# Annual medical and sanitary report / Swaziland.

# Contributors

Swaziland. Medical Department.

# **Publication/Creation**

[Place of publication not identified] : [s.n], [1966]

# **Persistent URL**

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# ANNUAL MEDICAL AND SANITARY REPORT

FOR THE YEAR, 1966.

SPC DG781



#### SWAZILAND

# ANNUAL MEDICAL AND SANITARY REPORT

# 1966

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#### INTRODUCTION

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19 APR 1968

Swaziland has an area of 6,704 square miles and is bordered on the north, west and south by the Transvaal, and on the east by Mocambique and Zululand.

The Territory is geographically divided into four well defined regions, running from north to south, namely the mountainous highveld in the west with an altitude of 3,500 and 5,000 feet, the middleveld with an average altitude of 2,000 feet; and the lowveld or bushveld with an altitude of 1,000 to 300 feet; and the Lubombo Plateau on the east, with an altitude of 2,000 feet. Scenically the Territory is one of the more attractive parts of Africa. The highveld has a temperate climate and frosts occur during winter. The climate of the middleveld is subtropical and that of the bushveld almost tropical, although every few years a frost does occur.

Rainfall, which occurs chiefly in the summer, varies between approximately 30" a year in the lowveld. Drizzle and mists are frequent in the highveld areas. The country is well watered by numerous perennial streams and rivers, some of which are of a considerable size and now provide water for three large irrigation schemes, which have been established at Mhlume in the north-east, at Big Bend in the east (at both of which sugar is grown) and at Malkerns in the centre of Swaziland (which produces rice, sub-tropical fruit and citrus).

In addition to the irrigation schemes, other important agricultural activities are cattle ranching and seed cotton production in the bushveld and sub-tropical fruit, maize and rice production in the middleveld, in the southern portion of which a considerable amount of tobacco is also grown. In the mining field, Havelock Mine in the north-west is a most important producer of asbestos, and with the opening of the railway in November 1964, connecting Swaziland with Lourenco Marques, the mining of iron ore at Ngwenya and of coal at Mpaka got underway. A pulp mill and a sawmill are operating at two of the forestry concerns in the highveld.

A census of the total population was held in May 1966. This was the first census of all the people in Swaziland.

The figures are as follows:

African	362,367
Europeans	7,987
Other Non	Africans 4,217
Total	274 607

374,697

One half of the area of the territory is in communal ownership of the Swazi Nation and the remainder owned by individual tenure farmers. The Swazi have the axclusive use of the communal tenure areas and the remainder is open to farmers of all races without discrimination. Swazi dwellings for the most part consist of wattleand-daub structures, or bee-hive huts, and small family collections of these huts are widely dispersed. Other than in the neighbourhood of the larger towns, there are no villages. Whilst the agricultural activities of the Swazi are still, in the main, concentrated on the raising of cattle and goats and the cultivation of maize, the work of the Agricultural Department is now producing results, and both the standard and scope of Swazi farming are improving year by year.

The following hospitals exist:

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#### A. Run by Government

Mbabane	170	beds
Hlatikulu	142	beds
Piggs Peak		beds
Mankaiana	33	beds
Mahamba (Tuberculosis)		beds
Goedgegun	12	beds
	896	beds

-2-

B. Run by Missions

Ralei	gh Fitkin	Memorial,	275	beds
Manzi				
Good	Shepherd,	Stegi	67	beds

C. Run by Industry

Havelock Mine Hospital 65 beds

D. Run Privately

St. Michael's Clinic 12 beds

Total: 896 beds

Apart from those formal hospitals there are two bedded dispensaries or clinics run by industrial concerns which can accommodate up to about 20 patients each.

The rural areas are catered for by 44 clinics staffed by trained nurses, 27 of them being conducted by Missions and 17 by Government. The Southern area of Swaziland is fortunate in having had a doctor appointed by the Save the Children Fund who runs a mobile clinic and conducts regular clinics at eight different places.

There were 50 doctors, of whom 12 were licensed medical practitioners, 2 dental surgeons in the territory in 1966. 2 of the doctors were not in practice. Of the 48 practicing doctors, 17 were concerned with Government medicine, 9 with Mission work, 9 with Industrial Medicine, 12 in private practice, and 1 doctor was concerned with Save the Children Fund.

The Mbuluzi Leper Hospital, situated 10 miles from Mbabane and run by the Nazarone Mission, with the assistance of a Government grant, copes most adequately with the small number of lepers in the Territory. There is no mental hospital, and dangerous and violent lunatics are detained and treated in sections of the gaols.

The British Red Cross Society is now running Infant Welfare Clinics at Mbabane, Hlatikulu, Stogi, Piggs Peak, Manzini, Kwaluseni, Mhlambanyati and Goedgegun, at which most useful work is being done. The Save the Children Fund has started a school feeding scheme.

The Public Health Services of the territory are centred at the Health Office in Manzini for the control of Malaria and Bilharzia and at Mbabane which controls environmental health, Health Education and a Public Health Nursing Unit. There is a Pathology Laboratory at which routine serological, biochemical, bacteriological and haematological investigations are carried out.

The Medical Association of Swaziland whose members include private practitioners, medical missionaries and Government medical officers, hold quarterly meetings, which are well supported and which make up to some extent for the lack of professional contact so common in territories such as Swaziland.

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Trivers prestingeners, addend destanders and Georgenit woltes stringers, held gow billy motions, with are will inported and which mix up to and extent for the last of protoments coster. The training of nurses in Swaziland is carried out at the Ainsworth Dickson Training College attached to the Raleigh Fitkin Memorial Hospital, where training for the High Commission Territories Nursing Council qualifications in General Nursing, lasting 4 years, and in Midwifery, lasting 1 year, is given. The Ainsworth Dickson Training College can at present train sufficient nurses for the needs of Swaziland. Dispensers and Laboratory Assistants are trained at Government Hospitals as required. The training of marges in Sectional is corride out at the Alempirich Distance Training Sollage attacked to the Aniolgh Pitkin Resorted Houseteel, where training for the Aleigh Commence Secret rise Houseteel, where training for the Alexan Institut A years, and in Atlantory, insting 1 year, is given The Anneworth Distance Fraining College can be present train mittolest merges for the mode of Superings. Disponents and institutest merges for the mode of Superings. Disponents and institutest merges for the mode of Superings. Disponents and instantory assistants are trained at Superings. Bergings and instants is an intervent at an and a foregramma Haritals at regulars.

#### CHAPTER I

#### REVIEW OF THE YEARS WORK

The Hon. A. Z. Khumalo held the post of Nember for Health on the Swaziland Executive Council throughout the year 1966. During this period he took a most keen and active part in the affairs of the Department, visiting every Government, Mission, industrial and Swazi National Council hospital and elinic throughout\_the Territory.

#### 2. Staff

Dr. J. Alexander was promoted to Senior Medical Officer on 1st April, 1966 and Dr. J. Klopper was promoted to the post of Deputy Director of Medical Services on his return from overseas study on 26th November. The recruiting of Medical Officers improved markedly during the year and it was possible to fill the post of T.B. Medical Officer. At the end of the year only three Medical Officer posts remained vacant and one of these was filled by a Locum Tenens, thus leaving a deficit of only two Medical Officers.

The sup ly of trained nurses continued to exceed the demand and by the end of the year only two expatriate nursing sisters remained in the nursing service.

#### 3. Hospitals and Clinics

The new operating suite at Hlatikulu Hospital was completed, a Government clinic was opened at Gege and a new Mazarene clinic opened at Esigceweni and a new Roman Catholic clinic completed at the Florence Mission Station. With the completion of the Prisons Building Programme, prisoners were transferred from the old Mbabane Prison to the new Prison. This made it possible towards the end of the year to transfer all mental cases which had until then been housed in district prisons to the old Nbabane Prison, and thus form the beginning of a Mental Institution. As it was evident that at some stage the United Kingdom military forces would be withdrawn from Swaziland and the Matsacha Barracks left vacant, a plan was drawn up for the utilisation of these barracks by the Medical Department. With the evacuation of the troops which occurred in November, rather sooner than expected, this plan was put forward to the Executive Council for consideration. After deliberating on the plans put forward by various departments, the Executive Council eventually allocated the barracks for the use of the Medical Department. The Plan proposed by the Medical Department included the following main usages :-

- 1. Conversion of the gate house to a clinic to meet the needs of the local population.
- Conversion of the Quarter Master Store to a Central Medical Store including using the motor transport workship as a manufacturing unit for stock mixtures, ointments etc.
- 3. The conversion of the main kitchen and dining Hall and four adjacent barrack blocks to a 200 bedded adult T.B. Hospital using the sick bay for cases requiring more intensive nursing.
- Conversion of the NAAFI and four adjacent barrack blocks to a 200 bedded mental hospital.
- Conversion of the Sergeants and NCO's mess to a 90 bedded childrens TB Hospital.
- Conversion of the Officers Mess to female staff accommodation.

#### 236 COLLEY COLLEY SO MALEY MA

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Obviously the full utilisation of the Matsapha Barracks will have to be phased as staff and funds become available.

In Government Hospitals the total admissions of fullpaying patients fell slightly, but the admissions of part-paying patients increased by just over 2,000, i.e. about 20%.

The average daily number of patients in hospital rose to 719, which was a 15% increase over 1965. There was a slight fall in the number of o perations performed and in the out-patients attendance. There was a very large increase in the number of patients attending maternity and childwelfare clinics and this was accompanied by a 24% rise in the number of confinements conducted in Government Hospitals.

The total expenditure by the Department rose to over R676,000, which was an increase of some 19.5% over 1965. The Department received about 11.6% of the total revenue of the territory.

4.

#### Significant Diseases

Tuberculosis - the work of the T.B. Control Unit progressed well. Again there was a significant rise in the number of cases voluntarily socking treatment.

Malaria - There was some small increase in the number of cases of malaria, but due to the abnormal rains following Cyclone Claud, a large increase can be expected in 1967.

Malnutrition - the number of cases of malnutrition and kwashiorkor treated in hospitals showed a marked increase.

Smallpox - There were 73 cases of Smallpox with three deaths reported during the year. A total of 51,000 vaccinations against smallpox were carried out.

Entoric Fever - The number of cases of Enteric Fever dropped from 300 in 1965 to 154 with 10 deaths.

5.

#### Post Graduate Courses - 1966

Esther Simolanc	Theatre	Israel
Abigail Mavuso	Public Health	India
Maggio Dlamini	Public Health	India
Priscilla Dlamini	Hospital	
	Administratio	n United Kingdom

Obvioualy the full utilization of the Material Derraph

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#### CONT - HABITTON CONTRANT - TAOS

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## OFFICIAL VISITORS 1966

1. Dr. H. J. L. Burgess - Inter-Country Nuatition Consultant, W.H.O.
2. Dr. W. J. N. Evans, C.B.E Deputy Medical Adviser, Ministry of Overseas Development.
<ol> <li>Dr. Schaffer - Lecturer in Public Administration, University of Sussex.</li> </ol>
4. C. M. Curruthers, Esq Field Director of OXFAM.
5. A. C. Gilpin, Esq U.N.Regional Representative, Lusaka.
6. F. Judd, Esq Secretary General, I.V.S.
7. S. Hoelgaard, Esq. and Mr. Glen-Davies - UNICEF.

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A.C. R. Curranters, Env. - Pield Director of CIFLM.

5. A. D. Ciluin, Day.- University on I Representative, Marchen,

6. V.I Alexand Tratero & - . John J. S.

T. S. Houlendreit, Sag. and Hr. Dish-Davion - UNICED

#### CHAPTER II

-7-

#### COMMUNICABLE DISEASES

#### 1. TUBERCULOSIS

#### GENERAL:

While the T.B. Control Project continued to develop satisfactorily during the first six months of the year, progress was drastically hampered during the second half of the year because of the inconsiderate transfer of staff painstakingly trained during the past years. Nevertheless, the period under review was marked by a far-reaching achievement as far as tuberculosis control is concerned.

. For the first time in Swaziland, a National Tuberculosis Control Programme meant to approach the problem from a public health point of view, as against the purely clinical one, the usual approach until recently, became operational, thus marking a crucial point in the history of tuberculosis control in this country.

The programme was prepared in detail during the previous year on the basis of the epidemiological knowledge and experience acquired by the WHO-UNICEF assisted Tuberculdsis Control Project, and was formulated to satisfy four basic requirements:

- Epidemiological considerations which required that the programme be applied on a country-wide scale and on a permanent basis since patchy or sporadic application of anti-tuberculosis measures has no significant or progressive impact on the problem.
- 2. Sociological considerations which demanded that the programme be adapted to the existing and real needs of the population.
- Administrative considerations that made it mandatory to integrate the programme into the general health services.
- Economic considerations that required the programme to be such that its application on a national scale would be within the resources available.

The National Tuberculosis Control Programme whose implementation was initiated in Manzini district, contempl tes the uniform utilization of of standardized anti-tuberculosis means and their country-wide application with the basic aim of bringing essential tuberculosis services within the reach of the entire community.

For this purpose, simple but essential diagnostic and treatment services started to be established within existing general health centres (i.e. hospitals and rural and industrial clinics), which in turn, started to effor these services to the population within their RECARELS SUBACTAURNOD

Auxing the firs 7.2. Sentral Project continued to develop entire starting during the first six senths of the year, progress was drawtheally haspered during the second hair of the year because of the inconsiderate transfer of staff painwiskings, trained during the part years. Nevertaeless, the period during trained during the far-reaching schlevesent as far as tabercelesis control to concerned.

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- the Administrative counterstions that made it mondutory to integrate
  - that the applications that required the programs to be such that the application on a sational scale would be within the resources available.

The National Theoreticate Control Programs shows implementation and initiated in Ramaini district, contamp, has the uniform willightics of of standardined anti-indirectories stand and their constry-wide could antibin the reach of the of bringing characted theoreticate corverse within the reach of the unitic community.

for our purpose, simple but essential linguantie and treatment corriers sincled to be established within existing success house control (i.e. nospitule and reral and inductrial clinics), which as total start event to offer these survices to the explicites mabule their reach as an integral part of their routine activities.

Diagnostic activities of these general health centres were concentrated on those patients who consulted because of respiratory symptoms, and mostly consisted of forwarding for investigation to the TB Centre's laboratory specimens of sputa collected from such symptomatic patients. Whenever possible, patients with respiratory symptoms were also referred to the TB Centre for a free chest X-Ray.

Patients thus detected and in need of chemotherapy, were offered free traatment at the health centre they originally consulted, or at any other health centre of their choice co-operating in the fight against tuberculosis. Treatment was carried out on an ambulatory basis and consisted of one daily self-administration by the patients of the prescribed daily desage of anti-tuberculosis tablets which were issued to the patients at monthly intervals. Supervision of treatment and investigation of treatment default was conducted by the staff in charge of the health centres administering treatment, assisted whenever necessary\_by a special team of "Home Visitors" from the T.B. Centre.

Throughout the year, the TB Centre provided these general health centres with its specialised services and technical advice, supervised their newly-integrated anti-tuberculosis activities and took care of all the functions that lay beyond their own capacities and equipment. Thus, besides performing bacteriological and radiological examination for the whole country and conducting treatment supervision on a national scale, the TB Centre trained the staff of twenty such health centres in basic tuberculosis control measures including recording and reporting procedures.

It also maintained contact between all health centres carrying out anti-tuberculosis work, co-ordinated their specialised activities set standards, and by keeping the National TB Register in order, was able to guide and help the health centres involved in their efforts of supervising the patients under their care and prevent and "cure" treatment default. In this connection, however, it must be pointed out, that in spite of re-iterated efforts to this effect, the staff of these general health facilities still did not, by the end of the year fully appreciate the basic necessity and importance of the new-introduced, standardized recording and reporting procedures, a sine qua non of any comprehensive, nation-wide anti-tuberculosis programme.

In addition to the country-wide establishment of diagnostic and durative tuberculosis services, the National Tuberculosis Control Programme also contemplates the creation of a preventive service based upon BCG vaccination, combined with inoculation against Smallpox. reach as an intertal part of their routine as an append

Disposition activities of these general houses of respiratory accountrated on these patients she consulted because of respiratory symptome, and mustly consisted of forwarding for investigaties to the TS Centro's inhoratory apportunes of sputh collupted free much symptometic perionts. Minenever pensible, pathents with respiratory symptometic perionts. Minenever pensible, pathents with respiratory.

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Throughout the source the TO Contro provided there found the health controp with is aportalised services and socharoal advice, angervised their mewly-interpreted anti-tebercologie activities and took care of all the functions that is bayed, their out capacities and equipment. Thus, busides performing betweek their out capacities and examination for the abole country and conducting treatment supervision as a actional soals, the TO Contro trained the staff of twenty such health control to barie tobercologies action health of twenty such health control to barie tobercologies accessed to action of the second to and reporting to control accessed weater of twenty such health control to barie tobercologies control mensures including recording and reporting reconcess.

To bigs maintained contact between all boalse contract contribute out anti-tebergouleasts with co-ordinated their upsolations activities and a bandards, and by samplar the balith contract TA Sectaries is order, whe able to gride and bally the health contract the Sectaries is order, whe of muservising the postents under limit once and provent and "care" treatment default, whe take connection, newswer, is much be pointed out, that is write of re-iterated efforts to this effect, the start of theme reserval analth facilities shill did note by the contact. Tolly approved to basic nections and the start of the resdeced, standardies and rescriptes and rescript back defaulter, and the rescriptes.

la adaltiza to the construction antablialment of displayed of the provision of the control of the second of the se

Owing to the epidemiological situation, it was decided to focus the vaccination service on the age group nil to 14 years of age. Field trials having proved that a very high percentage of this age group could be contacted through the numerous schools covering the country, it was also decided to utilize these schools as vaccination centres, not only for school children, but also for pre-school children and non school attenders eligible for vaccination. Preparation of a plan of operations based on these lines was initiated late in the year.

Besides offering its specialised services to the whole country, the Tuberculosis Control Centre's laboratory started to conduct on a probatory basis general laboratory investigations in view of its eventual transformation into the country's central public health laboratory.

A Government Medical Officer was appointed as counterpart to the WHO Senior Medical Officer thus opening the way to the eventual and complete aerumption of the Tuberculosis Control Project's responsibilities by the Government Medical Authorities. Furthermore, as the first step towards the phasing out of the project's international staff, the WHO Statistician and the WHO X-Ray Technician left the country in July and December 1966 respectively.

Origin of Patients:	Type of Exami- nation to which	_		1	PERIOD:		
	subjected:		1965:			1966:	
		No. exam:	No. +	% +	No. exam:	No. +	% +
Patients	Bact. exam:	2145	181	8.4	2617	213	8.1
who attend- ed TB Centre of their own accord.	X-Ray exam:	2079	417	20.	2594	265	10.2
Patients	Bact. exam:	847	61	7.2	757	66	8.7
who were referred to the TB Centre	X-Ray exam:	821	128	15.6	869	164	18.8
Patients	Bact. exam:	2128	476	22.3	3590	468	13
who attended other Health Centres.	X-Ray exam <sup>+</sup>	12749	-1.3	5,7	7645	239	3.1
TOTAL:	Bact. exams:	5120	718	14	6964	747	10.7
	X-Ray exams:	15649	1042	6.6	11108	668	6

#### OPERATIONAL ACCOMPLISHMENTS:

+ Note: includes X-Rays taken by Mobile X-Ray unit at industrial centres.

In addition to the above figures, (which refer to case-finding only(, the project also performed during the year under review a total of 5083 bact. examinations of which 1724 were repeat, and 3359 were followup examinations. In addition to the diagnostic X-Ray examinations above Owing to the opidemiciterial situation, it was desided to focus the rectation service so the age group all to 14 pears of a Field trials having proved that a very high percentage of tals age group could be contacted through the semerous schools covering the country, it was also decided to utilize these schools covering the contres, not only for school culture, but also for pre-echeci ohil and non school attenders singthis for vectorstice. Freperation of plan of operations based on these linds was taitisted late in the se

Bouldos offering its apocialised services to the whole country the Teberoologie Sontrol Centro's inboratory started to conduct on probatory bisis general laboratory investigations in view of its eventual transformation into the country's central public besith laboratory.

A Government Medical Officer was appointed as eventeerment to the WHO Seater Medical Officer thus opeains the way to the eventual and complete assumption of the Tuberculouis Castr 1 Project's responsibilities by the Government Medical Authoritics. Furthermore as the first step tounds the phasis out of the project's international staff, the NHO Statistician and the WHO Lefty Teannets left the country is July and December 1065 means of the second states of the states formation

OFBRATIONAL ACCORDING AND TAMETO

· Motor - includes f-lays taken by Hobils X-Ray only in industrial concerns

is elitted to the above figures, (which refer to came finding entry), the project also performed during the year ander review a total of 5003 bopt, exeminations of which 1724 who aquant, and 1359 wave follo as exeminations. In solition to the discretive filty economic anothe quoted, the project also performed a total of 2158 follow-up X-Rays.

According to the figures entered in the National TB Register and provided by the general health centres, 574 patients in need of chemotherapy initiated treatment in 1966 all over the country.

At the end of the year the National TB Register contained information on 2226 patients, made up as follows:

Cases (patients excreting tubercle bacilli, when detected)	891
Suspects (patients with X-Ray pulmonary lesions, suspecious of TB, but not excreting tubercle bacilli when detected)	1098
Contacts	237
	2226

The number of TE deaths, according to the TE register for 1966 was 122.

 MALARIA: The Report covers the transmission period 1st July, 1965 to 30th June, 1966.

SUMMARY: Plasmodium falciprum is still the most common parasite encountered. Of the 2' positive blood smears P. falciprum was present in 199 cases as a single infection. It was also found in 11 cases with P. malaria and one case with P. vivac.

As in previous years cases are still being imported into the territory especially from Mocambique. The annual parasite incidence (1.P.I.) was 1.11 per thousand and the annual blood examination Rate (A.B.E.R.) was 13.74 of the population at risk. In 1964/65 this population was estimated at 107000 but the territorial census in early 1966 showed this figure to be grossly underestimated. The figure now used is 193,000, which includes 51,000 in the maintenance phase and 144,000 in the consolidation phase. 26,860 blood smears were examined by the three microscopists.

#### ANALYSIS OF BLOCD FILMS EXAMINED

Source	Neg	ative	Posit	ite	Total		
	1964/65	1965/66	1964/65 3)	1965/66	a964/65	1965/66	
Indigenous	23630	22217	76	102	23706	22319	
Immigrants and cryptic	4097 4434		108	115	4205	4541	
	27721	26651	184	217	27911	26860	

The immigrants originated from the following sources:

Source	Negativ Blood S 1964/65	mears	Blood	sitive 1 Smears 1965/66		otal 1965/66	% Positive 1964/65 1985/
Mocambique	2057	1814	93	83	2150	1897	4.3 34.4
Zululand	661	1071	4	6	665.	1077	0.6. 0.6' .
Transvaal	1291	1490	6	11	12977	1501	0.46 00?
Other	88	59	5	15	93	66	5.37 22.7

Forty one per cent of the P. falciprum cases showed gametocytis. These case were present in all age groups. . MALANIA: The Report covers the representation puriod let 2013.

SUBLARY: Place time folopping is will the most counter personant ancountered. Of the 21 positive block means F. Falospice was promote to 199 course as a single tof otion. It was also front in 11 pages with F. slartw and one once with F. vivac.

As in provious yours cause are still being imported into the territory supportally from Monarchine. The annual parasite incidence (i.P.I.) was 1.1 per thousand and the annual block comministion fate (a.B.R.R.) was 12 d of the population at risk. In 1964/65 this population was an instal at 107000 but the territorial cosess in early 1966 showed this rights to be growely underestimated. The figure now used in 1934/00, which incides 51,000 in the saintenness phase and 144,000 is the constitution phase. 26,860 blocd mours were exemined by the three storescopiets.

#### GENTRALS OWLIT GROUN NO. SISTAMS

The insigrant originated from the following sources

6 Ponts 1964/65 19				
A Sect				
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5 1626				

Those cans were present if the P. Faloiptin choir should prevent it.

#### METEOROLOGICAL

### 1. CLIMATIC CONDITIONS.

Unusually heavy rai s occurred in the bushveld areas during January and February. A gambiae breeding was, as a result, fairly widespread during January to May, the majority of malaria cases occuring during April and May.

The meteorological records from various bushveld stations are reflected in the following table:

#### -12-

#### LANT DOLTO HOUSE

#### 1. OLIMATIC COUDITICAS.

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Jacoury and February. I guntice brooding was, as a result, fairly wideparead during Jacquey to Hay, the majority of waineds cannot covering during April and No.

the methodiogical records from various bushweld stations

	Маула н	April "	March "	Feb. "	Jan. 196.	2 . Noc. 11	Nov. "	0ct. "	Sept. "	August "	July 1965	Month		Chrone Section
0.47	0.35	1.56	2.09	8.31	10.63	3.00	5.61	3-54	2.52	2.17	0	Rainfall: in ins.	Altitu	E
74.71	79.58	77.18	84.74	76.08	88.16	84.5	73.4	78.3	78.7	77.3	74.3	: Max.	Altitude 2,000 ft Temp. F	MANZINI
50.93	51.96	55.94	63.14	66.2	6ª.36	63.3	49.9	54.6	54.9	53.1	49.0	Min.	0 15	
2.76	0,35	0.61	0	5.0	22.64	2.95	3.45	1.75	1.34	2.92	0	Rainfall in ins.	Altitude 2 Tomp.	SE
84.38	66.2	76.46	84.74	81.68	83.12	85.1	77.9	71.1	75.9	75.6	71.7	Mar.	Altitude 2,200 ft. Temp. F	STEGI
54.5	54.68	58.06	63.5	61.16	67.46	61.6	58.9	53.8	56.4	53.2	49.5	Min	?t.	NETEOR
0.24	2.04	0.94	0.22	3.72	9.82	1.97	1.66	2.26	0.95	3.18	0.04	Rainfall in ins.	Alti T	METEOROLOGICAL I
77.95	75.22	84.2	77.9	83.48	82.94	90.5	ı	82.4	82.4	84.2	78.8	Max.	Altitude 500 ft. Temp. F	REPORT BIG BEND
47.21	62.96	55-4	63.5	72.32	66.74	68.9	,	55.4	56.3	50.0	44.6	Min	ft.	
0.86	0.55	0.64	0.50	6.59	13.97	3.58	3.43	1.81	0.95	0.80	0	Rainfall in ins.	Alti	MI
78.6	78.7	86.2	86.9	86.9	90.2	91.7	86.0	86.0	85.0	85.0	1	Max.	Altitude 850 ft. Temp. F	MHLUME
48.1	51.0	56.5	62.4	66.8	70.2	66.0	63.0	56.4	56.0	53.0	ı	Min.	oft.	
0.31	1.08	0.65	3.37	4.83	11.22	1.43	1.34	1.71	0.51	2.26	0.04	Rainfall in ins.	Alt	
1	I	1	I	ı	1	92.3	86.9	83.3	81.5	80.6	77.4	11 • Max.	Altitude 600 Temp. F	GOLLEL
1	I	1	1	ı	1	66.1	63.3	59.5	57.2	50.0	52.7	Min	PO ft.	i.

2. Annual Staff Meeting ../

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	in the factor									

#### 2. ANNUAL STAFF MEETING:

At the annual staff meeting held at Manzini during the first week of August, individual problems were discussed and the staff were informed of their duties for the new malaria season.

#### 3. POPULATION AND HUT COUNT.

This was not done by the malaria staff but figures available from the Territorial census carried out during May 1966 are as follows:

Maintenance phase	:	51,000
Consolidation phase	:	144,000
Total	:	195,000

#### 4. MALARIOUS AREAS:

The boundaries of certain areas were re-defined and in some cases areas were reduced. This has enabled field assistants to cover their areas in less time and also saved time in not working unnecessary sections where no trouble was anticipated.

#### 5. MEETINGS:

In view of the considerable misunderstanding about the objects of our work, meetings were held with chiefs, indunas and others at the following places in order to explain our aims and objects:

> Mpaka Nyetane Lukula Ngomane Nkamanzi Border Gate Magomba Nomahasha Mrjembeni Mpolonjeni

#### 6. MALARIA CONTROL MEASURES:

(a) <u>Residual Spraying</u>. with Benzine Hexachloride 12% Gamma Isomer wettable powder, was carried out at Border Gate, Sivunga and Big Bend. Technical D.D.T. was also used at Big Bend. Particulars are as follows:

#### ANTIGAN STATE MADREA

At the annual staff secting beld at Hansini aurior the first week of Angust, individual problems were discharde and the staff wore informed of their duties for the new malarit second.

#### THUDO TOL GWA MAITLIDGOT AN

This was not done by the antoria start of figures synthesis from the Territorial conses carried out diring bay 1965 are as follows:

#### CALLA COULTANA

The boundaries of certain areas were re-collect and in sold tanks aread were reduced. This has enabled field werehous to cover their areas in less time and also aread the is ant working unseesanty sections where no trouble was arealousted.

#### THEFTINGS :

In visu of the considerable similars Landrag Coods the objects of our work, medings were hold with chiefs, inducus , and others at the following pinces in order to explain our size and objects:

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Mpaka
Nyotmae
Lakuis
Mgasane
Mkasane
Dorker Gatz
Kagobba
Hommaba
M jesbeni
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#### S BULLAR JUSTICO LIMILAR -0

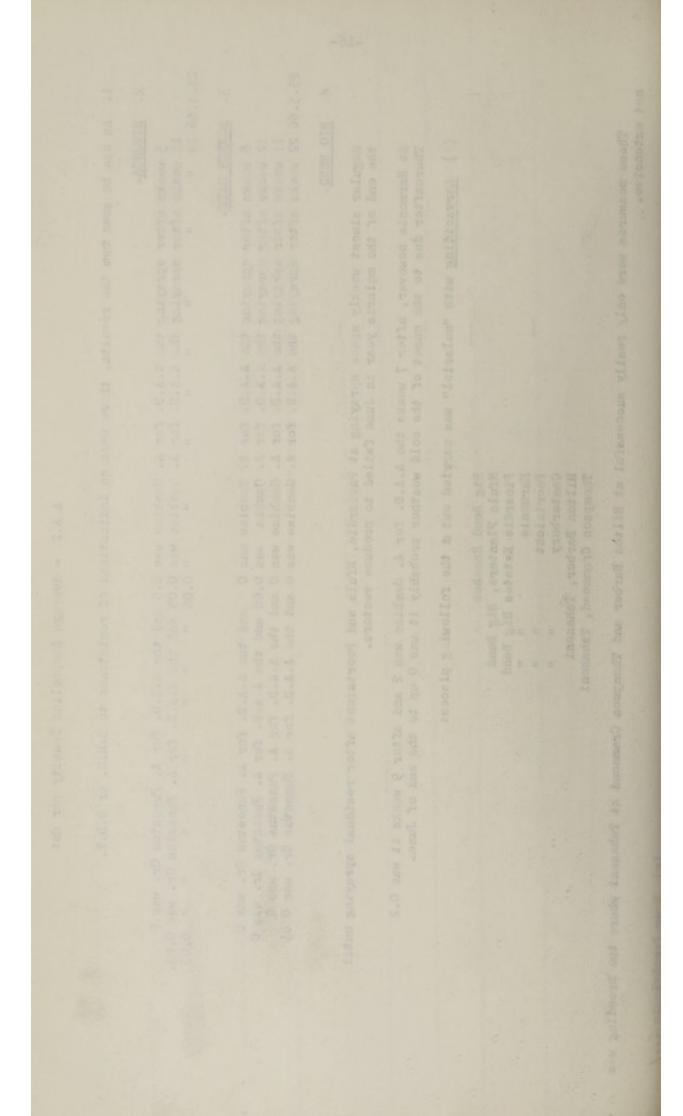
(a) <u>Manifunt Spraving</u>. with Someton School Stands of Strongs and Berner vertable pouldr, wis certial out at Surder See, Strongs and Big Rend. Technical D.D.T. was also youd at 21 Sent. cestimilars are an follower

				-15-	March	March	March	Dec	Dec	U U
					oh	ch	oh	December	December	Date
	No. of Huts per 1b. of B.H.C.	D.D.T. used	B.H.C. used	Total No. of Huts	Harmonie Big Bend	Mfula Planters Big Bend	Picardi · Estates Bio Bend	Border Gate	Sivunga	Place
Chaters Alters Diverses	3.9	3 1bs	180 lbs	716	62	75	68	221	248	Nc. of Huts Sprayed
er burber and the	Intertor Big Bood	the billion of	T AND ALL THE REAL OF	And the state	6.0	2.0	8.0	1.5	1.2	A.A.D. for A. Gambiae before Spraying
A.D.D					1	A. A. C. The A. C. C. Status	I	0.1	1+9	A.A.D. for A. Funestus gr. before Spraying
A.D.D. Average Anopheline/					0	0	0	0	0	A.A.D. for A. Gambiae shortly after spraying
1e/					1	1	1	0	0.19	A.A.D. for A Funestus Gr. shortly after spraying

	agaired. rademard
110	Doctaber Series
	antua
	albomall dow
1	henr f.a.t
	No. of Rida per lb.

<ul> <li>1. An one we need to be even the result, there were no indication of resistance to Bill() or Diff.</li> <li>2. <u>SUTURNA</u></li> <li>3. <u>NOTER OFF.</u></li> <li>B we have a first spreying the AAD. for A Guabiae we 0.05 and the AAD. for A. Funestu Gr. we 0.05, 10 we have a first spreying the AAD. for A Guabiae we 0.06 mill the AAD. for A funestu Gr. we 0.05, 50.6 22 we a first spreying the AAD. for A Guabiae we 0 and the AAD. for A Funestu Gr. we 0.05, 50.6 22 we a first spreying the AAD. for A Guabiae we 0 and the AAD. for A Funestu Gr. we 0.05, 50.6 22 we a first spreying the AAD. for A Guabiae was 0 and the AAD. for A Funestu Gr. we 0.05, 50.6 22 we a first spreying the AAD. for A Guabiae was 0 and the AAD. for A Funestu Gr. we 0 of the malaria year in due field to produce vectors.</li> <li>A Hamonia howeve, after 7 weeks the AAD. for A. Guabiae was 0 and the add of due.</li> <li>(*) <u>Larvaciding with "malarial" was curied out if the following place.</u></li> <li>B and invoite the AAD. for A function of the sub of due.</li> <li>(*) <u>Larvaciding with "malarial" was curied out if the following in the function is the breed was a first spread of the substance of the following in the function is a function in the first man.</u></li> <li>(*) <u>Larvaciding with "malarial" was curied out if the following in the function is the breed in the function is the function is the first man.</u></li> <li>(*) <u>Larvaciding with "malarial" was curied out if the following in the function is the breed in the function is the function is the following in the function is the breed in the function is the start is the breed in the function is the breed in the bree</u></li></ul>	A.A.D. = Aver
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-16-



(c) <u>Drug Prophylaxis</u>: All employers of labour in the malarious area were requested to issue Darachlor to employees visiting Mocambique in an attempt to further reduce the incidence of parasite carriers. In the case of Thambankulu Estates it was found to be more practical to dose all foreign labour weekly with Darachlor instead of trying to keep track of and dosing those visiting malarious areas and other countries, where malaria is indigenous.

Drug prophylaxis was instituted at the following places:

Volinde	(Darachlor)
Mpofu	
Nkamanzi	0
Ngomane	
Bar J. Ranch Big Bend	0
Mkhayabovu Big Bend	
Langa	(Daraprim)

(d) <u>Surveillance Operations</u> were continued by the field staff who were concerned mainly with routile blood taking, hut space spraying and larval collecting.

## 7. PARASITOLOGY:

Blood slides taken during the year were examined at the Health Office Manzini by four Microscopists and the following results were recorded:

SOURCE Indigenous Immigrants	<u>NEGATIVE</u> 22217 4434	POSITIVE 102 107	<u>TOTAL</u> 22319 4541	:	SPECIES
Cryptic Combined	26651	217	26860	Plasmodium "	falciparum 199 Malariao 6
Annual Paras Annual Blood			1.11		Falcip/Malar 11 Falcip/Vivax 1

Immigrants originated from the following sources:

SOURCE	NEGATIVE	POSITIVE	TOTAL	5 POSITIVE
Mocambique Zululand Transvaal	1814 1071	83 6	1897 1077 1501	4.4 0.6 0.7
Other	1490 59	7	66	10.6
(0)	4434	107	4541	2.1

8. ENTOMOLOGY .../

-17-

(a) <u>Orug Prophyloxics</u> All suployers of hobbar in the malarings ires who requested to issue Derivation to employees visiting Massbalque in an extend to further reduce the incidence of parasite carriers. Is the case of Turbarin's fat ton it wis found to be sore prectical to does all foreign 'node weakly with Darabler instead of trying to here track of and doing these visiting pairries and other constring, ware malarity is indigeness.

haddely prophylaxis win institution of the following places

(d) <u>Squvaillance Operations</u> were continued by the field staff who were concorred sainly with routh a blood a king, hat sphere opergrang and hereal collecting.

#### T\* PARASITOLOGY:

Bicon sinder takes during the year sets erained at the Manith Office Manzini by four Microscopiets and the following results were recorded:

1 one sector in the sector is a sector is

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#### Incitrupte originated from the following coursest

S. ESTORALOUT ....

8. ENTOMOLOGY.

(a) <u>Hut Space Spraying</u>. The results of this work carried out by the field staff were as follows:

No. of Huts tested	: 13,904 (Excludes space	
No. of A. Gambiae found	: 859 spraying mentioned	i.
No. of A. Funestus group found	: 334 8(c) as follows:	100
No. of other Anophelines found	: 469	

135 A Pretoriensis 84 A.Listeri 61 A.Coustani 58 A. Marshalli 49 A. Rufipes 23 A. Squamosus 14 A. Cinereus 7 A. Demeilloni 2 A. Maculipalpis 2 A. nili 34 Unidentifiable Ano helines

(b) <u>Larval Searching</u>. The field assistants on the irrigation schemes and the mobile teams carried out larval searching during part of September. Larval searching was also carried out at other times as and when necessary, results of identifications being as follows:

A.Gambiae from Dokolwako, Tshaneni, Mpaka, Nsoko, Ngomane, Nkambeni, Sivunga, Npofu, Big Bend, Nyakatho, Nkalashane, Qandatshe.

29 A. Funestus type from Sivunga dn Nyakatho.

Other Anopheles larvae identified were:

A. Naculipalpis A. Pretoriensis A. de Meilloni A. Rufipes A. Rivolorum A. Leesoni A. Marshalli A. Coustani

(c) <u>Assessment of Behaviouristic Changes</u>. Entomological surveys were conducted in certain areas where indigenous malaria cases occurred in order to assess possible behaviouristic changes. The following table reflects these special investigations:

DATE	PLACE	MAN-BAITED NET OUTSIDE	MAN-BAITED NET IN A HUT	MOSQUITOES BITING MAN OUTSIDE
9 - 11th November, 1965	M. Johnson	159 A. Marshalli	38 A.Marshalli	81 A. Marshalli
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Volinde	15 A. Coustani 1 P.Pretoriensis	3 A.Coustani 1 A.Maculipalpis	2 A.Coustani
12th-13th January, 1966	Mpofu	3 A.Pretoriensis		1 A.Pretoriensis
27th-28th January, 1966	Map.Ref.1/8	3 A.Coustani		4 A.Coustani
		11 A.Squamosus		13 A.Squamosus 1 A.Rufipes
25th-27th January, 1966	Mpofu Map.Ref.H/8	14 A.Coustani 5 A.Squamosus		6 A.Coustani 4 A.Squamosus
10th-12th May, 1966		18 A. Marshalli 1 A. Squamosus		
-19-	Langa Map Ref.S/28	1 A. Demeilloni 1 A. Coustani		0
17th-18th May, 1966 22nd June, 1966	Tulwane Map Ref. J/28	l A.Listeri	and a street of the second	0
1st-3rd June, 1966 9th-10th June, 1966	Nyakato Map Ref. 1/10	0	0	0

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	• • • • • • • • • •		5 A.coustani 45 A.squamosis 1 A.maculipalpis 1 A.pretoriensis 2 A.gambiae			CALF-BAITED NET
			3 Traps- 0 Anophelines	4 Traps- O Anophelines		WINDOW CASE TRAPS
43 Huts- 51 A.funestus GR. (49 2 20)	3 Huts 3 A.listeri	4 Huts O Anophelines	2 Huts O Anophelines	12 Huts O Anophelines	1 Funostus GR 1 O Huts 9 A.marshalli 6 A.listeri 2 A.gambiae 1 A.pretoriensis	SPACE SPRAYING
2 A.funestus type 24 A.gambiae	No A.gambiae or A.funestus type larvae	Nc, A.gambiae or A.funestus type larvae	No A.gambiae or A.Funestus type larvu.	No A.gambiae or A.Funestus Type Larvae	24 A.m rshalli 23 A.ccustani 11 A.maculipn1pis	LARVAL COLLECTIONS
2 Indigenous Malaria cases. See Sect. (d) for results of Precipitin tests.	4 Indigenous Malaria cases	5 Indigenous Malaria cases	1 Indigenous Malaria case	5 Indigenous Malaria Cases	2 Indigenous Malaria cases	REMARKS

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Date	Area	Result
31.3.66	Npofu H/8	0
7.4.66		1 A.gambiae and 1 A.marshalli
15.3.66		1 A.rufipes
31.4.66	" 1/8	1 A.gambiae
7.4.66	п п	2 A.gambiae and 1 A.funestus gr.
	SEL L	1 A.pretoriensis 1 A.rufipes 1 A.
15.4.66	н н	2 A. funestus gr. a A. rufipes
19.4.66		1 A.gambiae 1 A.funestus gr.
		1 A. maculipalpis
20.5.66	Tulwane J/28	1 A.funestus gr. a A.cinereus
22.6.66	n n	8 A. " " (8 1 ) 2 A.cinereus
24.6.66	и и	O A. " " 1 A.demeilloni
10.6.66	и и	3 A. " " A.listeri
11.5.66	Langa S/28	3 A. marshalli 4 A.rufipes
17.5.66	и и	0
18.5.66	Gundwini E/32	10 A.listeri 1 A.pretoriensis 1 A. marshalli
10.6.66	пп	l A.funestus gr l A.pretoriensis
20.6.66	п п	4 A. cinereus l A.pretoriensis l A.marshalli
24.6.66		4 A. cinereus l A.pretoriensis l A.marshalli
9.6.66	Nyakatho 1/10	7 A. funestus gr (6 1 )
10.6.66		16 A. funestus gr
14.6.66	н и	10 A. funestus gr.
15.6.66.	11 11	12 A. funestus gr. (11 1 )

Pit shelters were dug and inspected periodically in areas where exophily was suspected. Results were as follows:

### Conclusions.

At Mpofu no A. gambiae were found indoors. Outside biting and resting may therefore have been taking place (6 indigenous cases). At Tulwane no A. gambiae or A. funestus were found indoors. It was not possible to establish whether the outside resting A. funestus gr. were A. funestus type (4 Indigenous cases) A.langa, no vectors were ever found. (5 Indigenous cases) At Gundwini, 1 A. gambiae was found indoor\$3 Indigenous cases) At Nyakatho, A. funestus gr. was no found to be biting man (see results of Precipitin Tests: Section 8 (d). 1 A.gambiae was found in a hut in March 1966 and A.gambiae larvae only in June, 1966. Exophagy by A. gambiae was not established but could pogsibly exist.

(2 Indigenous cases)

(d) Precipitin .../

areas where executive was and accorded according in

#### .capiestono?

At therefore any have found integral. Cutaids biting and restiany therefore any have been taring also (6 indicating to the end). At Thirdso no 1. genetics or 5 families were found indeors. It was not preside to establies whether the painter resting 4. funcations with 4. funcates trys 1. indice 4. funcates were even found. (1 indicating a name) 4. indice 5. funcates were even found. (2 indicating an ange) 4. indice 5. i.e. functor were found. (2 indicating an ange) 4. indicating 5. i.e. functor were found. (2 indicating ange) 4. indicating 5. i.e. functor were found. (2 indicating ange) 4. indicating 5. i.e. functor were found. (2 indicating ange) 4. indicating 6. i.e. functor were found and a found to be bits one (2) is a set to state 1. i.e. functor found in the set bits of the found is a set is shown 156 and A. genetics 6 (d): 1 i.e. stables was found in a set is shown 156 and A. genetics for a bit could peoplety one.

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l	1DS	

Precipitin tests were carried out at the Health Office, Manzini with Anti-Human Rabbit Precipitating sera obtained from Messrs. Burroughs Wellcome and Co. Results were as follows:

15.3.66 <u>1.4.66</u> <u>26.5.66</u> <u>10.6.66</u> 14.6.66 <u>27.6.66</u>	15.3.6 <u>1.4.6(</u> 26.5.( 10.6.	15.3.6	15.3.(		2.3.66	4.3.66	25.2.66	25.2.66	15.2.66	11.2.66	1 21.1.66	20.1.66	7.12.65	30.11.65	12.10.65	24.9.67	Date	
	6 + Nyakatho		Ngomane	Hilton S.I.S.	Phuzamoya	Magongolweni		6 Harmonie		6 Canterbury,	6 Qandatshe	6 Sigcaweni	5 Border Gate	65 Sirunga	65 Sivunga	57 Nyakato	Locality	
		0		Barber Tshaneni	ya	lweni	Mkhofeni, Big Bend Ranches	e Big Bend	Picardie, Big Bend	ury, Nsoko	he	ni	Gate				ity	
		1015	8	J	4	12	3	10	16	13	12	4	20	15	14		No. tested	
			4	1	0	0	1	7	16	13	0	0	4	10	6		No. +ve For Man	
			50%	33.3%	20	20	33.3%	70%	100%	100%	0%	0%	20%	67%	43%		Man Biting Rate	A. GAMBIAE
		4.00	2.0	1.0	0.6	4.4	0.6	6.0	8.0	1.3	4.0	0.45	1.5	1.2	0.9		Av. Hut Density	
	46	35		22 4									3	40	11	5	No. tested	
	0	0	1 2 2	7 - 7 - 7									0	1	0	0	No. +ve For Man	Ā.
	0%	0											20%	2.5%	20%	0%	Man Biting Rate	· FUNESTUS GR.
Shelters (in cludes 7	All ex Pit	1.1											0.1	1.9	0.7	2.5	Av. Hut Density	

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## 3. POLIOMYELITIS

Oral anti polio vaccine.

	lst.	2nd.	3rd.	Booster
Hc th Office Manzini	502	260	133	62
Red Cross Clinic Manzini	199	84	24	-
	701	344	157	62

26 cases were reported with no deaths.

4. DIPHTHERIA

Triple Vaccine (D.F.T.)

	lst	2nd	3rd	Booster
Health Office Manzini	66	41	29	11
Red Cross Clinic Man.ini	180	62	24	
	246	103	53	1
Diphtheria Tetanus Vaccin	e 1st	2nd	3rd	Booster
	18	15	11	10

39 cases were reported with 1 death.

# 5. SMALLPOX

Vaccinations against smallpox

	Primary	Re-vaccination	Total
Health Office Manzini (a) Field (b) Office	15631 245	26423 2775	42054 3020
Red Cross Clinic Manzini	127	-	127
Health Centres			3127
Government and Mission Hospitals			3094
		Total	51,42

73 cases occured during the year with 3 deaths.

## 6. VENEREAL DISEASE.

Figures for attendance at Government and Mission Hospitals and clinics are appended:

	Syphilis	Gonorrhea
1963	2419	3889
1964	8590	13717
1965	11915	14432
1966	9242	13327

.

#### 7. LEPROSY.

## REPORT OF MBULUZI LEPROSY HOSPITAL

The statistical charts at the end of this Rep rt will show that the work at the Leprosy Settlement has remained at about a plateau with previous years.

The treatment has remained approximately the same with the standard usage of the drugs D.A.P.D.S. plus Blaud's Pills and yeast. Naturally there are variatioons to this to take care of complications when needed.

The school at the Settlement functioned during the year, with a total of eight students. It was taught by Patient Tandi Fakude.

During the year the population at the Settlement remained the same with 26 admissions and 26 discharges.

The farm has continued to render efficient and needed supplemental help with the food problem and there are well over 60 head of cattle with numerous goats and chickens, all taken care of by Settlement Personnel.

The grant from the Oxford Committee for Famine Relief has continued to be a great boon during the year and has helped considerably with the farming.

It has been a tremendous boost to the morale of the patients as well as the Staff to see the number of interested organisations and individuals who have come to the Leprosy Settlement during the year and have done so much to raise the level of morale. Regular visits by Mr. C.B. Pretious of the Red Cross, as well as members of the Rotary Anns and the Rotary Club have been of great practical benefit.

The Christmas Party, as usual, was the highlight of the year with a number of outstanding personalities attending. The guest list included Sir Francis and Lady Loyd, Her Majesty's Commissioner for Swaziland, Dr. and Mrs. Charles Runciman, Mr. A.Z. Khumalo, Member for Health, and Mr. and Mrs. Donald R. Day, Director of Education, Swaziland Government.

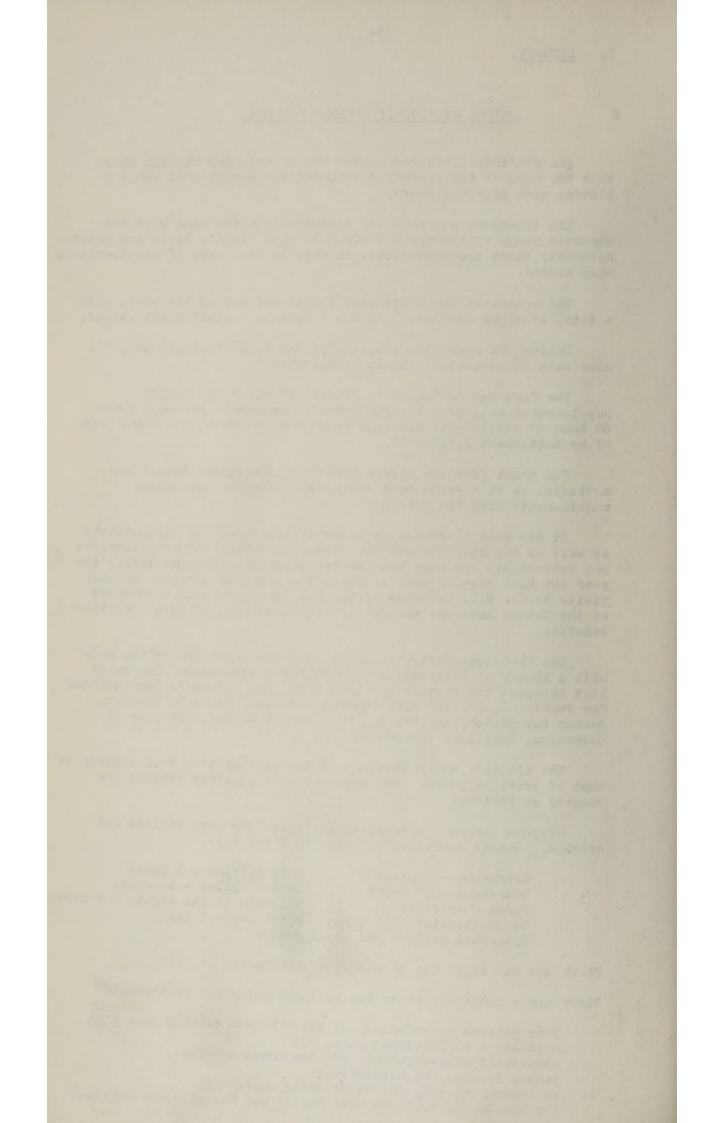
The clinical manifestations of the disease have been similar to that of previous years. The types of complications treated are roughly as follows:

Trophic ulcers - approximately 17 per day were treated and dressed. Lepara reactions amounted to 7 per day.

Blindness - 2 cases	Malnutrition - 3 cases
Diarrhoea - 36 cases	Dental Caries - 18 cases
Burns - 19 cases	Gangrene of the digits - 6 cases.
Conjunctivitis - 11 cases	Epistaxis - 1 case
Catarrhal colds - the usual	number.

There was one death due to cancer of the bone. There are a number of needs for equipment which can be itemised:

Four walkers - preferably of the aluminum tubular type. Crutches - at least six pair, and Assortment of instruments for the dressing tray. Dental forceps for extractions An instrument tray for sterilising intruments Two and 20 cc. syringes with No. 22 and No. 21 gauge needles.



There is also a need to pipe water into the ward. Screens are rather badly needed on some of the windows at the Leper H'spital, as well as in some of the Staff quarters.

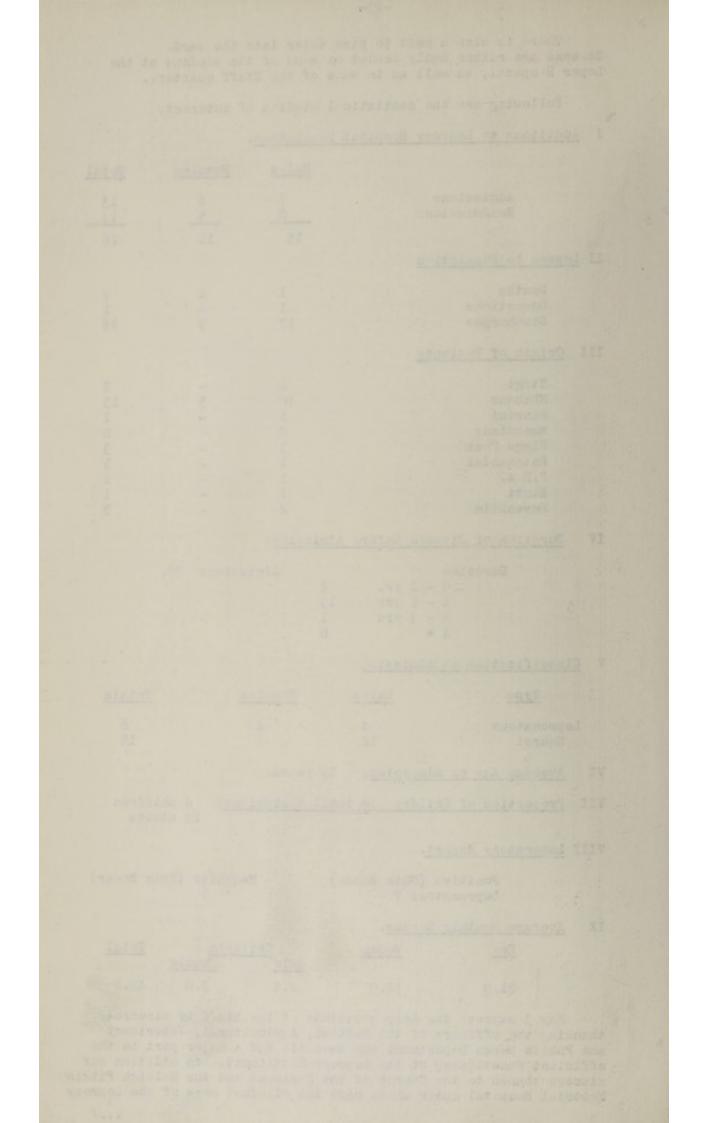
Following are the statistical studies of interest:

## I Additions to Leprosy Hospital Population.

	Males	Females	Total
Admissions Readmissions	7 8 15	6  11	13 13 26
II Losses to Population			
Deaths Desertions Discharges	1 1 17	1 - 9	2 1 26
III Origin of Patients			
Stegi Mbabane Manzini Mankaiana Piggs Peak0 Entshanini P.E.A. Hluti Emvenbile	2 10 1 2 3 1 1 1 2	5	2 15 1 2 3 1 1 1 2
IV Duration of Disease before Adm	ission:		
Duration 0 - 1 yr. 2 1 - 2 yrs 15 2 - 3 yrs 1 4 + 8 V <u>Classification on Admission</u>		issions 26.	
. Type Males	Female	8	Totals
Lepromatous 4 Neural 12	4 5		8 18
VI Average Age on Admission. 35	years.		
VII <u>Proportion of Childre</u> to tata VIII <u>Laboratory Report</u> . Positive (Skin Smear) Lepromatous 7		lons: 4 ch 22 ad Jegative (Sk 7	
IX Average Monthly Census.			
Men <u>Women</u> 21.9 12.9 May I express the deep gratitu thanking the officers of the Medica	Male 4.4 ide of the		

thanking the officers of the Medical, Agricultural, Veterinary and Public Works Department who have all had a major part in the efficient functioning of the Leprosy Settlement. In addition our sincere thanks to the Church of the Nazarene and the Raleigh Fitkin Memorial Hospital under whose care the clinical work of the Leprosy

.../



Settlement is maintained. It is through them that the Staff of the Leprosy Settlement is supervised and also furnished.

The Mission to Lepers have furnished most needed financial aid and other types of support, without their help the Leper Settlement could not have functioned at the level at which it has.

To the numerous friends who have been so generous with their time and donations, we thank.you.

Medical Superintendent, R.F.M. Hospital and it: Ancillary Institutions.

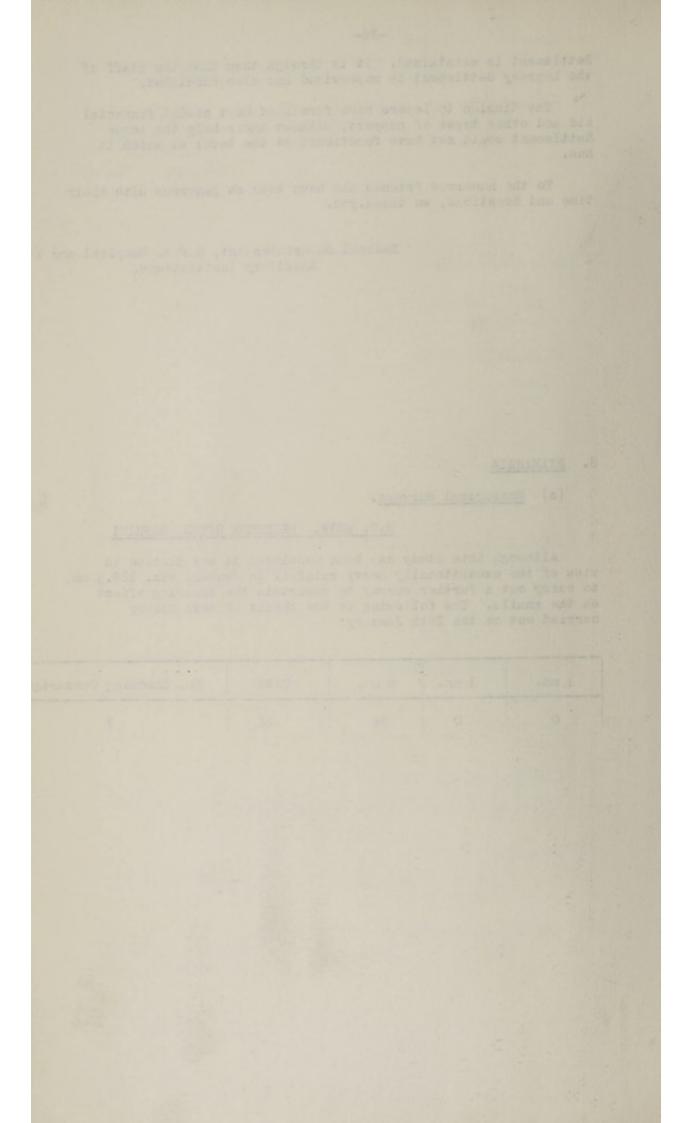
# 8. BILHARZIA

(a) Ecological Surveys.

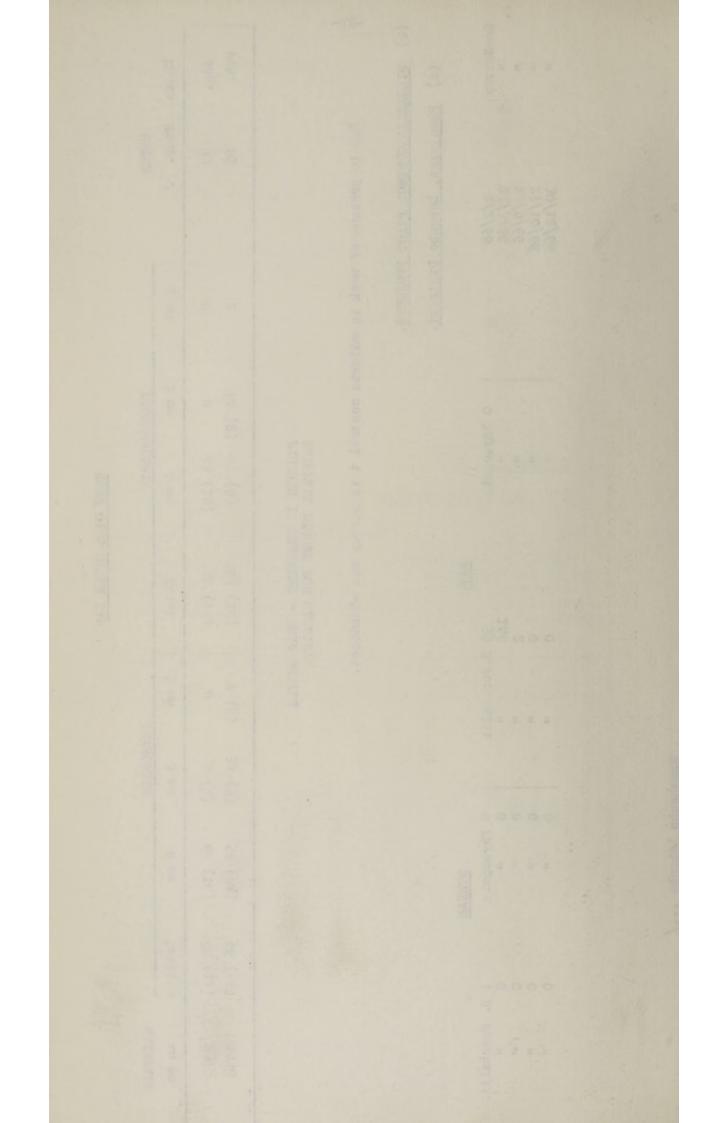
# R.C. WEIR. MZIMNENE RIVER, MANZINI

Although this study has been concluded it was decided in view of the exceptionally heavy rainfall in January viz. 189.5 mm. to carry out a further survey to ascertain the scouring effect on the snails. The following is the result of this survey carried out on the 24th January:

3 mm.	3 mm.	6 m.a.	Total	No. Shedding Cercariae
0	0	24	24	7



		Wamahasha Lebombo/	Namahas							
B. Forskalii """""""""""""""""""""""""""""""""""	0000	O Physopsis		B.Forelalii	DAM 2 166 0 0	Physopsis "	0 Phy		2/2/66 24/3/66 22/9/66 27/10/66 30/12/66	Re-Survey "
				3d.	ey was abandoned.	l t is survey	work in malaria control PROJECTS. District.		Due to pressue of BILHARZIA CONTROL PILOT 1 (i) Phonjwana, Lubombo 1	-27- (b) <u>BILHA</u> (i)
				SNAILS L.	IN BRACKETS = DEAD SNAILS FIGURE FOR MANZINI.	FIGURES IN BRACKETS RAINFALL FIGURE FOR	평 평			-
2670 1550	68 (11) 96 (34)	62 (10) 56 (24)	6 (1) 33 (6)	0 7 (4)	91 (12) 103 (10)	83 (12) 87 (8)	8 14 (2)	NO	72 85	Jan. Feb.
RAINFALL in mm	Total	6 mm	PHYSOPSIS 3 mm	3 mm	TUNG OILS UPPER DAM IA 6 mm Total	TUNG OII LARIA 6 mm	TU BIOMPHALARIA 3 mm 6	3 mm	WATER Temp	Month

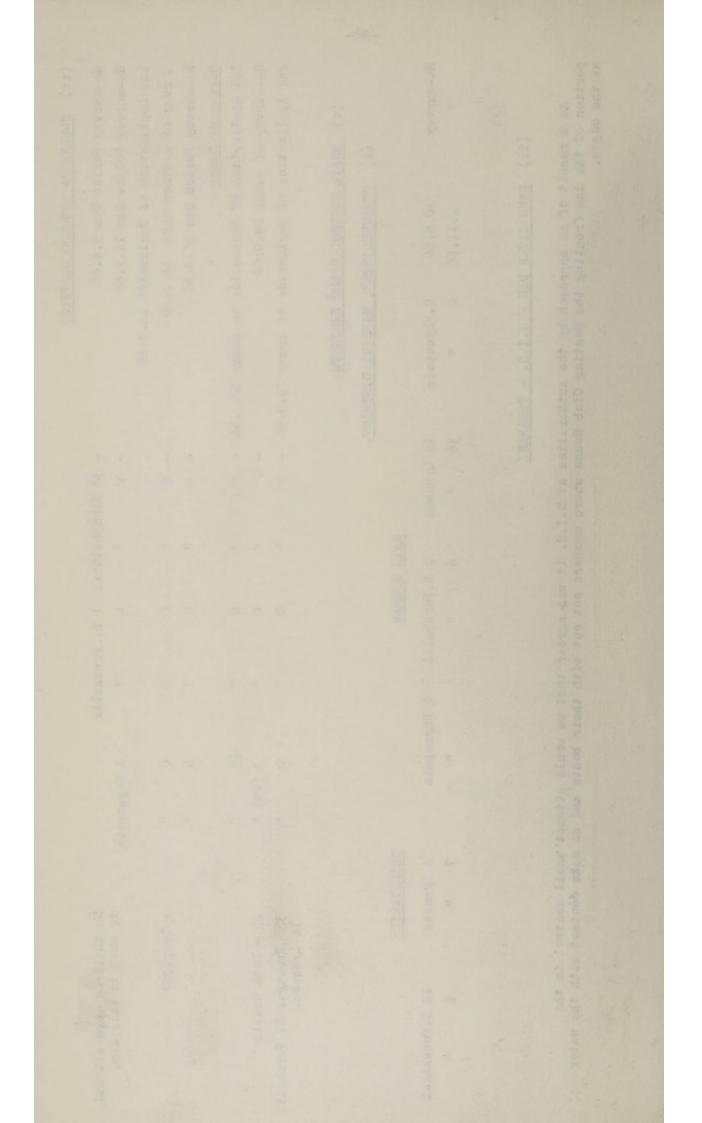


As a result of an approach by the authorities portion of the dam fronting the Boating Club House	(d) (ii) <u>SAND RIVER DAM - S.I.S TSHANENI</u>	Re-survey 30.9.66 0.Physopsis 14 1 " 4.11.66 0 " 58		(i) "THANDELIZWE", MANZINI DISTRICT.	(c) SNAIL CONTROL PILOT PROJECTS	2nd Application of Bayluscide to swamp 29.9.66 -	Re-survey of swamp 29.9.66 -	1st Application of Bayluscide to swamp 2866 -	Survey of Swamp "	Re-survey Police Dam 26.9.66 -		1st Application of Bayluscide 14.7.66	Re-survey Police Dam 14.7.66 -	Re-survey Police Dam 5.4.66 -	(11) NOMAHASHA LUBOMBO DISTRICT
		Lymnaea "				0	0	0		0	0		0	34 Biomp	
at S.I.S. it was where members set		1 B.Fc 4	MAIN STREAM			-	2	-			=		=	Biomphalaria	
agreed tout wi		B.Forskalii "	SAM			0	0	0		0	0		0	1 B. For	
was agreed that we would attempt set out with their boats and so		0 Physopsis				=		=		=	=		Ξ	Forskalli	
boats an		opsis				0	3 (29)	45		0	0		1 Phys		
		4 7	TRI			=				н	=		Physopsis		
snail control in the make contact with the water		Lymnaea 12 B.Forskalii " 6 "	TRIBUTARIES			328 Tropigus 87 Borskalli 14 Lymnaea.	29 m Dead Snails				+ Tropigus		to swim in this dam.	No children were allowed	

-28-

at the edges.

Biomphalaria ..../



		-29-			
		<u>Biomphalaria</u>	<u>Physopsis</u>	Lymnaea	Tropicus
6.5.66	Survey of 200 yds. in for of Club house	ront 14	18	6	
6.5.66	Application of Bayluscie to same 200 yds.	le			
10.5.66 13.5.66	Re-survey	19(2) 6(2)	8 1(1)	0	- 4(1) 0
"	Application of Copper Sulphate				
20.5.66	Re-survey	4(6)	2(3)		
20.5.66	Application of Copper Sulphate	10(4)	4(1)		
27.5.66	Application of Bayluscid Re-survey	le ? 1(38)	? 1(4)		-300 yds. - either 1 Bio or 1 Phys.
3.6.66	Re-survey Application of Copper Sulphate	0(44)	1(5)		
10.6.66	Re-survey Application of Copper Sulphate	0(29)	0		
17.6.66	Re-survey Application of Copper Sulphate	2(20)	1(3)	0	0
24.6.66	Re-survey Application of Copper Sulphate	11(71)	4(5)	0	0
N.B	. 1. Bayluscide applied	l by knapsack spr	ayer.		
2	2. Copper Sulphate ap broadcasting by ha		with sand a	nd	
11. 8	3. Figures in bracket	ts indicate dead	snails.		
	<ol> <li>It is not known wind of live to dead sm and 8th July, 1966</li> </ol>	ails as indicated			
A State	5. On 16th September,				

half the area under control, were treated with copper sulphate applied by means of a pump and the other half of the area was treated with copper sulphate and sand mixture applied by hand.

On 19th September, 1966 a survey was carried out and the results obtained were compared.

These results do not establish the superiority of the one method over the other, but iw as found that the pump method required less copper sulphate and was quicker.

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6. During October, the control of snails was handed over to SIS. One of their employees was trained in snail collecting and the application of Copper Sulphate.

	19.9.66	19.9.66	16.9.66	16.9.66	9.9.66	2.9.66	26.8.66	19.8.66	12.8.66	5.8.66	29.7.66	22.7.66	15.7.66	11.7.66	8.7.66	7.7.66	1.7.
Ref. Fo	=	=	=	=	=	=	=	=	=	=	=		=	=	=		Survey
Ref. Footnotes on page 4.	33(9)	13(4)	3(2)	(9)		1		48(164)	51(56)	1	-54(207)	1	-42(138)	-33(21)	- 0(76)		Survey - 6(87)
page 4.	a	п					11				п		п	u			Biophalaria
	8(5)	21(3)	0(1)	0	••		-2	1(3)	5(7)		4(13)	3	0(4)	15(7)	0(8)		2(2)
					=		=	=	=		=		=	11	=		Physopsis
	1																+
		'	+	*	+		+	+	+	1	+	+	+				T
		- (+ 100 yards	+	* :	+	1	+ =	+ =	+	1	+	+ =	+ Application			н	
		- (+ 100 yards treated	+	* = =	+ = =	1		+ = =	+ * = *	1	+ = = =	+	+ Application of Copper			=	
		- (- 100 yards treated by pump)	п	*	+	1 1		=	+ + = = = =	1	н	11	+ Application of Copper Sulphate				Application of Copper Sulphate
	- (- 100 yards treated by Sand Broadcast).	- (- 100 yards treated by pump)				No work done				1		и и	+ Application of Copper Sulphate			=	

SMAIL CONTROL AT SAND RIVER DAM - S ...S. - TSHANENI.

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One Biophalaria was found on dissection to be in of S. manzoni transmission in Manzini. 30/3 J. Potrieter, Plot 23 Manzini Est. Few p	23/3 Manzini Mzimnene yards be ponds	Manzini	2nd 3rd Spr	16/3 C. Roberts, Plot 25, Manzini 1st dam		16/3 D. Anderson, Plot 24, Manzini Est. Dam	S.I.S., Tshaneni	(f) MISCELLANEOUS SNAIL SURVEYS.	The concentration of Bayluscie	<u>Re-survey</u> 18.2.66	2nd application of Bayluscide 11.2.66	Re-survey 11.2.66	1st Application o' Bayluscide 3.2.66	Preliminary Survey 3.2.66	A new dam was therefore chosen viz. Francis Dam,
infested with mammali	nene River few 100 s below oxidation s	Ghobaghoba Stream	dam dam ing	dam	Stream ± 100 yds Below Dam Reservoir		Portion Band River Dam		Bayluscide aimed at was 0.5	5		5	5	5	Manzini.
an cercariao whiet	55 "	37 "	00w	1 "	40 = =	" 6	l Physopsis		P.P.M.		6 oz. used	9	4 oz. used.	374	Particulars of work done
mammalian cercariae which suggests the possibility	7 " (Mammalian Ceriariae	0 " (Mammalian Ceriariae	•••	. 0	•••	. 0	5 Biophalaria			Physopsis		Physopsis		Physopsis	here are as follows:

-31-

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(e) MOLLUSCICIDAL TRIAL WITH BAYLUSCIDE .



## (g) BILHARZIA SKIN ANTIGEN TESTS.

Skin antigen tests with W.H.O. Reference Skin Test Antigen (Melcher's sterile acid-soluble protein fraction or S. manzoni adults) were performed on 20 people from the Sidney Williams School, 19 of whom had bathed in Mzimnene River in Manzini.

Whilst 10 of these were positive, a number of urine specimen from all 20 and 2 stool examinations from each of 18 were negative.

## (h) PROPAGANDA.

Talk on Bilharzia. As a result of the concern of the Head Teacher about the high incidence of schistosomiasis amongst his pupils, a talk was given on Bilharzia prevention to the pupils of Madubeni North School, Hho Hho district.

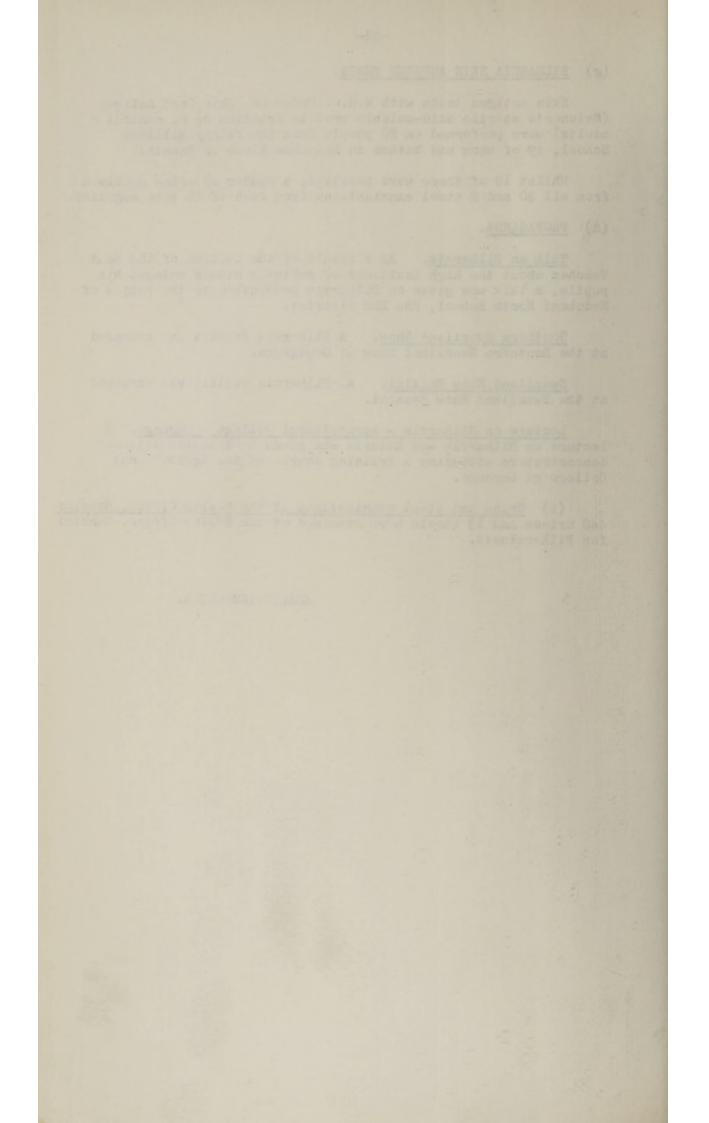
Southern Swaziland Show. A Bilharzia exhibit was arranged at the Southern Swaziland Show at Goedgegun.

Swaziland Show Manzini. A. Bilharzia wxhibit was arranged at the Swaziland Show Manzini.

Lecture on Bilharzia - Agricultural College - Luyengo. A lecture on Bilharzia and Malaria was given to domestic science demonstrators attending a training course at the Agricultural College at Luyengo.

(i) Urine and stool examinations at the Health Office, Manzini
 440 urines and 19 stools were examined at the Health Office, Manzini
 for Bilharziasis.

HEALTH INSPECTOR.



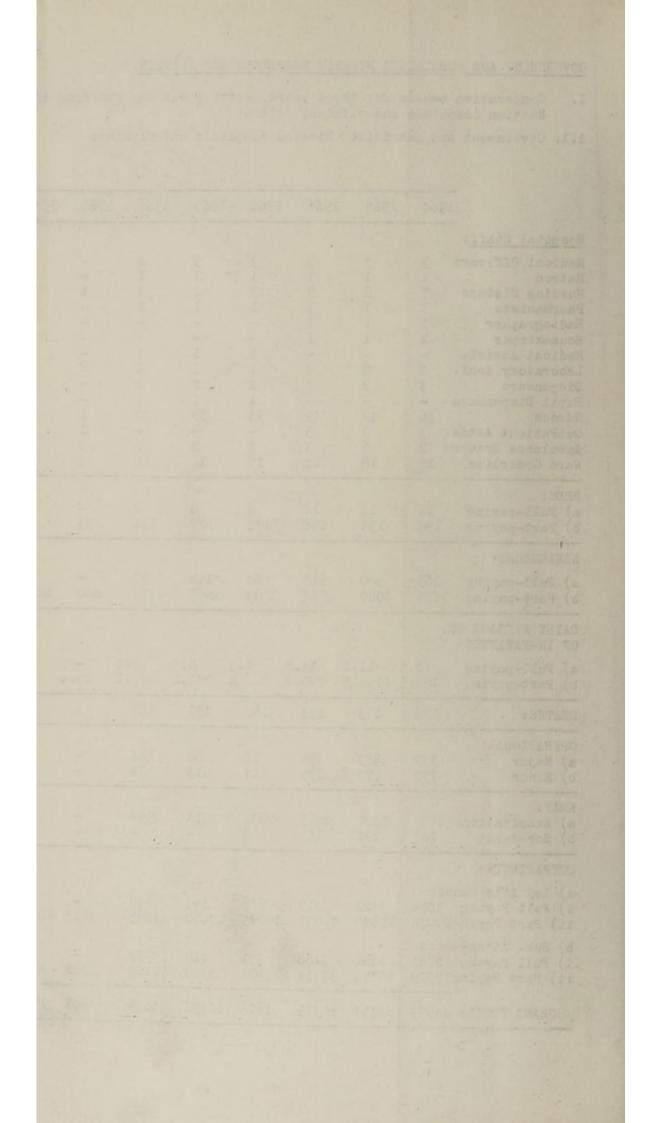
GOVERNMENT AND SUBSIDISED MISSION HOSPITALS AND CLINICS:

CHAPTER III

1. Comparative tables for three years, setting out the staffing of Government hospitals, and the admissions, attendances, etc. at Government and subsidised Nussion hospitals and clinics, follow:

1.1. Government and Subsidised Mission Hospitals and Clinics:

	1964	1965	1966	1964	1965	1966	1964	1965	1966	1964	1965	1966	1964	1965	1966	1964	1965	1966	1964	1965	1966
Hospital Staff: Nedical Officer Matron Nursing Sisters Pharmacists Radiographer Housekeeper Nedical Assist.	1 7 1 1	5 1 8 1 1 1	5 1 9 1 1	3131-	3 1 4 1 -	4 1 4 1 -				1 - - -	1 1 - -	1 1 - -		1 1 -	1 - -	11111			9 2 11 2 1	10 2 16 2 1	11 2 17 2 1 1
Laboratory Asst Dispensers Pupil Dispenser Nurses OutPatient Attd Ambulance Drive Ward Orderliss	• 2 3 3 36 8• 3	- 2 2 - 49 3 2 18	- 2 2 - 49 3 18	1 2 1 33 - 2 12	1 2 4 39 - 2 12	1 2 4 40 - 2 12			- - 7 1 3		- - 9 - 1 3								3 5 1 84 4 7 32	3 4 106 4 8 40	3 4 114 4 9 41
BEDS: a) Full-paying b) Part-paying	14 154	14 154	14 156	8 127	8 127	8 134	33	33	33	- 39	47	- 50	-	- 12	12	-	30	_ 30	22 353	22 403	22 415
ADMISSIONS: a) Full-paying b) Part-paying	363 3699	500 4080	510 4549	63 3289	116 3668	90 4324	- 640	1059	932	1183	993		-	122	635	-	-	185	426 8811	616 10082	600 12100
DAILY AVERAGE 1 OF IN-PATIENTS a) Full-paying	6.						25.0	5 30.	2 28.4	1 45.	4 45.8	- 65.0		-7.0	- 12	-	- 27.2	32.5	7.		
b) Part-paying DEATHS:	182.	3 194.5	193	182	192	188	4	18	16	68	43	62	-	6	19	-	3	2	430	435	480
OPERATIONS: a) Major b) Minor	399 790	585 773	459 835	85 417	80 613	164 551	-		-	19 50	8 29	5 60	-	Ξ	Ξ	Ξ	-	-	503 1257	643 1415	623 1386
XRAY: a) Examination: b) Screening	4/05 167	5307 131	6215 142	2836 4	3513	3953	Ξ	-		410	374	674	-	-	-		-	-	7441 171	9194 135	10168 142
OUTPATIENTS: a) 1st Attendas i) Full Paying ii) Part Paying	5252	4421 19895	8919 21021	648 10095	364 12680	130 13285	3813	40 6404	54 6862	137 6541	167 9720	222 8134	11469	10805	3 <b>90</b> 8221	3565	5268		6046 54571	4992 64772	4715 62697
<ul> <li>b) Sub. Attend</li> <li>i) Full Paying</li> <li>ii) Part Paying</li> </ul>	2781.	4362 35773	3468 32311	291 5700	219 9328	79 11165	588	31 3040	2 941	134 4161	35 1518	16 1364	7157	215 5540	489 6200	990	1266		3206 36125	4862 56465	4054 52992
GRAND TOTAL:	44659	64451	60719	16734	22591	. 24659	4401	9515	7859	10973	11440	9736	18626	116560	15300	4555	6534	6185	99948	131091	124458



1. 3. SUBSIDISED MISSION HOSPITALS:			gh Fitkin L Hospita		Good : Hos	Shepherd pital			Tot	tals :	-34-	
<pre>BDS: (a) pull-paying; b) Part-paying;</pre>	1964 15 260	1965 15 260	1966 15 260			1964 5 62	1965 5 62	1966 5 62		1964 20 322	1965 20 322	1966 20 322
INTISSIONS: a) Full-paying: b) Part-paying	494 7570	543 5500	540 5204			72 1353	29 1172	132 1575		566 8923	572 6672	672 6779
ALLY AVERAGE NO. OF IN-PATIENTS: (a) Full-paying: (b) Part-paying:	10.8 278.2					1.3 40.9				12.1 319.1	11.3 342.1	
1947H23:	255	255	304			45	40	42		300	295	346
( <u>PERATIONS</u> : (a) Major: (b) Minor:	636 1366	653 1385	591 814			2 125		272 35		638 1491	653 1530	863 849
L-RAY: (a) Examinations: (b) Screenings:	3312	4169	3706			500 24	361 20	461		3812 24	4530 24	4167
UTPATIENTS: (a) 1st attendances in (1) Full-paying Section: (2) Part-paying Section:	3368 13146	3003 15763	2532 13885			1076 6022	656 6801	955 13703		4444 19168	3659 22564	3487 27588
(b) Subsequent (1) Full-paying Section: Attendances in (2) Part-paying Section:	1307 5799	1829 9571	1700 11181			481 1869	266 2411	435 3247		788 7668	2095 11982	2135 4428
GRAND TOTALS:	22620	30166	27298		) 's II	9448	10134	18340		32068	+0300	47638
L 4. SUBSIDISED MISSION CLINICS:					Totals					Mission	Totals	
			_	1964	1965	1966			1964	1965	1966	
Nasarene Missions: Stogi Badingoni Pigg's Peak: Hiba Mafutheni Bhekinkhosi Balegane Malinda Mayimane Tambankulu Nalandela Lalela Thembelihle Manzana Kashowala Engculwini Beigcaweni				10104 3661 2736 2201 974 1732 2242 2349 9358 368 1104 1400 -	8049 4994 2184 1696 1055 1574 1752 2574 5371 10106 878 834 824 712 305 2479	7302 5105 3968 2776 1463 3784 2406 3042 6871 10179 1025 1143 1593 345 318 1590 248			46697	45486	53158	
<u>baan Catholic Missions</u> : Ar Lady of Sorrows: H. Juliana Athanjeni An Mechael Am Boniface			1	11554 5745 -	10172 10672 1345	9725 10401 1061 256 138			22121	27523	21581	

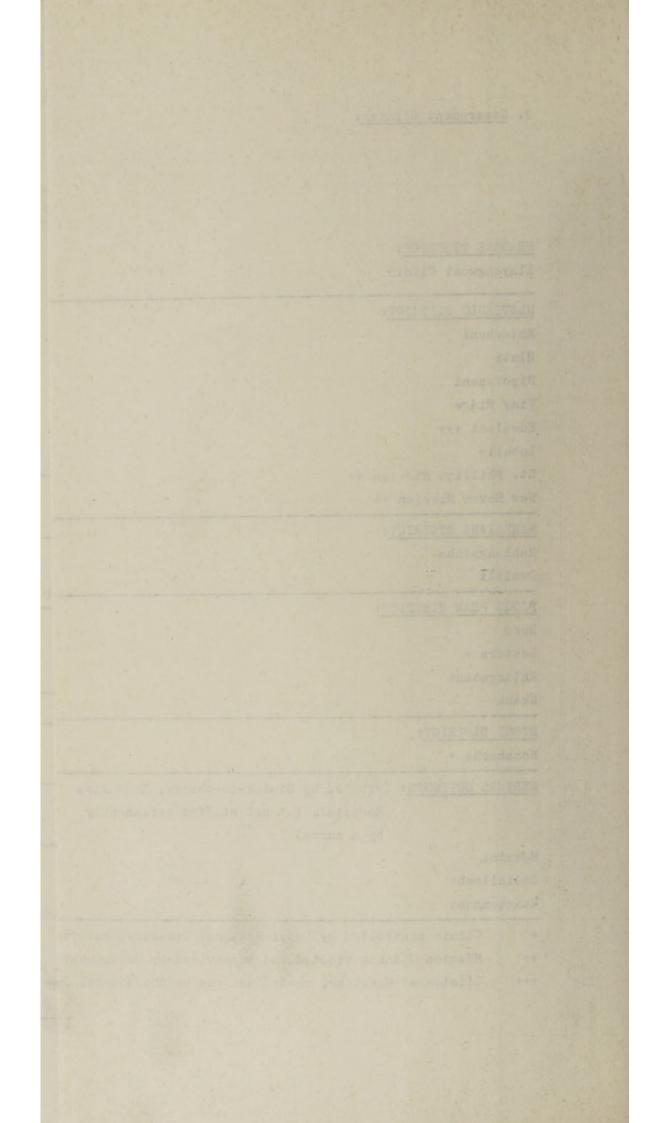
++ Visited by Nurse-in-charge at Our Lady of Sorrows

	Total Attendances:		District Totals:			
	1964	1965	1966	1964	1965	1966
BABANE DISTRICT:			A Ten Se Contra			
Eluyengweni Clinic -	11533	12396	16066	11533	12396	16066
HLATIKULU DISTRICT:						
(hlosheni	6994	8574	8403			
iluti	10229	14859	10221			
Sipofaneni	8748	11639	9508			
Vimy Ridge	1492	1632	983			
Sdwaleni +++	1700	6076	6473			
Lubuli+	5362	7158	6570			
St. Phillips Mission ++	4193	5055	4921			
New Haven Mission ++	12653	13253	15838	51371	68256	62917
MANKAIANA DISTRICT:						
Mahlangatsha	6566	6339	7634			
Dwalili	6644	6767	7241	13210	13106	14875
PIGGS PEAK DISTRICT:						
Horo	15372	19225	15090			
Lesters +	4504	8535	11634			
Whlangatane	8259	9786	10544		20261	20507
Nkaba	2455	1818	2329	30590	39364	39597
STEGI DISTRICT:				2000		2184
Nomahasha +	1090	1447	2184	1090	1447	2104
MEDICAL OUTPOSTS: (visited by Sister-in-charge, Mankaiana						
Hospital, but not staffed permanently						
by a nurse)						
Ngazini	1479	4605	4268			
Endinilembe	570	3593	1918	2291	10300	8804
Mangqongqo:	152	2102	2618	2291	10300	0004

Clinic controlled by Swazi National Treasury, but visited and supervised by Government Medical Officers. +

Mission Clinics visited and supervised by Government Medical Officers.

++ +++ Clinics at Missions, rented and run by the Medical Department. -35-



## 2. HAVELOCK MINE HOSPITAL

2.

The number of Africans who were not mine employees or their dependants who were treated at the Havelock Mine Hospital during 1966 was as follows:

Number	of	Admissions			262
Number	of	Outpatients	New	Cases	896
			Reat	ttendances	1436
In-pati	ient	t days			1607
Daily r	umb	per of In-pat	iente	3	45

### 3. MEDICO-LEGAL POSTMORTEM EXAMINATIONS

The number of medico-legal post-mortem examinations carried out at Government and subsidised Mission Hospitals from 1964 to 1966 were as follows:

	1964	1965	1966
Mbabane Hospital	46	51	33
Raleigh Fitkin Memorial Hosp.	106	94	8787
Piggs Peak Hospital	26	31	60
Good Shepherd Hospital	24	35	56
Hlatikulu Hospital	45	50	91

Medico-legal requests from the Police for the examination of Assault and Rape cases totalled 215 at Mbabane Hospital. Figures from other centres are not available at present. 21 examinations were done at Mbabane Hospital in cases of alleged driving under the influence of liquor or drugs.

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# -37-CHAPTER IV.

### MATERNITY AND CHILD WELFARE SERVICES

Ante-Natal Clinics, outside of hospitals, produce the following figures, which are not complete, as not all clinics were notified early in the year to keep records:

Mobile Clinic - Hlatikulu	2028
Mankaiana	735
Hlatikulu District	5630
Stegi District	699
Manzini District	2069
Piggs Peak District	47

## Child Welfare Clinics:

x

Mbabane District	272
Mankaiana District	12352
Piggs Peak District	52
Manzini District	2940
Hlatikulu District	16905

The number of ante-natal examinations and confinements for the past 4 years has been as follows:

	Antenatal Examinations:					Co	nfinem	ents:
	1963	1964	1965	1966	1963	1964	1965	1966
Mbabane Hospital:	2189	2132	3302	3644	691	756	842	1047
Shopi Persaissississ	2109	2132	2202	3044	091	150	042	1047
Hlatikulu	~	0.12	~				105	
Hospital:	844	843	941	1274	339	355	405	539
Mankaiana								
Hospital:	185	331	254	304	135	103	142	147
Piggs Peak								
Hospital:	1165	779	924	650	280	231	250	286
Raliegh Fitkin								
Memorial Hosp:	3720	2083	3264	3181	919	1074	1202	1139
Good Shepherd								
Hospital:	1251	953	1330	1428	155	226	224	130

## -38-CHAPTER V

#### LABORATORY SERVICES:

The work in the Mbabane Laboratory has shown a 50% increase during the year, but histological examinations and other special investigations are carried out by the South African Institute for Medical Research in Johannesburg.

Small laboratories are situated in the following hospitals - Mbabane, Hlatikulu, and Raleigh Fitkin Memorial, and Good Shepherd are equipped for carrying out simple routine tests.

The W.H.O. TB. Project Laboratory in Manzini now undertakes all examinations for tuberculosis both for hospitals and private practitioners. The Laboratory at the Health Office in Manzini undertakes all examinations for malaria and bilharzia; the results of these examinations are reported under the sections dealing with Malaria and Bilharzia and are not included in the figures which follow:

### PATHOLOGY LABORATORY MBABANE

a)

Test:	1963	1964	1965	1966
Blood Culture	308	235	469	223
Widal (TMX)	864	517	1036	955
Paul Bunnell Test	13	15	30	6
Vi Test	85	77	152	209
Stool Culture	147	223	253	204
Stool Parasitology	19	28	40	75
Urine complete	31	25	30	39
Urine Chemistry	12	5	7	161
Urine Culture	90	115	635	144
Urine Bilharzia	49	42	52	67
TB. direct	- 74	51	26	45
TB. culture	30	41	.1	-
Blood sugar	54	74	75	86
Blood Urea	94	72	197	157
Serum Protein	42	80	50	24
Serum Bilirubin	23	42	45	73
Blood Cholestrol	8	15	22	18
Blood Amylase	4	8	19	5 9
Serum Calcium	9	15	30	
Serum Phosphatase	7	15	31	26
C.S. Fluid	48	66	82	86
Malaria Slides	2	12	2	2
Culture	244	264	294	297
Sensitivity tests	288	392	475	388
Blood Grouping	6	16	14	27
Blood Count	27	60	209	91
E.S.R.	6	25	190	74
Slides for Microscopy	6	12	17	20
Diphtheria	108	38	20	8
Water Analysis	181	147	148	217
Milk Analysis	80	134	128	251
V.D.R.L. Tests	8515	5846	8480	11205
Swabs for E.Coli		-	-	187
Hb. Tests		-	-	83
TOTAL :	11474	8707	12891	15471

#### ALTORY STORY SOLA

increase during the very her histological or those and a St. special investigations are complet and Hy the South Livitan Institute for Medical Revearch is Johnsteward

Small lasorstorius are situated in the following assistant - Monhaung Histikulu, and Reloict Frenk Fourtal, and doed Shephori are orsigned for carrying out sight routing berts.

The A.B.C. The Project Laboratory (" "which have and " takes all exectentions for takes within to a second have and private gravititaters. Whe baboratory at the dealed of the taketet and "takes all ethniciations for astaria and hibertan the results of these existentifices are regiment and included as the bability with Halaria and Malhereis and are not included as the figures which follow:

PARTOLOGY LAB DITTO TAMENT

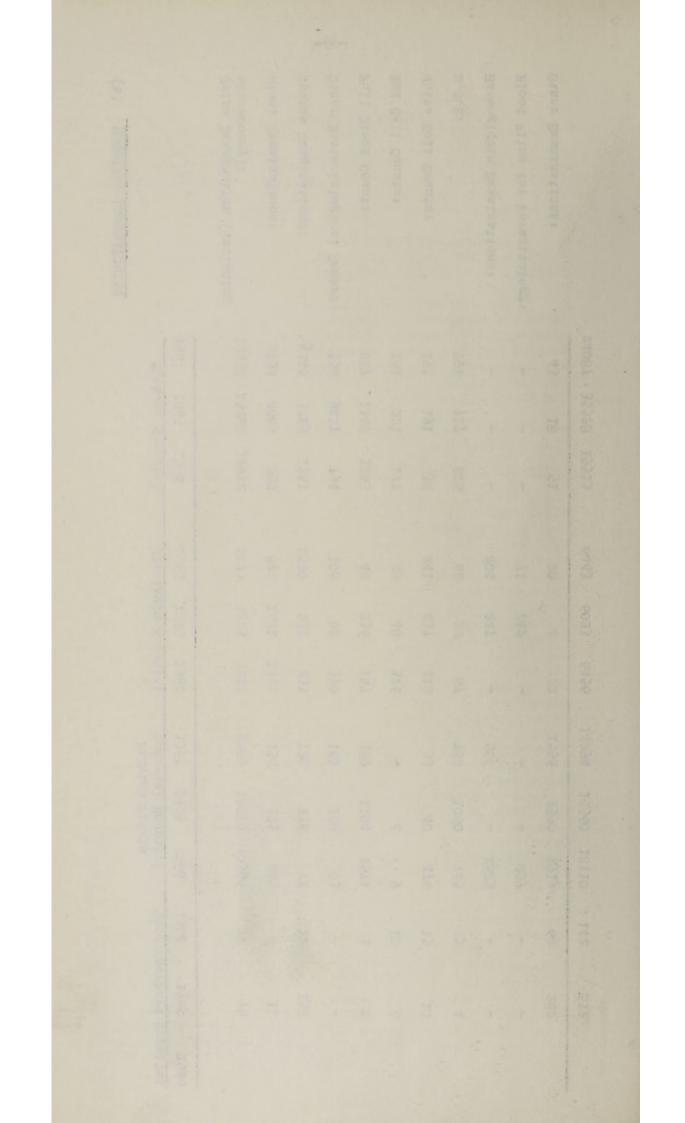
		Thurd Dould
1823		

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(b) HOSPITAL LABORATORIES

	Other Examinations:	Blood Films for Parasitology:	Haemoglobin Examinations:	E.S.R.	White Cell Counts:	Red Cell Counts:	Full Blood Counts:	Other Bacteriological Smears:	Sputum Examinations:	Stool Examinations:	Urine Examination (including microscopy);		
24087	43	1	1	791	191	161	917	558	5345	3759	12332	1964	Mba
35528	18	1	1	717	191	221	1147	9417	3265	4089	15464	1965	Mbabane Hospital
19513	51	,	1	626	30	177	3263	794	1741	859	12972	1966	ospital
6443	20	71	204	62	241	49	49	108	2590	876	2173	1964	Hlati
6023	4	242	227	24	437	40	236	82	287	1121	3323	1965	Hlatikulu Hospital
6456	22	ı	1	87	418	326	- 187	370	231	1341	3627	1966	spital
14294	1556	1	586	782	33	1	789	161	720	158	9509	1964	Rale Memor
15560	2590	1	1	1060	40	6	1104	160	276	305	10019	1965	Raleigh Fitkin Memorial Hospital
15560 18110	1919	299	2625	765	476	9	1571	23	72	285	10366	1966	in ital
142	60	ı	ı	5	15	10	ω	1	12	6	31	1964	Good S
512	282	1		4	10	8	4	1	118	11	75	1965	Good Shepherd Hospital
												1966	lospital

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# -40-

# CHAPTER VI

### FINANCE

							Department	for	the	period
lst	April,	1965	to 31st M	arch, 1966	is	as :	follows:-			

Revenue	R	R
Hospital, Health Centre and Other fees		36461
Expenditure		
Personal Emoluments Travelling Expenses Operation and Maintenance of Vehicles Other Transport Charges Purchase of Replacement Vehicles Allowances and Fees - Medical Maintenance of Patients Maintenance of Mental Patients Lighting and Heating Hospital Equipment Upkeep of Grounds Temporary Reliefs Anti-Malaria Measures Bilharzia Control Laboratory Services Public Health Measures Grants to Missions High Commission Territories Nursing	214465 8750 4339 13185 3424 2857 70717 7162 10939 9724 512 4213 5023 1008 2161 199 38977 287	397 <b>9</b> 42
Council	287_	397 <b>9</b> 42
C.D. & W. Schemes Expenditure		
D.4835 Planning of Extensions to Mbabane Hospital D.4912 Extension Medical Services D.4913 Tuberculosis Control Scheme D.5136 Extensions to Mbabane Hospital D.5329 Planning of Mental Hospital D.6057 Construction of Clinics	22294 208264 33103 891 1362 12586	278500
Total Expenditure on Medical		
and Sanitory Services:		676472
Total Revenue of Territory		
(Excluding Grant-in-Aid from U.K.)		5796008
Mba Dalationabia of Malical Commissa		
The Relationship of Medical Services (Territorial) to Total Revenue of		
Territory		11.67%

CONCLUSION:

4.

I wish to express my sincere appreciation of the loyal and efficient manner in which members of the Department carried out their duties during the year.

C. RUNCIMAN

DIRECTOR OF MEDICAL SERVICES

# APPENDIX I.

# MEDICAL DEPARTMENT STAFFING (AS AT 31.12.66)

a) <u>Division I &amp; II</u>	Name	Station
Director of Medical Services Deputy Director of Medical	Dr. C. Runciman	Mbabane
Services Consulting Surgeon (Part-time)	Dr. J.M. Klopper Dr. H.H. Hamlin	Mbabane
Consulting Opthalmic Surgeon (Part-time) Senior Medical Officer Medical Officers of Health Medical Officers	Dr. G. Frampton Dr. J. Alexander Dr. G.G. Murphy Dr. H.C. Armstrong Dr. F. Friedman Dr. S.P.N. Shongwe Dr. F.J. Copeland Dr. L. van der Veer Dr. P.A. Kennedy Dr. J.P. O'Conner Dr. W.J.L. Downing Dr. H.F. Hawthorne	Mbabane Mbabane Manzini Hlatikulu Mbabane Piggs Peak Hlatikulu Mbabane Mbabane Nbabane
Locum:	Dr. M.S. Compton Dr. E.M. Farrell Dr. E. Mofekeng	Mbabane Goedgegun Hlatikulu
Senior Executive Officer Hospital Secretary Pharmacist-Storekeeper	Mr. R.F. Phillips Mr. L. Smit Mr. G.R. Gibbon Mr. J.L. van der	Mbabane Mbabane Mbabane
Laboratory Techincan Smear Examiner Senior Health Inspector Health Inspectors	Vyver Mrs. N.E. Gibbon Mr. P.M. Matthews Mr. D.M. Eckard Mr. L. Mtetwa Mr. C.D. Nxumalo Mr. L.M. Mbabama Mr. Z. Zandemela	Hlatikulu Mbabane Manzini Mbabane Manzini Goedgegun. Mbabane
Matrons	Mrs. A.C.I Nabuza Miss D.E. Burns	Mbabane Hlatikulu
Nursing Sisters	Mrs. P.I. Ndiniso Mrs. S.B. Dowling Mrs. N.N. Mabuza Mrs. N.N. Mabuza Mrs. N.N. Dludlu Mrs. M.J. Masipa Mrs. D.N. Bengu Mrs. G.T. Abrahams Mrs. E. Mtetwa Mrs. E. Mtetwa Mrs. F. Dlamini Mrs. J. Masuku Mrs. J. Masuku Mrs. J. Mtetwa Mrs. E. Mtetwa S. Khoza J. Khumalo A. Mahluza E. Nxumalo J. Zwane I.J. Shilubane E. Simelano	

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APPROXITY I.

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Lacibal To instantic very

Anamitting Surgion (Part-11) Seminiting Systemeter Surgeon (Partection) Surgeon Sedical Officiency

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ANDIATO SECTORE

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Laboratory Text Maria Scout Transmor Juster Dealth Inspect

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#### Division I & II cont.

Radiographer Medical Assistant Health Educator Accountant Personal Assistant Mrs. I. Lewis Stenographer Handyman Housekeeper

Mrs. V. Elyan Mr. A.F.K. Phiri Mr. R.L. Phillips Mr. J.C. Mapumulo Miss S. McCabe Mr. W.Q. Mordaunt Mrs. E.I. Dlamini Mrs. Morake

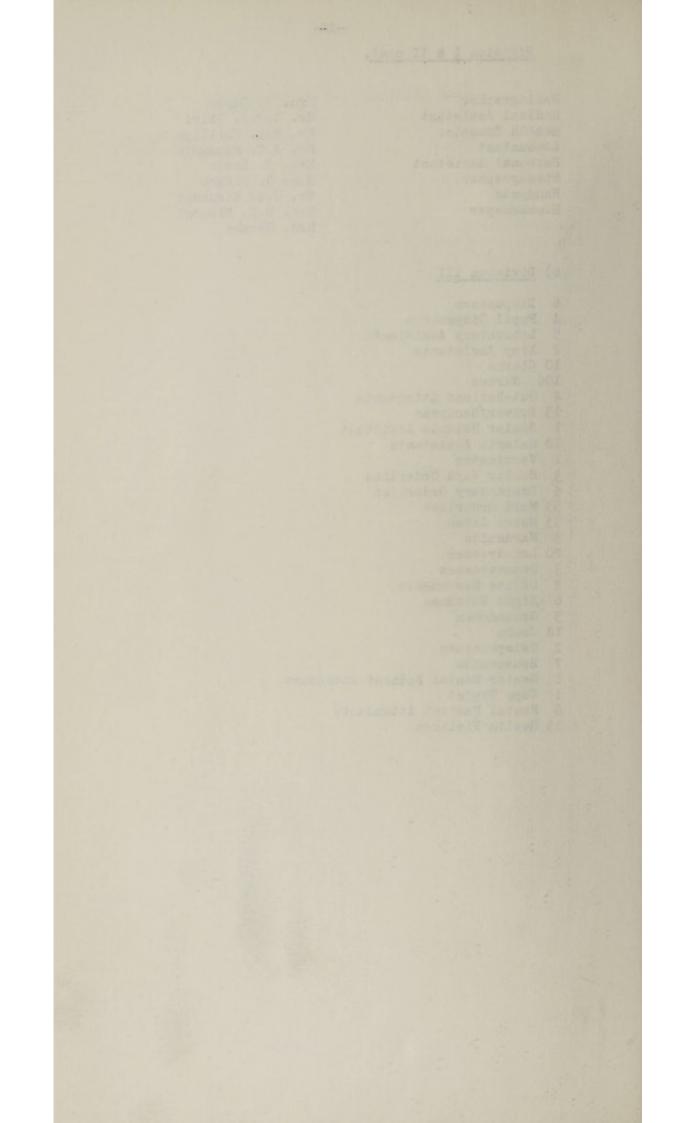
### b) Division III

- 6 Dispensers
- 4 Pupil Dispensers 5 Laboratory Assistants 2 Xray Assistants

  - 10 Clerks
  - 106 Nurses
  - 4 Out-Patient Attendants
  - 15 Driver/Handyman
  - 1 Senior Malaria Assistant
  - 10 Malaria Assistants
- 1 Vaccinator
  - 3 Senior Ward Orderlies 6 Dispensary Orderlies 53 Ward Orderlies 33 Nurse Aides
  - 3 Wardmaids
  - 20 Laundresses
  - 3 Seamstresses
  - 2 Office Messengers
  - 6 Night Watchmen
  - 5 Groundsmen
  - 14 Cooks
  - 2 Telephonists

  - 7 Housemaids
    Senior Mental Patient Attendant
    Copy Typist
    Mental Patient Attendants

  - 13 Health Visitors



# APPENDIX: II

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RETURN OF CASES TREATED: GOVERNMENT AND MISSION HOSPITALS 1966.

- the

Detailed List No:	Group Causes:	Total Cases:	Cut- pat- ients:	In- pat- tients:	Deaths
001-008	Tuberculosis, Respiratory				
010	System Tuberculosis of Meninges	1010	374	546	90
011	or C.N.S. Tuberculosis of Intestines	5	l	3	1
012-013	and Peritoneum Tuberculosis of Bones	50	20	29	1.
240,042)	and Joints	68	34	33	1
014-019	Tuberculosis - All other forms	136	86	50	
020 021	Congenital Syphilis Early Syphilis	111 608	98 588	11 20	2
024	Tabes Dorsalis	2	1	1	-
022-023) 026-029)	All other Syphilis	806	760	46	
030-035	Gonoccal Infection	2089	2055	34	-
036-039	Other Venereal Diseases	155	66 16	86 118	3 10
040-041 044	Enteric Fever Brucellosis	144 15	15	-	-
044	Bacillary Dysentery	496	376	119	1
046	Amoebiasis	403	229	168	6 -
052	Erysipolas	197 39	190 8	7 30	1
055 056	Diphtheria Whooping Cough	766	597	168	1
057	Meningococcal Infections	9	1	7	1
060	Leprosy	11 60	4 29	6 24	1 7
061 080-083	Tetanus Late Effects of	00	- )	2-4	
000-000	Poliomyelitis	26	14	12	
084	Smallpox (Variola Minor)	73 902	15 713	55 181	3 8
085 092	Measles Infectious Hepatitis	295	232	62	1.
104	Tick-bite Fever	45	39	6	-
116	Malaria	14	623	13 127	1
123-1 123-0	Bilharzia (Vesical) Bilharzia (Intestinal)	751 119	89	29	1
125-0	Tape Worm	657	649	8	-
130-0	Ascariasis	882	875	7	-
124,128)	Other Helminthic Diseases	364	353	11	-
130-1 ) 049	Poisoning - Food	70	47	22	1
087	Chicken Pox	211	189 1211	22 14	-
131	Dermatophytosis Scabies	1225 1881	1806	75	-
135 137,138	Other Infective and				
	Parasitic Diseases	214	158	56	-
140-150	Malignant Neoplasms of (a) Mouth, Pharynx &				
	Oesophagus	23	10	12	1
151-154	(b) Stomach, Intestine,	1	3	1	-
161-163	Rectum (c) Larynx, Trachea, Lung	4	-	6	
170	(d) Breast	6 .	4	2	-
171	(e) Cervix Uteri	24 1	-	21	3
172	(f) Body of Uterus (g) Prostate	17	-	1 5	2
177 191-9	(h) Skin	-	-	-	-
196-7	(i) Bone & Connective		1	8	
199	Tissue (j) All Other Sites	9 28	2	22	4
199			/1	Leukaomia	

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	-44-				
Detailed List No:	Group Causes	Total Cases:	Out- pat- ients:	In- pat- ients:	Deaths
204	Leukaemia	5	C. C	2	2
210-239	Benign Neoplasms	5 338	239	99	3
250-251	Non-Toxic Goitre	136	115	21	-
252	Thyrotoxicosis	17	10	7	-
260	Diabetes Mellitus	181	134	: 45	2
281	Pellagra	893	852	35	6
282 286-6	Scurvy Kwashiorkor	17	9 418	7	1
286-5	Malnutrition unqualified	799 1711	1465	341 218	40 28
290	Hyperchromic Anaemias	1		1	-
291	Hypochromic Aneamias	222	215	7	-
292,293	Anaemia, unspecified	298	268	27	3
241	Asthma	534	428	104	1
240,242)	Other Allergie Diserdens	510	404	25	
300-309	Other Allergic Disorders Psychoses	519 43	494 32	25 11	_
310,324)	Psychoneuroses and	45	JE	**	
326 )	Hysteria	164	111	53	-
325	Mental Deficiency ·	91	65	34	2
330-334	Vascular Lesions of C.N.S.	59	19	37	3
340	Meningitis (Non-Meningo-		26	15	e
353	coccal) Epilepsy	76 208	26 118	45 87	5
370-379	Inflammatory Diseases of Eye		1223	125	5
385	Cataract	112	75	27	-
387	Glaucoma	28	12	16	-
390	Otitis Externa	479	467	12	-
391-393		930	859	71	-
380-384	All other Diseases of Eye	561	504	57	
341-344	All Other Diseases of C.N.S. & Sense Organs	262	155	101	6
400-402	Rheumatic Fever	149	119	30	-
410-416	Chronic Rheumatic Heart	-12			
	Disease	160	126	34	-
420-422	Arterio-Sclerotic &		2.67	2.02	16
420 424	Degenerative Heart Disease	296 460	167	123 121	46 18
430-434 440-443	Other Diseases of Heart Hypertension & Heart	400	321	121	10
440-445	Disease	152	123	29	-
444-447	Hypertension	302	229	70	3
450-456	Diseases of Arteries	44	33	10	1
460-468	Other Diseases of				10
470 475	Circulatory System	343	216	115	12
470-475	Acute Upper Respiratory Tract Infections including				
	Acute Tonsillitis	5144	4764	380	-
480-483	Influenza	1085	977	108	-
490	Lobar Pheumonia	402	210	182	10
491	Broncho-Pneumonia	1222	837	358	27
492,493	Atypical Pheumonia	122	55	62	5 1
500	Acute Bronchitis	1889	1735	153	1
501,502	Bronchitis, Chronic & Unspecified	1557	1393	163	1
512	Chronic Pharyngitis	-551			
	& Chronic Tonsillitis	390	354	35	1
518,521	Empyema & Lung Aboess	29	11	17	1
519	Pleurisy	204	130	71	3
523	Pneumoconiasis	47 411	41 379	6 29	-3
520-522 530	Other Respiratory Diseases Cental Caries	411 4287	4238	49	-
531-535	All Other Diseases of	42.01	12.50		
	Teeth & Gums	499	459	40	-
	and the state of the second second of the second				

		1. 4 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	

Detailed List No:	Group Causes:	Total Cases:	Out Pat- ients:	In Pat- ients:	Deaths:
540	Gastric Ulcer	116	83	32	1
541	Duodenal Ulcer	96	89	7	-
543	Gastritis & Duodenitis	691	562	126	3
550-553	Appendicitis	133	51	82	
570 560	Intestinal Obstruction Hernia	63	7	44	12
570-0	Gastro-enteritis	129 3312	77 2770	51 478	64
510-0	(4 weeks to 2 years)	2222	2110	410	04
570-1	Gastro-enteritis				
	(over 2 years)	2926	2355	522	49
. 572	Chronic Enteritis and	612	581	31	-
503	Colitis	256			0
581 584,585	Cirrhosis of Liver Cholecystitis	156 101	70 57	77 43	9 1
536-539	010160351115	101	21	45	1
544,573	Actor Telester Actores				
580,582	Other diseases of	0965	0647	017	7
583,586	Digestive System	2865	2641	217	7
587	Anuto Manhaitia	17	22	24	0
590	Acute Nephritis	67 63	31	34 35	2
591-594 600	Chronic Nephritis Infections of Kidney	276	23 228	46	5 2
602,604	Calculi of Urinary System	17	9	8	
610	Hyperplasia of Prostate	46	24	21	1
620,621	Diseases of Breast	159	120	39	-
613	Hydrocele	117	63	54	-
634	Disorders of Menstruation	1710	1523	187	-
601,603 605,609 611,612	All other Diseases				
614-617 622-633 635-637	Genito-Urinary System	5432	4509	914	9
660	Normal Deliveries	2739	_	2739	-
671	Deliveries with Complication			541	11
673-678 640,641		27( 01		741	
681,682; 684	Sepsis of Pregnancy Childbirth & Puerperium	68	44	21	3
642	Toxaemia of Pregnancy	45	12	32	1
643,644)	Haemorrhage of Pregnancy		0	0.5	
670,672	and Childbirth	33	8	25 481	1
650 651	Abortion Abortion with Sepsis	695 51	213	37	1
690- 1	Infections of Skin and	71		51	-
698 )	Subcutaneous Tissues	3961	3391	569	1
720-727	Arthritis and Spondylitis	344	272	72	-
726,727	Muscular Rheumatism &	-04	0.2.0	(0	
730	Rheumatism Unqualified	986	918	68	-
730	Osteomyelitis and Peri-Ostitis	150	76	73	1
737,745)	Ankylosis and Acquired				
749 /	Musculo-Skeletal Deformity	162	138	24	-
700-714	All other Diseases of Skin	515	448	67	
731-736	All other Diseases of Musculo-Skeletal System	305	289	16	-
750-759	Congenital Malformations	94	40	47	7
760-762	Birth Injuries	19	8	7	4
765	Ophthalmia Neonatorum	30	16	14	7 4 - 5
770	Haemolytic Disease	15	3	7	5
773-776	(Neo-Natal) Other Diseases Early Infanc	y 341	152	134	55

Detailed List No:	Group Causes.	Total Cases:	Out- pat- ients	In- pat- ients:	Deaths
791 788-9	Senility P.U.O.	68	55	9 85	4
788-1- )	1.0.0.	457	361	07	11
788-7 )	All Other Ill-defined				
788-9 )	Causos of Morbidity	626	535	89	2
789-792) 795 )					
793	Observation without				
	need for further care	584	-	584	-
"E" CODE A VIOLENCE (	ALTERNATIVE CLASSIFICATION O. (EXTERNAL CAUSE).	F ACCIDENT	s, poison	ING AND	-
E810-E835	Motor Vehicle Accidents	448	203	238	7
E800-E802	Other Transport Accidents	162	88	71	34
E870-E895		178	46	128	
E900-E904 E612		1488	987	497	4
TOIS	Accidents caused by Machinery	160	119	40	1
E916	Accidents caused by Fire	250	143	101	6
E917,E918	Accidents caused by Hot				
2010	substances and corrosives	331	238	93	-
E919	Accidents caused by Firearms	9	6	3	_
E910-E913-	-)All other accidental	2	0	2	
E915,E920- E928,E930-	-) causes	3071	2276	796	4
E965 E970-E979	) Suicide & Self-Inflicted				
	Injury	19	7	12	-
Е980-Е985	Assault, Homocide	1798	762	997	39
	ALTERNATIVE CLASSIFICATION O (NATURE OF INJURY)	F ACCIDENT	s, poison	INGS AND	
N800-N804 N805-N809	Fracture of Skull Fracture of Spine &	194	14	161	19
	Trunk	125	59	66	-
N810-N829		963	410	550	3
N830-N839		120	68	52 89	-
		819	730	09	
N840-N848					
		363	125	224	14
N840-N848	Head Injury (Excluding Fracture) Internal Injury, chest				
N840–N848 N850–N856 N860–N869	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis	154	36	103	15
N840-N848 N850-N856 N860-N869 N870-N908	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis Laceration & Open Wounds				
N840-N848 N850-N856 N860-N869	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis Laceration & Open Wounds	154	36	103	15
N840-N848 N850-N856 N860-N869 N870-N908	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis Laceration & Open Wounds Superficial Injury - contusion Foreign Body entering	154 2681 969	36 1704 725	103 971 244	15
N840-N848 N850-N856 N860-N869 N870-N908 N910-N929 N930-N936	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis Laceration & Open Wounds Superficial Injury - contusion Foreign Body entering through Orifice	154 2681 969 195	36 1704 725 135	103 971 244 60	15 6 -
N840-N848 N850-N856 N860-N869 N870-N908 N910-N929 N930-N936 N940-N949	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis Laceration & Open Wounds Superficial Injury - contusion Foreign Body entering through Orifice Burns	154 2681 969 195 528	36 1704 725 135 341	103 971 244 60 179	15 6 - 8
N840-N848 N850-N856 N860-N869 N870-N908 N910-N929 N930-N936 N940-N949 N960-N979	Head Injury (Excluding Fracture) Internal Injury, chest abdomen and pelvis Laceration & Open Wounds Superficial Injury - contusion Foreign Body entering through Orifice Burns	154 2681 969 195	36 1704 725 135	103 971 244 60	15 6 -

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	Church-atten no	
	Mathi Valitica Accidente	
		0882405
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	 (VEILINE AV. THIPPER	

Detailed List No.	Group Causes:	Total Cases:	Out- Pat- ients:	In- Pat- ients:	Deaths:
¥00	Medical Examinations,				
	Boards and Tax Exemption				
	Examinations	5383	5383	-	-
¥02	Pro ylactic I jections:	,,,,,	,,,,,		
	a) Smallpox Vaccination	3094	3094	-	-
	b) T.A.B.	53	53	-	-
	c) Diphtheria	6	6	-	-
	d) Diphtheria and Whooping				
	Cough	-		-	-
	e) Diphtheria, Whooping				
	Cough & Tetanus	890	890	-	-
	f) Tetanus	3	3	-	-
	g) Poliomyelitis	644	644	-	-
	h) Yellow Fever	194	194	-	-
	i) Cholera	б	6	-	-
Y06	Ante-Natal Examinations	4510	4510	-	-
Y08	Attendants admitted as				
	In-patients with sick				
	children	1109	-	1109	-
TO	TAL "NEW" PATIENTS	99416			

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SUBSEQUENT ATTENDANCES :

GRAND TOTAL	SUBSEQUENT	ATTENDANCES	64092
All Other S	Subsequent At	ttendances	55825
Subsequent	Prophylactic	Injections	2205
Subsequent	Ante-Natal A	lttendances	6062

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