September	77.8	55.2	66.5	0.73
October	83.1	59.4	71.3	0.03
November	81.7	63.6	72.7	1.36
December	84.7	63.2	74.0	5.59
				24.73

TABLE V.

GOVERNMENT HOSPITAL, MBABANE.

Return of Diseases and Deaths (Inpatients) for the year 1934.

Diseases.	Remaining in Hospital at end of year 1933	Yearly Totals: Admissions	Yearly Totals: Deaths	Total Cases treated during year	Remaining in Hospital at end of year
I. EPIDEMIC, ENDEMIC and INFECTIOUS DISEASES.					
1. (a) Typhoid Fever . . .	-	1	-	1	1
2. Typhus-like diseases .	-	1	-	1	-
5. Malaria	5	47	1	52	1
7. Measles	-	4	-	4	-
9. Whooping Cough. . .	-	2	-	2	-
11. Influenza. . . .	-	9	-	9	-
16. Dysentery (a) Amoebic .	1	7	-	8	1
20. Leprosy	-	2	-	2	-
31. Tuberculosis, Pulmonary .	-	12	3	12	2
34. Tuberculosis of Vertebral Column	-	1	-	1	-
35. Tuberculosis of Bones and Joints	-	7	-	7	-
36. Tuberculosis of other organs . . . . (c) Lymphatic system .	-	2	-	2	1
38. Syphilis	9	79	1	88	4
40. A. Gonorrhoea. . .	-	3	-	3	-
Carried forward	15	177	5	192	10

TABLE V. MBABANE HOSPITAL - Continued.

Diseases	Remaining in Hospital at end of year 1933	Yearly Totals: Admissions	Yearly Totals: Deaths	Total cases treated during year	Remaining in Hospital at end of year
Brought forward	15 -	177	5	192	10
II. GENERAL DISEASES NOT MENTIONED ABOVE.					
50. Tumours, non-malignant .	-	13	-	13	1
51. Rheumatism, acute . .	1	3	-	4	1
52. Rheumatism, chronic. .	2	5	-	7	-
53. Scurvy	-	4	1	4	-
54. Pellagra	-	1	1	1	-
57. Diabetes	-	2	-	2	-
58. Anaemia					
(b) Chlorosis. . .	-	1	-	1	-
66. Alcoholism . . .	-	1	-	1	-
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF THE SENSES.					
71. Meningitis . . .	-	1	-	1	-
75. Paralysis (a) Hemiplegia.	1	1	-	2	-
77. Other forms of mental alienation . . .	-	1	-	1	-
78. Epilepsy	-	2	-	2	-
82. A. Hysteria . . .	-	1	-	1	-
B. Neuritis . . .	-	1	-	1	-
85. Affections of the Organs of Vision . .					
(b) Conjunctivitis . .	-	5	-	5	-
(e) Iritis. . . .	-	2	-	2	-
Keratitis . . .	1	1	-	2	-
86. Affections of the Ear or Mastoid Sinus. . .					
Mastoid	-	1	-	1	-
Foreign body in ear. .	-	1	-	1	-
Deafness	-	1	-	1	-
IV. AFFECTIONS OF THE CIRCULATORY SYSTEM.					
90. Other diseases of the Heart.					
(a) Valvular - Aortic .	-	1	-	1	-
(b) Myocarditis . .	-	2	-	2	-
93. Diseases of the Veins.					
Varicose veins. . .	-	3	-	3	1
Phlebitis. . . .	-	1	-	1	-
94. Diseases of the Lymphatic System					
Lymphadenitis (non-specific)	-	5	-	5	-
Carried forward	20	237	7	257	13

TABLE V. MBABANE HOSPITAL - Continued.

Diseases	Remaining in Hospital at end of year 1933.	Yearly Totals		Total cases treated during year.	Remaining in Hospital at end of year.
		Admissions.	Deaths		
Brought forward . .	20	237	7	257	13
V. AFFECTIONS OF THE RESPIRATORY SYSTEM.					
97. Diseases of the Nasal Passages.					
Polypus . . .	-	1	-	1	-
99. Bronchitis (a) Acute	1	-	-	1	-
100. Broncho-Pneumonia	-	1	-	1	-
101. Pneumonia (a) Lobar	-	11	2	11	-
102. Pleurisy . . .	-	4	-	4	-
105. Asthma . . .	1	3	-	4	-
VI. DISEASES OF THE DIGESTIVE ORGANS.					
108. A.Diseases of the teeth & Gums	-	5	-	5	-
B. Other affections of the mouth					
Stomatitis . . .	-	2	-	2	-
Cancrum Oris . .	-	1	-	1	-
109. Affections of the Pharynx or Tonsils. Tonsilitis .	-	4	-	4	-
110. Affections of the Oesophagus.					
Foreign body (metal disc from bully beef tin) in Oesophagus	-	1	-	1	-
112. Other affections of the Stomach					
Gastritis . .	-	7	-	7	-
113. Diarrhoea and Enteritis under two years .	-	7	2	7	-
114. Diarrhoea and Enteritis two years and over .	1	9	1	10	-
117. Appendicitis . .	-	6	-	6	1
118. Hernia . . .	-	1	-	1	-
124. Affections of the Liver					
Abscess . . .	-	2	1	2	-
Cholecystitis . .	-	1	-	1	-
VII. DISEASES OF THE GENITO-URINARY SYSTEM (NON-VENEREAL).					
128. Acute nephritis . .	-	1	-	1	-
130. B. Schistosomiasis .	2	14	-	16	-
131. Other affections of the kidneys					
Pyelitis . . .	-	5	1	5	1
133. Diseases of the bladder					
Cystitis . . .	-	3	-	3	-
136. Diseases (non-venereal) of the Genital Organs of man.					
Hydrocele . . .	-	1	-	1	-
Phimosis . . .	-	1	-	1	-
Paraphimosis . .	-	4	-	4	1
Undescended Testis .	-	1	-	1	-
137. Ovarian Cyst . .	-	1	-	1	-
138. Salpingitis . .	-	5	-	5	-
139. Uterine Tumours (non-malignant) . . .	-	6	-	6	2
Carried forward . .	25	345	14	370	18

TABLE V. MBABANE HOSPITAL. (Continued).

Diseases.	Remaining in Hospital at end of year 1933.	Yearly Totals		Total cases treated during year.	Remaining in Hospital at end of year.
		Admissions.	Deaths		
Brought forward .	25	345	14	370	18
141. A. Metritis					
B. Other affections of the female Genital Organs.	1	18	-	19	1
Displacement of Uterus	-	1	-	1	-
Dysmenorrhoea	-	1	-		-
142. Diseases of the Breast.					
Abscess . . .	-	2	-	2	-
VIII. PUERPERAL STATE.					
143. A. Normal Labour . .	1	34	-	35	2
B. Accidents of Pregnancy					
(a) Abortion . .	-	5	-	5	-
145. Other accidents of Parturition					
Dystocia . . .	-	2	2	2	-
Retained Placenta	-	1	-	1	-
149. Sequelae of Labour					
Vesico-vaginal Fistula .	-	1	-	1	-
IX. AFFECTIONS OF THE SKIN AND CELLULAR TISSUES.					
151. Gangrene	-	3	1	3	-
152. Boil	-	3	-	3	1
153. Abscess	-	4	-	4	-
Whitlow	-	4	-	4	-
Cellulitis	-	17	-	17	1
154. B. Scabies	-	4	-	4	-
155. Eczema	-	5	-	5	1
X. DISEASES OF BONES AND ORGANS OF LOCOMOTION. (Other than Tubercular).					
156. Diseases of Bones.					
Osteitis	2	8	-	10	3
157. Diseases of Joints.					
Arthritis	-	1	-	1	-
Synovitis	-	4	-	4	-
158. Other diseases of bones or organs of locomotion.					
Bursitis	-	3	-	3	-
XII. DISEASES OF INFANCY.					
160. Congenital Debility . .	-	3	1	3	-
161. Premature Birth . .	-	1	1	1	-
XIII. DISEASES OF OLD AGE.					
164. Senility	-	2	1	2	-
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.					
176. Attacks of poisonous animals					
Snake bite	-	2	-	2	1
Carried forward . . .	29	474	20	503	28

TABLE V. - MBABANE HOSPITAL. (Continued).

Diseases	Remaining in Hospital at end of year 1933	Yearly Totals		Total cases treated during year.	Remaining in Hospital at end of year.
		Admissi-ions.	Deaths		
Brought forward . .	29	474	20	503	28
177. Other accidental Poisonings - Arsenic .	-	1	-	1	1
178. Burns (by fire) . .	1	11	3	12	2
183. Wounds (by firearms) .	-	1	-	1	-
184. Wounds (by cutting or stabbing instruments)	2	13	-	15	-
185. Wounds (by fall) . .	-	13	-	13	-
188. Wounds (by crushing)	-	2	-	2	-
189. Injuries inflicted by animals . . .	-	8	-	8	1
201. A. Dislocation . .	-	4	-	4	-
C. Fracture . . .	-	11	1	11	1
202. Other external injuries (chiefly blows and wounds inflicted by knobkerries) . . .	3	18	-	21	1
XV. ILL DEFINED DISEASES.					
205. A. Ascitis . . .	-	1	1	1	-
Asthenia	-	1	1	1	-
TOTAL	35	558	26	593	34

GOVERNMENT HOSPITAL - HLATIKULU.

Return of diseases and deaths for the year 1934.

(In-Patients).

Diseases	Remaining in Hospital at end of year 1933	Yearly Totals		Total cases treated during year.	Remaining in Hospital at end of year 1934.
		Admissi-ions.	Deaths		
I. EPIDEMIC AND ENDEMIC.					
1. Enteric group . .					
(a) Typhoid fever	3	11	2	14	-
5. Malaria . . .	2	34	-	36	2
7. Measles . . .	-	1	-	1	-
9. Whooping cough . .	-	6	-	6	-
10. Diptheria . . .	-	2	1	2	-
11. Influenza . . .	2	6	-	8	-
13. Mumps . . .	-	1	1	1	-
16. Dysentery . . .	-	2	-	2	-
(a) Amoebic . . .	-	3	-	3	-
20. Leprosy . . .	-	3	-	3	-
31. Tuberculosis Pulmonary	1	11	2	12	-
Carried forward	8	80	6	88	2

Diseases.	Remaining in Hospital at end of year 1933.	Yearly Totals. Admissions.	Yearly Totals. Deaths	Total cases treated during year.	Remaining in Hospital at end of year.
Brought forward	8	80	6	88	2
33. Tuberculosis of the intestines or Peritoneum. . . .	-	1	-	1	-
35. Tuberculosis of the Bones and Joints. . . .	-	1	-	1	-
36. Tuberculosis of other organs.	-	2	-	2	-
A. Tuberculosis of skin or subcutaneous tissue .	-	1	-	1	-
C. Tuberculosis of the Lymphatic System . .	1	1	-	2	1
38. Syphilis	1	16	1	17	3
40. A. Gonorrhoea . . .	-	2	-	2	-
II. GENERAL DISEASES NOT MENTIONED ABOVE.					
44. Cancer or other malignant tumours of the stomach or liver	-	2	1	2	-
48. Cancer or other malignant tumours of the skin . .	-	1	-	1	-
49. Cancer or other malignant tumours of organs not specified	-	2	-	2	-
50. Tumours non-malignant .	-	6	-	6	-
51. Acute Rheumatism . .	-	1	-	1	-
57. Diabetes mellitus . .	-	4	-	4	-
58. (a) Anaemia pernicious .	-	1	1	1	-
59. Diseases of the Pituitary Body.	-	1	-	1	-
60. (b) Other diseases of the Thyroid Gland . . .	-	1	-	1	-
61. Diseases of the Para-Thyroid Gland.	-	1	-	1	-
III. AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS IN THE SENSES.					
78. Epilepsy	-	6	-	6	1
82. (b) Neuritis . . .	-	2	-	2	-
(c) Neurasthenia . .	-	1	-	1	-
85. Affections of the Organs of Vision	-	1	-	1	1
(b) Conjunctivitis . .	-	2	-	2	-
86. Affections of the Ear or Mastoid Sinus . . .	-	4	-	4	-
IV. AFFECTIONS OF THE CIRCULATORY SYSTEM.					
88. Acute Endocarditis . .	-	2	1	2	-
90. Other diseases of the heart (a) valvular . . .	-	3	-	3	-
Carried forward	10	145	10	155	9

Diseases.	Remaining in Hospital at end of year 1933.	Yearly Totals.		Total cases treated during year.	Remaining in Hospital at end of year 1934
		Admissions.	Deaths		
Brought forward	10	145	10	155	9
91. Diseases of the Arteries (b) Arterio-Sclerosis	-	5	1	5	1
92. Embolism or Thrombosis (non-cerebral). . .	-	1	-	1	-
V. AFFECTIONS OF THE RESPIRATORY SYSTEM.					
99. Bronchitis . . .	-	16	-	16	-
(a) Acute . . .	-	5	-	5	1
100. Broncho-Pneumonia . .	-	2	-	2	-
101. Pneumonia. . . .	-	4	-	4	-
(a) Lobar. . . .	-	7	2	7	-
105. Asthma	-	1	-	1	-
VI. DISEASES OF THE DIGESTIVE SYSTEM.					
108. A.Diseases of the teeth & Gums Caries, Pyorrhoea etc.	-	3	-	3	-
109. Affections of the Pharynx or tonsils. . . .	-	6	-	6	1
110. Affections of the Aesophagus	-	1	-	1	-
111. B.Ulcer of the Duodenum .	-	1	1	1	-
112. Other affections of the stomach	-	5	-	5	1
113. Diarrhoea & Enteritis under 2 years	-	8	3	8	1
114. Diarrhoea & Enteritis Two years and over . .	-	5	-	5	-
116. Diseases due to Intestinal Parasites					
(b) Trematoda . . .	-	6	-	6	-
(c) Nematoda . . .	-	1	-	1	-
117. Appendicitis . . .	1	15	-	16	1
118. Hernia	-	1	-	1	-
119. B.Other affections of the intestines . . .	-	10	-	10	-
124. Other affections of the liver	-	2	-	2	-
127. Other affections of the Digestive System . .	-	2	-	2	-
VII. DISEASES OF THE GENITO-URINARY SYSTEM (Non-Venereal).					
131. Other affections of the kidneys, Pyelitis etc. .	-	3	-	3	1
132. Urinary Calculus . .	-	1	-	1	-
133. Diseases of the Bladder. Cystitis . . .	-	8	-	8	1
134. Diseases of the Erethra .					
(a) Stricture . . .	-	1	-	1	-
(b) Other . . .	-	2	-	2	1
135. Diseases of the Prostate. Prostatitis . . .	-	1	-	1	-
136. Diseases (non-Venereal) of the Genital Organs of Man.	-	2	-	2	-
138. Salpingitis . . .	-	10	-	10	-
Carried forward	11	280	17	291	18

GOVERNMENT HOSPITAL - HLATIKULU (Continued)

Diseases.	Remaining in Hospital at end of year 1933.	Yearly Totals		Total cases treated during year.	Remaining in Hospital at end of year 1934.
		Admissions.	Deaths		
Brought forward	11	280	17	291	18
141. A. Metritis	-	8	-	8	-
B. Other affections of the female Genital Organs.	-	2	-	2	-
142. Diseases of the Breast Mastitis	-	3	-	3	-
VIII. PUERPERAL STATE.					
143. A. Normal Labour	1	28	-	29	2
143. C. Other accidents of pregnancy.	-	2	-	2	-
144. Puerperal Haemorrhage	-	1	-	1	-
147. Phlegmasia Dolens	-	1	-	1	-
150. Puerperal affections of Breast	-	1	1	1	-
IX. AFFECTIONS OF THE SKIN AND CELLULAR TISSUES.					
152. Carbuncle	-	1	-	1	-
153. Abscess	-	19	1	19	3
154. B. Scabies	-	2	-	2	-
155. Other diseases of the Skin Eczema	-	2	-	2	-
X. DISEASES OF BONES AND ORGANS OF LOCOMOTION					
158. Other diseases of bones or Organs of Locomotion	-	4	-	4	1
XII. DISEASES OF INFANCY.					
163. Infant neglect	-	1	1	1	-
XIV. AFFECTIONS PRODUCED BY EXTERNAL CAUSES.					
178. Burns by fire	-	9	2	9	-
179. Burns other than by fire	-	3	-	3	-
183. Wounds by firearms	-	1	1	1	-
184. Wounds by cutting or stabbing instruments	3	49	5	52	5
185. Wounds by fall.	-	3	-	3	-
187. Wounds by machinery	-	1	-	1	-
189. Injuries inflicted by animals	-	2	-	2	-
201. A. Dislocation	-	2	-	2	-
C. Fracture	-	4	-	4	-
202. Other external injuries	1	1	-	2	-
XV. ILL DEFINED DISEASES.					
205. B. Malingering	-	5	-	5	-
TOTAL	16	435	28	451	29

TABLE V. - RALEIGH FITKIN MEMORIAL HOSPITAL.

BREMERSDORP.

Total Number of Inpatients. 820.

TABLE VI.

Only the total number of out-patients' seen at the various hospitals can be given.

Mbabane Government Hospital	7,115
Hlatikulu Government Hospital	8,405
Raleigh Fitkin Memorial Hospital, Bremersdorp	11,130
Mankaiana Dispensary	3,356
Endingeni Dispensary of the Raleigh Fitkin Hospital	6,430
Stegi Dispensary of the Raleigh Fitkin Hospital	1,613
Pigg' Peak Dispensary of the Raleigh Fitkin Hospital	3,133
Goedgegun Dispensary (four months)	1,031
Mahamba Hospital (five months) and Dispensary (Seven months)	2,603
TOTAL	44,816

Diagrams "A" and "B", representing in graphic form the incidence of infectious and other diseases, as based on the figures of cases treated in the Government hospitals at Mbabane and Hlatikulu, accompany this report.

R. JAMISON.

Principal Medical Officer.

Swaziland.

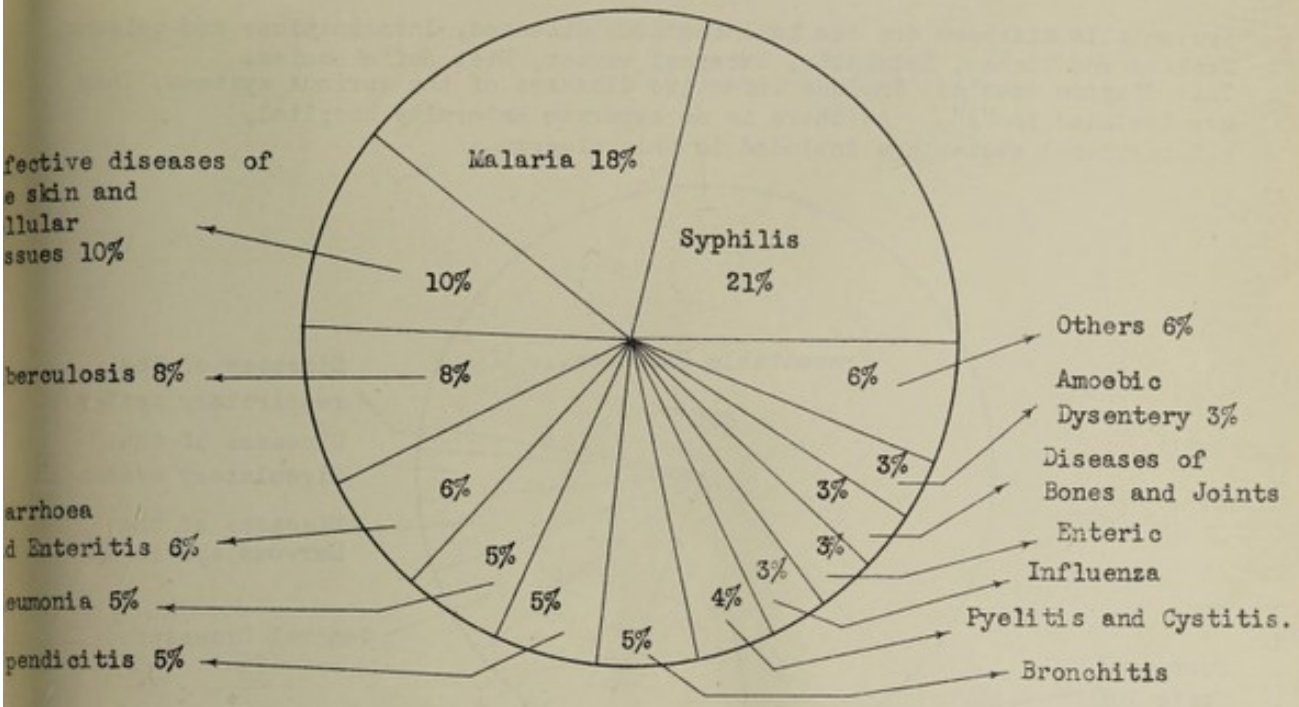
MBABANE, SWAZILAND,

30th August, 1935.

INFECTIVE DISEASES.

Cases treated in Government Hospitals.

Total. 494.



Total Deaths. 28.

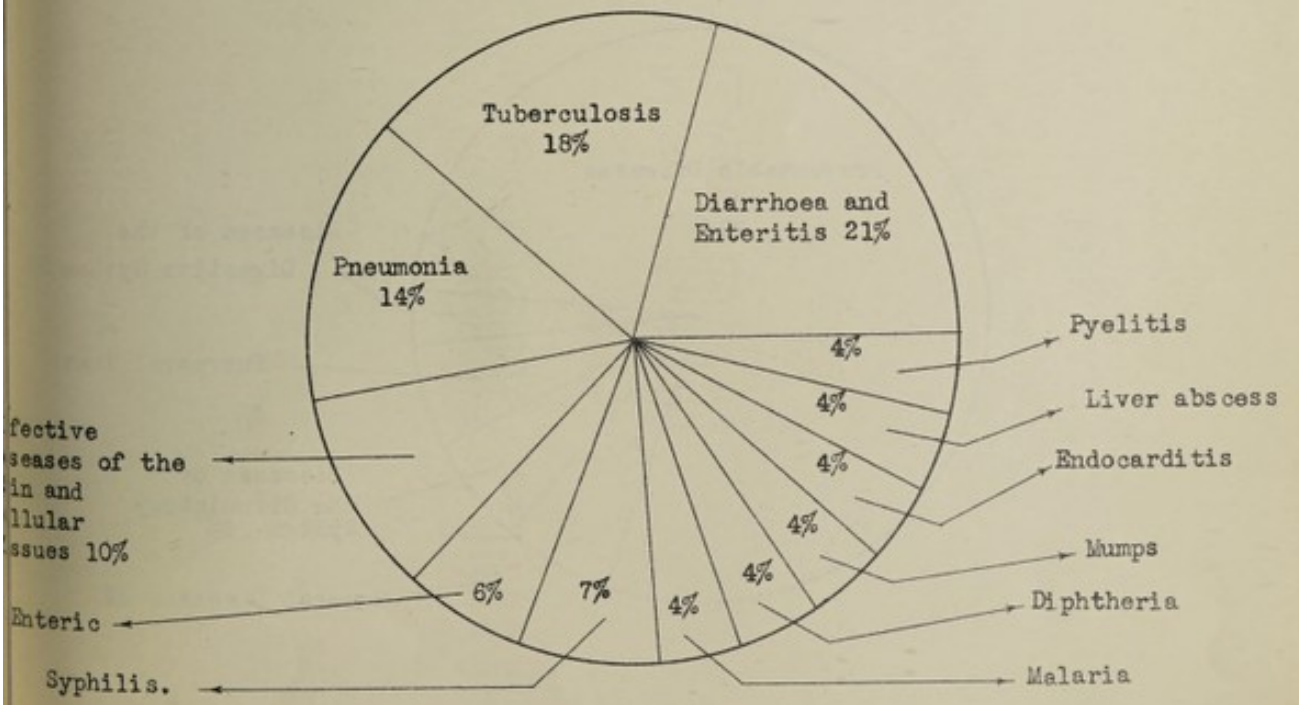


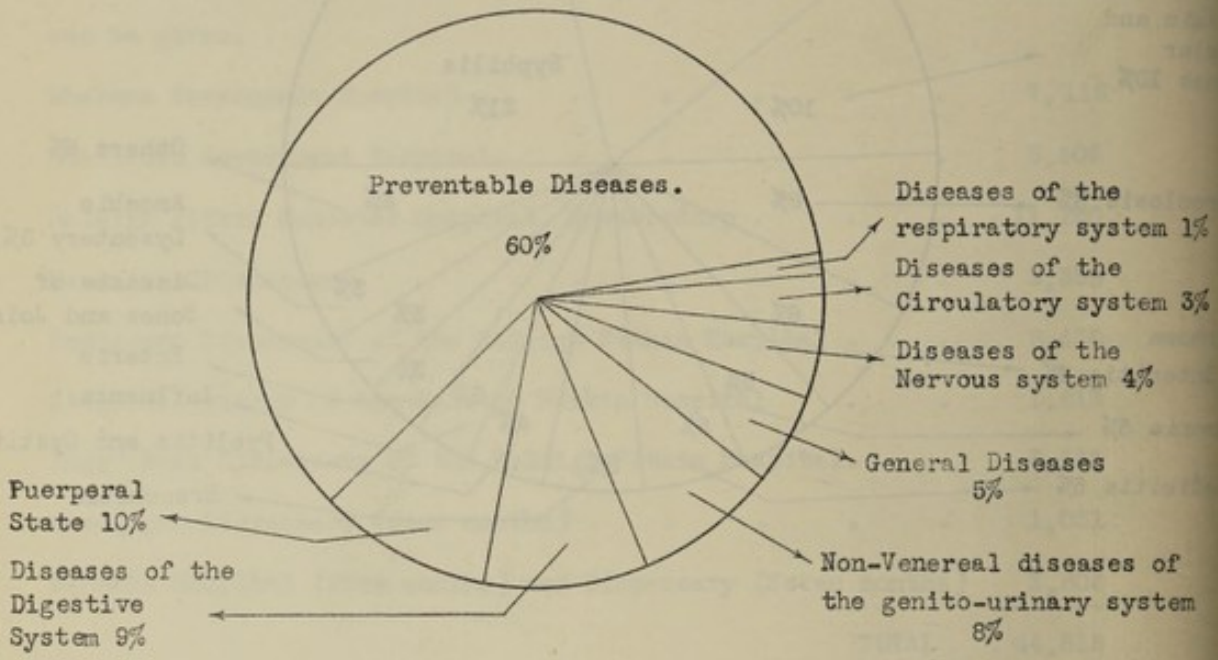
DIAGRAM "B".

General, Systemic and Preventable Diseases.

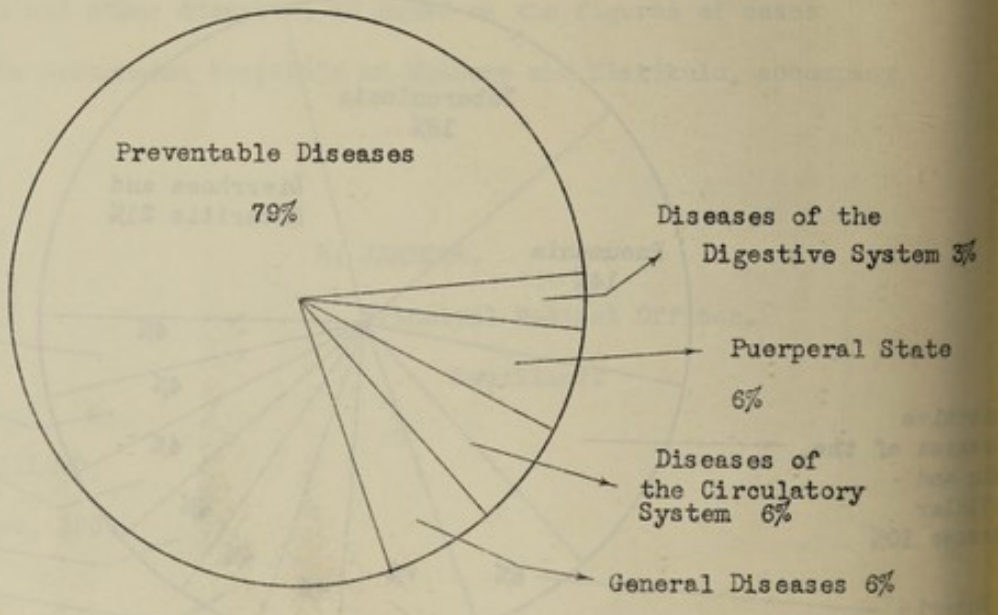
Cases treated in Government Hospitals.

Total. 782.

Preventable diseases are due to Infectious diseases, Intoxications and poisons, Scabies and Tineae, Helminths, External causes, Diet deficiencies.
This diagram does not include infective diseases of the various systems. They are included in "A". As there is no separate Maternity hospital, all puerperal states are included in this diagram.



Total Deaths. 33.



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