Report on the public health / Southern Rhodesia.

SOUTHERN RHODESIA

REPORT

of

The Public Health

For the Year 1945

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Report on the Public Health for the Year 1945

THE MINISTER OF INTERNAL AFFAIRS.

I have the honour to submit the Annual Report of the Public Health Department for the year ended 31st December, 1945.

As the end of the year 1945 also brings to completion the ten years' period of my Medical Directorship, it would appear an appropriate occasion to review the work of the Department and to ascertain what progress has been made during that decade. The greater part of those ten years was taken up by the preoccupations of war and the heavy demands which these imposed upon us. Any review of our work must, therefore, begin with a brief statement of the part played by the Department in the Colony's war effort.

At the outbreak of war, the Defence Forces of the Colony had three Medical Officers, the Medical Director and the two Medical Officers of the Battalions of the Rhodesia Regiment in Salisbury and Bulawayo.

In April, 1939, when it was obvious that the outbreak of hostilities could not be long delayed, the medical examination of volunteers on a voluntary basis was begun by the Government Medical Officers assisted by private practitioners of the Colony.

At the outbreak of war the number of medical examinations increased rapidly and medical examiners were employed on a voluntary basis at all the principal centres. Reception camps for recruits were established at Salisbury and Bulawayo where each recruit was re-examined in greater detail and vaccination and inoculation carried out. Within six weeks over 200 potential officers were dealt with and sent to West Africa. At the same time R.A.M.C. training was begun with a group of men destined to furnish the personnel for medical units. In 1940 a complete staff, including sixteen Nursing Sisters and full medical equipment, was dispatched to open No. 2 (S.R.) General Hospital at Nairobi. This unit did sterling work in the treatment of sick and casualties from the Abyssinian Campaign. In 1943, when the East African Campaign was ended, the Hospital was handed over to an Imperial R.A.M.C. Unit and the Rhodesian staff posted to other Southern Rhodesian Units or permitted to join the Imperial Army; thus Medical Officers of the Southern Rhodesia Medical Corps saw service in all theatres of war.

After the departure of the staff for the Hospital at Nairobi, R.A.M.C. training was continued in the Camp at Salisbury in order to supply staff for the many Army and R.A.F. training stations which had sprung up all over the country. At Umtali, a Field Ambulance went into training, but because of a change of policy did not serve overseas as a complete unit; many of the personnel served as individuals in the Sixth (S.A.) Armoured Division and in India and the Far East.

The burden of Military and Air Force medical work in the Colony became so heavy that the R.A.F. were asked to provide a proportion of the Medical and Dental Officers needed. At its peak the Rhodesian Air Training Group had a strength of 12,000. All the serious sick and the accidents from the Group were treated in the existing Government Hospitals and the Government Medical Officers and private practitioners both in Bulawayo and in Salisbury loyally furnished an Honorary Consulting Service. The average strength of the Southern Rhodesia Medical Corps serving within the Colony was seven Medical Officers, eight Dental Officers and 150 other ranks.

A further onerous service undertaken by the Department was the organisation of a central Medical Store, which supplied all the civil and military needs of the Colony during the war years. The Medical Store was such a success that it is likely to continue into the years of peace. Whilst it is difficult to give an adequate account of the medical services rendered outside the Colony, the following facts will give some idea of the effort:

Forty-eight trained Nursing Sisters and thirteen V.A.D. served in the General Hospital at Nairobi; fifteen Dental Surgeons served in the Army and the R.A.F. Twenty-five Medical Officers, twelve of whom were in the Government Service, served outside the Colony. Twelve of this number saw service with units in the Imperial Army and the Union Defence Force as well as serving at an earlier stage of the war in the S.R.M.C. The final ranks of the twenty-five Medical Officers are of some interest: two Colonels, three Lieutenant-Colonels, nine Majors, one Surgeon-Lieutenant, R.N.V.R., and ten Captains.

When hostilities ceased in 1945 arrangements were made for the speedy medical examination of all troops repatriated for demobilisation, and a very large number of Medical Boards were conducted; at no time was the flow of demobilisation hindered by medical examinations.

In this connection there are one or two points which need emphasising. The people of the Colony should know that the whole of the professional work of the Medical Headquarters staff at Salisbury and Bulawayo was carried out by the permanent Government Medical Officers, in addition to their ordinary duties, without any remuneration and without any additional cost to Government; further, the whole of the care and treatment of Military and Air Force personnel, including the W.A.M.S. and W.A.A.S., Policewomen, and the Internment Camp Corps, in the hospitals of the Colony, was carried out without cost to Government by the private medical practitioners and by the Government Medical Officers of the Colony. Again, the Polish Refugees and the German and Italian Internees received free treatment in hospital from the Honorary Consulting Staff and from the Medical Officers of the Government Medical Service.

These services were given willingly; they represent a very considerable contribution to the country's war effort, and are not sufficiently well-known. They should not readily be forgotten.

Despite the heavy commitments of war, a very considerable amount of work has been done in maintaining and extending the peace-time functions of the Department during the past ten years. Although a bare statistical comparison of the respective years does not necessarily furnish an accurate picture of the progress made in those years, nevertheless, the figures themselves are impressive and provide clear evidence of the marked growth in the Colony's Health Services and the consequent improvement in the living conditions of the people.

The following figures are taken from the statistical returns of the European population:—

	1936	1945
European population	55,590	82,500
European births	1,302	2,038
European deaths	572	687
European infant mortality	64	72
European maternity deaths	9	8
Malaria and Blackwater Fever deaths	66	33

Corresponding figures for the native population are not obtainable, since we have not yet established a compulsory system for the notification of births, deaths, and disease amongst the African community. Attention has been frequently drawn in past years to this serious omission in our organisation; it is hoped now that the war is over that steps will be taken to remedy a situation which compels the Department to approach the solution of its problems without sufficient knowledge either of their causes or of their extent.

The figures for both Europeans and Natives are available in respect of the number of admissions to hospital and the number of out-patients treated; these figures indicate the growth in hospital facilities and the increasing use being made of these facilities by both communities.

	1936	1945
European hospital admissions	7,642	12,370
European hospital out-patients	14,345	48,415

	1936	1945
Native Hospital admissions	12,328	29,498
Native Clinic admissions	11,744	66,758
Native Mission admissions	8,838	22,393
Total Native admissions	32,910	118,449

	1936	1945
Native Hospital out-patients	36,895	189,323
Native Clinic out-patients	22,704	203,476
Native Mission out-patients	43,600	118,800
	103,199	511,599

These figures speak for themselves. They have, however, a greater significance when it is remembered that out of this ten-year period, six and a half years were devoted to meeting the heavy commitments of the Second World War.

On the European side, a considerable amount of progress has been made in the past ten years, both in the provision of buildings and services. The new Hospital at Bulawayo, a building of outstanding architectural merit, was planned and erected during that period. The Nervous Disorders Hospital, which is a part of the Bulawayo Hospital unit, is an institution unique in Africa. Beautifully designed and comfortably appointed, it affords to its patients every opportunity which pleasant and restful surroundings can contribute to recovery. This building was erected by funds donated by the State Lottery Trustees and has proved of inestimable value during the war years.

The Mental Hospital at Ingutsheni has been almost entirely rebuilt during the past ten years, and entirely new Native Sections have just recently been completed and occupied. The European Section has been improved out of all recognition, and with the erection of the new Female Block, will now afford facilities which have been too long overdue. A Nurses' Home for European Female Nurses, and a block of rooms for European Male Nurses, are amongst the amenities provided during the recent reconstruction of this institution; a Nurses' Home for Native Female Nurses will be provided as soon as the removal of the Native female patients to the new Native Female Block makes this possible. Ingutsheni Mental Hospital is a well-organised and splendidly run institution which, when its new building plan has been completed, will provide excellent facilities for the treatment and cure of the mentally sick and will reflect great credit upon the Colony.

In Gwelo, a new European Hospital of 56 beds was opened in 1938. This hospital is also another example of the very fine work of the Public Works Department. It is designed on the most modern lines and provides the local community with hospital amenities which larger towns might well envy. The additional accommodation it afforded was of great value to the Air Force Camps during the War. A new Infectious Diseases Hospital has recently been built by Government for the use of the town and district, and it is hoped that the arrival of additional Nursing Staff from England will allow of its early opening. The Birchenough Maternity Home was taken over by Government in 1941 and has been maintained and extended since that date. Facilities for the accommodation and nursing of Coloured maternity cases have also been provided in connection with the Coloured Block of the Gwelo Hospital.

In Selukwe, a new European Hospital was erected by funds provided by the local residents, and augmented by donations from the State Lottery Trustees and by Government subsidies. On completion, the Hospital was handed over to Government by the local residents, to be the property of Government, and to be staffed and administered by Government on their

behalf. Selukwe has two Native Clinics: a large one at the end of the town for general cases, and another farther away from the town, now in process of construction, for the treatment of Venereal Disease. The Donaldson Nursing Home was also taken over by Government and is now maintained by Government for the benefit of the people of the Selukwe Township and district.

In Umtali, the Nurses' Home has been extended, a new Asiatic and Coloured Block erected, and the Native Hospital enlarged to allow of the inclusion of a Maternity Section with a Labour Room and a Children's Ward attached. A small training school for the training of Native midwives has been established in connection with the Native Hospital and has proved both attractive and successful. The European Maternity Hospital was taken over by Government during the war, but the lack of Nursing Staff during the last year compelled us to close this institution temporarily.

Que Que is another town which has shown much local enterprise during the past ten years. Here a new European Hospital was erected by Government from funds which were initially partly provided by local subscription; later a Maternity Block was added, a portion of the cost of which was again met by local subscription. In addition, a new Asiatic and Coloured Block and a new Native Hospital have all been provided by Government as part of the Que Que Hospital Unit.

In Gatooma, the European Hospital facilities have been improved and extended; new theatre and X-ray facilities have been provided, and a new Asiatic and Coloured Block has been erected and now awaits occupation.

Both Rusapi and Marandellas have had European Hospitals built during the war, but lack of staff has prevented these new institutions from being opened; that is a state of affairs which the coming months will rapidly alter. Both centres have large Native Clinics in association with the European Hospital; these Clinics are very popular and treat many thousands of Native patients each year.

Sinoia has had its European Hospital extended and further additions, particularly in regard to greater facilities for the accommodation of maternity cases, are contemplated as soon as building conditions permit. The Native Hospital has been greatly enlarged and is now capable of coping with the needs of the large Native population employed on the European farms in this area. Clinics have been built at Banket and at Miami in order to relieve the strain on the Sinoia Native Hospital and to provide medical and hospital services closer to these centres of native employment.

Fort Victoria, too, has had several additions made to its European Hospital, but is still in need of further improvements to the Nurses' Home and to the general sanitary conditions of the Hospital. The Maternity Home was taken over by Government from the local Committee which erected it, and is now staffed and maintained by the Public Health Department. X-ray and Clinical Laboratory Services are now available at the General Hospital for the use of the public. The Native Hospital has been extended and improved, but still needs further attention. Nevertheless, the Hospital Unit in this area has been a very successful organisation, which has efficiently dealt with the medical, surgical and hospital needs of a large and scattered community.

Enkeldoorn has a comfortable and pleasant European Hospital which has always been sufficient for the requirements of the area. It was unfortunate during the war to lose by fire its well-built and adequate Nurses' Home, as the shortage of building material has made its replacement difficult. The Maternity Home which was built and for many years ably and successfully administered by a local Committee, was recently taken over by Government under the Government's policy of accepting responsibility for the provision and maintenance of maternity homes. A new Native Hospital was built at Enkeldoorn. It is a very good building, which adequately fulfils its purpose, and which affords excellent facilities for the nursing of the native sick. Clinics are available for the accommodation and treatment of Natives at the Range and at Buhera.

Umvuma, which on the death of its doctor during the war has been served from Enkeldoorn, has a large new Clinic in process of construction. It is hoped to place a Medical Officer at Umvuma again as soon as circumstances permit.

Bindura has a very fine European Hospital which was opened in 1938. Here the European patients are nursed in small wards of one or two beds. The hospital is excellently designed, well-built, and splendidly situated on the crest of a hill overlooking the town. It is again a tribute to the fine work of the Public Works Department in hospital construction. Attached to the main hospital is a well-appointed Maternity Block, the funds for which were provided by a local resident, Mrs. Appleby, in memory of her husband. The Nurses' Home completes the European Unit. There is, however, in addition, a new Native Hospital whose construction is in keeping with the fine lines of the European section. The Bindura Government Medical Officer also serves Shamva which, although it has both a European and a Native Hospital, was deprived of its own Medical Officer at the beginning of the war, owing to the acute shortage of staff. Shamva European Hospital is an old hospital which, for many years past, has been very little used. A new Native Hospital was built here some years ago to meet the requirements of the many natives employed in this district on farms. Plans have been prepared for the complete reorganisation of Shamva's Hospital facilities and it is hoped that the increasing availability of material will soon make it possible to carry out this new scheme.

Gwanda European Hospital is an old building which has served its period of usefulness. It is no longer adequate for the district and should be replaced as soon as building material and a more suitable site become available. Provision should also be made in the new plan for an up-to-date Maternity Block. The war, with its shortage of Medical and Nursing Staff and building material prevented the Department from dealing with the obvious needs of this area. Additions have been made to the old Hospital and a new Theatre Block with modern facilities and a new Nurses' Home have all been added in recent years. The Native Hospital also needs attention and is too small for the large population employed in the district.. Various additional buildings have been added to deal with the large number of native patients, but these are merely palliative; the whole unit needs replanning and reorganising.

The Salisbury Hospital, like the other hospitals of the country, has had many and various additions to the accommodation and facilities it offers to the public. On the European side the Department has concentrated more on the provision of equipment and services than on increase of buildings. As far as equipment goes, Salisbury Hospital is one of the best equipped hospitals in Africa, and medical visitors from other countries have expressed both admiration of, and envy at the facilities it provides.

In addition, a new block of two wards has been added to the main European building, but shortage of nursing staff has made these of less value than they will be in normal times. The Nurses' Home has also had another wing added to it, but further increase of staff will necessitate increased accommodation in the Nurses' Home. The existing Hospital has already reached its limits of extension and the Public Works Department have long had in mind the planning of a new and larger institution to be erected on the land reserved for the purpose behind the present buildings. The new hospital will more adequately meet the increasing needs of this very large area and in design will be more in keeping with the dignity of Rhodesia's capital city.

The Native Hospital, whilst it provides a certain amount of shelter for the Native sick, is poorly built and badly designed. Year after year, to meet the demands of an ever increasing number of native patients, bits and pieces have been added to it until to-day it is in danger of becoming a local "shanty town." A site for a new Native Hospital was acquired as long ago as 1938, but, owing to the threat of war and to some extent to the more urgent needs of other districts, nothing more was done in the matter. During the latter years of the war, the subject was again raised more vigorously and last year plans were completed and signed which will ensure for Salisbury a large and modern Native Hospital, providing at first 600 beds, and as the plans reach completion, a total of 1,200 beds. This National Native Hospital will be

furnished with every modern method in the diagnosis and treatment of the sick, and will afford ample opportunities for the training of both European and native nurses. It is anticipated that the first part of the building will be ready for occupation in three to four years.

A plan, somewhat similar in design, was also signed last year for the erection of a Native Hospital of equal size in Bulawayo, which will carry out for Matabeleland all the functions which the Salisbury Native Hospital will provide for Mashonaland.

The plans of the Department also provide for a large and well-appointed Coloured and Asiatic Hospital to be built in the grounds of the Salisbury European Hospital. Only the war, with its inevitable shortages in men, material, staff and equipment, prevented the Department from carrying out this plan. It is the intention of the Department to press for the erection of this Hospital as soon as the return to normality makes that possible.

In Salisbury, the Lady Chancellor Maternity Home was taken over by Government at the beginning of war and has been staffed and maintained by the Public Health Department during the greater part of the war years.

As far as the Native population is concerned, the introduction and growth of the Clinic System was undoubtedly the main factor in this phenomenal increase in the use of medical services. The Clinic System as it now exists was introduced in August, 1936, when the Department for the first time acquired its own building organisation and received Ministerial sanction for the erection of Native Clinics, to be planned and built according to the recommendations submitted to Government in a Departmental memorandum in the earlier part of that year. Prior to 1936 there were various dispensaries in existence throughout the Colony, primitive in construction and small in size. Most of them had been built by the local natives themselves under the guidance of the local Native Commissioner or Government Medical Officer. The chief of these was the Ndanga Unit, begun by Dr. Williams, of Ndanga, early in 1920, and later developed by the energy and devotion of Dr. James Kennedy. But the Ndanga Unit, like the Goromonzi Dispensary, the Kezi dispensary and one or two others of similar design, were built on the hut basis and were constructed either of green unburnt brick, or of pole and dagga and thatch. These Dispensaries undoubtedly did very good work; their great merit was that they afforded the Government Medical Officer the opportunity of providing such services as were possible under these rather limiting conditions. But they were obviously not suitable for the nursing of the seriously sick.

The Clinic System, on the other hand, is an organised system, based upon the construction of specially designed buildings, in harmony with native ideas, but planned on a hygienic basis which allows the use of appropriate modern methods in the diagnosis and treatment of disease. In each area the main or central clinic is situated at the Station where the Government Medical Officer resides, and is surrounded by various sub-Clinics placed at varying distances from it. At a main Clinic the in-patient accommodation ranges from 40 beds in some places to 240 beds in others. Sub-clinics, which are mainly intended for out-patient treatment, nevertheless also provide in-patient accommodation which varies in the different places, and runs from 10 to 40 beds. These sub-clinics are visited by the Government Medical Officer as often as the need justifies; some are visited twice a week, some once a week, and others once a fortnight; serious cases are, for the most part, sent from the sub-clinic to the main clinic for treatment. Many of the Stations already have their own ambulances, and others are in process of being provided with these vehicles as they become available for civilian use.

Most of the main clinics carry out all their own clinical laboratory examinations, the work being done by a trained African Microscopist. The clinics and sub-clinics are staffed and maintained by trained African Male and Female Nursing Orderlies, under the supervision and direction of the local Government Medical Officer. The rapid increase in the numbers of Native in-patients and out-patients is a great tribute to the confidence these orderlies have been able to inspire in the minds of their own people. At the end of 1945, 67 clinics

were in operation throughout the Colony. Owing to the shortage of building material, the Department has been completely unable to meet the demand for these institutions which comes from every part of the Colony. The success of the Clinic System has been an embarrassment to Government, and much of their success has been due to the unselfish and zealous work of the local Government Medical Officers. It was their energy and their enthusiasm in the face of many difficulties and despite the lack of material and equipment, which made this new venture in the provision of medical services for native people the very outstanding success it has undoubtedly become.

In addition to building Clinics, the Department is at the moment engaged in the erection of a large Sanatorium for the housing and treatment of natives afflicted with tuberculosis, and in the construction of model villages for native lepers.

In the heart of the Chindamora Reserve, on the crest of the hill which overlooks the Clinic and the Mission, there is rapidly reaching completion a large institution whose sole purpose will be to provide for the care and treatment of cases of tuberculosis amongst the African people. This institution has its Hospital Block into which the tubercular patient will be first admitted. The Block consists of two long arms, each containing four wards of four beds; the two arms of the Block are joined together by the Central Administrative Section; behind the Administrative Section comes the Communal Dining Room and the Main Kitchen. The Main Kitchen will prepare the food for the whole institution.

On either side of the Hospital Block, though separated from it by some little distance, lie the four Convalescent Blocks, two on either side, each divided into two wards of four beds. On the summit of the hill itself are all the little two-roomed cottages which form the most attractive feature of the plan. Each of these little semi-detached cottages has a small verandah which will enable the patient to spend most of his day in the open air, protected from over-exposure to sun and weather. The institution is intended to provide accommodation for 100 cases in the first instance, but the plan allows of easy and rapid extension when the need arises. The erection of this Sanatorium has only been made possible by a conjunction of circumstances and factors which it is necessary that I should acknowledge. The need for such an institution was undisputed and was daily growing more apparent and more urgent; it was obvious that even during the war, and to some extent because of conditions arising from the war, which had resulted in an increasing lack of protective foods, some immediate steps had to be taken to prevent the spread of this disease amongst the native population and to deal with the cases which had already occurred.

For a Native Sanatorium, however, certain requirements seemed to be essential. It did not seem wise to site such buildings in European areas, where their subsequent growth was bound to result in ever increasing difficulties with a growing European population; besides, if the Native was ever to attain responsible administrative stature his own Reserves were the place for his own institutions where he could learn the methods and procedure of administration and gradually attain to administrative responsibility. Above all, particularly in dealing with tuberculosis, where treatment, if effective, is likely to be prolonged, it seemed advisable to house the patient in an area where he was likely to be happy and contented; that result was much more likely to be attained in a Sanatorium situated in a Native Reserve amongst his own people than in an institution in a European area, where restrictions upon his movements were bound, sooner or later, to be enforced.

A suitable site in a Native Reserve appeared, therefore, to be essential. But there were other factors operative which limited such selection and which kept us close to European amenities. It was obvious that during the war we could not obtain either the equipment or the trained personnel which such equipment would require. Even when the war was over, it was apparent that a Sanatorium for the treatment of tuberculosis amongst Africans would be an institution of slow growth; situated in a native area it was unlikely to attract European staff, and Native staff for the purpose did not exist. Yet, from the long point of view a Native Reserve, on many grounds, was clearly the proper place for such a building. The immediate problem, therefore, was

to find a place in a Reserve not too far away from the facilities provided or which could be provided at one or other of the large European townships in order that these necessary facilities might be available to the young Native institutions; a place, too, where European supervision for the new institution could be obtained so that it would develop along proper lines and grow up under the watchful care of trained Europeans who would have a special interest in its success.

Makumbi, with its Mission Station, 30 miles from Salisbury, in the heart of the Chindamora Reserve, with its permanent staff of European residents, one of whom is a fully qualified Nursing Sister, was ideal for this purpose. In addition, in close proximity to the Mission Station, is a Government Clinic where the Qualified Nurse trains Native girls as Nursing Orderlies. Further, the long, sloping hill above the Clinic was admirably suited for the siting of such an institution. In view of this conjunction of favourable factors, which long and patient search was not able to find in any other part of the Colony, Makumbi was selected as the place where the first Native Sanatorium was to be built. Work was begun some two years ago, but the shortage of material considerably delayed the completion of the building. Nevertheless, it is anticipated that the Sanatorium will be ready for occupation in September of 1946.

Another activity upon which the Department embarked some two years ago was the erection of Native Leper Villages. At the beginning of 1944, both at Ngomahuru and at Mtoko, the Department commenced to build a completely new type of Native Leper Village. Prior to this date, Native lepers were housed either in pole and dagga huts or Kimberley brick huts with thatch roofs. It was obviously impossible to do any real nursing or welfare work in such an environment. The new Native Villages, on the other hand, are composed of well-constructed cottages of properly burnt bricks with tiled roofs. Each cottage is divided into two single rooms, with a fireplace in each room. These houses are situated on the perimeter of a circle or long oval, which leaves the inner area free for the Communal Kitchen, the Wash and Bathing Houses, and the Community Centre. The Community Centre is an open air shelter, enclosed by a parapet wall 3 feet in height and with a tiled roof supported on pillars. The idea of the shelter is that it will provide a common meeting place for the people of the village and also an open-air dining-room for such of these as wish to have their meals in company. Each village will provide accommodation for approximately 100 patients. One village at Ngomahuru and one at Mtoko is nearing completion. It is intended to build six of these villages at each place. The erection of these villages marks a great advance in the housing and treatment of Native leper patients in this Colony.

In addition to providing hospital facilities for the housing and treatment of the sick of all races, the Department has created many other amenities both in research and in services for the improvement of the health of the Colony. In 1937, negotiations began with the London School of Tropical Medicine for the establishment of a Research Unit which would devote its time and resources to the investigation of malaria, bilharzia and other tropical diseases. The Unit was to be composed of Rhodesian scientists under the guidance and direction of specialist officers, selected and appointed by the London School authorities for this purpose.

In the beginning of 1939, several of the Rhodesian members of the Unit were sent to India to study methods of malarial control in use there. In June, 1939, the Unit commenced its survey of Rhodesian conditions and had hardly made its first journey round the main centres of the Colony when war descended upon us and submerged us all for the next six and a half years. Even during the war, however, attempts were made to keep in existence some part of the Unit's work, and Dr. Mozley, on the bilharzial side, with Dr. Ross and Mr. Meeser, the entomologist, on the malarial side, did a considerable amount of useful and necessary work in the eliciting of new facts and in cleaning up some of the more dangerous areas of the Colony. The return of Dr. Blair and Mr. Alves at the end of the war altered the whole outlook on bilharzia, and these two officers, by brilliant research and hard labour in the safe application of their new methods, have already reduced our bilharzial problem to manageable proportions. The antigen skin test and the syringe treatment of the disease have undoubtedly solved something more

than half of our bilharzia problem. As a result of the application of these new methods in rapid diagnosis, and speedy and effective treatment, the incidence of this disease is already showing considerable diminution; there does not appear to be any reason why within the next few years, this particularly disabling disease should not be almost entirely eliminated. The discovery of a more effective agent than malachite in the treatment of streams and water courses, the building of more swimming baths and an increase in the provision and use of latrines in native kraals and settlements, will contribute materially to the more rapid reduction in the incidence of this disease. In the meantime, the Department provides facilities for the free diagnosis and treatment of this disease to all European children up to school-leaving age.

Despite the presence of a large and non-immune population in the Air Force Camps during the war, there have been no serious outbreaks of malaria during the past ten years. Minor outbreaks have been reported, particularly from the Umtali, Gwelo and Bulawayo districts. The position is definitely not satisfactory, and had it not been for the war a permanent Departmental Committee, with local Committees in each area would have been formed to deal with this disease. Malaria is still our major cause of ill-health; the work of its control needs energetic co-ordination. Free laboratory diagnosis in respect of this disease is provided for all sections of the community throughout the Colony.

Another disease which caused the Department increasing anxiety during the war years was tuberculosis. The reduction in rations, particularly of the protective food rations in respect of European children and of the Native population, was disturbing even if inevitable. Lack of accommodation for the treatment of existing cases, both amongst our own people and still more amongst the refugee population, added to the problem and increased the administrative burdens in dealing with this dread disease.

As long ago as 1936, the State Lottery Trustees, at the request of the Public Health Department, had set aside a large sum of money for the erection of a European Tuberculosis Sanatorium. Much time was spent in trying to find a suitable site. Eventually in 1938 the farm "Digglefold" in the Marandellas district was purchased, and plans were drawn up for the creation of a well-designed modern institution. Unfortunately, the threat of war, and later war itself, held up the commencement of the building. Later, the farm and its buildings were handed over by the Department of Justice to the Polish Refugee authorities for the establishment of a Polish Secondary School. In the meantime, the old Municipal Isolation Hospital at Salisbury was taken over by Government as an annexe to the Salisbury General Hospital, and the wards of this building afforded accommodation for the housing and treatment of many European cases of pulmonary tuberculosis. This was and is at best a purely palliative measure, which should not be permitted to continue any longer than necessary. Government should take immediate steps to erect the European Sanatorium at Marandellas for which financial provision has already been made by the State Lottery Trustees, and of whose amenities the European community has been too long deprived. In the plans of the new Sanatorium ample accommodation is provided for the Coloured people at some little distance away from the main European buildings. This is a purely temporary arrangement until a separate institution for the sole use of the Coloured community can be built at some other suitable place. The facilities for the housing of Native cases suffering from tuberculosis are dealt with under a separate heading. All laboratory and all X-ray investigations in respect of the diagnosis of this disease are provided free of charge for all sections of the community.

Other free services which have been introduced for the improvement of the health of the community are the testing and immunisation of all children against diphtheria; free X-ray services for fractures or diseases of bone; and free laboratory services for all school boarders. Further, free laboratory investigations are provided for the diagnosis of infectious disease and for other diseases prevalent in the Colony. Free radium for the treatment of cancer is now available, and an electro-cardiograph unit for the diagnosis of heart diseases is also available, free of charge, to all members of the public. In

regard to massage, almost all the services of large and well-equipped Massage Departments at Salisbury and Bulawayo Hospitals are provided for the benefit of the public, free of charge. These include the most modern methods of treatment with diathermy, infra-red and ultra-violet rays.

It should, I think, be realised by the public that some of these services are not available outside this Colony in any but the largest centres of civilisation, and that very few of them are to be obtained free of charge. Indeed, the high costs of these services elsewhere make up the greater part of the argument for the establishment of State Medical Services. With the exception of some of the investigations conducted in regard to a limited number of infectious diseases, all of these services have been introduced during the past ten years.

Recently a new scheme for the treatment of Venereal Diseases occurring amongst Europeans has been introduced whereby in circumstances which ensure complete secrecy for the patient, any private medical practitioner can give complete courses of treatment for the cure of these diseases. The private practitioner is paid by Government on a tariff agreed upon between the Medical Associations and the Government. In view of the success which this scheme has already met, it is suggested that its advantages should be extended to the Coloured community, who would reap very considerable profit in health from this provision.

Free treatment for venereal diseases has for many years past been available to the Native community. Government subsidises Local Authorities to the extent of two-thirds capital cost, and two-thirds maintenance cost, of all expenditure incurred in the treatment, prevention and eradication of these diseases. In addition, all drugs used in the treatment of these diseases are provided free of charge. Recommendations have been made that similar arrangements should be made with all Mission Stations and other bodies who will undertake the work of treating these diseases upon the lines laid down by the Department. I do not think that it is generally realised by the public that all medical services, including hospital and clinic services, are provided free of charge for all natives.

In addition to the introduction of these many new forms of free treatment, the Department has concerned itself with the creation of other social and health services, and with the training of personnel for their maintenance. In 1938, the first school for the training of Radiographers was opened at the Salisbury Hospital. This school, under the direction of the Hospital Radiologist, Dr. Gelfand, prepares pupils for the Diploma of the Society of Radiographers, and its lectures and courses of study follow the syllabus and regulations laid down by the Society. The school was originally started through the energy and enthusiasm of the late Dr. Charles Robertson, and under his supervision achieved an immediate success. The Diploma of the Society of Radiographers is a highly valuable certificate, recognised throughout the whole Empire.

Another development of the Department's activities was the introduction of a Health Inspectorate Branch, under the control of the Headquarters' Office, and the establishment of a training school for the maintenance of its personnel. This Branch has been a great success, and throughout the war our very serious lack of medical men was, in great measure, compensated for by the efficient and industrious efforts of this small but enthusiastic section. Already a large proportion of the public appreciate the very fine work that is being done by these men; it is hoped that equal recognition of the value of this work will soon be extended to them by Government.

Another service established by the Department but whose further development was severely handicapped by the war was the District Nursing Service. As soon as new staff becomes available it is hoped to extend this service rapidly, and to make much greater use of the facilities which its personnel could provide for the care of rural communities. The District Nursing Service was primarily intended for the care and management of maternity cases, and although the Department has not been able, because of the world shortage of nurses created by war, to attain the high ideal it had set itself in this regard, nevertheless, by

the adoption of the policy recommended by the Department long before the outbreak of war, the Government has been able to ameliorate the conditions in the rural areas by the gradual assumption of responsibility for the staffing and maintenance of all maternity hospitals throughout the Colony. The only maternity hospital which remains to be taken over under that scheme is the Queen Mary Hospital at Gatooma.

Other services in respect of European and Coloured school children which have been extended and developed are the Schools' Medical Services, and the Schools' Dental Services. The Schools' Medical Service Branch, in addition to its own specific examinations, now conducts all the Intelligence Tests required by the Department of Education. The Schools' Dental Services provide a high standard of dental examination and treatment for all school children throughout the Colony. A Schools' Eye Clinic established in 1937, for the examination of all cases of disease or defective vision, was efficiently maintained throughout the whole of the war years. The provision of free meals for necessitous school children was taken over from the Education Authorities by the Public Health Department at the beginning of the war, and was extended as rapidly as staff deficiencies would permit to meet the more urgent needs of the Coloured community. Only the lack of staff prevented the provision of a free meal every day to every under-nourished school child in the Colony. This is a subject which needs immediate investigation and appropriate action.

Before leaving the subject of new services which have been introduced during the past ten years, some further developments deserve mentioning. The first is the taking over from a private practitioner, and the subsequent development by Government, of the Bulawayo Laboratory; a parallel activity was the establishment and extension of the Government Analyst's Laboratory at Salisbury; another was the development of Ambulance Services for all races throughout the Colony. In this regard it is interesting to record that just before my term of office expired, notification was received that five Ansons Aeroambulances were being made available to the Department: two of these had to be allocated the Northern Rhodesia and Nyasaland, whilst the other three were at the disposal of the Department for allocation in Southern Rhodesia.

On the Native side many new developments fall to be recorded, the chief of which was the introduction of the training of Male Native Nursing Orderlies at Salisbury and Bulawayo in 1937. Since then other forms of training have followed rapidly, and to-day the Department trains Male Native Nursing Orderlies at Salisbury and Bulawayo, Female Native Nursing Orderlies at Bulawayo, Native Midwives at Umtali Hospital, and Female Native Nursing Aids at Makumbi Clinic. In addition, arrangements were in process of being made for the training of Female Native Mental Nursing Aids at Ingutsheni, and negotiations had been entered into with the Royal Sanitary Institute for the training and certification of Native Hygienists who would be the precursors of the Native Health Inspectorate. The training of Native Microscopists has been in existence for some years past, and now the clinical laboratory examinations of the clinics and native hospitals are carried out almost entirely by these trained Orderlies.

Various legislative measures affecting the activities of the Department were passed by Parliament during the past ten years. The most important of these was the Mental Disorders Act of 1936. The Aviation Health Act of 1936 was also a measure which dealt almost exclusively with the provisions of health laid down in the International Convention to which Southern Rhodesia was a signatory. The Inspection of Nursing Homes Act of 1936 brought the practice of Southern Rhodesia into line with that existing in other parts of the Empire. The Cremation Act of 1940 provided facilities to allow of the setting up of Crematoria by Local Authorities. Its procedure followed closely upon that laid down in the corresponding English legislation. Although no Bill has yet been approved by Parliament, nevertheless, the Silicosis scheme, sanctioned by Parliament by unanimous acclaim, was a very important addition to the social welfare of the Colony. The scheme, which was introduced to meet existing conditions, and so give more leisured opportunity for discussion of the principles of the proposed legislation, provides for the payment of benefits and awards by Government to persons, and the dependants of such persons, found to be suffering from Silicosis, or Tuberculosis, contracted in

the mines of Southern Rhodesia. The scheme set up a Silicosis Board and a Medical Bureau and arranges for much of the procedure and personnel which will be required under the proposed Act. The Public Health Department is responsible for the administration of the scheme, and the Medical Director is the Chairman of the Board.

In closing this review of the Department's major activities during the past ten years, there still remain one or two points which merit further discussion. The first is the extraordinary and difficult position in which the Public Health Department is placed through being compelled to submit its technical and complicated affairs for the approval of an uninformed and non-technical Department of Internal Affairs. The Public Health Department requires decisions either on policy or on finance; in the former case the Minister is the competent authority; in the latter case it is the Treasury. It is essential, in order that the affairs of the Department may be conducted with reasonable expedition, that the Department should have direct access to both these authorities. Many instances arise where regulations do not apply or cannot be adhered to in the interests of Public Health or of an individual patient, but where quick decisions are necessary. The Public Health Department, which is a highly technical one, has to present its case through an intermediate Department. This intermediate Department, often without further reference to the Public Health Department, prepares memoranda on the recommendations submitted, and in some instances varies or disagrees with the proposals of the Department. These memoranda to the Minister, to Treasury or to other Departments, are never referred to the Public Health Department, nor is the latter Department ever given an opportunity of learning why the final authority issued differs from the recommendations made. It is impossible to administer efficiently a Department of the size of the Public Health Department without direct access to authority. A further disagreeable repercussion of the existing practice is that the Public Health Department is left to bear the public obliquy resulting from decisions contrary to the views expressed by the Department in its initial negotiations with the particular section of the public affected. If it is considered that the Public Health Department requires to be advised on administrative matters, there is no adequate reason why the necessary administrative officers should not be appointed to the Department under the Medical Director. Rapid consultations would then be possible and much unnecessary correspondence could be eliminated.

In order to show the relative importance and size of the Public Health Department, the following figures of expenditure and personnel are quoted:—

	Expenditure 1945/46	Personnel: European	Native
Native Affairs	£555,885	343	1,203
Posts and Telegraphs	£367,077	681	239
Public Works Department (excluding Loan Votes)	£292,294	47	?
Roads	£300,588	39	?
Education	£540,219	855	230
Mines	£270,195	132	37
Agriculture (including Lands, Irrigation and Veterinary)	£547,989	403	83
Public Health Department	£601,446	699	1,247

The formation of a Divisional Accountant's Office still further reduced the control of the Medical Director over his own Department. It is frankly absurd that the head of a Department responsible for an expenditure of over £600,000 should not have the advice, assistance and services of a Departmental Accountant, directly responsible to himself. Such a position must be unique, and it is certain that no manager of a commercial or industrial firm would agree to operate under such conditions. The position is quite indefensible, and in the interests of efficiency it is high time that it was ended. The Public Health Department should be created a Ministry on its own and should have its own Minister of Public Health, who should be its responsible political head. It is believed that the reports of the Plewman Commission and the National Health Commission will be found to be strongly in support of these recommendations, whose adoption will do much to eliminate

a considerable amount of unnecessary correspondence, to speed up the work of the Department and to increase its efficiency.

Despite the various handicaps under which the Department has laboured, some of them common to all branches of Government and others peculiar to itself, the record of work which the Department has achieved during the past ten years, I submit, is a very creditable performance in view of the fact that for at least six and a half out of these ten years almost the whole of its energies and personnel were devoted to the affairs of war.

CHAPTER 1.—VITAL STATISTICS.

During the war years since 1940 no printed annual report has been published so the opporunity is being taken to reproduce the data for the years 1941-44 as well as the statistics for the year 1945 in order that a measure of continuity of the information supplied by these Annual Reports shall be given.

(1) Summarised Vital Statistics 1940-45.

	1945	1944	1943	1942	1941
Estimated European Population (as at 30th June)	80500	82680	81470	78810	69330
Rate of natural increase per 1000 of the Population	16.8	15.6	14.4	14.5	15.4
Gross number of immigrants	1745	601	473	469	599
Number of European Births	2038	2026	1878	1873	1763
Illigitimate births included above	32	39	33	25	26
Annual Birth Rate per 1000	25.3	24.5	23.1	23.8	25.4
Number of European Deaths	687	735	712	728	696
Crude Annual Death Rate per 1000	8.5	8.9	8.7	9.2	10.0
Number of Infant Deaths	72	91	75	75	75
Infant Mortality rate per 1000 live births	35	45	40	40	43
Number of still births (not included in births or deaths)	33	42	31	29	39
Number of Maternal Deaths	8	8	7	2	7
Maternal Mortality rate per 1000 live births	3.9	3.9	3.7	1.1	4.0

No reliable statistics are available regarding the other sections of the population and even the total African population figures are only roughly estimated.

(2) Population of Southern Rhodesia 1941-45.

Estimated as at 30th June	1945	1944	1943	1942	1941
Europeans	80500	82680	81470	78810	69330
Asiatics	2970	2870	2790	2700	2570
Coloured Persons	4280	4100	4040	4050	3970
Natives	1607000	1556000	1488000	1452000	1380000
Total	1694750	1645650	1576300	1537560	1455870

(3) European Birth Rates 1941-1945.

	1945	1944	1943	1942	1941
Southern Rhodesia	25.3	24.5	23.1	23.8	25.4
England and Wales		18.0	16.3	15.8	14.2
Union of South Africa			25.6	25.2	25.3

(4) European Infant Deaths.

TABLE I.—CAUSES OF DEATH, 1936-45.

DISEASE.	No. of Deaths	Percentage of Total
Premature birth and diseases of early infancy	380	53.45
Bronchitis and pneumonia	70	9.85
Diarrhoea and enteritis	79	11.11
Malaria	53	7.45
Measles, whooping cough, diphtheria, dysentery	30	4.22
Various, not classified above	99	13.92
	711	100.00

TABLE II—DEATHS DURING DIFFERENT MONTHS 1936-45.

	No. of Deaths	Percentage of Total
First month	383	53.87
2 months to 6 months	199	27.99
6 months to 12 months	129	18.14
	711	100.00

EUROPEAN INFANT MORTALITY RATES 1941-45.

	1945	1944	1943	1942	1941
Southern Rhodesia	35	45	40	40	43
England and Wales		46	49	49	59
Union of South Africa			48	48	52

CAUSES OF INFANT DEATH, 1941-45.

International List No.	CAUSE OF DEATH	1945	1944	1943	1942	1941
6.	Cerebro-spinal (meningococcal meningitis)	1	1	—	—	1
9.	Whooping Cough	3	1	4	3	2
10.	Diphtheria	—	—	1	3	—
27.	Dysentery	—	—	—	—	1
28.	Malaria	6	9	6	6	3
30. (d)	Other forms of syphilis	—	—	—	1	—
33.	Influenza	1	1	—	2	3
36.	Acute poliomyelitis and polioencephalitis	—	1	—	—	—
38.	Other diseases due to viruses	1	—	—	1	—
64.	Diseases of thymus (including status lymphaticus)	—	1	—	1	—
66.	Other general diseases	—	—	1	2	—
70.	Rickets	—	—	—	—	1
71.	Other vitamin deficiency diseases	—	—	—	1	—
72.	Haemorrhagic conditions	1	1	—	—	—
80.	Encephalitis (non-epidemic)	—	1	1	—	1
81.	Meningitis (non-meningococcal)	—	—	—	1	—
86.	Convulsions in children under five years	—	—	—	—	1
87.	Other diseases of the nervous system	1	—	1	—	1
105.	Diseases of the Larynx	—	1	—	—	—
106.	Bronchitis	1	—	1	—	—
107.	Broncho-pneumonia	2	8	1	3	—
108.	Lobarpneumonia	2	2	—	—	1
109.	Pneumonia (unspecified)	—	1	2	4	2
115.	Diseases of buccal cavity and annexa	—	1	—	—	—
119.	Enteritis and diarrhoea	12	9	6	6	16
122.	Hernia, intestinal obstruction	—	2	—	—	—
123.	Other diseases of the intestines	2	—	—	—	—
	Carried Forward	33	40	24	34	33

International List No.	CAUSE OF DEATH	1945	1944	1943	1942	1941
	Brought Forward	33	40	24	34	33
130.	Acute nephritis	—	1	1	—	—
133.	Other diseases of kidney and ureters	—	1	—	—	—
153.	Other diseases of skin and cellular tissues	—	—	1	—	—
154.	Ostiomyelitis and periosteitis	—	—	1	—	—
157.	Congenital malformations	7	8	7	7	5
158.	Congenital debility	3	5	1	3	—
159.	Premature birth	20	25	25	19	26
160.	Injury at birth	—	2	1	1	—
161.	Other diseases peculiar to 1st year	7	8	12	5	11
165.	Infanticide (infants under 1 year)	—	—	1	—	—
182.	Accidental mechanical suffocation	1	1	—	—	—
191.	Excessive heat	—	—	—	1	—
200.	Causes of death unstated or ill-defined	1	—	1	1	—
		72	91	75	71	75

(5) CAUSES OF EUROPEAN DEATHS 1941-45.

		1945	1944	1943	1942	1941	Total	Percentage of Total Deaths
1.	Cancer	94	95	91	89	78	447	12.56
2.	Violence	73	108	105	152	92	530	14.89
3.	Heart Diseases	137	112	103	83	94	529	14.87
4.	Pneumonia and Bronchitis	38	41	24	31	31	165	4.64
5.	Malaria and Blackwater Fever	33	44	63	47	54	241	6.77
6.	Nervous diseases	51	52	44	48	52	247	6.94
7.	Premature birth and diseases of early infancy	38	48	46	39	42	213	5.98
8.	Tuberculosis (all forms)	12	19	13	14	18	76	2.13
9.	Influenza	7	4	9	7	15	42	1.18
10.	Diarrhoea and enteritis	16	16	15	10	21	78	2.22
11.	Old age	11	11	9	13	10	54	1.52
12.	Enteric fever	3	2	4	5	12	26	0.73
13.	Diphtheria	6	3	5	5	1	20	0.56
14.	Dysentery	4	6	2	3	2	17	0.48
15.	Whooping cough	5	1	6	3	2	17	0.48
16.	Measles	—	1	3	1	3	8	0.22
17.	Scarlet fever	—	—	—	—	—	—	—
18.	Other causes	159	172	170	178	169	848	23.83
	TOTAL	687	735	712	728	696	3558	100.00

EUROPEAN MATERNAL DEATHS 1936-45

	Number of Deaths	Percentage of Total
Puerperal Sepsis	23	37.10
Accidents of pregnancy	5	8.07
Other accidents of childbirth	6	9.68
Puerperal haemorrage	8	12.90
Puerperal albuminuria and toxaemia	12	19.35
Other causes	8	12.90
TOTAL	62	100.00

CHAPTER II.—INFECTIOUS AND COMMUNICABLE DISEASES

(1) Notification of Infectious Disease:

The notification of infectious disease is carried out in a perfunctory manner and the figures given, particularly with regard to Native cases, are quite inaccurate.

The notification of the more serious diseases like smallpox and trypanosomiasis is, however, thought to be fairly accurate. The unsatisfactory nature of the notifications of deaths from infectious disease can be realised by comparing the deaths in the following table with the deaths registered with the Registrar of Deaths and reproduced in Table C.

1. *Convention Diseases*:

Disease	Europeans Cases	Europeans Deaths	Natives Cases	Natives Deaths
Cholera	—	—	—	—
Plague	—	—	—	—
Smallpox	—	—	33	—
Typhus fever (exanthematous)	—	—	—	—
Yellow fever	—	—	—	—

2. *Tuberculosis and Silicosis*:

Pulmonary Tuberculosis	37	4	299	70
Non-pulmonary tuberculosis	2	—	87	14
Silicosis with active t.b.	—	—	3	2
Silicosis without active t.b.	1	1	11	2

3. *Infectious Diseases of Childhood*:

Chickenpox	253	—	687	—
German measles	54	—	1	—
Measles	172	—	190	—
Mumps	403	—	163	—
Whooping cough	114	—	153	—

4. *Virus encephalitis group*:

Encephalitis lethargica	1	—	—	—
Acute anterio-poliomyelitis	4	—	6	—
Polio-encephalitis	4	1	4	1
Landry's paralysis	—	—	1	—

5. *Bacterial infections*:

Anthrax	—	—	3	—
Tetanus	—	—	3	2
Scarlet fever	104	—	—	—
Erysipelas	4	—	2	—
Puerperal septicaemia	1	—	3	1
Cerebro-spinal meningitis	4	—	26	8
Meningitis—other organs	1	—	3	1
Diphtheria	28	5	76	14
Typhoid fevers	35	—	91	—
Paratyphoid fevers	5	—	25	—

6. *Miscellaneous*:

Infective hepatitis	1	—	—	—
Relapsing fever	—	—	7	—
Tick typhus	3	—	—	—
Trachoma	—	—	178	—
Trypanosomiasis	3	1	3	1

(2) Malaria and Blackwater Fever.

The number of malaria and blackwater fever admissions to Government Hospitals is the lowest recorded since 1940, though this satisfactory result is due rather to climatic factors rather than any concerted effort to deal with the insect vectors or attack the sexual forms of the parasites in the human carriers. The rainy season ended rather abruptly and early in 1945, so that the vector population was not receiving its usual plentiful reinforcements in March and April, and the peak of admissions in these two months failed to materialise.

The hospital admission rate for these two diseases combined was 15.0 per 1,000 of the European population. This is an improvement on the corresponding figures for 1939 (24.7 per 1,000) and for 1943 (27.3 per 1,000). It must be realised that this incidence rate is much lower than the true figure as it takes no account of the admission of cases to privately-owned hospitals and mine hospitals nor of the many cases treated sometimes without medical advice in their own homes. In 1945, four of the five registered deaths from blackwater fever occurred in hospitals, so it would appear that the practice of not moving such cases to hospital is dying out. Even as recently as 1939, only nine of seventeen blackwater fever deaths occurred in hospital.

A disturbing feature has been the tendency of the infant deaths from malaria to remain high even when the deaths at other ages are diminishing. In 1945 six deaths of infants from malaria occurred in a total of 28 malaria deaths registered. Infant deaths from malaria in the European population are unforgivable as the preventive measures are elementary and bound up with the rudiments of maternal care of the infant child.

In March, under the Emergency Defence Regulations, a Quinine and Mepacrine Order was published (Government Notice 195 of 1945) restricting the sale and use of quinine only in those instances where a medical certificate of intolerance to mepacrine could be produced. Mepacrine became the only malaria prophylactic on sale at Post Offices from this date.

The Colony has been fortunate in having available such stocks of quinine as to permit the general use of the drug to such a late state in the war. The prophylactic use of mepacrine is generally accepted by the public, as the drug has only to be taken for a few months of the year in the European settlement areas, even those at lower altitudes.

An. gambiae would appear to be the principal vector in this country, and its breeding habitats are so difficult to control that attack on the larval stage has been difficult.

Great hopes are pinned on the use of the organic chlorine insecticides such as DDT as residual sprays to kill the resting adult mosquito in human habitations.

(3) Schistosomiasis (Bilharzia).

Big advances have been made in the diagnosis and treatment of the disease which, though rarely fatal in the first instance and therefore not a killing disease like malaria, rivals malaria in the power to damage and disable the human organism. In 1939 Dr. Alan Mozley began his studies of the molluscan intermediate hosts of the disease and drew attention to the association of snails with man-made rubbish. He advocated the use of a malachite-mixture for killing snails in streams and pools. The mixture was composed of finely ground malachite ore (to pass 200 mesh), which is a natural copper carbonate, mixed with an equal quantity of sawdust to which was added 3 per cent. by weight of powdered *Swartzia madagascarensis* pods. These pods contain a saponin well known as a local fish poison which Mozley claimed increased the solubility of the very insoluble malachite. It was recommended that this mixture should be strewn liberally over the surface of pools and slow-moving streams, particularly among the aquatic vegetation.

Though the mixture was lethal to snails, 2,500 parts of the mixture (1,250 parts of malachite) per million of water is needed. The malachite mixture

costs £10 a ton at Salisbury. Copper sulphate to produce an equal effect requires eight parts per million and costs £35 a ton at Salisbury.

Copper sulphate is therefore the more economical molluscide, being 300 times less weight for transporting and nearly 100 times cheaper.

Problems still under investigation are the best methods of applying copper sulphate and the best time or times for applying the molluscide to produce the maximum effect in view of the protection afforded the snails at flood times and by hibernation in the mud of pond bottoms in the dry season.

During 1945 two other investigations have been made. The first of these, the possibility of "fast treatment," has now been brought to a successful conclusion. It has been shown that successful cure can be achieved with sodium antimony tartrate in a total dosage of 12 mgm. per kilo of body weight given in six intravenous injections in two days. The whole success of the method depends on "slow injection," two grains of S.A.T. in 10 c.c. of glucose-saline taking five minutes to inject. A large number of cases have been treated with complete success and all cases at three months showed no eggs in the excreta. The method is now widely adopted in the Colony and the saving in time to the doctor and inconvenience to the patient is great—two days as compared with one month. A further development has been the trial of a "public health" cure giving six grains S.A.T. to persons weighing less than 120 lbs. and eight grains to those above that weight. The dose was divided in three or four injections given in one working day. The purpose of this method is to kill the female worms, cause egg-laying to stop, and thus achieve a "public health" cure.

Progress has also been made in the field of diagnosis and a skin test antigen has been evolved. In 1938, Blackie tried an antigen prepared from *S. haematobium* miracidia hatched from eggs scraped from the mucosa of urinary bladders removed at *post-mortem*. The antigen gave good results but obviously could not be put to general use. Alves has produced a satisfactory antigen prepared from cercariae released by living snails. In large scale trials no negative skin test has been given by a proved infected person. On the other hand, in many positive skin tests it is not possible to prove the presence of eggs in the excreta.

This is rather to be expected and might occur in uni-sexual infections, long-standing infections where aged infertile worms exist, worms in anomalous situations and in cases where cicatrisation of the bladder and bowel mucose may prevent the egress of eggs.

The skin test is easy to perform, is adapted to mass diagnosis and is read in 15—20 minutes.

Cercarial antigen has been made available free to medical practitioners in Southern Rhodesia.

.Free laboratory diagnosis for the disease is now provided, and also free treatment for all school children up to the age of 16 years.

Trials with the antigen show that the extent of infection in both African and European populations is more widspread than anticipated and infection rates of 80 per cent. in Africans have been shown.

(4) Smallpox.

No cases of smallpox have been reported since the year 1941, when an outbreak with 87 cases and no mortality occurred in the Concession and Mazoe Valley districts. In September, 1945, cases were reported in Bulawayo in recent immigrant labour from the Livingstone area of Northern Rhodesia. Further cases were reported in the Gwanda area, and a total of 33 cases, again without any mortality, was reported. The type of the disease remains in its

mild form and can be truly classed as variola minor. The change in virulence of the virus seems to have taken place in 1923, as is well shown below:

	Cases	Deaths	Case Mortality Rate %
1918—22	1,532	287	18.47
1923—37	1,885	16	0.85
1938—45	2,463	13	0.53

Since 1940 an organised campaign of district vaccination has been in force, dealing with the country district by district. The Native Affairs Department continues to vaccinate immigrant native labour from neighbouring territories at the "ports of entry." By this means the standard of vaccination has been greatly improved and the proportion of "takes" greatly increased.

In the Annual Report of 1937 it was postulated that the vaccination protection achieved in the previous six years played a big part in regulating whether or not smallpox would be introduced from neighbouring territories in any given year. It had been found from previous experience that when the vaccination average is allowed to fall within the range 70—110 per 1,000 of the population, there is a danger that if smallpox is introduced it will become established in epidemic form and require very strenuous measures to prevent its spread. The vaccination average for the year 1945 is calculated as follows: The number of vaccinations performed in the six years, 1939—1944 inclusive, are summed and divided by six and the average is expressed as a rate per 1,000 of the total mid-year population in 1945. The vaccination average had been allowed to fall to 45 per 1,000 in 1937, and in the following year the smallpox rate rose steeply to 136 per 100,000. It was not until 1941, when the vaccination average was raised to 161 per 1,000, that the outbreak was finally controlled.

In 1945, 572,781 vaccinations were performed, the vaccination average for the year had dropped to 124 per 1,000, and the smallpox rate had reappeared at the low figure of nearly 2 per 100,000.

(5) Plague.

This disease occurred in the Ngamiland area of the Bechuanaland Protectorate in 1944 and 1945. While there were suspicious movements of rodents along the southern-western borders of the Colony, no sign of a rodent epizootie, abnormal rodent mortality, or any bacteriological evidence of plague could be found.

Attention was drawn in 1935 to the protection afforded the Colony in the South from rodent invasion by the wide bands of country forested with *Copaifera mopane*, which is practically rodent free. The likely portal of entry for rodent plague is by means of the corridor of *Terminalia sericea* "sand veld" which occurs at Plumtree.

(6) Human Trypanosomiasis.

There is now no doubt that an endemic form of the disease exists in the Zambesi Valley, in the area to the west of the common boundary with Northern Rhodesia and Portuguese East Africa. The area forms part of the contiguous "sleeping sickness" areas in the neighbouring territories and it seems probable that the focus has been established since 1934 when a careful "kraal to kraal" survey failed to show any evidence of the disease. The infected area is continuous with the tsetse fly area further west in the Zambesi Valley and the spread of the "sleeping sickness" area to the neighbourhood of the main trunk road to the north at Chirundu is a matter of serious concern.

The infected area discovered in the West Hartley and Sebungwe Native Districts in 1934 has produced no further cases since that year, and in fact the site is now cleared of tsetse fly as a result of the controlled game destruction operations conducted by the Entomological Department. It has now been established that *G. morsitans* occurs in Portuguese East Africa near the eastern borders of the Colony, and this means that cases of human trypanosomiasis are now a possibility in that area.

(7) Leprosy.

The details of cases treated in the three leper hospitals of the Colony is to be found in Appendix A.

African cases only are treated at the settlements at Mtemwa, near Mtoko, and at Mnene Mission, but all races are admitted to the Ngomahuru Leprosy Hospital, near Fort Victoria. It has been possible to maintain a full-time leprologist at Ngomahuru only during the war years; the supervision at Mnene, where the number of cases is small, is, as before the war, by a medical missionary. Mtemwa has had no resident doctor and has been inspected and visited at regular intervals by a neighbouring mission doctor and by a Government Medical Officer from Salisbury.

During the past two five-yearly periods the incidence of this disease has been almost stationary:—

	1936-40	Annual Rate per 100,000	1941-45	Annual Rate per 100,000
Fresh cases admitted	—	—	1,149	14.5
Readmissions	—	—	314	4.0
Total admissions	1,503	21.8	1,463	18.5
Discharged cured or arrested	—	—	870	11.0
Died in hospital	—	—	286	3.6
Deserted	—	—	128	1.7
Total loss	1,713	24.9	1,284	16.3

Annual Incidence Rates are calculated on the estimated population of the middle year.

The admission figures for each year vary only within a limited range.

From the figures for 1941-45 the true annual incidence of fresh cases of leprosy is 14.5 per 100,000, and of these about one-half may hope to be discharged cured.

Owing to a serious shortage of water supply at Mtemwa Settlement it is likely that the site will be abandoned for this purpose or else the number of cases maintained will have to be greatly reduced by transfers to existing leper settlements or by the creation of a new institution for the northern part of the Colony on another site.

(8) Diphtheria.

This disease has been responsible for an average of four deaths a year in 1941-45 in Europeans.

The disease has affected the native population much more than usual and a number of small epidemics have been reported in rural areas.

In the five years 1941-45, 398 native cases were notified and 144 deaths occurred; a case mortality rate of 28 per cent. Efforts were made to limit the spread of infection by active immunisation of the susceptible population round the epidemic villages.

Little headway has been made in the achievement of a high percentage of immunes in the susceptible groups of the European population. The public still await the actual presence of the disease in their area before taking any steps to have their children protected.

(9) Typhoid and Paratyphoid Fevers.

This group of diseases figures twelfth on the list of causes of European deaths 1941-45. The notifications are probably very inaccurate, as witnessed by the fact that no deaths in Europeans were notified in 1945, but three deaths have been registered. The extent of the disease in the native population is probably great and check surveys of the antibodies in Wasserman sera show

significant titres in many instances. In Europeans the disease is more common in the smaller urban areas where modern water supplies and water-borne sanitation are not yet fully installed.

CHAPTER III.—CURATIVE SERVICES.

(1) European Hospitals.

The number of European General Hospitals remains unaltered at fourteen, though; despite the war, improvements have been made at most hospitals and the accommodation increased from 562 beds in 1942 to 623 in 1945. X-ray plants have been installed at six hospitals; full-time radiologists are employed at the two main hospitals at Salisbury and Bulawayo, the other plants being operated by the Hospital Secretaries, who will be replaced in this duty by radiographers in training at Salisbury. Branch clinical laboratories staffed by a laboratory assistant have been opened at Gwelo and Umtali. During the war an additional War Emergency Hospital was opened in Salisbury for the care of chronic illness. Tuberculosis cases have had to be admitted to this Hospital as the sanatorium for which provision was being made by the State Lottery Trustees at Digglefold, near Marandellas, could not be completed as the farm and the existing buildings have been taken over for the accommodation of Polish refugees.

The European Hospital admissions and the rates per 1,000 of the population for 1941-1945 are as follows:—

	1945	1944	1943	1942	1941
Admissions	12,370	13,410	13,126	12,511	11,074
Admission rate per 1,000	149	162	161	158	159

The reduction in rate in 1945 is due to the critical nursing staff position forcing the closing of wards in certain hospitals for short periods and to the encouragement of the admission of seriously ill cases only. Apart from the Government Hospitals, there are only four other institutions who receive European patients. These are: St. Anne's, Avondale, Wankie Colliery, Shabanie Mine, and Globe and Phoenix Mine Hospitals. The statistics regarding European patients appear in Appendices D, E, F, G, and H.

The Government policy has been to take over all the Maternity Homes which were started in the first instance by local bodies. All but one of these Homes are now operated by the Government. In addition, there are three privately-operated Homes which are subject to inspection as a condition of registration. The statistics of European maternity cases appears in Appendix J.

It is interesting to note that of 2,038 European births in 1945, 1,757 or 86 per cent. took place in Maternity Homes.

In Maternity Homes with 1,757 live births in 1,752 confinements there were only three maternal deaths, a maternal mortality rate of 1.70 per 1,000 live births as compared with a mortality rate of 17.8 per 1,000 live births in extra-institutional confinements.

During the years 1941-45 there were 9,578 live European births and 32 maternal deaths, a maternal mortality rate per 1,000 of 3.3. From the comparison of the institutional mortality rate with the domiciliary mortality rate it would appear that if the proportion of confinements in Maternity Homes is increased even further, a sensible reduction in the maternal mortality rate will result.

(2) District Nursing Service.

Because of the shortage of trained nurses, especially of those nurses temperamentally suited to District Nursing work, this service has not been expanded as much as the work deserved.

Eight nurses are employed, stationed at Shamva, Salisbury South, Chipinga, Melsetter, Cashel, Gutu, Umvuma and Marandellas. Four of these stations are remote from doctors, and six have no hospital facilities. Four of the District Nurses are on the permanent staff, the other four being the wives of Civil Servants who happen to be stationed in those places and therefore are liable to transfer.

The volume of work done by the eight District Nurses in 1945 is as follows:—

Number of homes visited	635
Number of home visits paid	3,400
Visits by patients to Clinic	814
Midwifery cases	21

(3) Mental Diseases.

At the beginning of the year the patients in the Ingutsheni Mental Hospital at Bulawayo were 617 in number, which follows the slow trend of increase during the war years.

	1945	1944	1943	1942	1941
Patients as at Jan. 1 plus admissions:					
European	258	254	218	208	186
Native	653	639	599	566	541
Discharged:					
European	77	72	73	39	38
Native	122	118	69	66	78
Deaths:					
European	13	11	11	9	10
Native	57	75	75	83	64
Released on probation:					
European and Native	95	76	77	58	54

In 1942, a Nervous Disorders Hospital, built with funds provided by the State Lottery Trustees, was opened in Bulawayo. This Hospital for European patients only serves those patients in the early stages of mental illness. It is a voluntary institution and fulfils an important function as a place for psychiatric diagnosis and treatment. Despite the war, urgently required extensions to the Ingutsheni Mental Hospital were made and the training and recreational facilities improved. An occupational therapy department is now operating. The Nervous Disorders Hospital is in the whole-time charge of a specialist medical officer, and at the end of 1945 two specialists were employed at the Ingutsheni Mental Hospital.

(4) Native Hospitals.

There has been no increase in the number of these institutions during the war years; they remain at thirteen. Many of these hospitals have been in operation for a long time, and apart from being invariably overcrowded, the equipment and design makes them difficult to administer. Another factor has been the great increase in native female patients who chronically overflow the accommodation deemed suitable for the sex ten years ago.

Plans have been prepared for 1,000-bedded hospitals for Salisbury and Bulawayo, which will be built in sections. These institutions will provide the material and the staff to train more and more medical orderlies and eventually Africans to a higher standard as medical practitioners.

The minority communities, Asiatic and Coloured, have their hospital requirements met by annexes to the Native Hospitals in the larger centres. The beds available are always filled and there is great need for more beds,

especially for maternity work. Coloured and Asiatic ward blocks have been built at Que Que and Gatooma, but have not been used because of shortage of nursing staff.

Statistics relating to Native Hospitals will be found in Appendices D, E, F, G and H.

(5) Native Clinics.

Despite the war, the Native Clinic system has been expanded considerably and is now an accepted institution in native life. It cannot be held that all clinics are perfect and well-run; in many places this is far from being the case, but there can be no denying that by their aid a medical service has been made available to natives, except those living in the more remote and sparsely populated areas.

Owing to lack of communications, it has not been always possible to site clinics as close to the population to be served as would be desired.

Since 1935, when there were only 21 native clinics, new clinics have been built, equipped and staffed each year. The construction of these clinics is to a simple plan, and the building is done by native artisans under European direction. The buildings are of brick under iron or tiled roof, with concrete floors of a simple and clean design. Each clinic has its staff of native medical orderlies, and they are visited weekly by the nearest Government Medical Officer.

The following figures for 1941-45 will indicate how the work has increased:

	1945	1944	1943	1942	1941
Number of clinics	67	66	63	60	53
In-patients treated	66,758	64,192	43,548	35,794	45,948
Out-patients treated	203,476	181,162	146,666	99,740	109,148

The details of work done in 1945 appears at Appendix B.

(6) Missions.

Medical missions play an important part in the provision of medical services for Africans, and some of the larger missions perform an important duty in the training of medical orderlies, male and female. Six missions employ doctors and many others have on their staff fully qualified nurses.

Where missions meet a medical need not adequately provided by the State, grants-in-aid are given towards salaries of doctors and nurses, towards equipped beds and in recognition of training performed. A contribution is also made towards the drugs used in the treatment of certain diseases.

A summary of the work done by the missions for 1941-45 is as follows:

	1945	1944	1943	1942	1941
Number of missions aided	34	30	26	34	30
Total admissions	22,193	18,842	21,608	19,947	12,475
Out-patients treated	118,800	97,218	70,708	77,283	63,486

A detailed summary of the work of missions in 1945 appears at Appendix I.

(7) Native Labour on Mines.

Before June, 1945, general supervision of native labour employed on mines was exercised by two Compound Inspectors who were seconded to the Department from the Department of Native Affairs. After this date, the Labour Inspectors, as they were then called, reverted to the Native Affairs Department and the general supervision of environmental hygiene has been exercised as the small staff allows, by the Health Inspectors. Close relations are maintained between the two organisations to obviate reduplication of work, particularly in the field of nutrition. A standard ration for natives in mines has been laid down under the Mines and Minerals Act and regulations.

It has been difficult to insist on this ration to the full because of local shortages of fresh food. It is hoped that the dehydration of vegetables now a flourishing local industry, will be able to meet the need for vegetables in remote arid areas and out of season. The comparative statement of mortality on mines in 1941-45 is as follows:

	1945	1944	1943	1942	1941
Average number employed	71,660	75,155	78,497	81,862	84,015
Deaths from disease	562	567	543	584	601
Deaths from accidents	80	82	108	127	135
Total deaths	642	649	651	711	736
Death rate from disease per 1,000	7.84	7.55	6.91	7.13	7.15
Death rate from accidents per 1,000	1.12	1.09	1.38	1.55	1.61
Death rate from all causes per 1,000	8.96	8.64	8.29	8.68	8.76
Death rate from pneumonia per 1,000	2.18	1.89	1.85	2.03	2.13
Deaths from disease:					
Malaria	43	66	58	42	53
Scurvy	—	1	2	6	1
Syphilis	35	39	42	26	30
Pneumonia	156	142	145	166	179
Phthisis	54	65	48	62	65
Other diseases of chest	16	15	12	22	20
Dysentery and Diarrhoea	10	16	8	14	13
Other intestinal diseases	35	32	30	33	28
Heart Disease	46	44	47	59	52
Debility	12	12	24	14	15
Influenza	28	17	19	18	25
Other diseases	127	118	108	122	120
Total cases of sickness	37,675	42,171	44,243	38,589	41,579
Total accidents	16,932	16,395	16,459	14,334	13,600

(8) Native Medical Services Generally.

The bringing of European medicine to the African has been a long and uphill struggle, but the old prejudices are now passing away even in quite remote areas. They will travel quite long distances to seek advice and aid, and, what is more significant, seek advice for their women and children. Not so many years ago it was rare to find maternity cases coming to hospital or a clinic. The rare cases were women who had been in labour with complications for days. To-day the popularity of clinics and hospitals for lying-in for confinement is becoming embarrassing even in some of the more remote districts. When it is realised that the vast majority of normal labours in clinics are conducted by male medical orderlies, the full extent of the revolution of thought will be appreciated.

The increased use of facilities for African medical care as measured by the combined admissions to hospitals, clinics and State-aided missions shows that in 1936, admissions were 25 per 1,000 of the population, 50 in 1940, and 73 per 1,000 in 1945; a three-fold increase in ten years.

The problem is now to encourage the African to take a more active part in the prevention and treatment of disease even to the higher levels of care and responsibility.

CHAPTER IV.—PREVENTIVE HEALTH SERVICES

(1) Laboratories.

The reports of the three routine laboratories, the Public Health Laboratories at Salisbury and Bulawayo, and the Government Analyst's Laboratory at Salisbury, appear as Appendices N, O. and P to this Report.

The specimens examined by these laboratories during the years 1941-45 are enumerated below:

	1945	1944	1943	1942	1941
Public Health Laboratory, Salisbury	85,283	77,881	55,587	45,201	42,105
Public Health Laboratory, Bulawayo	42,276	42,184	34,576	22,696	18,649
Govt. Analyst's Laboratory, Salisbury	1,969	1,927	1,161	1,663	1,522
Total	129,528	121,992	91,324	69,560	62,276

In five years the total examinations performed at these laboratories has doubled despite shortages in staff and frequent changes in female assistants making training in laboratory methods a continual task. During these years the training of African microscopists has continued, and these are now stationed at all hospitals and at some of the more important clinics. The microscopists are trained in the examination of blood films for malaria parasites, urine deposits for bilharzia eggs, and stool examinations for helminth eggs. It is not thought advisable at the moment to extend their training beyond these limits.

Two branch clinical laboratories each staffed with one female laboratory assistant have been established in connection with the hospitals at Gwelo and Umtali. They perform a useful function in eliminating the packing and posting to the main laboratories of large numbers of routine examination specimens.

A feature of the war years has been the extension of the free laboratory services to aid in the diagnosis and treatment of the principal public health problems and especially malaria and bilharzia. In conjunction with the State Lottery Trustees, who provided the financial support, a research unit was formed in 1939, but owing to the war it has only been possible to keep one research worker employed, Dr. A. Mozley working on molluscs, their ecology and control. This work continued from 1939 to 1943, and the results have been published in book form in "The Control of Bilharzia in Southern Rhodesia."

A modern laboratory was built in 1941 and will form a convenient nucleus for future research workers in all fields.

During 1945, research was restarted and devoted to the problems of diagnosis and treatment of bilharzia. These are discussed fully in Chapter II (3).

(2) Schools Medical Service.

Towards the end of the year the medical inspector staff was increased by an additional lady medical officer, and the staff now consists of one male and two lady medical officers.

The details of the findings at the Schools Medical Inspections will be found in Appendices K, L and M to this Report.

During the years 1941-43 only one Schools Medical Officer was fully employed on these duties, so the volume of work done has diminished and there are now arrears of work to be made up. An additional duty which will soon have to be faced is the medical examination of children at Government Native Schools.

An experiment in supplementary school feeding has been inaugurated particularly for children at the Indian and Coloured Schools, where all pupils are encouraged to partake of a simple mid-morning meal of 1/3rd pint

of milk and a bun or bread and butter and jam. The same supplement is given to children at certain European schools when recommended by the Schools Medical Officers.

The following summary of work done during the years 1941 to 1945 is given:

	1945	1944	1943	1942	1941
European children examined	4,312	6,100	1,893	3,091	4,536
Asiatic and Coloured children examined	911	1,175	336	239	452
European entrants unvaccinated	207	628	—	230	442
Asiatic and Coloured unvaccinated	103	214	167	31	68
Nutrition unsatisfactory—					
European %	8.8	9.0	9.8	8.6	10.8
Asiatic and Coloured %	20.3	15.4	27.0	28.3	32.6
Intelligence Testing—European	627	709	780	322	307
Percentage below I.Q. 85	17.1	28.6	21.8	16.7	37.1

(3) Government Dental Service.

The dental staff remains at three: two dental surgeons stationed at Salisbury, one at Bulawayo. It has not been possible to organise the third division at Gwelo because of staff shortage. During the war an increase of dental work for natives has been possible at Salisbury and Bulawayo Hospitals.

	Schools	
	Salisbury Division	Bulawayo Division
Number of children examined	5,553	6,305
Number of children treated	962	509
Number of fillings—		
Temporary teeth	296	157
Permanent teeth	839	234
Number of extractions—		
Temporary teeth	1,281	540
Permanent teeth	211	50
Number of other operations	—	—
Number of scalings	18	1

	Indigent Europeans and Natives	
	Salisbury Division	Bulawayo Division
Number of extractions	2,685	1,145
Number of fillings	30	—
Number of scalings	1	—
Number of other operations	145	10
Number of dentures supplied	66	32
Number of dentures repaired	4	9

(4) Health of the B.S.A. Police.

The incidence of sickness in European and Native members of the B.S.A.P. for the years 1941-45 is given below. Light duty is counted as half a day's duty lost:

Europeans	1945	1944	1943	1942	1941
Number sick	691	623	601	573	770
Days lost	6,996	7,390	6,236	5,882	6,995
Average days lost per case	10.12	11.86	10.37	10.26	9.08
Cases of venereal disease	—	—	—	—	1
Number discharged medically unfit	4	2	3	3	2
Deaths	1	1	1	2	5
Natives					
Number sick	2,121	2,139	2,593	1,557	1,921
Days lost	12,423	13,981	14,450	11,514	10,950
Average days lost per case	5.85	6.53	5.57	7.33	5.75
Cases of venereal disease	123	99	100	118	89
Number discharged medically unfit	8	2	11	4	4
Deaths	5	7	6	6	3

The low incidence of venereal disease in the European members of the B.S.A. Police is a very striking feature of the Annual Reports.

(5) Health Inspectorate.

At the end of the year ten qualified health inspectors were employed; one public health inspector and 53 native lay vaccinators. The inspectors operate from eight centres only because of the difficulty of obtaining housing accommodation in some of the rural centres. In fact, lack of housing rather than staff is likely to be the restraining factor to any large increase in establishment.

The health inspectors are charged with the direct supervision of the vaccination programme and by their efforts a much larger number of natives have been protected than was ever possible when vaccination was performed on immigrant natives at "ports of entry" and in hurriedly organised drives in the face of smallpox epidemic.

Government health inspectors also provide an urban inspection service in these towns not large enough to employ their own inspector staff. This has resulted in the devotion of a considerable proportion of their work to urban health.

During the year Slaughtering and Meat Inspection Regulations were promulgated which give the means of securing a gradual improvement in the conditions under which meat is slaughtered and handled in the rural areas.

It is now a prerequisite for hotel licensing to have a satisfactory sanitary report. During the year 56 hotels were inspected for licensing purposes. The reports state what immediate improvements must be made, what other improvements must be made before the next year's licensing court and, if necessary, long term recommendations for improvement.

CHAPTER V.—ADMINISTRATION AND MISCELLANEOUS.

(1) Staff.

1.	Medical Officers:	
	Headquarters: (Medical Director, 1; Health Officers, 2; Field Officer, 1; Schools Medical Officers, 3)	7
	Districts: (Senior Government Medical Officers, 5; Medical Officers, 35; Aided Government Medical Officers, 8)	48
2.	Medical Superintendents, Mental and Leprosy Institutions	5
3.	Opthalmologist	1
4.	Pathologist	1
5.	Radiologists, Salisbury and Bulawayo	2
6.	Medical Entomologist	1
7.	Junior Resident Medical Officers	7
8.	Directors of Laboratories, Salisbury and Bulawayo	2
9.	Dental Surgeons	3
10.	Government Analyst	1
11.	Health Inspectors	12
12.	Staff Matron	1
13.	General Nurses (Qualified, 245; Student, 155)	400
14.	Mental Nurses	43
15.	Radiographers	11
16.	Masseuses	7
17.	Anti-Malaria Officer, Victoria Falls	1
18.	Other European Staff	151
19.	Asiatic and Native Staff	1,247
	Total	1,951

The list given includes many posts on the establishment which are temporarily vacant, but does not include various part-time officials such as consulting surgeons and relieving staff.

(2) Nursing Service.

The Nursing Service has had the heaviest burden to bear during the war years; it has not been possible to maintain establishments and it has been necessary, in order to permit vacation leave, to close down wards temporarily and, as has been noted earlier, hospitals have been built but could not be opened to receive patients because of the lack of nursing staff.

The position at the end of 1945 was as follows:—

	Establishment.	Employed.
Matrons	27	23
Sister Tutors	4	2
Sisters	39	26
Qualified Nurses	165	91
District Nurses	6	5
District Sisters	4	2
Student Nurses	155	148
Auxiliary Nurses	50	12
	450	309

Being cut off from all possibility of recruitment in Britain, the nursing staff position has steadily deteriorated and is now one-third under strength.

Of trained staff of an establishment of 245, only 65 nurses are on the permanent staff, 84 others being temporary staff—usually nurses previously in the Service and now married in the Colony. With the end of hostilities conditions have worsened as many of the married temporary staff have resigned to join their husbands.

Part-time nurses have also been widely employed and have given most useful service, particularly in permitting periods of vacation leave and giving relief on night duty.

New salary scales and conditions of service for nurses were introduced on 1st April, 1945. These scales are more favourable in all respects than the Rushcliffe scales in Britain introduced in 1946.

By comparison a trained nurse in Rhodesia with one year's service receives the same pay and emoluments as a trained nurse in Britain with fourteen years' service.

(3) Medical Council of Southern Rhodesia.

The numbers on the registers of the Medical Council at the end of 1945 are given below:—

	Additions.	Deletions.	Ttl. at 31.12.45.
Medical Practitioners	15	2	217
Dental Surgeons	2	2	51
Chemists and Druggist	3	3	110
Trained Nurses, general	65	—	559
Trained Nurses, mental	3	—	18
Trained Nurses (sick children)	1	—	3
Midwives	39	—	292
Masseurs and Masseuses	4	—	16
Radiographers	—	—	2
Native Nursing Orderlies	13	—	64

The numbers appearing on the register bear no relation to the numbers in each category who are in practice in the Colony. For example it is estimated that only 123 medical practitioners are now resident in the Colony.

During the war years legislation was introduced to permit alien doctors and dentists to practice in internment and refugee camps without registration. It is probable that the emergency legislation will be repealed when all internees have been removed.

Legislation was introduced to permit additional control on the entry of doctors, dentists and chemists and druggists into the Colony over and above the professional qualifications required by the Medical Council. This measure prevented the setting up of new practices in these professions to the detriment of persons on active service.

(4) Training.

(i) *Nursing Training—*

Nurse training was continued at the Salisbury and Bulawayo Hospitals during the year:

	Number of Candidates	Number Passed	Number Failed
Preliminary Examination	61	40	21
Final Examinations	17	17	—

(ii) *Native Male Nursing Orderlies—*

Nursing Orderly training has continued at both Salisbury and Bulawayo Hospitals. Since 1939 the successful students have been admitted to a special register after a three years' training. The training in 1945 was as follows:

	Number of Candidates	Number Passed	Number Failed
Lower Examinations	29	23	6
Higher Examinations	11	10	1

(iii) *Native Female Nursing Orderlies—*

At the beginning of the year a start was made with the training at Bulawayo Hospital of female nursing orderlies. It was intended to start with 24 students and increase the total number to 48 in three years' time. A large proportion of the first class proved to be unsatisfactory and had to be discarded. It is felt, however, that the better female orderlies will be much superior to the males.

(iv) *Health Inspectors—*

Under the aegis of the Royal Sanitary Institute, an approved course of instruction has been operating in Salisbury and the first class of five are expected to sit their examination early in 1946.

(5) St. John Ambulance and Red Cross Associations.

These bodies have continued to provide generous and disinterested service which has been a feature of the hospital work during the war years.

Both organisations have contributed to the Auxiliary Nursing Service, and other members have done part-time nursing duties in the non-teaching hospitals. The St. John Ambulance Association in 1945 issued a total of 1,921 certificates covering various forms of training and played a big part in the organisation and planning of blood transfusion services for all races. The Red Cross members continued to do a huge total of hospital work amounting to 39,664 hours.

A further service recently introduced by the Red Cross is the establishment of a loan depot from which can be hired at a small charge those articles and appliances used in nursing, bed pans, cradles, crutches, etc., which, if they have to be bought outright, contribute largely to the expense of sickness.

(6) Habit-Forming Drugs.

Import Certificates.—31 permits were issued during 1945.

Actual Imports.

Drug	Grammes
Medicinal Opium	5,160
Opium (in tinctures, extracts and other preparations)	50,137
Indian Hemp (in forms of galenicals)	nil
Morphine Alkaloid	724
Diacetyl Morphine (Heroin)	128
Cocaine Alkaloid	956
Methyl Morphine (Codeine)	4,926
Ethyl Morphine (Dionine)	24

Export Certificates.—7 permits were issued.

Actual Exports.

Drug	Grammes
Opium	nil
Opium (in tinctures, etc.)	272
Indian Hemp	nil
Morphine Alkaloid	4
Diacetyl Morphine (Heroin)	4
Cocaine Alkaloid	nil
Methyl Morphine (Codeine)	21
Ethyl Morphine (Dionine)	nil

Veterinary Department.—Two permits were issued by the Veterinary Department in 1945 for the purchase of 7 ounces of Tincture of Opium.

ANDREW PATON MARTIN, O.B.E., M.D., D.P.H.,
Medical Director and Chief Health Officer.

ANNUAL REPORT, 1945.

LIST OF TABLES AND APPENDICES.

LEPROSY IN SOUTHERN RHODESIA, 1945. *Table A.*

Institution	Race of Patients	No. on Registers 1/1/45	Admissions	Readmitted for Treatment	Readmitted for economic reasons	Discharged	Died	Deserted	No. on Register 31/12/45	Total Treated	Children Born
Ngomahuru ..	European ..	5	1	—	—	1	—	—	5	6	—
	Coloured ..	3	—	—	—	2	—	—	1	3	—
	Native ..	478	141	48	2	141	33	2	493	669	14
Mtemwa	Native ..	599	101	16	—	186	30	11	489	716	10
Mnene	Native ..	29	—	1	—	12 (*a*)	1	—	17	30	—
TOTAL ..		1,114	243	65	2	342	64	13	1,005	1,424	24

(*a*) includes 7 transferred to Ngomahuru.

NATIVE CLINICS, 1945.

TABLE B

CLINIC	Admissions			Inpatient Units			Deaths			Outpatients			Outpatient Treatments		
	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total
Arrowan	261	762	1,023	4,488	9,437	13,925	—	16	16	44	551	595	446	2,609	3,055
Banket	336	1,286	1,622	11,759	14,291	26,050	3	32	35	80	1,880	1,960	480	7,368	7,848
Belingwe	556	730	1,286	16,516	20,437	36,953	2	10	12	253	599	852	3,096	2,981	6,077
Birchenough	30	827	857	1,043	12,231	13,274	—	5	5	10	2,150	2,160	199	5,817	6,016
Buhera	92	292	384	5,027	8,073	13,100	2	5	7	132	1,159	1,291	656	6,017	6,673
Chibi	307	1,039	1,346	12,994	23,754	36,748	3	7	10	—	376	376	—	3,070	3,070
Chiduku	221	237	458	573	2,710	3,283	—	5	5	80	2,956	3,036	701	14,389	15,090
Chilimanzi	247	543	790	5,996	8,805	14,801	1	8	9	60	1,083	1,143	615	5,201	5,816
Chinomwe	115	257	372	6,122	5,721	11,893	—	4	4	16	1,374	1,390	300	4,130	4,430
Chipinga	295	2,541	2,836	6,430	37,032	43,462	1	13	14	195	2,710	2,905	2,216	45,845	48,061
Concession	786	1,130	1,916	34,004	27,490	61,494	11	68	79	410	833	1,243	2,640	2,082	4,722
Darwendale	421	699	1,120	7,237	8,807	16,044	1	21	22	128	1,885	2,013	584	4,450	5,034
Essexvale	370	584	954	16,067	13,071	29,138	5	22	27	308	3,962	4,270	1,009	6,095	7,104
Filabusi	312	966	1,278	14,797	22,132	36,929	2	42	44	536	1,148	1,684	8,576	5,740	14,316
Fort Usher	662	31	693	26,339	574	26,913	3	—	3	1,146	3,823	4,969	Not	available	
Gokwe	103	188	291	6,001	10,068	16,069	4	2	6	37	1,797	1,834	832	5,788	6,620
Hartley	254	763	1,017	7,116	12,725	19,841	3	42	45	287	2,583	2,870	907	7,138	8,045
Highfield	7	484	491	105	8,105	8,210	3	14	17	566	9,694	10,260	1,497	32,181	33,678
Inyanga	119	672	791	1,904	12,191	14,095	2	5	7	430	3,503	3,933	2,175	13,959	16,134
Inyati	435	749	1,184	11,799	9,166	20,965	5	20	25	644	977	1,621	7,728	12,701	20,429
Jena	65	1,665	1,730	1,141	11,016	12,157	—	6	6	229	897	1,126	359	3,709	4,068
Kezi	—	—	—	—	—	—	—	—	—	36	456	492	36	762	798
Kutama	139	745	884	40,862	10,077	50,939	—	20	20	20	40,842	40,862	984	40,842	41,836
Kwenda	170	499	699	3,269	5,455	8,724	—	10	10	82	2,320	2,402	383	8,486	8,869
Lady Mary Baring	24	54	78	504	590	1,094	1	3	4	52	503	555	312	1,509	1,831
Lukosi	211	143	354	9,347	8,844	18,191	1	2	3	114	270	384	1,250	10,500	11,750
Luveve	—	375	375	—	6,213	6,213	—	5	5	324	4,499	4,823	1,305	12,818	14,123
Makumbi	17	1,544	1,561	595	22,085	22,680	2	15	17	45	4,456	4,501	270	31,910	32,180
Marandellas	867	743	1,610	37,949	20,476	58,425	10	48	58	—	15,062	15,062	—	27,997	27,997
Mabedzenge	—	—	—	—	—	—	—	—	—	—	2,604	2,604	—	5,714	5,714
Maranke	80	479	559	1,214	6,178	8,542	—	16	16	117	3,380	3,497	562	5,033	5,595
Miami	209	607	816	9,146	6,122	15,318	3	18	21	48	2,044	2,092	288	5,766	6,054
Mondoro	376	1,403	1,779	4,506	16,877	21,377	1	7	8	567	5,654	6,221	2,284	15,517	17,801
Matibi No. 1	747	1,900	2,647	Not	available		7	15	22	96	687	783	Not	available	
Mt. Darwin	294	581	875	6,161	12,072	18,233	2	11	13	88	976	1,064	316	3,325	3,641
Mphoengs	138	150	288	2,876	1,587	4,463	1	2	3	349	1,391	1,740	1,911	3,738	5,649
Mtoko	161	1,045	1,206	4,120	17,839	21,959	—	26	26	407	4,820	5,227	989	10,087	11,076
Mrewa	240	1,452	1,692	12,723	23,397	36,120	4	33	37	—	5,019	5,019	—	22,871	22,871

CLINIC	Admissions			Inpatient Units			Deaths			Outpatients			Outpatient Treatments		
	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total
Norton	801	897	1,698	7,784	7,861	15,645	1	2	3	331	1,434	1,765	972	4,166	5,138
Nyamandhlovu	28	295	323	470	4,599	5,069	—	7	7	120	1,586	1,706	968	11,009	11,977
Nyamazuwi	82	1,219	1,301	2,046	12,249	14,295	—	2	2	167	4,181	4,348	338	7,523	7,861
Odzi	482	526	1,008	10,498	5,232	15,720	—	3	3	101	1,547	1,648	574	10,058	10,632
Plumtree	265	874	1,159	9,191	24,522	33,713	6	28	34	84	361	445	786	1,176	1,962
Range	181	726	907	7,455	13,090	20,545	—	1	1	51	463	514	169	1,633	1,802
Rosa	83	997	1,080	516	24,965	25,481	—	6	6	292	3,895	4,187	2,225	94,315	96,540
Selukwe	458	841	1,299	23,181	12,175	35,356	3	34	37	559	2,912	3,471	2,213	6,686	8,899
Shangani	296	392	688	20,330	14,887	35,217	1	5	6	265	1,457	1,722	3,180	18,941	22,121
Shiota	339	994	1,333	823	1,665	2,488	—	11	11	—	5,614	5,614	—	34,293	34,293
Sipolilo	17	210	227	867	5,528	6,395	—	—	—	—	3,419	3,419	—	6,151	6,151
Sipepa	310	191	501	18,563	6,618	25,181	3	5	8	137	1,593	1,730	1,463	4,203	5,666
Stanley	28	145	173	808	3,782	4,590	—	13	13	177	1,512	1,689	1,559	3,253	5,812
Tjolotjo	150	476	626	6,372	11,107	17,479	1	11	12	65	2,068	2,133	981	17,083	18,024
Tsonzo	19	537	556	192	4,037	4,229	—	10	10	353	4,689	5,042	1,128	6,613	7,741
Umvuma	198	402	600	5,533	4,987	10,520	—	10	10	408	1,917	2,325		No record	
Victoria Falls	—	—	—	—	—	—	—	—	—	—	9,187	9,187	—	17,317	17,317
Wedza	260	459	719	10,400	4,590	14,990	3	7	10	82	5,490	5,572	820	27,450	28,270
TOTAL (56)	13,574	38,346	51,920	455,759	597,541	1,053,300	101	733	834	11,128	192,348	203,476	63,252	670,015	733,267
NDANGA UNIT:															
Ndanga	2,339	1,403	3,742	58,254	35,046	93,300	36	42	78				656	778	1,434
Dispensary A	460	1,400	1,860	14,232	38,210	52,442	2	14	16						1,691
Dispensary B	207	596	803	9,060	29,787	38,847	6	8	14						931
Dispensary C	270	1,377	1,647	6,958	34,737	41,695	2	9	11						1,039
Dispensary G	161	746	907	7,575	33,025	40,600	4	7	11						1,925
Bikita	387	702	1,089	13,020	20,836	33,856	7	6	13						2,580
Chichidza	213	422	635	13,354	22,504	35,858	2	10	12						3,106
Gutu	227	699	926	8,946	18,617	27,563	5	7	12						6,535
Chingombe	420	2,064	2,484	16,423	75,932	92,355	2	20	22						6,944
Chidema	96	545	641	4,529	24,313	28,842	1	2	3						792
Sangwe	4	200	204	173	7,561	7,734	—	1	1						318
TOTAL NDANGA UNIT (11)	4,684	10,154	14,838	152,522	34,550	187,072	67	126	193				656	778	27,295
GRAND TOTAL (67)	18,258	48,500	66,758	608,281	632,091	1,240,372	168	859	1,027	11,121	192,348	203,476	63,918	670,793	760,562

CLASSIFICATION OF EUROPEAN DEATHS, 1945.

Deaths classified according to the International List of Causes of Sickness and Death.

FIFTH DECENNIAL REVISION.

Int. List No.	Cause of Death.	No. of Deaths.
	I.—*Infective and Parasitic Diseases.*	
1	Typhoid fever	3
6	Cerebro-spinal (meningococcal) meningitis	1
9	Whooping cough	5
10	Diphtheria	6
12	Tetanus	1
13	Tuberculosis of the respiratory system—	
	(a) with mention of occupational disease of lung	2
	(b) without mention of occupational disease of lung	7
15	Tuberculosis of the intestines and peritoneum	2
22	Disseminated tuberculosis	1
24	Purulent infection and septicaemia	1
27	Dysentery	4
28	Malaria	28
28d	Blackwater fever	5
29	Other diseases due to parasitic protozoa except spirochaetes	1
30	Syphilis—	
	(b) General paralysis of the insane	1
	(c) Aneurysm of the aorta	4
	(d) Other forms of syphilis	1
33	Influenza	7
36	Acute poliomyelitis and polioencephalitis	2
38	Other diseases due to viruses	1
44	Other infective or parasitic diseases	1
	II.—*Cancer and Other Tumours.*	
45	Cancer of the buccal cavity and pharynx	3
46	Cancer of the digestive organs and peritoneum	40
47	Cancer of the respiratory system	14
48	Cancer of the uterus	4
49	Cancer of other female genital organs	4
50	Cancer of the breast	13
51	Cancer of the male genital organs	4
52	Cancer of the urinary organs	2
54	Cancer of the brain and other parts of the nervous system	1
55	Cancer of other or unspecified organs	9
57.	Tumours of undetermined nature	1
	III.—*Rheumatism, Diseases of Nutrition and of the Endocrine Glands, other General Diseases and Vitamin Deficiency Diseases.*	
58	Rheumatic fever	4
59	Chronic rheumatism and other rheumatic diseases	2
61	Diabetes mellitus	13
63	Diseases of the thyroid and parathyroid glands	1
65	Diseases of the adrenal glands (not specified as tuberculosis)	1
66	Other general diseases	2

IV.—*Diseases of the Blood and Blood-forming Organs.*

Int. List No.	Cause of Death.	No. of Deaths.
72	Haemorrhagic conditions	2
73	Anaemias	4
74	Leukaemias and aleukaemias	4

V.—*Chronic Poisoning and Intoxication.*

77	Alcoholism (ethylism)	1

VI.—*Diseases of the Nervous System and Sense Organs.*

80	Encephalitis (non-epidemic)	1
81	Meningitis (non-meningococcal)	1
82	Diseases of the medulla and spinal cord	2
83	Intra-cranial lesions of vascular origin	31
84	Mental disorders and deficiency	9
85	Epilepsy	3
87	Other diseases of the nervous system	3
89	Diseases of the Ear and of the Mastoid Antrum	1

VII.—*Diseases of the Circulatory System.*

90	Pericarditis	1
91	Acute endocarditis	3
92	Chronic affections of the valves and endocardium	24
93	Diseases of the myocardium	48
94	Diseases of the coronary arteries, angina pectoris	54
95	Other diseases of the heart	7
97	Arteriosclerosis (excluding coronary or renal sclerosis or cerebral haemorrhage)	7
99	Other diseases of the arteries	2
102	High blood pressure (idiopathic)	11

VIII.—*Diseases of the Respiratory System.*

106	Bronchitis	9
107	Broncho-pneumonia	6
108	Lobar pneumonia	19
109	Pneumonia (unspecified)	4
110	Pleurisy	1
112	Asthma	4
114	Other diseases of the respiratory system—	
	(a) Silicosis and other occupational pneumonococonioses	2
	(b) Other diseases included under 114 not specified as occupational	1

IX.—*Diseases of the Digestive System.*

115	Diseases of the buccal cavity and annexa and of the pharynx and tonsils	2
117	Ulcer of the stomach or duodenum	7
119 & 120	Enteritis and diarrhoea	16
121	Appendicitis	6
122	Hernia, intestinal obstruction	7
123	Other diseases of the intestines	2
124	Cirrhosis of the liver	10
125	Other diseases of the liver	2
127	Other diseases of the gall bladder and bile ducts	4
129	Peritonitis without stated cause	1

X.—*Diseases of the Urinary and Genital Systems (Not Venereal or connected with Pregnancy or the Puerperium).*

130	Acute nephritis	1
131	Chronic nephritis	13
132	Nephritis not stated to be acute or chronic (over 10 years of age)	4
133	Other diseases of the kidney and ureters	1
135	Diseases of the bladder	1
137	Diseases of the prostate	1
139	Diseases of the female genital organs	1

XI.—*Diseases of Pregnancy, Childbirth and the Puerperal State.*

144	Toxaemias of pregnancy	2
145	Other diseases and accidents of pregnancy	1
146	Haemorrhage of childbirth and the puerperium	3
147	Infection during childbirth and the puerperium	1
149	Other accidents of childbirth	1

XIV.—*Congenital Malformations.*

157	Congenital malformations	8

XV.—*Diseases Peculiar to the First Year of Life.*

153	Congenital debility	3
159	Premature birth	20
161	Other diseases peculiar to the first year of life	7

XVI.—*Senility, Old Age.*

162	Senility, old age	11

XVII.—*Deaths from Violence.*

163	Suicide by poisoning—	
	(a) Suicide by solid or liquid toxic or corrosive substances	4
164	Other forms of suicide—	
	(a) Suicide by hanging or strangulation	1
	(c) Suicide by firearms and explosives	5
	(f) Suicide by crushing	1
	(g) Suicide by other or unspecified means	1
166	Homicide by firearms	2
167	Homicide by cutting or piercing instruments	1
170	Motor vehicle accidents (any cause of death except war)	5
173	Air transport accidents (any cause of death except war)	26
174	Accidents in mines and quarries (any cause of death except war	5
179	Other acute accidental poisoning (not by gas)	1
181	Accidental burns (conflagration excepted)	1
182	Accidental mechanical suffocation	2
183	Accidental drowning	4
184	Accidental injury by firearms	1
186	Accidental injury by fall, crushing, landslide, etc.	6
193	Other accidents due to electric currents	1
195	Other accidents	6

XVIII.—*Ill-defined Causes of Death.*

200	Causes of death unstated or ill-defined	11
	TOTAL	687

ADMISSIONS TO GOVERNMENT HOSPITALS, 1945 TABLE D.

Hospital	European	Native other than V.D.	Native V.D.	Total	Deaths		
					European	Native other than V.D.	Native V.D.
Salisbury	3,111	4,998	279	8,388	99	387	10
Bulawayo	3,935	6,763	221	10,919	128	467	—
Bindura	269	1,207	23	1,499	7	58	3
Enkeldoorn	139	968	—	1,107	1	51	—
Fort Victoria	320	324	346	990	8	47	5
Gatooma	738	2,564	819	4,121	8	153	3
Gwanda	78	1,154	284	1,516	3	46	1
Gwelo	725	1,778	299	2,802	18	109	87
Que Que	244	1,261	468	1,973	4	97	7
Rusapi	217	1,007	372	1,596	5	34	3
Selukwe	313	—	—	313	6	—	—
Shamva	13	931	563	1,507	—	35	3
Sinoia	308	1,249	242	1,799	8	77	10
Umtali	1,073	3,274	—	4,347	29	121	—
TOTAL	11,483	27,478	3,916	42,877	324	1,682	53
Ingutsheni	87	207	—	294	13	57	—
Nervous Disorders	241	—	—	241	2	—	—
GRAND TOTAL	11,811	27,685	3,916	43,412	339	1,739	53

TABLE E.

OUT-PATIENT ATTENDANCES (EXCLUDING VENEREAL DISEASE), GOVERNMENT HOSPITALS, 1945.

Hospital	European	Native and Coloured	Total
Salisbury	29,228	48,506	77,734
Bulawayo	11,824	69,248	81,072
Bindura	385	1,692	2,077
Enkeldoorn	245	1,640	1,885
Fort Victoria	2,192	5,003	7,195
Gatooma	1,117	15,890	17,007
Gwanda	313	530	843
Gwelo	1,896	22,749	24,645
Que Que	127	1,307	1,434
Rusapi	220	3,614	3,834
Selukwe	37	—	37
Shamva	33	—	33
Sinoia	320	6,296	6,616
Umtali	478	12,848	13,326
TOTAL	48,415	189,323	237,738

TABLE F.

FREE PATIENTS MAINTAINED IN GOVERNMENT HOSPITALS, 1945.

Hospital	Number of Patients			Number of Inpatient Units		
	European	Coloured and Native	Total	European	Coloured and Native	Total
Salisbury	619	5,007	5,626	7,514	71,571	79,085
Bulawayo	964	5,967	6,931	10,251	80,095	90,346
Bindura	24	1,146	1,170	147	16,903	17,050
Enkeldoorn	36	999	1,035	294	14,860	15,154
Fort Victoria	46	517	563	257	8,287	8,544
Gatooma	127	2,291	2,418	827	29,250	30,077
Gwanda	13	1,128	1,141	441	23,304	23,745
Gwelo	114	1,721	1,835	1,340	17,035	18,375
Que Que	79	2,136	2,215	679	29,362	30,041
Rusapi	10	1,379	1,389	80	20,626	20,706
Selukwe	25	—	25	238	—	238
Shamva	5	1,305	1,310	19	12,739	12,758
Sinoia	30	1,259	1,289	165	17,362	17,527
Umtali	135	2,269	2,404	1,056	43,033	44,089
TOTAL	2,227	27,124	29,351	23,308	384,427	407,735
Ingutsheni	125	570	695	30,635	142,645	173,280
Nervous Disorders	32	—	32	1,290	—	1,290
GRAND TOTAL	2,384	27,694	30,078	55,233	527,072	582,305

STAFFING, BEDS AND PATIENTS AT GOVERNMENT HOSPITALS (EXCLUDING VENEREAL DISEASE), 1945. TABLE G.

Hopsital	Nursing Staff		Number of Beds		Number of Inpatients (a)			Daily Average of Inpatients			Number of Inpatient Units maintained			Average Stay in Hospital in Days	
	E.	N.	E.	C. + N.	E.	C. + N.	Total	E.	C. + N.	Total	E.	C. + N.	Total	E.	C. + N.
Salisbury ..	96	47	180	219	3,225	5,176	8,401	132·6	216·4	349·0	48,471	78,977	127,448	15·03	15·27
Bulawayo ..	108	40	193	320	4,043	6,991	11,034	157·9	254·9	412·8	57,639	93,052	150,691	14·25	13·33
Bindura ..	4	3	13	25	272	1,243	1,515	5·0	49·4	54·4	1,830	18,045	19,875	6·72	14·51
Enkeldoorn	4	11	13	42	139	1,004	1,143	3·5	41·5	45·0	1,288	15,165	16,453	8·82	15·10
Fort Victoria	5	13	25	36	324	635	959	6·2	25·0	31·2	2,283	9,121	11,404	7·04	14·37
Gatooma ..	7	22	40	120	748	2,640	3,388	16·6	127·8	144·4	6,087	46,654	52,741	8·14	17·70
Gwanda ..	4	7	13	84	82	1,237	1,319	2·8	71·7	74·5	1,025	26,193	27,218	12·50	21·20
Gwelo	12	24	56	64	746	1,844	2,590	25·7	49·1	74·8	9,402	17,910	27,312	12·63	9·71
Que Que ..	4	16	15	28	249	1,341	1,590	5·9	83·7	89·7	2,170	30,574	32,744	8·72	22·80
Rusapi ..	4	6	8	40	219	1,055	1,274	4·0	56·5	60·7	1,493	20,626	22,119	6·82	19·60
Selukwe ..	5	3	12	—	322	—	322	6·3	—	6·3	2,317	—	2,317	7·18	—
Shamva ..	3	8	6	36	14	956	970	0·1	38·1	38·2	48	13,929	13,977	3·43	14·56
Sinoia	5	14	15	64	315	1,290	1,605	5·6	52·6	58·2	2,037	19,221	21,258	6·46	14·90
Umtali ..	7	24	38	93	1,073	3,240	4,313	26·9	122·7	149·6	9,717	44,810	54,527	9·05	13·85
TOTAL ..	268	238	627	1,171	11,771	28,652	40,423	399·5	1,189·8	1,589·3	145,807	434,277	581,084	12·39	15·15
Ingutsheni ..	28	57	130	430	341	846	1,187	143·9	437·0	580·9	52,530	159,512	212,042	155·00	188·54
Nervous Disorders	5	—	14	—	258	—	258	14·3	—	14·3	5,226	—	5,226	20·20	—
GRAND TOTAL	301	295	771	1,601	12,370	29,498	41,868	577·7	1,626·8	2,204·5	203,563	593,789	798,352	16·45	20·16

(a) Includes patients in hospital on 1st January, 1945.

TABLE H.

ADMISSIONS TO GOVERNMENT HOSPITALS, 1945, OF CASES OF MALARIA, BLACKWATER FEVER, DYSENTERY, PNEUMONIA, TYPHOID FEVER AND SCURVY.

Hospital	MALARIA				BLACKWATER				DYSENTERY				PNEUMONIA				TYPHOID FEVER				SCURVY			
	European		Col. + Native		European		Col. + Native		European		Col. + Native		European		Col. + Native		European		Col. + Native		European		Col. + Native	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Salisbury	163	4	144	5	2	—	—	—	12	—	28	3	86	9	677	93	5	1	16	—	—	—	2	—
Bulawayo	158	2	367	7	2	1	1	1	80	2	54	1	145	7	405	85	11	2	20	2	—	—	22	—
Bindura	134	—	138	6	2	1	—	—	1	—	—	—	19	1	84	9	—	—	—	—	—	—	—	—
Enkeldoorn ..	11	—	45	1	—	—	—	—	—	—	8	—	6	—	29	10	—	—	1	—	—	—	—	—
Fort Victoria ..	99	1	77	2	3	—	—	—	11	—	14	5	5	2	38	5	2	—	—	—	—	—	—	—
Gatooma	176	1	338	8	—	—	—	—	—	—	5	—	23	—	36	12	1	—	2	—	—	—	—	—
Gwanda	6	—	12	—	—	—	—	—	—	—	7	2	1	—	58	4	—	—	—	—	—	—	7	—
Gwelo	49	—	85	3	—	—	—	—	6	—	37	1	23	2	170	17	—	—	2	1	—	—	4	—
Que Que	26	—	39	1	—	—	—	—	2	—	1	—	6	—	46	20	—	—	2	—	—	—	—	—
Rusapi	63	—	87	8	1	1	—	—	1	—	—	—	17	2	90	14	5	—	—	—	—	—	—	—
Selukwe	13	—	—	—	—	—	—	—	4	—	—	—	11	—	—	—	—	—	—	—	—	—	—	—
Shamva	10	—	134	2	—	—	—	—	—	—	7	1	—	—	31	1	—	—	—	—	—	—	—	—
Sinoia	119	5	88	1	2	—	—	—	10	—	14	—	15	1	81	9	—	—	3	2	—	—	6	—
Umtali	215	3	350	13	3	1	1	1	15	1	—	—	21	3	96	26	6	—	19	5	—	—	—	—
TOTAL ..	1,241	16	1,904	57	15	4	2	2	142	3	175	13	378	27	1,841	305	30	3	65	10	—	—	41	—

C. = Cases. D. = Deaths.

MEDICAL MISSIONS, 1945.

Mission	Admissions			Inpatient Units			Deaths			Outpatients			Outpatient Treatments		
	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total	V.D.	Other	Total
All Souls', Mrewa	188	562	750	1,504	7,583	9,087	2	15	17	219	3,231	3,450	4,020	22,580	26,600
American Board	74	1,040	1,114	1,132	17,709	18,841	—	27	27	99	2,744	2,843	320	9,177	9,497
Bonda	190	977	1,167	4,455	13,169	17,622	3	18	21	671	2,560	3,231	3,425	13,324	16,749
Chikore	124	109	233	1,396	4,350	5,746	1	13	14	56	698	752	1,687	6,960	8,647
Chishawasha	—	240	240	—	2,946	2,946	—	2	2	3	1,629	1,632	18	9,788	9,806
Driefontein	5	174	179	10	2,618	2,628	—	3	3	16	1,184	1,200	99	1,399	1,498
Empandeni	10	231	241	178	4,164	4,342	—	1	1	86	10,836	10,922	480	14,214	14,694
Epworth	—	—	—	—	—	—	—	—	—	—	498	498	—	1,160	1,160
Gokomera	200	1,500	1,700	300	2,500	2,800	1	—	1	112	17,000	17,112	1,180	34,000	35,180
Gutu	—	271	271	—	1,087	1,087	—	10	10	930	11,330	12,260	9,180	14,092	23,272
Holy Cross	—	321	321	—	1,245	1,245	—	1	1	—	1,058	1,058	—	1,476	1,476
Howard	4	814	818	26	5,293	5,319	—	3	3	12	2,053	2,065	103	11,112	11,217
Kwenda	—	—	—	—	—	—	—	—	—	—	1,508	1,508	Not recorded		
Loreto, Que Que	36	217	253	422	2,361	2,783	—	9	9	424	460	884	3,292	12,951	16,243
Lower Gwelo	4	303	307	12	1,393	1,485	—	8	8	697	3,611	4,290	1,358	7,153	8,511
Manana	614	83	697	16,826	2,205	19,031	—	6	6	191	206	397	1,396	1,430	2,826
Masaso	1,340	419	1,759	32,970	13,196	46,166	3	12	15	74	557	631	513	4,096	4,609
Matopo	2	192	194	15	1,993	2,008	—	3	3	108	498	606	271	1,679	1,950
Mnene	1,583	1,771	3,354	50,070	40,850	90,220	—	47	47	154	633	784	1,736	12,820	14,556
Morgenster	—	1,417	1,417	—	17,259	17,259	—	77	77	900	5,551	6,451	9,500	43,569	53,069
Mtshabesi	68	508	576	1,428	9,464	10,892	—	5	5	20	1,985	2,005	115	9,408	9,523
Mutambara	182	745	927	2,947	9,535	12,482	—	10	10	229	1,726	1,955	2,748	7,295	10,043
Nyadiri	75	1,619	1,694	1,090	13,743	14,833	—	18	18	27	1,579	1,606	256	12,720	12,976
Old Umtali	112	906	1,018	2,212	12,386	14,598	—	—	—	797	1,288	2,085	5,488	11,759	17,247
Rusitu	2	262	264	25	1,747	1,772	—	2	2	35	2,502	2,537	86	6,431	6,517
St. Barbara's	59	479	538	1,057	3,079	4,136	3	14	17	169	5,634	5,803	1,539	13,149	14,688
St. Joseph's	4	47	51	55	570	625	2	2	4	293	7,432	7,725	1,403	17,584	18,987
St. Patrick's	—	22	22	—	174	174	—	—	—	117	790	907	711	2,270	2,981
Silveira	29	409	438	609	2,489	3,098	—	1	1	384	4,412	4,796	781	18,006	18,787
Solusi	263	98	361	1,315	392	1,707	8	—	8	556	673	1,229	2,224	2,935	5,159
Triashill	130	789	919	2,221	8,078	10,299	4	17	21	91	7,515	7,606	546	22,302	22,848
Waddilove	—	330	330	—	3,058	3,058	—	3	3	—	3,983	3,983	—	11,304	11,304
Ingwenya	—	40	40	—	120	120	—	—	—	—	1,800	1,800	—	4,000	4,000
Zambesi	—	—	—	—	—	—	—	—	—	—	2,124	2,124	—	4,064	4,064
TOTAL Missions (32) ..	5,298	16,895	22,193	122,275	206,756	328,029	27	327	354	7,512	111,288	118,800	54,477	366,207	420,684

TABLE J.

MATERNITY HOMES, 1945.

Name of Home	Town	Patients remaining 1/1/45	Patients Admitted	Died	Patients remaining 31/12/45	Confinements	Births		Deaths of Infants	Miscarriages and Abortions	Operations		Equipped Beds
							Live	Still			Major	Minor	
Lady Chancellor	Salisbury	22	729	2	18	669	674	9	10	—	37	251	26
Lady Rodwell	Bulawayo	13	493	—	22	424	413	11	2	—	8	163	25
Birchenough	Gwelo	2	105	—	4	93	96	1	2	—	—	8	9
Umtali	Umtali	5	109	—	5	97	97	3	2	1	—	15	10
Fort Victoria	Fort Victoria	—	44	—	—	38	43	—	—	—	1	—	6
Appelby	Bindura	1	40	1	—	32	35	—	—	—	2	—	3
Que Que	Que Que	—	39	—	—	39	39	—	—	—	3	—	3
Enkeldoorn	Enkeldoorn	—	12	—	—	11	13	—	—	1	—	4	5
Donaldson	Selukwe	—	50	—	—	45	45	—	2	—	1	—	6
Sinoia	Sinoia	—	18	—	1	18	18	—	—	—	—	—	2
Total Government operated Homes	(10)	43	1,639	3	50	1,466	1,473	24	18	2	52	441	95
Monica	Bulawayo	1	32	—	1	32	31	1	—	—	—	—	9
Clarison	Bulawayo	—	104	—	—	104	104	—	—	1	—	—	7
Ardbennie	Salisbury	—	88	—	—	88	87	1	—	—	—	—	8
Queen Mary	Gatooma	1	62	—	1	62	62	—	—	—	—	—	8
Total Privately operated Homes	(4)	2	286	—	2	286	284	2	—	1	—	—	32
GRAND TOTAL	(14)	45	1,925	3	52	1,752	1,757	26	18	3	52	441	127

TABLE 1. TABLE K.

FINDINGS OF MEDICAL INSPECTION, 1945.

EUROPEAN SCHOOLS, 1945. (Combined Summary)	Children Born in					Total	Percent.		Group 6, 7. Re-Exam. Specials	Total
	Group 1. Entrants, 1938, 1937	Group 2, 1936	Group 3, 1934	Group 4, 1931	Group 5, 1929					
Number Examined	885	761	1,051	983	632	4,312			362; 275	4,949
Number Examined for Nutrition:										
A.	157	167	232	253	233	1,042	24·16	91·21		
B.	591	503	734	673	390	2,891	67·05			
C.	132	90	82	55	9	368	8·53	8·79		
D.	5	1	3	2	—	11	0·26			
Skin Diseases	19	14	20	27	25	105	2·44			
Defective Vision:										
(1) Requiring Treatment	5	17	40	48	33	143	3·31	13·60		
(2) For Observation	49	50	56	63	59	277	6·42			
(3) Treatment Obtained	6	4	22	71	64	167	3·87			
Squint	7	3	9	6	2	27	0·63			
Other Eye Conditions	9	5	8	7	4	33	0·77			
Defective Hearing:										
(1) History of Otitis Media	5	3	12	6	5	31	0·72			
(2) Adenoids	2	3	3	—	—	8	0·18			
(3) Other Causes	7	9	12	12	7	47	1·09			
Active Otitis Media	5	4	6	6	2	23	0·53			
Tonsils and Adenoids:										
(1) Enlarged	83	58	61	69	26	297	6·89			
(2) Removal advised	9	6	16	5	2	38	0·88			
(3) Removed previously	239	236	336	349	242	1,402	32·51			

Heart:								
Organic Disease:								
(1) Rheumatic	—	4	3	9	2	18	0·42	
(2) Other Causes	3	—	1	4	1	9	0·21	
Functional Disease:								
(1) Murmurs	2	2	5	17	6	32	0·74	
(2) Others	2	—	4	9	3	18	0·42	
Lungs:								
(1) Bronchitis	16	6	3	2	—	27	0·63	
(2) Asthma	4	4	4	6	1	19	0·45	
Postural Defects:								
Spinal	84	56	77	52	17	286	6·63	
Flat Feet	55	51	83	89	41	319	7·40	
Deformities	8	6	16	11	11	52	1·21	
Enlarged Spleen	9	12	14	4	2	41	0·95	
Nervous Disorders	18	5	16	10	5	54	1·25	
Speech	1	—	4	4	3	12	0·29	
Other Conditions	66	42	69	60	40	283	6·57	

TABLE 2. TABLE L.

FINDINGS OF MEDICAL INSPECTION, 1945.

COLOURED SCHOOLS, 1945. (Combined Summary)	Children Born in					Total	Percent.		Group 6, 7. Re-Exam. Specials	Total
	Group 1. Entrants, 1938, 1937	Group 2, 1936	Group 3, 1934	Group 4, 1931	Group 5, 1929					
Number Examined	326	172	195	152	66	911			72 + 92	1,075
Number Examined for Nutrition:										
A.	11	16	27	63	27	144	15·81	79·7		
B.	209	115	151	75	32	582	63·89			
C.	70	31	14	8	5	128	14·05	20·3		
D.	36	10	3	6	2	57	6·25			
Skin Disease	7	7	7	9	2	32	3·51			
Defective Vision:										
(1) Requiring Treatment	6	1	4	—	3	14	1·53			
(2) For Observation	5	9	11	5	10	40	4·39			
(3) Treatment Obtained	1	2	5	1	2	11	1·21			
Squint	1	2	—	1	—	4	·44			
Other Eye Conditions	5	2	2	2	—	11	1·21			
Defective Hearing:										
(1) History of Otitis Media	5	—	1	1	—	7	0·77			
(2) Adenoids	—	—	—	—	—	—	—			
(3) Other Causes	16	3	—	4	1	24	2·63			
Active Otitis Media	2	—	—	—	1	3	0·33			
Tonsils and Adenoids:										
(1) Enlarged	29	18	16	9	1	73	8·01			
(2) Removal Advised	2	—	1	1	1	5	0·55			
(3) Removed Previously	7	14	14	9	—	44	4·84			

Heart:							
Organic Disease:							
(1) Rheumatic	1	—	—	—	—	1	0·11
(2) Other Causes	2	1	1	1	—	5	0·55
Functional Disease:							
(1) Murmurs	3	2	—	1	—	6	0·66
(2) Others	1	—	—	—	—	1	0·11
Lungs:							
(1) Bronchitis	—	—	1	—	—	1	0·11
(2) Asthma	—	—	—	—	—	—	—
Postural Defects:							
Spinal	7	6	10	9	5	37	4·06
Flat Feet	4	7	8	9	2	30	3·03
Deformities	3	2	—	1	1	7	0·77
Enlarged Spleen	9	5	9	6	3	32	3·51
Nervous Disorders	4	1	—	—	—	5	0·55
Speech	—	1	—	—	1	2	0·22
Other Conditions	8	3	10	9	5	35	3·85

TABLE 3. TABLE OF OTHER CONDITIONS (1) NOT INCLUDED IN FOREGOING ITEMS a—k. TABLE M.

	Europeans	Col. — Indian	E. + C. — I.	
Debility	22	2	24	
Anaemia	89	—	89	
Bilharzia	10	3	13	
Malaria	11	—	11	
Rheumatism	9	—	9	
P.U.O.	15	1	16	
				162
Skin Conditions:				
Piebald Hair	1	—	1	
Abscess	1	—	1	
Scarring	2	1	3	
Iodine Burn	1	—	1	
				6
Upper Respiratory System:				
Chronic Nasal Catarrh	7	1	8	
Nasal Sinusitis	20	—	20	
Epistaxis	3	—	3	
Hay Fever	7	—	7	
				38
Abdominal, Urinary and Gastro-Intestinal Disorders:				
Pot Belly	—	10	10	
Abdominal Pains	21	2	23	
Bilious Attacks	1	—	1	
Enlarged Liver	1	—	1	
Chronic Constipation	2	—	2	
Herniae	9	3	12	
Undescended Testicle	1	—	1	
Hydrocoele	1	—	1	
Varicocoele	3	—	3	
Worms	6	—	6	
Functional Albuminuria	—	1	1	
Dysuria	—	1	1	
Drainage Tube in Bladder	1	—	1	
				63

	Europeans	Col. — Indian	E. + C. — I.
Infective Fevers:			
Old Glandular Fever	1	—	1
Measles	1	—	1
Chicken Pox	4	—	4
Congenital Syphilis	—	2	2
Vulvovaginitis	3	—	3
			11
Metabolic Endocrine, Deficiency Disorders:			
Enlarged Thyroid	—	1	1
Obesity	5	—	5
Diabetes	1	—	1
Infantilism	1	—	1
Acidosis	5	—	5
Scurvy	—	1	1
			14
Bones and Joints:			
T.B. Knee	1	1	2
Congenital Hip Dislocation	1	—	1
Cartilaginous Tumours	1	—	1
Schlatter's Disease	1	—	1
Knee Effusions	3	—	3
Old Skull Fracture (Bone deficiency)	1	—	1
Old Osteomyelitis	3	—	3
Exostosis—Skull	1	—	1
Elbow	1	—	1
			14
Organic Diseases of C.N.S.:			
Old Infantile Paralysis	3	1	4
Spastic Paralysis in Legs	2	—	2
Muscular Wasting	—	4	4
			10
TOTAL	283	35	318

REPORT OF THE PUBLIC HEALTH LABORATORY, SALISBURY.

BACTERIOLOGY.	Europeans.	Natives.
Sputa.—		
Total examined, 1,465	480	985
Positive *M. tuberculosis*	99	181
Positive Pneumococci	1	1
Urines.—		
Bacteriological cultures of urines totalled 816. 672 were from Europeans and 144 were from natives with the following positives:—		
B. Coli	133	4
Staphylococci	128	6
B. typhosum	—	1
Faeces.—		
Bacteriological culture of Faeces totalled 406, of which the following were positive:—		
B. dysenteriae Flexner	2	1
B. dysenteriae Sonné	—	1
B. faecalis alkaligenes	3	—
Blood.—		
From a total of 109 blood cultures (48 European and 61 native) the following positives resulted:		
Staphylococci	3	19
B. typhosum	1	3
B. faecalis alkaligenes	—	1
B. asiaticus	—	1
B. coli	—	2
Meningococci	—	1
Throat and Nasal Swabs.—		
These totalled 1,257, of which 51 were positive for C. diphtheriae with the following racial distribution	26	25
Leprotic Material.—		
Total examined 65. Positive 5.		
Smears.—		
These totalled 1,179 with the following positives:—		
Urethral Smears:		
Gonococci	57	77
Florence tests	—	1
Vaginal Smears:		
Gonococci	8	8
Trichomonas vaginalis	9	26
Florence tests	—	1
Cervical Smears:		
Gonococci	3	7
Conjunctival Smears:		
Gonococci	1	6
Haemophilus conjunctivitidis	4	9
Staphylococci	3	2
Gram + ve bacilli	1	2
Pus cells (only)	—	2
Cerebro Spinal Fluid.—		
Examinations totalled 115, of which 40 were positive in the following order and racial distribution:—		
Meningococci	1	4
Pneumococci	1	25
Other organisms	—	9

Water Examinations.— Europeans. Natives.

Totalled 226.

Mineral Soda Water 1.

Milk Examinations.—

Totalled 204.

Methylene Blue Reductase	186
Plate Counts	12
Other organisms	6

Ice Cream Examinations.—

Totalled 16.

Vaccines.—

Autogenous Vaccines prepared amounted to 117.

Parasitology.

Blood.—

A total of 3,908 slides were examined with the following results and racial distribution :—

P. falciparum	337	160
P. malariae	3	1
P. vivax	3	1
P. ovale	1	—
Filaria	—	1
Trypanosomes	—	1
Spirachaetes of relapsing fever	—	8
Leishman Donovan bodies	—	1

Urine.—

Examinations totalled 10,590.

S. haematobium	55	2,112
E. vermicularis	2	—

Faeces.—

Examinations totalled 16,722. Positive findings as follows :—

(a) *Protozoa* :		
E. histolyticia	14	14
Giardia lamblia	52	49
Chilomastix mesnili	—	1
Balantidium coli	—	1
(b) *Helminths.*—		
Hookworm	58	1,274
S. mansoni	93	885
Taenia spp.	12	115
Hymenolepis nana	3	89
Strongyloides spp.	1	51
E. vermicularis	55	42
Ascaris lumbricoides	25	21
Trichuris trichiura	50	12
S. mattheii	1	—
S. haematobium	—	2
(c) *Identification of Scolex*—		
Tape worm	8	1
Taenia saginata	4	1
Egg nests	1	—
Asceris lumbricaides	5	—
E. Vermicularis	1	—

Cytological examinations were made on 48 occasions.

Positive Charcot Leyden Crystals (only)	6	1

Haematology.

Examinations totalled 4,496.	Europeans.	Natives.
Blood Cytology	5	7
Complete Blood Counts	764	392
Red Cell Counts	331	55
White Cell Counts (only)	32	3
Differential White Cell Counts	562	128
Differential Counts (only)	1,289	126
Eosinophile Counts	16	1
Haemoglobin	418	26
Platelet Counts	16	29
Coagulation times	15	—
Bleeding times	9	1
Blood sedimentation rates	233	25
Stippling	2	—
Monocytes (count)	1	—
Myohaemoglobin	1	—
Reticulocytes	3	3
Neutrophiles	2	—

Serology.

Wassermann Reactions totalled 18,159.

Positive Reactions,	2,620
Negative Reactions	15,539

Paul Bunnel.—		
Total 10	5	5
Agglutination Reactions.—		
Total 1,481.		
B. typhosum & *B. paratyphosum* (Widal Reactions)	149	569
Cold Agglutinations	—	2
Br. abortus	122	52
B. melitensis	16	—
Weil Felix reaction	12	22
Blood Grouping	150	72
Compatibility Tests	204	11
Basal Metabolic Rate Estimation.—		
Total number done during the year was	34	—
Fungal Examinations.—		
These examinations totalled 15, the positive results being as follows:—		
Aspergillus niger	1	—
Secondary Staphylococcal Infection	1	—
Microsporon audouini	2	—
Skin Tests.—		
Skin tests done during the year amounted to 123.		
Pollens	101	6
Proteins (Food)	16	—

Biochemistry.

Blood.—		
Total Examinations, 475.		
Glucose Tolerance Tests	43	1
Blood Sugar	112	5
Blood Urea	107	122
van den Bergh Reactions	12	6
Icterus Index	19	7
Serum Calcium	4	5
Blood Cholestrol	4	6
Serum Protein	—	13
Fragility Red Cell Tests	4	—
Spectroscopic Examinations	1	—
Uric Acid	2	—
Urea Clearance	—	1

	Europeans.	Natives.
Stomach Contents.—		
Fractional test meals totalled 167	165	2
Faeces.—		
Occult Blood	68	1
Bile	1	—
Starch	1	—
Spectroscopic	2	—
Urine.—		
Examinations totalled 20,474.		
Routine Chemical examinations	1,916	2,573
Routine Microscopic examinations	9,431	11,683
Diastatic index	2	1
Spectroscopic	3	2
Quantitative Sugar Estimation	1	1
Urobilin	8	—
Bile	7	—
Diazzo Reaction	1	—
Tanret Reaction	1	—
Melanin Test	—	2
Bence Jones Proteose	1	4
Tyrosin and Leucin Crystals	86	12
Cerebro Spinal Fluid.—		
Examinations totalled 551.		
Biochemical	64	225
Cytological	86	176
Biological Tests.—		
Total 175.		
Friedman tests	156	8
Biological tests for *M. tuberculosis*	11	—

Miscellaneous Examinations.—

Total 132.

These included:—

Indentifications of parasites and worms.
Animal inoculations for Trypanosomiasis.
Pleural fluids for *M. tuberculosis.*
Cough plates for *B. pertussis.*
Swabs, smears and skin scrapings for fungal elements, Vincents, fusiform bacilli, *B. anthrax, M. tuberculosis, B. pyoncaneus,* actinomycosis and other pathogenic organisms.
Renal and urinary calculi.

Post-Mortem Examinations.—

Total 580.

HISTOLOGY.

A total of 1,176 histological specimens were examined throughout the year. The following were the more important lesions encountered:—

Appendicitis.—	
Acute Diffuse Suppurative	23
Acute diffuse Suppurative with perforation and gangrenous degeneration	7
Chronic Obliterative	12
Total	42

In two cases gravid females of the species *Enterobius vermicularis* were found in the lumina of the appendices and, in one case, ova of the same species were recovered by digestion.

Schistosomiasis (Bilharziasis).—

Ninety-seven tissues were digested with 5 per cent. Potassium hydroxide. Of these, twenty-one were positive and gave the following results:—

Ova of *S. haematobium*	19
Ova of *S. mansoni*	2

Histologically bilharziasis was found in the following organs:—

Appendix	10
Liver	9
Lung	4
Fallopian Tube	2
Pancreas	2
Bowel	1
Bladder	1
Prostate	1
Total	30

Cholecystitis.—

Chronic	5
Chronic with Lithiasis	3
Total	8

Endometrium.—

Total examined, 80.

Hyperoestrinaemia	20
Acute endometritis	4
Endometriosis, Fallopian Tube	2
Endometriosis, Ovary	1
Endometriosis, Broad ligament	1

Goitre.—

Simple Colloid	3
Parenchymatous, toxic	7
Total	10

Lymphadenoma	1

Mastitis.—

Chronic	19
Acute	1
Subacute	1
Total	21

Malaria.—

Cerebral	2

Tumours.—

(a) *Simple.*—

Fibromyomatosis of Uterus	16
Fibroma, hard	3
Fibroma, cellular	2
Fibromyxoma	1
Neuroma	1
Meningioma	1
Chondroma	1
Pericanalicular Fibroadenoma of Breast	1
Papilloma, skin	6
Papilloma, bladder	1
Angioma	2
Cystadenoma, ovary	1
Chondylomata, annus	1
Simple Adamantimoma	1
Total	38

(b) *Malignant* (1) *Carcinomata.*—

Basal Cell	4
Squamous Cell	22
Sqamous Cell, of lip	1
Sqamous Cell, of tongue	1
Medullary of breast	8
Scirrhous of breast	2
Intraduct of breast	4
Primary of liver	6
Primary of ovary	1
Primary of Fallopian Tube	1
Primary of cervix	12
Primary of Prostate	1
Adenocarcinoma of kidney	4
Adenocarcinoma of uterus	4
Adenocarcinoma of large intestine	3
Transitional of bladder	1
Epidermoid of bladder	4
Melanotic	2
Malignant cystadenoma of ovary	2
Bronchogenic	3
Seminoma	1
Wilm's tumour	1
Total	88

Metastatic Carcinomata.—

Gland	11
Lung	4
Abdominal wall	1
Liver	1
Total	17

(b) *Malignant* (11) *Sarcomata.*—

Melanotic	6
Round Cell	9
Spindle Cell	3
Mixed Cell	2
Osteo	2
Fibro	3
Myxofibro	1
Lympho	3
Retinoblastoma	2
Glioma	2
Total	33

Typhoid.—

Ulceration of Small Intestine	7

Tuberculosis.—

A total of 41 specimens was examined for the Phthisis Bureau, with the following results:—

Tuberculo-silicosis	22
Tuberculosis	7
Silicosis	6
Total	35

Other tuberculous lesions encountered were :—

Pulmonary, acute-caseous	11
Pulmonary, fibro-caseous	1
Lymphadenitis	7
Acute Caseous of spleen	1
Acute Miliary of lung	9
Acute Miliary of liver	6
Acute Miliary of spleen	3
Acute Miliary of kidney	2
Acute Miliary of omentum	1
Acute Miliary of intestine	1
Acute Miliary of mesenteric glands	1
Acute Miliary of meninges	1
Pericarditis	2
Subacute of breast	1
Fibro-caseous of kidney	1
Tuberculoma	2
Total	50

Miscellaneous.—

Cervicitis, Acute	2
Cervicitis, Chronic	2
Salpingitis, Acute	2
Pneumonia, Lobar	7
Pneumonia, Broncho	1
Pyelonephritis	2
Acute Glomerulo-nephritis	1
Chronic Glomerulo-nephritis	5
Chronic Glomerulo-tubulo-nephritis	1
Multilobular Cirrhosis of Liver	12
Congenital Syphilis of Liver	3
Acute Yellow Atrophy of Liver	1
Leukaemia (liver)	3
Infantile Pellagra (liver)	16
Actopic gestation	3
Balantidial Dysentery	1
Pneumococcal Meningitis	1
Total	64

Grand total of all examinations done during the year 85,283

B. P. BERNEY, M.B., D.P.H.,
Acting Director.

APPENDIX O.

REPORT OF THE PUBLIC HEALTH LABORATORY, BULAWAYO.

1. BACTERIOLOGY.

1. *Blood.*—Out of 106 specimens submitted for culture, 20 gave positive results as under:—

Staphylococci	9
B. coli	1
B. typhosum	5
B. faecalis alkaligenes	4
Streptococcus haemolyticus	1
B. pyocyaneus	—
Bacillus of Morgan	—
B. proteus	—

2. *Faeces.*—698 specimens were received for culture; 69 gave significant results as follows:—

B. dysenteriae (Sonne)	3
B. dysenteriae (Shiga)	1
B. dysenteriae (Flexner)	15
B. dysenteriae (Schmitz)	1
B. faecalis alkaligenes	2
Bacillus of Morgan	12
Paracolon	17
B. typhosum	13
Salmonella spp.	4
B. proteus	1

3. *Urines.*—1,319 specimens were received for culture, 586 of which gave positive results as follows:—

B. coli	340
Staphylococcus spp.	176
B. typhosum	9
B. faecalis alkaligenes	11
Streptococcus spp.	33
Bacillus of Morgan	1
B. pyocyaneus	7
B. proteus	3
B. paratyphosum A	1
Paracolon	5

4. *Throat and Nose Swabs.*—778 specimens were examined for *C. diphtheriae*; 16 positive.

5. *Water Samples.*—339 specimens were examined, bacteriologically; 2 mineral waters.

6. *Milk Samples.*—1,006 Reductase Tests (Methylene Blue):—

Satisfactory	740
Reduced	266

7. *Cerebro-spinal Fluids.*—141 specimens were examined. From 8 of these specimens meningococci was isolated.

8. *Autogenous Vaccines.*—52 were prepared during the year.

B.

Microscopical.—

2,804 swabs, sputa, pus and pleural fluids were examined.

	No. Examined	No. Positive
Sputa for *M. tuberculosis*	1,527	275
Swabs and Smears for gonococci	1,006	217
Swabs and smears for *M. leprae*	38	—
Swabs for Vincents organisms	40	25
C.S. Fluids for meningococci	29	8
Ringworm	9	4
Darkground examination	10	1
Sterility Tests	26	—
Swabs for meningococci	19	1

C.

Animal Inoculation.—

10 guinea pigs were inoculated with urine and sputum for the detection of *M. tuberculosis.* 2 were positive.

5 rabbits were inoculated for Friedman's Test. 2 were positive.

Protein Skin Tests.—41 Protein skin tests were done.

2. SEROLOGY.

A. *Agglutination Tests.*—

538 tests were carried out with the following positive results:—

B. typhosum	H	121
B. typhosum	O	128
B. paratyphosum	A	44
B. paratyphosum	B	16
Weil Felix		1
Vi Tests		3

B. *Tests for Syphilis.*—

	No. Exam.	Str. Pos.	Pos.	Weak Pos.	Doubtful	Haem. Neg.	or IS.
Wassermann:							
Blood	1,565	354	—	76	75	962	98
C.S. Fluids	8	2	—	1	—	5	—
Kahns:							
Blood	11,389	754	1,704	1,511	633	6,596	191
C.S. Fluids	55	2	9	6	5	33	—

3. HAEMATOLOGY.

6,658 examinations were carried out.

Red Cell Counts	1,252
White Cell Counts	1,260
Haemoglobin Estimations	1,197
Colour Index	1,178
Differential Counts	1,331
Blood Groups	228
Platelet Counts	29
Reticoloeyte Counts	34
Bleeding and Clotting Time	8
Sedimentation Rates	140
Fragility Tests	1

4. MEDICO-LEGAL.

During the year 48 cases were reported, involving approximately 80 examinations.

5. PARASITOLOGY AND HELMINTHOLOGY.

A. *Blood.*—The total number of blood films examined was 1,746. 162 were positive, as under:—

Plasmodium falciparum	125
Plasmodium vivax	35
Treponema recurrentis	2

B. *Faeces.*—A total number of 3,297 specimens was examined, of which 1,241 showed abnormalities.

Cytological evidence of dysentery	847
Entamoeba histolytica vegetative / *Entamoeba histolytica* cysts	102
Giardia lamblia	15
Entamoeba coli	1
Taenia spp.	26
S. mansoni	53
Enterobius vermicularis	6
Trichuris trichiura	7
Ascaris lumbricoides	23
Ankylostoma duodenale	130
Strongyloides stercoralis	23
Trichomas spp.	7
M. tuberculosis	1

C. *Urines.*—The total number of specimens examined was 6,700. 645 showed the presence of S. haematobium.

6. Biochemistry.

A. *Blood.*—212 specimens were examined chemically.

Sugar (Quantitative)	54
Sugar Tolerance	29
Non-protein-nitrogen	68
Urea	44
Van Den Bergh	16
Calcium	1

B. *Cerebro-spinal fluids.*—

Cell Counts	89
Globulin	—
Sugar	71
Protein	75
Chlorides	4

C. *Urines.*—5,783 chemical tests were carried out.

D. *Faeces.*—29 specimens were examined chemically.

Occult Blood	28
Bile	1

E. *Stomach Contents.*—

Fractional Test Meals 70 (897 specimens)

7. Histopathology.

578 sections were cut from 344 specimens. The lesions classified as under :—

1. *Inflammatory Lesions (non-specific).*—

Appendicitis *acute*	8
Appendicitis *chronic*	41
Lymphadenitis *chronic*	13
Lymphadenitis *acute*	1
Salpingitis *chronic*	5
Mastitis *chronic*	1
Cophoritis, chronic with cyst formation	13
Cervicitis, chronic fibrous	7
Endometritis chronic	33
Foreign body reaction	2
Skin inflammation chronic	25
Intestine chronic inflammation	2
Acute inflammation unspecified site	7
Skin healing wound (delayed)	2
Bone chronic inflammation	3
Pancreatitis	2
Liver cirrhosis	3
Liver abscess (multiple)	1
Spleen abscess (multiple)	1
Kidney abscess (multiple)	1
Stomach gastritis	4
Testicle chronic inflammation	2
Tonsil chronic inflammation	1
Liver acute hepatitis	1
Tongue chronic inflammation	1
Vocal chord acute inflammation	1
Larynx acute inflammation	1
Kidney acute tubular nephritis	1
Kidney chronic interstitial nephritis	1

2. *Inflammatory Lesions (specific).—*

Tuberculosis lung	3
Tuberculosis lymph glands	7
Tuberculosis testes	3
Tuberculosis liver	2
Tuberculosis skin	1
Tuberculosis pericarditis	1
Tuberculosis site unspecified	2
Pneumococcal infection lung	2
Leprosy skin	3
Syphilis subcutaneous tissue	1
Bilharzia appendix	5
Bilharzia fallopian tube	1
Bilharzia bladder	1
Bilharzia ovary	1
Salpingitis gonococcal	1

3. *Endocrine Changes.—*

Endometrial hyperactivity	6
Endometrial senile atrophy	1
Prostate hypertrophy	2
Products of conception	11
Ectopic fallopian tube	1
Luteal cysts	3

4. *Cysts.—*

Retention cysts	3
Dermoid cysts	1
Ovarian cysts	4
Cyst from kidney pelvis	1

5 *Tumours.—*

(a) *Benign.—*

Fibroma	5
Fibrous epulis	1
Papilloma	9
Fibromyoma (uterine fibroids)	9
Colloid adenoma thyroid	5
Parenchymatous adenoma thyroid	1
Polypi	10
Giant cell tumour	1
Lymphangioma	1
Hydatidiform mole	1
Fibro-adenoma (breast)	4
Endometriosis (uterine wall)	1

(b) *Malignant.—*

Melanotic sarcoma	2
Spindle celled sarcoma	1
Mixed celled sarcoma	1
Lymphosarcoma	2
Osteogenic sarcoma	1
Squamous celled carcinoma skin	7
Scirrhous carcinoma breast	1
Encephaloid carcinoma breast	2
Adenocarcinoma intestine	2
Adenocarcinoma uterus	2
Adenocarcinoma stomach	3
Metastatic carcinoma lymph glands	6
Metastatic carcinoma liver	1
Carcinoma primary in ovary	1
Squamous cell carcinoma penis	1
Fibro-sarcoma	1

6. *Miscellaneous.*—

Liver necrosis	1
Muscle necrosis	2
Organising blood clot	1
Bone marrow normal	1
Non-malignant duct hyperplasia in breast	1
Vegetable seed from stool	1
Autolysed specimens (examination impossible)	4

ANDREW CLARK, M.B., Ch.B.,
Acting Director.

APPENDIX P.

ANNUAL REPORT OF THE GOVERNMENT ANALYST.

NUMERICAL SUMMARY AND ANALYSIS OF WORK DONE.

TOTAL NUMBER OF SAMPLES AND EXHIBITS DEALT WITH		1,969
They comprised :—		
Exhibits in Connection with Criminal Investigation.—		
Exhibits for presence of Poisons	289	
Exhibits for presence of Blood Stains	111	
Exhibits for presence of Seminal Stains	76	
Miscellaneous Forensic Exhibits	33	
		509
Samples of Water.—		
General Analysis of Private Well and Borehole Supplies for Hygiene and Utility Purposes	25	
General Analysis of Supplied to Government Establishments, Police and Railwaymen, and other Rural supplies investigated by Government Health Inspectors	20	
General Analysis of Town Supplies	15	
General Analysis for Purification Control and Treatment of River Waters for Community Supplies	5	
Special Study of Supplies from Dams, Mine-shafts, etc., suspected of being injuriously contaminated	8	
Special Analysis of Supplies for use in Boiler and Cooling Systems	2	
Special Study of Purity of Supplies for Industrial Use	2	
Swimming Bath Water Control	11	
Distilled Water	1	
		89
Cows' Milk—		
Official Samples for Analysis for Conformity to Standards	319	
Routine Samples taken for Control Analysis and General Information	119	
Samples for Phosphatase Test for Pasteurization Control	52	
Samples for Research Investigation into Methods of Sampling, Preservation and Analysis	30	
		520
Samples of Dairy Produce (Cream and Ice-cream)	14	
		14
Customs Control.—		
Excise Samples of Spirits and Wines	13	
Miscellaneous substances for Tariff Classification	8	
		21
Skokiaan Samples (including Hop Beers and other Native Fermented Liquors)		310
Native Distilled Spirits and Illicit Intoxicants		49
Effluents from Septic Tanks and Trade Effluents		9

Clinical.—		
Human Milk Specimens	6	
Various Specimens from Public Health Laboratories	74	
		80
Drugs Examined for Medical Stores		15
Food Research Samples		4
Mealie Meal Samples		48
Oils.—		
Turbine and Transformer Oil Control	16	
Neatsfoot Oil	27	
		43
Samples from Royal Air Force.—		
General Analysis and Investigations	25	
Control of Moisture Content of Oxygen Supplies	35	
		60
Miscellaneous Samples		127
Bilharzia Research Specimens.—		
Analyses of Waters for Copper Content	29	
Analyses of Urines for Antimony Content	26	
Analyses and Studies of Snail-killing substances	16	
		71
Total		1,969

Criminal Investigations.

The 289 exhibits submitted for toxicological investigation concerned 80 cases, mainly of suspected criminal poisoning, in 32 of which positive results were obtained. Arsenic, usually procured as cattle dip, is the favourite poison, but cyanide and strychnine are not uncommon, and there is the difficult background of "native" poisons, with powdered cantharides beetles rather prominent. Whilst these investigations are mainly in connection with the native population, the work also covers grave issues in connection with Europeans, and investigation of malicious poisonings of stock, which sometimes assume serious proportions (e.g. 20 head).

The blood stain work, which tends to become more onerous with exacting group determinations in old stains, furnished positive evidence in 21 out of 27 cases of murderous or serious assault.

The seminal stain work adduced positive results in 30 out of 43 cases of alleged serious assault, 8 of which were upon European females, several of whom were young children. In one particularly brutal attack, in which our results assisted conviction, the death penalty was imposed.

As usual, the Miscellaneous Forensic work covered a wide range, e.g. evidence of metal fragments in the death of a man run over by a car, infringements of motor fuel regulations, origin of counterfeit coins, and fraudulent claims in respect of alleged torn or lost currency notes.

In general reference to the criminal work it can be said that, as a result of the good work of the Police, the analysis of the exhibits submitted in connection with a given case frequently results in a clear elucidation with definite incrimination of the culprit, whilst occasionally it completely exonerates the suspect. Our evidence is presented to the Lower and High Courts throughout the territory in affidavits which are hardly ever queried or required to be supplemented by personal attendance.

The importance of the scientific control of *Water Supplies* needs little elaboration, and the Branch provides a service which covers the aspects of health, domestic installations and industrial practice. People in peri-urban and rural areas are still inclined to take risks by drinking turbid and rather

smelly waters from shallow wells, and large concerns have had to be warned of the dangers of supplying their employees with water pumped from streams and not treated in any way. Persons in rural areas are also inclined to risk serious loss and inconvenience by employing in hot water installations waters with scaling or corrosive properties of which, through failure to have them analysed, they are quite ignorant.

Milk.

An important feature of the year's work was the considerably increased attention paid to milk supplies which was facilitated by the appointment of the Government Health Inspectors, who, *inter alia*, have obtained samples from the smaller centres from which samples had not previously been obtained. The results of the earlier samplings showed that in the larger centres approximately 10 per cent, and in the smaller centres a much larger proportion of the milks were either watered, skimmed, or "suspicious." Prosecutions, mostly resulting in convictions, in a score of cases have had a tonic value, and in some cases have effected remarkable improvement in the quality of the milk retailed by major firms. There have been some complaints, alleging harshness, maintaining that we ought always to give the dairyman a "second chance," and, with dull repetition, insisting that any watering which is detected is the work of natives. Whilst recognising the potential role of the inadequately supervised natives in these cases, we have abundant proof that in several cases where this plea has been advanced and unfortunately accepted, large bulks of milk had been systematically adulterated in such manner as would increase the monthly cheque by £50 or more. A fine of two or three pounds is no adequate corrective for such an offence, especially in view of the particular importance of cows' milk as a food for infants in this territory.

There was one prosecution and conviction for the sale of cream of inferior quality.

Our *Customs* work assisted in correct tariff assessment and in the maintenance of the quality standards specified in our legislation.

In connection with the suppression of illicit *Native Liquors* we furnished affidavits which led to convictions in 280 cases, 231 in respect of "Skokiaans" and 49 for distilled liquors ("kachasu" and "nipa"). Some of the latter were appreciably stronger than neat whisky.

With accelerated industrial development in the territory the effective treatment and hygienic disposal of *Effluents and Trade Waters* (from tanneries, soap works, etc.) assume additional importance. Our work has defined conditions and requirements for major enterprises, and has also shown that there is urgent need for improvement in the methods of sewage treatment and disposal in some of our towns.

In the *Clinical* field we have continued to co-operate with the Public Health Laboratories in particular types of diagnostic work. We have also assisted the Medical Stores Branch by performing check assays and analyses, particularly in cases where reports of abnormal response to important drugs (such as "N.A.B.") have made it necessary to ascertain whether this was due to inferiority of the supplies (which so far has not been found to be the case).

Mealie Meal.

By the analysis of samples from all tenderers we established control of all Government Contract meal. In consultation and agreement with the millers' representatives we have also prescribed and gazetted standards for "straight run" meal which, if duly enforced, should suppress the practice of adulterating that meal with the offals from other millings. Investigations made during the year revealed some glaring instances of this malpractice, which, apart from its dishonesty, has the undesirable effect of urging natives to purchase refined vitamin-depleted flours.

Work upon Oils enabled users to obtain maximum service from large bulks of transformer and turbine fluids, and ensured satisfactory quality in the considerable amounts of Rhodesian-produced neatsfoot oil which was handled by the Controller of Production.

Work for Royal Air Force.

We continued to assist in a varied range of technical problems—e.g., rotting of fabrics, obscure cases of engine failure, quality of fuels, and composition of washers. In connection with high flying, it has been found that disastrous results may follow the use of oxygen which contains more than a very small trace of moisture, and we have regularly controlled all the oxygen which has been used by the Air Force throughout the territory. The demand for this service is likely to persist as oxygen is required for the high flying associated with modern meteorological observations.

Bilharzia Research.

Our work in this field included determinations of the copper contents of numbers of water samples, examination of duck droppings for snail fragments (found to be present in considerable proportion), investigation of other suggested snail poisons, precise study of the behaviour of malachite in water, and a study of the rate of urine elimination of antimony in what now appears to be designated the "blitz" treatment of the disease.

Miscellaneous.

It is difficult to convey anything like a representative concept of the 127 samples which fall in this group, but a few random selections will illustrate the range.

A stock of 5,000 tons of Mozambique sugar, intended for Central Europe, was sold on our analytical assessment.

The tinned butter of Kenya was proved to be of substantially good and wholesome quality despite protests because some of it was stained from the tins.

Samples of Rhodesian Leather were analysed to decide whether they complied with the Union import standards. Asbestos Cement Roofing was studied in regard to its influence upon rain water collected from it. In connection with the incidence of goitre, it was established that there is no trace of iodine in the native salt imported from Aden—a finding which is important with regard to corrective measures. And also—molasses; condensed milk; dyes in fabrics (for a Navy contract); soaps; shampoos; honey (from the Congo); extent of sea water damage of various commodities; chocolates suspected to be unwholesome; white metal; an efflorescence which was disfiguring a large concrete building; dry cells; a large stock of battery acid to decide whether it could be re-used; disinfectants; a witchdoctor's stock-in-trade; canned products, especially for contamination with tin; cider, and poppy juice. In a case of suspected dangerous sabotage we detected marine characteristics which precluded any Rhodesian agency.

General.

In addition to the practical activities briefly surveyed above, the Branch is freely consulted by Government Departments and members of the public on a wide range of questions. Further developments lie close ahead, e.g., in the revision of the arrangements for Foods and Drugs control, and co-operation in the Department's contemplated intensive study of Rhodesian aspects of nutrition. But for any such developments, and in the general interests of economy and efficiency, the long-delayed rationalisation of our quarters has become intensely necessary.

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Government Analyst.