

MALTA

REPORT

ON THE

HEALTH CONDITIONS OF THE MALTESE ISLANDS

AND ON THE WORK OF THE

MEDICAL AND HEALTH DEPARTMENT

FOR THE YEAR

1954.

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## MALTA

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MEDICAL AND HEALTH OFFICE,  
Valletta, 18th June, 1955.

Sir,

I have the honour to submit the annual report on the health conditions of the Islands of Malta and Gozo and on the work of the Medical and Health Department during the year 1954.

The year under review was free from major infections and serious epidemics and with two exceptions the incidence of the ordinary diseases was not abnormally high. Epidemiological control was effectively maintained and the general health level of these Islands remained satisfactorily high. The advance in sanitary measures which has been much in evidence during post-war years did not slacken and the public evinced a sustained interest in all matters of health and hygiene. Today citizens have realised the importance of health in all the circumstances of life; they are fully aware that healthy living means happy living and naturally they will not tolerate any relaxation in the pace of sanitary progress reached during the last few years. This public interest in matters of health is gratifying and should be fostered by all means because the more interest the public takes in the activities of this Department the more they will appreciate our efforts and the more cooperative they will become.

The modern conception of a health service is the promotion of good health by the joint efforts of the proper authorities and the citizens themselves. It is the responsibility of the proper authority to provide effective, preventive and curative measures for the protection of the public. Results however will be enhanced if the people are trained to achieve health by their own efforts and actions. The success of health measures therefore begins with the interest which people take in improving their conditions of living and all efforts should be made to cultivate such interest amongst citizens who will as a result develop a sense of responsibility for their own health betterment. This conception was admirably expressed by Sir John Charles, Chief Medical Officer of the Ministry of Health in England in his annual Report for 1952 who wrote "It is not sufficient that the man in the street should rest in a quiet acceptance of all the benefits of a steadily improving environment as if they were part of nature's boundless provision. He must become more cognisant of the advantages he enjoys and a working partner in their future development and deployment."

Health is one of the assets, albeit the most important asset, in the general welfare of the people. It is the yardstick by which social conditions are measured; it is an indispensable factor in the life of a community and should therefore be integrated with social, economic and educational efforts. The value placed on health depends on many factors such as the degree of social organization, the standard of general education, the concern of the community for its members, the number and ability of health workers of a country; consideration must be taken of the levels reached in the various endeavours and achievements attained by the community.

In Malta our means are limited, we have no large industries or natural resources, but the people have an ingrained sense of social services and civic pride in their medical and health institutions which has developed in the course of centuries from the time these Islands were governed by the Order of St. John. One of the principal aims of the Order was to promote humanitarian activities and during its long sojourn in these Islands the Order introduced schemes of social assistance and welfare benefits which were far in advance of their times and remained a model for similar schemes for many years. Indeed our services for medical assistance and relief and subsidies are amongst the oldest in Europe. For these reasons the local population has long been accustomed to benefits and advantages of a high order and will not be satisfied unless this standard is maintained.

The Honourable.

Minister of Health & Social Services.

The estimated civilian population at mid-year was 319,787 of whom 154,370 were males and 165,417 females. The preponderance of females is due to the large scale migration of males which has been going on for the last five years. The discrepancy between the male and female population may eventually exert an adverse influence on the birth rate of the Islands.

The estimated mid-year population of 319,787 shows an increase over the previous year figure (317,248) but it does not give a true idea of the population at the end of the year under review when it stood at 315,952. The reduction was the result of an intense drive for migration carried out during the latter half of the year which brought the population to a level below that of the mid-year figure for 1953 (317,248) and well below that at the end of the same year which was 320,613.

Once again I have to record a reduction in the birth-rate of these Islands which stood at 28.11 or .18 lower than in 1953. Since the year 1944 when our birth-rate was 39.26 there has been a steady decline in the number of births. This lowered birth-rate is common to all parts of the Islands and does not show any feature worth commenting upon. One of the explanations is the migration of young men and women and also of married couples in the fertility period of their life who during the last decade have been officially encouraged to seek their fortunes in distant lands. The emigration of whole families is the only remedy to relieve the overpopulation of these Islands. Experience has shown that the most successful settlers abroad are those migrants who take their families with them. Maltese migrants are on the whole frugal, thrifty, law abiding and hardworkers, but they are inclined to brood about their dear ones left behind. This explains the return home even after a short period of single migrants or the married one whose family did not follow him to the land of his choice.

The marriage rate for the year was 13.37 which is higher than that of the previous year at 12.89. During the latter half of the war years, after the raising of the siege of Malta, the marriage rate of these Islands soared to a peak figure of 19.6 in 1943. Within four years it came down to 12.01 in 1947 and since then it has remained fluctuating at that level. The marriage rate is one of the indications of the prosperity of a country and keeps pace with the economic situation but it is also influenced by social welfare and health services.

The two factors already mentioned, i.e. lowered birthrate and migration of persons in the fertility period of their life are closely related and if maintained they will certainly be instrumental in lowering the pressure of over-population which for quite a long time has been a major problem in these Islands. The increased marriage rate observed this year is not of such an extent as to offset the effect of intense migration and steady reduction of birth-rate; indeed the increased marriage rate is no guarantee of increased birth-rate.

The general death rate was 9.60 which is higher than that of the year before when it was 8.98. More males died than females and in proportion more people died in Gozo than in Malta. The principal causes accounting for the increase in the number of deaths was arteriosclerotic and degenerative heart diseases, chronic nephritis and bronchitis and pneumonia; the latter may be explained by the two outbreaks of whooping cough and measles which we had during the year.

The mortality pattern follows very closely that to which we have now become accustomed: the principal causes of death in order of importance being arteriosclerosis and degenerative heart disease, cerebral haemorrhage, malignant neoplasms and senility. Heart diseases during the last ten years have fluctuated considerably but with a general tendency to rise. Cancer has risen steadily and this is in conformity with the normal trend in other countries. Pulmonary tuberculosis which ten years ago used to be one of the principal causes of deaths has steadily declined over this period whilst deaths from bronchitis, pneumonia and influenza have also declined, though again, with some fluctuations. Deaths from senility are the result of the general ageing of the population as a whole.

The reduction of infantile mortality during recent years constitutes one of the major achievements of the Medical & Health Department. Leaving apart the abnormal figure of 345.12 in 1942 the worst of the war years in Malta, our infantile mortality was reduced by more than half during the last decade. From 144.03 in 1945 it came down to 66.95 during the year under review. This year's infantile mortality however is higher than that of the previous year when it was 64.82. Following the rapid decrease one expects slight fluctuations and in fact such fluctuations have been noted since 1949 when the two figure rate was first recorded.

Although the infantile mortality rate as a whole is higher than the previous year, this year's neonatal mortality is lower. There were 298 deaths of infants under one month as against 308 deaths last year. This reduction although small is suggestive as I consider it to be the result of better prenatal care which is now available for expectant mothers.

The slight increase in our infantile mortality was accompanied by a slightly higher rate of still-births i.e. 194 against 188 last year representing a percentage of 2.11 and 2.05 for each year. The infant mortality and still-birth receive our priority attention despite the great achievement of recent years. The dominant cause of still-birth is dystocia with its complications, the most formidable being intra-partum asphyxia and cerebral haemorrhage. In this respect it is to be noted that post natal asphyxia accounted for 63 deaths of infants in their first day of life. Besides pathological causes social factors are not unrelated to prenatal mortality. A higher still-birth-rate was observed amongst the poorer classes and it is well known that heavy domestic drudgery and choring may produce physical exhaustion with consequent dystocia.

This year's infantile mortality in comparison with that of a decade ago gives cause for satisfaction but what is more heartening is the new attitude of mothers, their greater response to our appeals, their cooperation and their appreciation of our advice. It is no longer common to come across a mother bewailing a number of dead babies or having one living baby out of six or eight pregnancies. The clothing of babies is more hygienic and the feeding more suitable and balanced. The days of sweetened condensed milk as a staple article of feeding are now fast fading, so also are disappearing the bulky farinaceous starchy foods which were so common not many years ago. These foods were often started at a very early date even as early as the second week of life and even supplemented mother's milk. All this tended to produce flabby overweight babies which were very vulnerable to infections and inflated our infantile mortality rate.

Nowadays parents are more conversant with the value of proteins and vitamins but unfortunately the use of vitamins has been boosted up for commercial purposes and the public has been flooded with all sorts of advertisements extolling particular brands guaranteed to promote health and cure all ailments. Many brands of cod liver oil, concentrated preparations, capsules and pills were dished out to babies and children in enormous quantities and were looked upon by many parents as a sort of panacea. Child Health Officers and Health Visitors have made it a point to enlighten parents on this matter explaining that excessive vitamin D intake is not without dangers especially in a country like ours where so much sunshine prevails.

The nutrition of children on the whole is improving and an analysis of our babies' weight up to 12 months recorded in our child health clinics shows that they compare favourably with English and American standards. We have now established the average weight of our new-born baby. The impression has always been that the birth weight of our babies very commonly averaged between 12-14 lbs. that is well above what is published in English and American text-books. An analysis of 6,000 babies, carried out by one of our Child Health Officers, showed that only one weighed 15 lbs. and 15 were above 10 lbs. For first babies the average birth weight for males and females was 7.6 and 7.3 lbs. respectively; for other babies the averages were 7.10 and 7.8 lbs.

The good results being obtained from the Child Health Service is reflected in the efficiency of the Medical profession as a whole. Newly qualified doctors are getting a far better training and this is contributing to the lowering of infant mortality by early diagnosis and prompt effective treatment.

In connection with child health I would like to mention Kala-Azar which until a few years ago was a common and often either a fatal or a protracted debilitating disease but which nowadays could be looked upon as a rarity. 49 cases were notified during the year, 5 of which in Gozo. There were no deaths as against one death in the previous year. The cases were scattered throughout the whole Islands but they occurred mostly in the countryside. Valletta, Floriana and the Three Cities were immune.

Concurrently with the lowering of the infantile mortality in recent years there has been a reduction of maternal mortality. From 22 in 1945 the number of deaths from diseases of pregnancy, child birth and the puerperium was reduced to 8 this year. During the last four years it has fluctuated between 6 and 8. This satisfactory state results from various factors not the least being better means for pre-natal care and attention.

During the last decade there has been a better realization of the importance of the prenatal examination and treatment when required; mothers are increasingly availing themselves of all facilities at their disposal. Admittedly our means do not compare with those obtaining in other countries but the facilities that we offer serve a very useful purpose and may be instrumental in warding off serious birth injuries and complications. There are also voluntary bodies and associations that are doing praiseworthy service for the benefit of our mothers.

The routine examination of expectant and nursing mothers is becoming more and more popular. The Health Visitor is always present when such examinations take place in Government dispensary and child clinics and also in the clinics run by voluntary organizations, but it would be more profitable and certainly more beneficial to the mother concerned if her midwife and private doctor were to attend such examinations.

The outbreak of measles which started towards the end of the previous year reached its peak in the month of March of this year when 1083 cases were notified. There were in all 2788 cases notified of whom only 6 died. This outbreak was not unexpected. In fact I had commented about it in my last annual report. On the whole the course of the disease was mild and the mortality was less than a comparable epidemic which occurred in 1947 when 2422 patients were notified of whom 14 died.

Generally speaking measles is not a killing disease but it may give rise to complications which may prove serious. This happens especially when the disease is treated lightly as often happens in certain families when the parents consider measles as just an ordinary rash which earns for the children a holiday from school!

Whooping cough was another disease which occurred in epidemic form during the year. There were 873 notifications with 3 deaths. Whooping cough is one of the most common diseases of childhood though sometimes it attacks grown ups too, and in some countries its mortality outranks all other infectious diseases with the exception of pneumonia. Our low death rate is due to the mild nature of the attack, the care and attention given to the little patients, the new drugs employed in the treatment and last but not least the fresh air and sunshine so common in our Islands. Though the death rate from whooping cough has on the whole declined during the past decade there is no evidence that the disease itself is any less prevalent than in former years. There is also no evidence that healthy carriers of the disease exist. It must be remembered however that many, and possibly the majority of the cases, show a very mild cough unattended by "whooping". These missed cases constitute a most important part of the reservoir in that they escape detection and circulate freely in the community.

The incidence of pneumonia and broncho-pneumonia was this year higher than that of the previous year. There were 157 cases with 17 deaths of pneumonia and 302 cases with 67 deaths of broncho-pneumonia. The respective figures for last year were 86 with 14 and 118 with 53.

Pneumonia and broncho-pneumonia are diseases of all climates and seasons but both of them occur mostly in Winter and in Spring. Pneumonia in all its forms constitutes one of the principal causes of deaths but with the improved knowledge of the nature and behaviour of the organism in the respiratory system and the typing of infection a more rational method of treatment has been adopted, whilst the development of sulphanilamide and its related compounds has made available new drugs the use of which materially reduces the case fatality rate of pneumococcal infection.

There seems no doubt that the majority of cases of pneumonia and broncho-pneumonia notified during this year were complications following whooping cough and measles. In general the terminal and complicating pneumonias are those of the bronchial type. This explains our mortality from broncho-pneumonia.

This year we had an appreciable reduction in the incidence of diphtheria. There were 85 cases with 7 deaths against 140 cases with 6 deaths of the year before. The majority of cases were amongst children in their fourth year of age of whom 13 boys and 18 girls were notified with 2 deaths.

In former years diphtheria was much more prevalent than at present and contributed one of the principal causes of deaths of children above the age of infancy. There are reasons to believe that certain epidemics of undetermined nature which in older times used to afflict cities and towns were really outbreaks of diphtheria.

A prominent Maltese doctor of the last century in his book on Diphtheria \* wrote that "Europe had been afflicted at various times by diphtheria. No centuries passed without fresh outbreaks which devastated vast provinces, not sparing this Island always in active commercial intercourse with the rest of Europe and therefore exposed to the infectious diseases thereof. In fact, our historians allude to an epidemic of throat disease, which occurred in the middle fifteenth century, in the year 1453, and wrought great havoc in this Island."

The epidemic herein referred to was not dissimilar to that other which struck in Holland a century later, and to others which during the sixteenth century visited England and the Spanish and Italian peninsulas and which were variably referred to as choking or suffocating diseases or Garotillo in Spain.

Today diphtheria has declined to a point of relatively minor importance in many communities. The disease is unquestionably due in part to better diagnosis and earlier treatment, but chiefly to the present day means of prevention and immunization. Immunization should be given during the last half of the first year of life usually around six to eight months. It is obviously inadvisable to wait until the child reaches school age before immunizing as two thirds of the deaths occur before school age, yet in spite of every effort to persuade parents many of them still fail to present their children for immunization at the proper time and for this reason we have extended the age period of immunization from 6 months to 7 years.

Ideally every child should be immunized, yet this is rarely achieved except in institutions. Even in countries where immunization against diphtheria is compulsory there are always found youngsters who for some reason or other have escaped the protective "shot". In general the immunization campaign should be carried out vigorously until at least half of the children in all age groups have been protected. Above this level the time, labour, energy and expenditure increase very rapidly per unit number of children protected. It may well be argued whether or not a health department is justified in spending large sums and energy to reach a percentage of protected children a little higher than 50% level. It must be remembered that diphtheria prevention is only one part of the health activities of the department and the considerable amount of money and work required to increase the number of immunized children from 50 to 60 or 65 per cent might yield better dividend if applied to some other health measure.

During the year 157 new cases of Pulmonary tuberculosis and 40 cases of other forms of tuberculosis were notified. This represents a reduction in the number of notifications during the previous year (177 and 54). Deaths from tuberculosis were also below last year's figures i.e. 36 deaths from Pulmonary Tb. and 3 from other forms of Tb. against last year's 39 and 14 respectively. This mortality is of course not related to this year's incidence because the majority of patients who died during the year were old cases notified years before.

The improvement in the incidence and mortality of Tb. is the result of active measures which have been undertaken during the last decade since our Tb service has been in function. Unfortunately this year our Tb service was handicapped by the shortage of staff. One of our Chest Specialists who had been seconded for duties with the World Health Organization has left us to join permanently the specialist staff of that Organization and another Chest Specialist retired from the service on reaching the age limit. This has rendered more difficult the work of the Tb service which, however, was carried out with vigour and energy by the remaining staff.

Our Tb service embraces all aspects of chest work: preventive, diagnostic and therapeutic; it is associated with facilities offered in the general hospitals. It is true that some aspects of our service fall short of our ambitions; for instance we have not at our disposal equipment for mass radiography but we are overcoming this deficiency by other means. Our system is to start from the source of infection, the family of the patient and extend our attention to other contacts, neighbours, workmates, schoolmates, friends and office staff. Emigration has provided us with a unique opportunity to examine and X-ray a very large portion of the population because every emigrant or prospective emigrant together with all the members of his family even if they are not migrating with him, are subjected to clinical and radiological examination. During the year 17,256

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\* Dr. Gavino Gulia — "Notizie Cliniche Sulla Difteria" Malta 1870.

migrants and their families were examined radiologically. 147 doubtful cases were referred to the chest clinic for special examination. The Mycobacterium Tb was detected in 30 cases in whom there have not been any warning symptoms. Were it not for their examination those patients would have continued to develop the disease and spread the infection.

Hospital accommodation for Tb patients is another weak point in our service. Our Tb hospital is an old palace which was hastily adopted as a hospital half a century ago. It has none of the attributes and the amenities of a hospital and is unsuitable as a Tb hospital. The erection of a modern hospital for Tb patients has been engaging the attention of Government for some time. What we require for our needs is not only a modern hospital where to treat the disease in its active stage but also a sanatorial institution for convalescing patients and a rehabilitation centre for teaching them some suitable trade or occupation. Many of the patients are workers engaged in heavy and exerting work and naturally they will not be able to revert to their old occupation after leaving hospital. They must be taught some trade of a light nature which does not exhaust their resistance and which will provide them with a decent living.

I consider that what we require for our Tb patients is a centre providing for the treatment of patients, their care during convalescence and their rehabilitation before discharge to their home.

The modern tendency is to utilize more and more the services of the general hospital for Tb patients. In the words of the "New York Times" \* "the tendency has been away from isolated small sanatoria of the Trudeau type to institutions near home and to medical centres" and the "Lancet"\*\*\* wrote thus: "From whatever cause the demand on sanatoria is beginning to fall in this country also". In Malta however where our general hospital has become inadequate for the need of the population and is consequently always overcrowded, we are unable to refer there except selected cases, hence the suggestion for combining means for the treatment, care and rehabilitation of Tb patients. The erection of such a centre however is a costly proposition which is beyond the financial possibilities of the Island and unless aid is forthcoming from outside sources it will remain in the realm of possibilities.

This year's incidence of Tb does not give cause for alarm. The downward trend in the number of pulmonary and extra pulmonary Tb notified and the deaths from each seem to present a promising picture but we shall do well to remember in the light of the history of this and other diseases that the solution of one set of problems may give rise to others. The decline in mortality means prolongation of life and this, in its turn, increases the number of potential infectors some of whom may be harbouring strains of bacilli which have become resistant to modern remedies.

The School Medical Officers in their quarterly reports recorded sustained amelioration in the general health of school children and with the appointment of an additional School Medical Officer this year, it is expected that further improvement will result.

The hygiene of the school child falls naturally into two parts: the school and the home. Each of these two parts is important in its own sphere. In the school concurrently with the general education a child should be able to develop a sense of general health. Health education like general education is concerned with a change for the better of the knowledge, feelings and behaviour of the child. In its most elementary form it concentrates on developing such health practices as are believed to bring about the best possible state of well being. Home hygiene is equally important because not only the child remains longer hours at home where he is clothed, eats and sleeps but also it is there that the elements of hygiene which he learns at school can be put into practice, enlarged or obliterated.

The routine medical inspections of school children are carried out by the School Medical Officers each of whom has a particular area under his care. He is assisted by the School Dental Officer, by the School Eye Specialist and by the School Nurse. He has also at his disposal the assistance and advice of specialists and visiting staff of the general and other hospitals. At the routine examination to which parents are invited full records are made of each child's physical condition. The parents are advised of the existence of any defect which may require treatment and told how this can be

\* December 5, 1954.

\*\* December 25, 1954.



remedied. Experience however has shown that the mere notification to parents that their children had certain defects which were in need of treatment was not always sufficient to induce them to secure the necessary treatment. Accordingly methods of following up were adopted with the object of having the parents visited at their home by the Health Visitor and the Sanitary Inspector and the nature of the defect explained to them, the necessity of treatment urged and advice given as to the best manner of obtaining such treatment. In order to expedite and facilitate remedial measures the School Medical Officers with the consent of parents, arrange themselves for the examination of the child by the specialist, for his admission into hospital, for his attendance as often as necessary in the out-patient departments and/or at the clinics.

In former years at the school medical inspections emphasis was laid on the physical health of the child but recently psychological factors are assuming an ever increasing importance because it is well known that they affect health in childhood and although the psychological damage wrought to the child's body and/or mind may be less spectacular than physical damage it nevertheless may leave an indelible mark on the child. The child's peculiar circumstance of growth in mind and body, has greater impressionability and sensitivity, his hunger for new experiences, his blunt assertion for his individuality — sometimes aggressively, should be examined in a perspective different from adult standards.

The slightest emotional disturbance is sufficient to put a child on his guard and his reaction is sudden and sometimes violent. Thumb sucking, enuresis, encopresis, behaviour, problems and temper tantrums, vomiting, loss of appetite and even headaches may be manifestations of the child's dissatisfaction. The maladjusted and educationally subnormal child may well be a dissatisfied child and when the cause of dissatisfaction is discovered and removed he becomes normal again.

The child in particular is sensitive to the psychological atmosphere in the home and especially to the relations between his father and his mother. Through his parents he is rendered particularly susceptible to all sorts of outside influence, hence the importance of having the parents present during the school medical inspection of the children and what is more essential to gain their sympathy and cooperation. The new conception of doctor, child and parent relationship should be fostered by all possible means and in this respect the school teacher may be of utmost help in that his assistance and advice and his education and briefing of parents will render the work of the School Medical Officer easier and more effective.

The question of mental deficiency, educational subnormality, dullness and backwardness amongst school children has been raised by me in former reports. The problem is how to deal with the difficulties brought about by the presence of mentally defective children in a class of normal children. Subnormal children are unable to obtain proper benefit from education in ordinary elementary schools. One of the mental characteristics of educationally subnormal children is their incapacity to give voluntary attention to anything for more than a brief period hence their presence in normal schools is a hindrance to normal children.

The discovery of the subnormal children rests largely with teachers who should bring to the special attention of the school Medical Officer any child who in their opinion shows poor mental powers.

I think the time has now arrived for the educational authority to consider the possibility of opening special schools or classes for the education of the backward children. For obvious reasons a black coated career is impossible for such children and their education must therefore be conducted on practical rather than academic lines and the subjects taught should as far as possible be connected with the practical needs of life.

Our service for free immunization which was started in 1952 has now established itself in public favour. More people are coming forward voluntarily for immunization against Tb., Typhoid fever and Diphtheria, but whilst the popularity of immunization against these diseases is increasing, vaccination against smallpox, although compulsory, appears to be somewhat neglected. Although our statutory laws enact that every child born in our Islands must be vaccinated after his second month of age, we were compelled to institute proceedings in Court against 1,006 parents for failing to vaccinate their infants. I do not ascribe this failure to antagonism although occasionally one meets with old die-hards who would prefer to have smallpox rather than be bullied into immunity.

If we eliminate antagonism to vaccination we would be left with sheer carelessness as the explanation of the present attitude towards a well established means of protection against a dreaded disease. In a circular sent out by the Ministry of Health in England it was stated: "Indeed, because routine infant vaccination is thought to be justified as the first step in the establishment of a satisfactory immunity in later years as well as by the immediate protection thereby conferred on the individual, the aim should be to see that every healthy infant is vaccinated." These few words explain exactly the case for vaccination.

The family doctor could do much to advocate to parents the importance of having their babies vaccinated at the proper time. I have little doubt that most practitioners do this, but the habit of "laissez-faire" is very difficult to eradicate when once established. True we have had no major epidemics of smallpox for many years thanks to our law of compulsory vaccination and also thanks to the efficiency of our port and sanitary services. The facilities of air travel have however materially increased the hazards of epidemic disease notwithstanding that the greatest vigilance is exercised in airports and it would be indeed a disaster were the infection to be introduced in these Islands.

Illness and accident give rise to a vast number of problems in addition to the actual disability; not the least amongst these problems is the question of availability of hospital accommodation and staff. Gone are the days when a patient was sent to hospital for the simple reason of having a roof above his head and someone to look after him. The modern idea of hospitalization is to treat, cure and rehabilitate. We are not satisfied with simply curing a patient of a distressing illness; our aim is to turn him again into a useful citizen. Fortunately very often we have been successful in this aim with the result that people are becoming more hospital minded and are requesting admission into hospital in ever increasing numbers. The pressure on our hospitals may be illustrated by the fact that during the year 12,465 persons representing 3.89% of the whole population received in-treatment in our hospitals.

There is no denying that our hospital accommodation has become inadequate for our present needs. This refers especially to the general hospital which has been planned almost thirty years ago. Hence the importance of devising measures for bed saving and for giving priority to patients requiring urgent attention. In this respect the first line services are the preventive health services and the general practitioners both of whom can be of great value in reducing the calls on hospitals whilst within the hospital itself the outpatient department offers an increasingly important means of bed saving.

Developments in diagnostic technique and methods of treatment coupled with shortage of beds and increased demands for medical investigations and examinations have given to the out-patients department an importance of the first order in the hospital service. Our out-patients department at St. Luke's is now nearing completion. It has been provided with facilities and amenities which will do much to release the congestion of that hospital. It is hoped that in the not distant future another floor will be added to the out-patient department to extend its scope as much as possible.

Another problem in our hospital service is how to deal with chronic patients. Many of such cases are old people lonely and destitute most of whom are sent to hospital and remain there not because they require any special treatment but because they have no one to care for them and sometimes nowhere to go. Many of them have deteriorated through inactivity or because they have never received skilled medical and nursing attention. Such patients are the cause of much worry to the visiting staff who would like to reserve their beds for acute cases but at the same time they are reluctant to drive away from hospital these unfortunate derelicts.

The only place where chronic cases can be admitted is St. Vincent de Paul Hospital for the aged and the infirm but the institution has a limit to its intake and in fact it has been in a state of chronic overcrowding for many years.

With the passing of years after the end of the war the food situation in these Islands is steadily improving. Gone are the days of food shortage, restricted rations and scarcity of essential commodities. The shops are full and sale unrestricted, except two or three commodities which are still rationed. With the increase in food production steps have been taken to ensure that the standard of food hygiene was maintained high

and the purity and wholesomeness assured. Detailed inspections of food shops were carried out and the cooperation of the management and employees was solicited as much as possible.

The necessity for cleanliness in the food industries applies to manufacturers, distributors and caterers. This fact however has not been equally realized by these three branches of the industry much less equally practised and in consequence legal action had to be resorted to in many instances. Admittedly all branches of the industry have their own problems such as the cleansing of machinery, bottles, utensils and the maintenance of cleanliness amongst the workers but such problems need not be an excuse for dirt and unhygienic conditions.

Much publicity work was carried out by the Department to impress the importance of cleanliness in food processing and handling because it is realized that enlightened public opinion will do more to improve the standard of food hygiene than any amount of legislation and Court proceedings which if not supported by the ordinary citizen are likely to prove abortive.

Science has done much to provide means for the preservation and protection of food but science has also supplied means for its sophistication. This is particularly manifest when we consider the addition of preservatives, improvers, colouring matter and other substances. It may be argued that the scope is to make food more attractive, this of course is an advantage and if it can be done in a harmless manner the claim may perhaps be sustained. But are we certain that the substances suggested for use in those various connections have been well tested for a sufficiently long period to ensure that their use does not introduce some element of risk? This brings to my mind the use of Agene as an improver in flour. It has been proved that this compound attacks the methionine present in gluten molecule resulting in the formation of a sulphoxinine which has toxic effects.

During the year we laid stress on the inadvisability of using colouring matter in certain fruit extracts produced locally. We emphasised that besides the hazard to health resulting from the use of artificial colours there is a distinct possibility of dubious and inferior products being palmed on the consumer. We were not always successful in our efforts but the Report on Colouring Matters issued by the Food Standards Committee in England supports our contention.

During recent years a great impetus was given to the building industry. Many new tenements were erected and others were reconstructed after war damage. It is to be noted that the old type of independent self-contained house is giving place to tenement blocks and the flat is superseding the house as a family residence. This is the result of modern circumstances of life and it will be useless to go against the modern current in domestic architecture. I note however that many of the new blocks of flats being erected conform more to the interest of the speculator than to the comfort and convenience of the resident. It is admitted that now-a-days building costs necessitate economy of space but this if pushed too far may have repercussions on the health and morals of residents.

I do not mean to say that premises are being built against the provisions of the law, but I observe an ever increasing tendency to allow only the minimum provided by regulations. I need not emphasise that the more fresh air, the more light and ventilation provided in a residence the healthier it will be for those inhabiting it. An old Persian aphorism says: Where the sun and air do not enter the physician enters often, which in our matter of fact parlance means that fresh air prevents disease. Hence the insistence of the Sanitary Authority for generous means of light and ventilation in new houses as well as in reconstructed houses.

During the year we inaugurated a new sanitary service in the Island: the free emptying of cesspools in villages unprovided with sewerage. The ultimate aim of the Government is to extend the sewer system to all parts of these Islands but before this is effected many difficulties have to be surmounted such as tunnelling into long distances, levelling, disposal of sewage, laying pipes and ejectors and providing other machinery. All this requires time and expenditure but meanwhile something had to be made to avoid nuisances and inconveniences arising from frequent overflow of cesspools.

The problem was evident in different localities but it was very pressing at Birzebbuga the seaside resort which has grown into a residential town within the last

few years. The sewage disposal at Birżebbuġa is by the conservancy system. Each house is drained into a cesspool. These cesspools because of the high level of the sub-soil water have a tendency to overflow very often; this of course is the source of nuisance.

The difficulty of laying sewers at Birżebbuġa is accentuated by the fact that the sewage material has to be pumped from sea level to a high altitude point at Bir-Id-Deheb from where it connects with the main sewer system. The laying of the sewer at Birżebbuġa is proceeding, but it will take some time before the machinery is laid and the material is pumped to its destination.

The absence of sewers at Birżebbuġa has been the subject of discussion between this Department and the Naval Health Authority because at one time the Services were contemplating advising Service families against taking up residence in that area.

The new service for free emptying of cesspools is functioning smoothly. Whenever a resident or a Sanitary Inspector notes that a cesspool is due for emptying, a call is made for the pneumatic emptier of the area and the contents are removed before overflowing. The service has been appreciated by the residents who are availing themselves very freely of the facilities it offers and in this way much nuisances are being avoided.

In August of this year we had the pleasure of welcoming Sir Eric Priddle the Chief Medical Officer of the Colonial Office. Sir Eric interrupted his journey to West Africa and stayed for a few days in Malta. He very kindly visited our hospitals and other medical and health establishments. We availed ourselves of the opportunity of his visit and discussed with him current problems and difficulties. We found his advice very helpful and profitable and his interest in our affairs encouraging and inspiring. The pity is that he could not stay longer in this Island.

Another welcome visitor was Dr. A. Q. Wells, the Bacteriologist in charge of the Mycobacterium Reference Laboratory of the Public Health Laboratory Service at the Sir William Dunn School of Pathology in Oxford. Dr. Wells came to Malta to see for himself and study the characters of a special microorganism which was observed and cultured in the bacteriological laboratory at St. Luke hospital. The microorganism which came also under the attention of Dr. R. Gordon of Rutgers University, New Jersey, U.S.A. had the characteristics of a member of the Mycobacterium group but it was not identifiable as any of those described in standard works and the possibility could not be excluded that this local Mycobacterium was a new discovery. It is hoped that a paper on the subject will be published in the near future.

During the year we maintained close liaison with Her Majesty's Services. Health circumstances in Malta are so compact and so interrelated that no Authority concerned with the promotion of health and welfare can afford to work independently of other Authorities similarly engaged. Harmonious relations were very evident between this Department and the Services; advice and assistance were mutually offered and gratefully acknowledged. On many occasions meetings were held and current problems discussed in a friendly atmosphere.

Towards the end of the year Sir Robert Laycock assumed office as Governor and C. in C. of these Islands. Without loss of time His Excellency and Lady Laycock showed great interest in the health of the people. Some of their very first visits were paid to our hospitals, a gesture which was greatly appreciated by the hospital staff and patients alike. This interest has never flagged, indeed Lady Laycock seems to have succeeded Lady Mountbatten as the Protectress of our patients who look forward with keen anticipation to her visits and who are always ready to offer her a cordial welcome whenever she appears in the wards.

Our special thanks are due to His Grace the Archbishop and to Their Lordships Bishops Pace and Galea. The frequent visits they paid to our hospitals were a source of comfort to the staff and to the patients. We are grateful for the prompt response we received from them whenever we applied for the help and assistance of the clergy in our activities for the promotion of good health.

To the Government we are indebted for its concern on our behalf for their support in the implementation of our projects and schemes for the improvement of public health in these Islands.

I would like to acknowledge with thanks the assistance we received from the Director, Virus Reference Laboratory, Central Health Laboratory, Colindale, London for carrying out certain tests and experiments on our behalf. We are also grateful to the authorities of the Royal Marsden Hospital, the National Hospital, the Middlesex Hospital and other hospitals in London for accepting patients remitted by us for special treatment in England. On their return the patients invariably remark with enthusiasm about the care and attention they receive in those hospitals.

The Public Relations Officer, the Rediffusion Service and the Press have always willingly given assistance and have placed at our disposal their means for quick dissemination of information or advice concerning health matters.

A word of praise is also due to the members of the many boards and committees working for the Department. Very many of them take an active part in the activities of their committee and contribute their valuable share for the success of the enterprise. I know that many of the members attend the sittings of their committees and boards at a sacrifice of their private work and commitments and the more praise they deserve in this respect.

In closing other reports I paid tribute and extended my warm thanks to all the heads of the particular sections of the Department as well as to all other members of the staff for their individual and collective efforts. This I repeat with equal emphasis this year and I express my sense of gratitude for their contribution in making this year so successful from a health point of view.

I have the honour to be,

Sir,

Your obedient servant,

J. GALEA,

Chief Government Medical Officer.

## I. SUMMARY OF VITAL STATISTICS FOR 1954

AREA	Square miles	Malta	Gozo	Both Islands
AREA	94.870	26.974	121.844	
POPULATION as estimated on 30th June, 1954	{ Males	140,818	13,552	154,370
	{ Females	150,684	14,733	165,417
	{ Total	291,502	28,285	319,787
	{ Density per sq. mile	3,073	1,049	2,624
MARRIAGES	{ Number	1,985	153	2,138
	{ Rate per 1000 population	13.62	10.52	13.37
BIRTHS — Live	{ Males	4,273	363	4,636
	{ Females	4,014	341	4,355
	{ Total	8,287	704	8,991
	{ Rate per 1000 population	28.43	24.89	28.11
Still	{ Number	175	19	194
	{ Rate per 100 total births	2.07	2.63	2.11
DEATHS	{ Males	1,487	164	1,651
	{ Females	1,285	135	1,420
	{ Total	2,772	299	3,071
	{ Rate per 1000 population	9.51	10.57	9.60
Maternal	{ Number	6	2	8
	{ Rate per 1000 births (live and still)	0.71	2.77	0.87
Infant (under 1 year)	{ Males	310	21	331
	{ Females	246	25	271
	{ Total	556	46	602
	{ Rate per 1000 births	67.09	65.34	66.95
Child (1 year to 5 years)	{ Males	45	3	48
	{ Females	34	—	34
	{ Total	79	3	82
	{ Rate p. 1000 of same group	2.48	1.08	2.37
(5 years and over)	{ Males	1,132	140	1,272
	{ Females	1,005	110	1,115
	{ Total	2,137	250	2,387
	{ Rate p. 1000 of same group	8.48	10.06	8.62
From tuberculosis of respiratory system	{ Males	20	2	22
	{ Females	12	2	14
	{ Total	32	4	36
	{ Rate per 1000 population	0.11	0.14	0.11
From other forms of tuberculosis	{ Males	2	—	2
	{ Females	1	—	1
	{ Total	3	—	3
	{ Rate per 1000 population	0.01	—	0.01
From respiratory diseases	{ Males	128	9	137
	{ Females	85	6	91
	{ Total	213	15	228
	{ Rate per 1000 population	0.73	0.53	0.71
From malignant neoplasms	{ Males	141	17	158
	{ Females	116	14	130
	{ Total	257	31	388
	{ Rate per 1000 population	0.88	1.09	0.90

**Population.** The mid-year civil population for 1954 has been estimated at 319,787 as against 317,248 in 1953.

The excess of births over deaths was 5,920 which is 209 less than in the previous year. The rate of natural increase was 18.51 per thousand as against 19.32 in 1953 and 18.61 in 1952.

**Births.** The number of live births during the year was 8,991 which is 14 births more than that of last year. Of these, 8,287 occurred in Malta and 704 in Gozo, and of which 4,636 were males and 4,355 females. The birth-rate was once again lower than in the preceding year, namely 28.11 against 28.29 in 1953 and 29.30 in 1952. The downward trend in the birth-rate has continued since 1945.

**Still-Births.** The number of still-births registered during the year was 194 (175 in Malta and 19 in Gozo) with a rate of 2.11 per hundred total (live and still) births. During 1953 there were 188 still-births which gave a rate of 2.05; this shows an increase of 10 still-births in Malta and a decrease of 4 in the figures for Gozo.

**Deaths.** There were 3,071 deaths registered during the year, 223 more than last year. Of these 2,772 occurred in Malta and 299 in Gozo. The death rate per thousand population was 9.60 as compared with 8.98 in 1953 and 10.69 in 1952.

Table I shows the number of deaths from the principal causes of death.

TABLE I  
Deaths from Principal Causes.

Year	Infective and Parasitic Diseases	Malignant Neoplasms	Diabetes Mellitus	Diseases of the Blood and Blood-forming Organs	Cerebral Haemorrhage etc.	atherosclerotic and Degenerative Heart Disease	Diseases of Arteries (Arteriosclerosis)	Bronchitis	Pneumonia (all forms)	Gastro-Enteritis and Colitis (under 2 years)	Gastro-Enteritis and Colitis (2 years and over)	Acute Nephritis	Chronic Nephritis	Diseases of Pregnancy, Childbirth and the Puerperium	Congenital Malformations	Ill-defined Diseases Peculiar to Early Infancy and Immaturity Unqualified	Birth Injuries	Post natal Asphyxia and Atelectasis	Senility
1945	311	211	99	20	289	551	59	128	106	798	20	23	130	22	47	508	40	98	175
1946	548	233	88	18	306	487	43	124	156	599	17	21	119	25	45	461	16	159	169
1947	383	227	75	26	290	556	38	112	183	567	10	29	115	20	66	419	38	121	172
1948	302	216	71	26	307	603	43	104	111	497	23	25	117	15	68	392	50	90	218
1949	188	232	78	20	357	619	29	84	101	267	7	13	150	15	64	299	47	106	250
1950	183	263	72	16	332	545	36	91	113	266	8	16	91	15	70	268	35	133	225
1951	161	248	85	24	355	649	35	101	99	340	12	5	92	7	43	299	35	114	272
1952	101	297	103	8	389	739	52	84	96	178	6	12	73	8	38	186	43	88	197
1953	96	269	87	9	355	604	56	44	68	144	6	12	57	6	39	176	37	87	161
1954	80	287	102	5	315	690	50	75	86	158	6	12	86	8	65	149	34	94	163

The proportion per 1,000 deaths was as shown in the following figures:—

Arteriosclerotic and degenerative heart disease ... ..	225
Cerebral haemorrhage ... ..	103
Malignant neoplasms ... ..	93
Senility ... ..	53
Gastro-enteritis and colitis under 2 years ... ..	51
Ill-defined diseases peculiar to early infancy and immaturity unqualified (congenital debility, marasmus and immaturity) ... ..	49
Diabetes mellitus ... ..	33
Post-natal asphyxia and atelectasis ... ..	31
Pneumonia (all forms) ... ..	28
Chronic nephritis ... ..	28
Infective and parasitic diseases ... ..	26
Bronchitis ... ..	24
Congenital malformations ... ..	21
Diseases of arteries (arteriosclerosis) ... ..	16
Birth injuries ... ..	11
Acute nephritis ... ..	4
Diseases of pregnancy, childbirth and the puerperium ...	3
Gastro-enteritis and colitis (2 years and over) ... ..	2
Diseases of the blood and blood forming organs ... ..	2
Other causes ... ..	197
	1,000

**Infant Mortality.** The number of deaths among infants during the year was 602, that is 20 deaths more than in the previous year. The infant mortality rate per 1,000 live births was 66.95, which is the second lowest on record. The figure for 1953 was 64.82.

The neo-natal mortality (deaths of infants under 1 month of age) was 298 which is 10 less than in the previous year. The neo-natal mortality rate per 1,000 live births was 33.14 as compared with 34.30 in 1953 and 33.16 in 1952.

**Marriages.** The number of marriages during the year, including marriages among service personnel, was 2,138 of which 1,985 took place in Malta and 153 in Gozo. The marriage rate, which is expressed as the number of persons married per thousand of the population, was 13.37. This shows an increase on the marriage rates of 1953 and 1952 which were 12.89 and 11.00 respectively.

Table II shows the comparative data for the last twenty years.



TABLE II  
Comparative Birth, Death and Marriage Rates  
Malta and Gozo.

Year	Births			Death-Rate		Marriage-Rate per 1,000 population	Natural increase	
	Live	Rate per 1000 population	Still	Rate per 100 total births	Infant Mortality-Rate			Total Death-Rate
1935	8,701	33.95	282	3.1	285.71	23.49	12.4	2,683
1936	8,875	33.85	304	3.3	190.30	17.61	14.4	4,258
1937	8,879	33.54	315	3.8	242.70	20.04	13.6	3,575
1938	8,704	32.39	294	3.3	224.83	20.09	13.2	3,305
1939	8,930	33.08	309	3.3	226.98	19.95	14.6	3,545
1940	8,808	32.53	261	2.8	276.45	22.69	13.4	2,664
1941	7,352	27.09	240	3.1	303.45	23.74	16.7	908
1942	6,768	25.15	227	3.3	315.15	31.97	15.0	1,835†
1943	8,452	31.06	293	3.3	210.00	20.49	19.6	2,874
1944	10,963	39.26	334	2.9	116.30	13.25	19.5	7,263
1945	10,998	38.37	317	2.8	144.03	14.01	16.2	6,982
1946	11,304	38.29	298	2.5	130.75	13.72	14.4	7,254
1947	11,612	38.20	304	2.5	120.30	12.62	12.01	7,774
1948	11,029	36.04	262	2.3	112.97	12.21	12.80	7,292
1949	10,500	34.05	251	2.3	83.76	10.69	11.61	7,264
1950	10,281	32.95	280	2.6	88.51	10.33	11.20	7,057
1951	9,511	30.38	205	2.2	99.78	11.10	12.18	6,035
1952	9,226	29.30	221	2.3	71.75	10.69	11.00	5,861
1953	8,977	28.29	188	2.0	64.82	8.98	12.89	6,129
1954	8,991	28.11	194	2.1	66.95	9.60	13.37	5,920

† Decrease.

## II. INFECTIOUS AND COMMUNICABLE DISEASES

The following infectious diseases are notifiable, namely:— Plague, smallpox, cholera, diphtheria and membranous croup, typhus fever, yellow fever, epidemic cerebro-spinal meningitis, scarlatina or scarlet fever, typhoid or enteric fever, malarial fever, undulant fever, puerperal fever, measles, erysipelas, varicella, influenza, whooping-cough, hydrophobia, leprosy, pulmonary and all other forms of tuberculosis, pneumonia, broncho-pneumonia, acute anterior poliomyelitis, encephalitis lethargica, dengue fever, granular conjunctivitis or trachoma, tetanus neonatorum and leishmaniasis.

The total deaths attributed to these diseases during the year was 147 as against 140 in 1953. Calculated as rate per 1,000 population the comparable figures are 0.4 in 1954, 0.4 in 1953 and 0.6 in 1952. The largest percentage of deaths among this group is represented by broncho-pneumonia (45.6) followed by pulmonary tuberculosis (24.5), pneumonia (11.6), diphtheria (4.8) and measles (4.1).

**Chickennox.** The number of cases that came to the notice of the Department was 431 against 365 in 1953; 420 cases occurred in Malta and 11 in Gozo. Only 5 cases were admitted to hospital; of these, 2 were landed from on board ships. The majority of cases occurred in March-April-May when 320 cases were reported; the lowest incidence was in November when only 3 cases came to our notice.

**Whooping-Cough.** The number of cases reported was 837 against 207 in 1953; of these 833 occurred in Malta and 4 in Gozo. There were 3 deaths due to the disease, that is 2 more than in 1953. 85 cases were treated in hospital, mostly cases which developed complications, chiefly broncho-pneumonia. There were no deaths among the cases admitted to hospital. Treatment with Chloromycetin was found to give very satisfactory results.

TABLE III.  
Cases of and Deaths from Notifiable Diseases

YEAR	1 Pulmonary tuberculosis		2/5 Other forms of tuberculosis		12 Typhoid fever		15 Undulant fever		17 Scarlet fever		19 Erysipelas		21 Diphtheria		22 Whooping-cough		23 Cerebro-spinal fever		24 Plague		25b Tetanus neonatorum (b)	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
1945	255	184	...	a)...	240	23	1024	26	25	...	100	1	104	13	20	...	8	3	75	20	...	...
1946	273	183	...	a)...	174	12	2410	39	15	...	83	4	241	22	12	...	3	1	5	2	1	13
1947	220	161	...	a)...	102	12	1390	33	25	1	75	1	546	37	1411	28	6	...	...	...	12	7
1948	202	104	...	a)...	54	4	1039	15	46	...	51	2	249	12	1398	65	6	4	...	...	6	5
1949	228	97	...	a)...	121	3	902	8	16	...	46	...	119	5	24	1	7	3	...	...	1	...
1950	208	82	...	a)...	106	4	834	6	1050	2	35	...	33	5	509	5	9	5	...	...	3	2
1951	171	68	...	a)...	180	4	613	6	40	...	43	...	29	1	694	10	4	1	...	...	3	3
1952	146	34	88	12	118	6	550	4	42	...	38	...	208	11	1141	8	8	1	...	...	1	1
1953	177	39	54	14	132	1	425	3	25	...	35	2	140	6	207	1	7	2	...	...	2	2
1954	157	36	40	3	107	2	548	2	57	...	34	...	85	7	837	3	6	1	...	...	...	...

  

YEAR	28 Acute anterior poliomyelitis		31 Smallpox		32 Measles		36a Marine Typhus		42a Chicken-pox		43L Leishmaniasis (b)		SS Influenza		S9 Pneumonia		90 Broncho-pneumonia		115 Puerperal fever		43J Trachoma
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.
1945	37	...	...	...	26	...	131	5	174	...	...	...	70	...	91	24	204	82	47	2	226
1946	46	...	5	1	21,168	240	35	4	168	...	37	15	132	1	141	22	311	134	48	4	139
1947	59	2	...	...	2,422	14	28	2	312	...	194	12	39	...	103	28	228	155	48	4	283
1948	11	...	...	...	30	...	17	2	323	...	208	9	250	9	64	26	223	85	30	1	334
1949	1	...	...	...	80	...	21	2	308	...	98	3	84	5	62	13	146	88	29	...	224
1950	154	8	...	...	249	2	57	...	705	...	67	1	26	5	50	18	122	61	25	2	(c)41
1951	43	...	...	...	4,486	17	43	1	28	...	53	3	283	1	81	14	134	61	18	...	(c)55
1952	37	1	...	...	45	...	20	1	485	...	53	...	203	3	69	17	138	79	17	...	(c)51
1953	26	1	...	...	193	...	9	...	350	...	63	1	46	1	86	14	118	53	16	...	(c)59
1954	14	1	...	...	2,785	6	20	...	431	...	49	...	37	2	157	17	302	67	9	...	57

(a) Not available;

(b) Declared notifiable October 1946;

(c) This figure does not include the cases found during the intensive anti-trachoma campaign in Gozo. For further details vide 'Trachoma'.

TABLE IV  
Notifiable Infectious Diseases by Locality in Malta, 1954

LOCALITY	Pulmonary Tuberc.		Other Form of T. B.		Typhoid Fever		Undulant Fever		Scarlet Fever		Erysipelas		Diphtheria		Whooping Cough		Cerebro-spinal Fever		Tetanus Neonatorum		Polio-myelitis		Measles		Murine Typhus		Chicken pox		Leishmaniasis		Influenza		Pneumonia		Bronchopneumonia		Puerperal Fever		Tra-choma
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.		
Attard ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Balzan ...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Birkirkara ...	10	...	4	1	5	...	...	...	...	3	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Birzebbuga ...	3	...	...	...	2	...	...	...	...	1	...	...	...	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
Cospicua ...	7	2	2	...	2	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dingli ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Floriana ...	2	...	...	...	...	...	6	...	...	4	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Charghur ...	2	...	1	...	...	...	4	...	...	...	...	...	...	1	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	
Ghaxaq ...	2	1	1	...	...	...	5	...	...	...	...	...	...	1	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Gudja ...	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Gzira ...	3	2	...	...	1	1	2	...	2	...	...	...	...	...	48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Hamrun ...	20	...	6	...	6	...	14	...	...	2	...	...	7	1	21	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	
Kalkara ...	...	...	...	...	4	...	2	...	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Kirkop ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Lija ...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Luqa ...	2	1	...	...	...	...	24	...	...	...	...	...	...	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Marsa ...	6	4	1	...	1	...	34	...	...	1	...	...	...	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Marsaskala ...	...	...	...	...	...	...	2	...	...	1	...	...	...	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Marsaxlokk ...	2	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mdina ...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mellieha ...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mgari & Żebbiegh ...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	16	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mosta ...	1	1	...	...	...	...	44	1	...	...	...	...	2	1	35	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
Mqabba ...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	49	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Msida ...	3	1	5	...	...	...	5	...	3	3	...	...	...	...	65	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Naxxar ...	3	1	1	...	...	...	6	...	...	...	...	...	...	6	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pawla ...	6	1	...	...	3	...	5	...	...	6	...	...	...	6	2	42	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pietà ...	2	1	...	...	...	...	3	...	...	1	...	...	...	1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Qormi ...	14	...	3	21	1	94	...	...	...	...	...	...	...	4	42	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Qrendi ...	1	...	...	...	...	...	4	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Rabat ...	3	1	3	11	...	...	6	...	3	...	...	...	...	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Safi ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
St. Julian's ...	5	2	...	...	...	...	7	...	1	3	...	...	...	...	51	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
St. Paul's Bay ...	...	...	...	...	1	...	2	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
St. Vennera ...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Senglea ...	1	1	1	...	...	...	...	...	...	...	...	...	...	2	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Siggiewi ...	1	1	1	...	1	...	28	...	...	...	...	...	...	3	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Sliema ...	11	2	1	...	2	...	2	...	26	2	...	...	...	3	93	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Tarxien ...	1	...	...	3	...	10	...	...	1	2	...	...	...	1	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Valetta ...	8	2	2	1	1	...	1	...	2	...	...	...	...	3	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Vittoriosa ...	1	1	...	...	2	...	...	...	...	...	...	...	...	1	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Zabbar ...	13	1	1	...	8	...	16	...	...	1	...	...	...	10	74	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Zebbug ...	4	1	1	...	2	...	41	...	...	1	...	...	...	1	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Zejtun ...	4	1	...	...	7	...	28	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Zurrieq ...	2	...	...	...	...	...	22	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total Malta	148	32	35	3	89	2	438	1	57	30	72	6	833	3	5	...	...	...	...	...	13	1	2711	4	19	420	44	...	35	2	151	16	284	63	9	48			

TABLE IV (cont.)  
Notifiable Infectious Diseases by Locality, 1954

LOCALITY	Pulmonary Tuberc.		Other Forms of T. B.		Typhoid Fever		Undulant Fever		Scarlet Fever		Erysipelas		Diphtheria		Whooping Cough		Cerebro-spinal Fever		Tetanus Neonatorum		Polio-myelitis		Measles		Typhus Murine		Chicken pox		Leishmaniasis		Influenza		Pneumonia		Broncho-Pneumonia		Puer-peral Fever		Trachoma	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.			
Kemmuna ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Ghajnsielem ...	1	...	...	...	5	...	7	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	11	...	2	...	...	...	...	...	1	...	...	1	...	...	...	...	1	
Gharb ...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ghasri ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kerċem ...	...	...	...	...	...	...	8	...	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	
Marsalforn ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mġarr ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Munxar ...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nadur ...	1	...	1	...	3	...	11	...	...	...	...	2	...	2	...	1	1	...	...	...	...	...	1	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Qala ...	1	...	...	...	3	...	50	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
San Lawrenz ...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sannat ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
St. Lucia ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Victoria ...	4	2	1	...	2	...	19	...	...	...	3	...	...	...	...	...	...	...	...	...	...	18	1	1	...	4	...	1	...	...	3	1	3	1	...	...	...	...	3	
Xaghra ...	...	...	...	...	2	...	3	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	24	...	...	...	...	2	...	...	2	...	...	...	...	...	...	...	...	1
Xewkija ...	2	1	1	...	...	...	2	...	...	...	1	...	5	1	1	...	...	...	...	...	...	1	...	15	1	...	...	...	...	...	...	1	...	11	2	...	...	...	...	3
Xlendi ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Zebbug ...	...	1	1	...	...	...	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
Total Gozo ...	9	4	5	...	18	...	110	1	...	...	4	...	13	1	4	...	1	1	...	...	...	1	...	77	2	1	...	11	...	5	...	2	...	6	1	18	4	...	...	9
Total Both Islands...	157	36	40	3	107	2	548	2	57	...	34	...	85	7	837	3	6	1	...	...	...	14	1	2788	6	20	...	431	...	49	...	37	2	157	17	302	67	9	...	57

TABLE V.  
Monthly Notifications of Infectious Diseases, 1954

MONTH	1		2/5		12		15		17		19		21		22		23	
	Pulmonary Tuberculosis		Other Forms of T. B.		Typhoid Fever		Undulant Fever		Scarlet Fever		Erysipelas		Diphtheria		Whooping-Cough		Cerebro-spinal Fever	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
January ...	9	4	3	—	2	—	21	—	1	—	—	—	10	—	79	—	—	—
February ...	9	5	5	2	1	—	25	—	3	—	—	—	9	—	114	—	—	—
March ...	15	5	3	—	3	—	36	—	—	—	2	—	9	1	151	—	1	1
April ...	9	2	1	—	6	—	42	1	1	—	1	—	4	2	81	—	1	—
May ...	12	1	3	—	6	—	63	—	—	—	2	—	8	1	80	1	—	—
June ...	13	3	10	—	9	2	64	—	2	—	1	—	3	—	99	—	—	—
July ...	14	2	3	—	8	—	83	—	—	—	3	—	4	1	71	1	1	—
August ...	10	3	3	—	10	—	71	1	4	—	5	—	7	—	44	—	1	—
September	9	1	5	—	20	—	57	—	—	—	10	—	5	—	34	—	—	—
October ...	18	2	1	1	16	—	38	—	—	—	4	—	10	1	20	—	1	—
November	20	6	1	—	21	—	22	—	15	—	2	—	7	1	27	1	1	—
December	19	2	2	—	5	—	26	—	31	—	4	—	9	—	37	—	—	—
Total ...	157	36	40	3	107	2	548	2	57	—	34	—	85	7	837	3	6	1

MONTH	26B		28		32		36 B		43 H		43 L		88		89		90		115		43J	
	Tetanus Neonatorum		Acute Anterior Poliomyelitis		Measles		Typhus Murine		Chickenpox		Leishmaniasis		Influenza		Pneumonia		Broncho-pneumonia		Puerperal Fever		Trachoma	
	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
January ...	—	—	—	—	122	2	1	—	49	—	4	—	—	—	5	1	16	3	2	—	—	—
February ...	—	—	—	—	372	—	—	—	38	—	2	—	4	1	25	1	41	10	2	—	—	7
March ...	—	—	—	—	1083	—	1	—	126	—	4	—	19	1	18	1	58	9	1	—	—	5
April ...	—	—	—	—	774	1	—	—	79	—	5	—	7	—	19	2	46	5	—	—	—	5
May ...	—	—	—	2	294	—	—	—	55	—	2	—	1	—	18	—	29	5	—	—	—	4
June ...	—	—	3	—	87	1	—	—	25	—	7	—	—	—	20	2	17	10	2	—	—	6
July ...	—	—	2	1	24	1	3	—	17	—	5	—	—	—	9	2	21	9	—	—	—	3
August ...	—	—	3	—	14	1	10	—	15	—	1	—	—	—	5	2	12	2	—	—	—	4
September	—	—	2	—	3	—	3	—	4	—	7	—	3	—	5	1	16	7	—	—	—	8
October ...	—	—	—	—	1	—	2	—	8	—	7	—	1	—	9	—	16	4	1	—	—	13
November	—	—	2	—	8	—	—	—	3	—	1	—	1	—	12	2	16	2	—	—	—	1
December	—	—	—	—	6	—	—	—	12	—	4	—	1	—	12	3	14	1	1	—	—	1
Total ...	—	—	14	1	2788	6	20	—	431	—	49	—	37	2	157	17	302	67	9	—	—	57

TABLE VI.

## Age and Sex Distribution of Cases and Deaths

AGES	Influenza				Pneumonia				Broncho-Pneumonia				Scarlet Fever				Diphtheria				Typhoid Fever				Undulant Fever				Murine Typhus				
	Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths		Cases		Deaths						
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F					
Under 1 year ... ..	3	...	...	...	11	14	5	1	67	54	22	22	...	2	...	...	9	4	2	...	...	...	...	3	1	...	...	...	...	...	...	...	...
1 year ... ..	1	1	...	...	5	6	...	1	20	30	8	4	1	2	...	...	4	4	1	...	...	...	...	5	3	...	...	...	...	...	...	...	
2 years ... ..	...	...	...	...	3	1	...	...	4	12	2	...	...	2	...	...	8	10	...	1	1	...	...	8	10	...	...	...	...	...	...	...	
3 years ... ..	...	...	...	...	...	5	...	...	9	4	...	...	2	3	...	...	4	5	1	...	...	3	...	1	7	6	...	...	...	...	...	...	
4 years ... ..	...	...	...	...	5	4	...	...	4	6	...	1	...	3	...	...	13	18	2	...	6	4	...	...	14	13	...	...	...	...	...	...	
5 to 9 years ..	...	...	...	...	12	6	...	...	13	13	...	...	14	21	...	...	7	5	...	...	10	18	...	...	67	62	...	...	1	...	...	...	
10 to 14 „ ...	...	...	...	...	1	...	...	...	2	2	...	...	2	5	...	...	2	...	...	...	15	7	...	...	33	25	...	...	1	1	...	...	...
15 to 19 „ ...	3	1	...	...	4	2	...	...	...	1	...	...	...	...	...	...	...	...	...	2	4	...	...	33	24	...	...	2	...	...	...	...	
20 to 24 „ ...	3	...	...	...	3	2	...	...	5	2	...	...	...	...	...	...	...	...	...	3	6	...	...	24	18	...	...	1	...	...	...	...	
25 to 34 „ ...	4	2	...	...	15	9	...	1	2	5	...	...	...	...	...	...	1	...	...	4	4	...	...	38	23	...	...	3	1	...	...	...	
35 to 44 „ ...	1	1	...	...	5	3	...	...	2	1	...	...	...	...	...	...	...	...	...	4	2	...	...	20	25	...	1	2	2	...	...	...	
45 years & over...	10	7	1	1	19	22	3	1	20	24	6	2	...	...	...	...	1	...	...	6	8	...	1	48	48	...	1	2	4	...	...	...	
Total ... ..	25	12	1	1	83	74	13	4	148	154	38	29	19	38	...	...	47	38	6	1	51	56	...	2	290	258	...	2	12	8	...	...	

**Scarlet Fever.** The number of notified cases during the year was 57, all of which occurred in Malta, as against 25 in 1953. There were no deaths from this infection.

**Measles.** The number of cases registered during the year was 2,788 against 171 in 1953; of these 2,711 occurred in Malta and 77 in Gozo. There were 6 deaths attributed to this infection as against no deaths during 1953. The number of cases requiring treatment in hospital was 43, mostly patients suffering from complication:— broncho-pneumonia and otitis. A girl who was admitted for measles complicated by otitis was later found to be suffering from aural diphtheria. She recovered and was discharged cured. Three cases had encephalitis after measles. Two of the latter died, one within 4 hours of admission. The third case was discharged with residual paralysis of the neck and referred to St. Luke for further treatment. As in the case of chickenpox the highest incidence was in March with 1,083 cases, the lowest in October when only one case was notified. The largest number of cases notified from any one locality was 418 from Sliema.

**Diphtheria (including membranous croup).** The total number of diphtheria cases was 85 of which 72 occurred in Malta and 13 in Gozo; this is less by 55 than the number of cases reported during the previous year. 79 cases were confirmed bacteriologically, the others on clinical grounds. The downward trend of the disease — 208 cases in 1952, 140 in 1953 and 85 in 1954 has thus be maintained in the current year. 81 cases were treated at the Isolation Hospital, 2 at Mtarfa Military Hospital and 2 at home.

The majority of cases (95.3%) occurred in children up to 5 years of age. One case occurred in a patient 25 years of age and one in a patient over 45 years of age.

Two of the confirmed cases had received full protective inoculation, one of these was a mild case but in the second the disease ran a moderately severe course. Cases were notified throughout the year and the largest number of cases from any one locality was 10 from Vittoriosa.

A relatively high percentage of cases were of the laryngeal type and though the number of cases notified during the year was lower than in the preceding one yet the disease, on the whole, was of a much more severe type; even so, however, complications were few and in no case was tracheotomy considered necessary.

There were 7 deaths due to this disease during 1953, 6 in Malta and 1 in Gozo as against 5 in Malta and 1 in Gozo in the previous year. Amongst the cases treated in hospital there were 5 deaths of which 3 occurred within 24 hours of admission into hospital. Following our intensive propaganda, parents have apparently become less reluctant to avail themselves of the medical facilities placed at their disposal; in fact, of the children who died within 24 hours of admission one had been treated at home for symptoms suggestive of a broncho-pneumonia; it was only on the eight day that he developed suspicious signs of diphtheria. He was immediately remitted to hospital but died of heart failure following broncho-pneumonia shortly after his admission. The second case was one in which the disease ran a very rapid course; the child had been feeling quite well when he returned from school the day before he took to bed, he later complained of pain in the throat; conditions grew rapidly worse and he was rushed to hospital where he died of heart failure on the next morning. In the third case the patient developed marked dyspnoea, (non obstructive); he was remitted to hospital on the same day with cold clammy skin and perspiration and died within a few hours of admission. Bacteriological findings in the latter case were negative but he was diagnosed as a case of clinical diphtheria. Of the other two deaths, one occurred in a patient suffering from nephritis who developed gallop rhythm and died soon after, the other was in very poor condition of health, he was diagnosed as a case of clinical diphtheria and died two days later.

Free antidiphtheria inoculations were continued both at the centre at Head Office and in the schools; response was satisfactory but up to now it has only been possible for the Free Immunization Service to visit a limited number of localities each year and though the percentage of immunised children may be fairly high in the localities visited yet the overall average for the whole Island is still below our aim.

TABLE VII

**Diphtheria.**  
**Ages of Death.**

Under 1 year	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	All Ages
2	1	1	1	2	—	—	—	—	—	—	—	—	7

**Age Periods of Notified Cases.**

Under 1 year	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	All Ages
13	8	18	9	21	12	2	—	—	1	—	1	—	85
95.8%						4.7%							

**Case-mortality at Each Age Period.**

(Calculated as a percentage).

Under 1 year	1-	2-	3-	4-	5-	10-	15-	20-	25-	35-	45-	55-	All Ages
15.4	12.5	5.5	11.1	9.5	—	—	—	—	—	—	—	—	8.2

**Typhoid Fever.** There were 107 cases reported, with 2 deaths during the year, giving a case mortality of 1.8. This shows a decrease of 25 cases in the previous year when 132 cases with 1 death were notified. Sporadic cases were reported from a number of localities.

As in previous years highest number of cases was notified from Qormi (21), Rabat (11) and Żabbar (8). The remaining cases were reported from different localities in Malta and Gozo.

The highest incidence coincided with the first rains, in the quarter September-November during which 57 cases out of 107 notified cases occurred.

The age groups most affected were the 5-9 years (28) and 10-14 years age group (22). 14 cases with one death were notified in patients over 48 years of age. No case was notified in children under 2 years.

Whenever possible patients were remitted for treatment in hospital and contacts were examined for healthy carriers.

**Undulant Fever.** The number of cases notified during the year was 548 (438 in Malta and 110 in Gozo) as against 425 cases (352 in Malta and 73 in Gozo) reported during 1953 and 55 in 1952. The above figures show an increase of 123 cases over those in respect of the previous year. The number of deaths was 2 as against 3 in 1953 and the case mortality has decreased from 0.7 in 1953 to 0.4 in 1954. Qormi with 94 cases still heads the list; this is partly explained by the fact that many farm animals including goats are kept in the village.

The increased incidence was spread all through the year and all over the Island and it has not been possible to find a satisfactory explanation for the increase. The fact that cases of undulant fever continue to occur even in the areas where the sale of raw goats' milk is forbidden would be disturbing but for the fact that it is very difficult to control the sale of raw milk when goatpens are to be found in the outskirts of practically all the villages and milk can be obtained cheaper when bought direct from the goatherd. All persons caught selling raw milk in contravention to the law are summoned.

In December of the year under review Qormi was included with the areas in which the sale of raw goats' milk is forbidden. This will perhaps reduce the incidence of undulant fever in that village. Some of the cases only came to our notice when notified as suffering from sequelae of undulant fever — mostly the outpatient section of the Orthopaedic Department at St. Luke Hospital where they had been remitted for arthritic complaints.



The consumption of cows' milk is slowly but gradually increasing and may one day largely replace goats' milk. At present however this fact can hardly be expected to affect the incidence of undulant fever for the greater part of cows' milk produced is being sold to the Milk Marketing Undertaking for pasteurising and it is still goats milk that is consumed raw especially by the lower income groups in the villages.

The incidence was highest during the summer months when the production of goats milk is at its peak. The age group most affected is the 5-9 year group (119 cases) followed by that of persons over 45 years of age (96 cases); in fact milk is mostly drunk by children and by older adults. Children under 5 years of age are preferably given tinned milk and this fact would explain the lower incidence of the disease in children under 5 years of age.

**Influenza.** The number of cases notified during the year was 37 as compared with 46 in 1953. Two deaths were attributed to this infection as compared with 1 death in 1953.

Three patients aged 46, 48 and 54 years respectively were admitted to hospital because they could not be properly cared for in their homes. No deaths occurred in hospital.

**Pneumonia.** During the year the number of notified cases of pneumonia was 157 with 17 deaths as compared with 86 cases and 14 deaths in 1953. Twenty cases were notified as virus pneumonia. One case was landed for treatment from on board a ship — He received proper treatment at the Isolation Hospital.

**Cerebro-spinal Fever.** There were 6 cases with 1 death as against 7 cases with 2 deaths in 1953. With the exception of one case who remained at home in Gozo and proved fatal, all cases were treated in hospital.

**Erysipelas.** The cases numbered 34 with no deaths as compared with 35 cases and 2 deaths during the previous year.

**Puerperal Fever.** The number of cases reported was 9, which is 7 less than last year's figure. There were no deaths either this year or in 1953. Four cases were treated in hospital.

**Murine Typhus.** The number of cases was 20, 19 in Malta and 1 in Gozo. 15 were treated at the Isolation hospital, 4 at St. Luke's Hospital and 1 at home. No deaths were attributed to this disease. The figures for the previous year were 9 cases with no deaths. Three of the cases occurred in members of the same family residing in an area which had just been visited and treated by the Rodent Control team.

**Leishmaniasis.** The cases notified during the year were 49, 5 of which in Gozo. This shows a decrease of 14 cases from last year. There were no deaths as against 1 death in 1953. The usual method of repeatedly spraying with D.D.T. the premises where cases occur was again resorted to with satisfactory results as evidenced by the gradual decrease in the yearly number of cases.

**Tetanus Neonatorum.** There were no cases reported. During 1953 there were 2 cases both of which had proved fatal.

**Acute Anterior Poliomyelitis.** The cases of poliomyelitis among the civilian population during 1954 amounted to 14 cases, 1 of which occurred in Gozo. The cases notified in 1953 were 26. This year as in last year there was only one death due to poliomyelitis. Two were discharged to their homes completely recovered; 10 were transferred to St. Luke's for further treatment.

Besides the above one case stopped in Malta for a short while. He was travelling by air for treatment in England. During his stay in Malta he was accommodated in the Isolation hospital.

TABLE VIII  
ACUTE ANTERIOR POLIOMYELITIS

Civilian Cases in Malta

1954

MONTHLY INCIDENCE:—

	Males	Females	Total
January ... ..	—	—	—
February ... ..	—	—	—
March ... ..	—	—	—
April ... ..	—	—	—
May ... ..	1	1	2
June ... ..	2	1	3
July ... ..	2	—	2
August ... ..	—	3	3
September ... ..	1	1	2
October ... ..	—	—	—
November ... ..	—	1	1
December ... ..	—	—	—
Total ...	6	7	13

INCIDENCE BY AGE GROUPS:—

	Males	Females	Total
Up to 6 months ... ..	—	—	—
6 months to 1 year ... ..	1	—	1
1 year to 2 years ... ..	1	4	5
2 years to 3 years ... ..	—	—	—
3 years to 6 years ... ..	2	—	2
6 years to 10 years ... ..	—	1	1
10 years to 20 years... ..	1	2	3
Total ...	6	7	13

STATISTICS OF RECOVERY:—

of the 6 male patients:—

3 patients recovered completely.

1 patient has made satisfactory recovery and is still showing signs of improvement.

1 patient has made poor recovery and is showing no signs of further improvement.

1 patient died.

6

of the 7 female patients:—

3 patients made complete recovery. (One having suffered from non-paralytic poliomyelitis).

2 patients have made satisfactory recovery and are still showing signs of improvement.

1 patient has made satisfactory recovery and is not attending hospital for further observation.

1 patient has made poor recovery and is showing no signs of further improvement.

7

**Recoveries in relation to admission into hospital after onset of symptoms:—**

The 3 male patients who have made complete recoveries were admitted into hospital 3, 6, 11 days after onset of symptoms.

The male patient who died was admitted into hospital 6 days after onset of symptoms.

The male patient who has made satisfactory recovery was admitted into hospital 6 days after onset of symptoms.

The 3 female patients who have made complete recoveries were admitted into hospital 1, 4, 8 days after onset of symptoms.

The 2 female patients who have made satisfactory recovery were admitted into hospital 7 days and 15 days after onset of symptoms.

The female patient who has made satisfactory recovery and who is no longer attending hospital for observation was admitted into hospital 15 days after onset of symptoms.

The female patient who made poor recovery was admitted into hospital 1 day after onset of symptoms.

**Recoveries by Age Groups:—**

The 3 male patients who made complete recoveries were on admission into hospital 2½ months, 13 months and 4 years of age.

The male patient who has made satisfactory recovery was on admission into hospital 1 year of age.

The male patient who has made poor recovery was on admission into hospital 14 months of age.

The male patient who died was on admission into hospital 6 years of age.

The 3 female patients who made complete recoveries were on admission into hospital 15 months, 10 and 19 years of age.

The 3 female patients who have made satisfactory recovery were on admission into hospital 13, 17 and 18 months of age.

The female patient who has made poor recovery was on admission into hospital 10 years of age.

**INCIDENCE BY LOCALITY:—**

Marsa	...	...	...	...	...	...	1	—
Zabbar	...	...	...	...	...	...	1	—
B'Bugha	...	...	...	...	...	...	1	—
Mqabba	...	...	...	...	...	...	1	—
Attard	...	...	...	...	...	...	1	—
Qrendi	...	...	...	...	...	...	1	—
St. Julians	...	...	...	...	...	...	—	1
Mgarr	...	...	...	...	...	...	—	1
B'Kara	...	...	...	...	...	...	—	2
Zejtun	...	...	...	...	...	...	—	1
Qormi	...	...	...	...	...	...	—	1
Mellieha	...	...	...	...	...	...	—	1
							6	7
							—	— 13

TABLE IX

**Trachoma Incidence**  
**(Malta and Gozo)**

A.			B.		
Year	Cases		Periods	New Cases in 1954	
	New	Old		Males	Females
1945	226	111	Under 1 year	—	—
1946	139	69	1        "	—	—
1947	283	133	2        years	—	—
1948	334	145	3        "	—	—
1949	224	68	4        "	—	—
1950	41	19	5 to 9   "	8	5
1951	55	12	10 to 14 "	11	5
1952	51	11	15 to 19 "	8	4
1953	59	3	20 to 24 "	—	1
1954	49	8	25 to 29 "	2	1
			30 to 34 "	—	—
			35 to 44 "	1	—
			45 & over	1	2
			Total ...	31	18

**TRACHOMA IN GOZO**

The anti-Trachoma Campaign was during the year rigorously carried out in Gozo where the disease used to be very prevalent and where it has been found rather difficult to eradicate. The eradication of Trachoma in Gozo is desired not from a health point of view but also for purposes of migration because many Gozitans migrate every year. An eye specialist is appointed to direct the anti-Trachoma Campaign in Gozo and his efforts are being slowly but steadily crowned with success.

Visits to schools and to Government Dispensaries were regularly carried out during the year. Details will be found in Tables X, XI and XII.

**Schools.** At the beginning of the year, there were 147 trachoma cases amongst primary school children. A boy left school at the beginning of the year. At the end of the scholastic year there were only 34 children in whom the disease was still active. Of 902 newly admitted children in the autumn of 1954, 54 had trachoma; this gives a percentage of 5.98 and probably represents the trachoma index of pre-school children in Gozo.

**Clinics.** Out of 275 persons seen at clinics and in their homes (those who were bed-ridden), 50 were found cured. The number of adults left on our registers in December 1954 was 438. This by no means represents the number of persons who are still infected because there must be many who are by now cured, but who cannot be struck off our lists, because they did not attend for the necessary examination. This explains why in Table X in the case of Xaghra, there are two more cases on the register, than there were last year. This is due to the fact that a number of people were freshly diagnosed. Figures for other places do not tally with those given for last year, even when due consideration is given to the number of cured cases. This is due to the fact that a few people previously suffering from Trachoma migrated after having been found cured of the disease.

**Antibiotics.** Sulphonamides have served ophthalmology well and they have proved their worth in our campaign against Trachoma in Gozo, however it is now proposed to use as a routine for trachoma cases either aureomycin or terramycin. It appears that they are more effective when used locally, than the sulphonamides. The Ophthalmic Surgeon has used both drugs in the Gozo schools during 1954 and was able to register cures in 2-3 months. Achromycin and chloromycetin ointments have also been used but the number of cases thus treated and the length of period of such treatment do not for the present justify conclusive opinion. It is proposed to continue research in this field during the scholastic year 1954-55.

**General consideration.** We have gone a long way since the campaign was first started in 1948. It is gratifying to note that trachoma in Gozo, has been drastically reduced. While earlier hopes that eradication within a few years were over-optimistic, there is evidence that the disease has now become stabilized at a low level, and that if present efforts are maintained the number of cases will continue progressively to decrease. Control of trachoma in the schools will ensure that school children will arrive at their school leaving age free from trachoma; I am confident, that this measure alone would help to control trachoma. The improvement of hygienic and sanitary conditions continually being witnessed, will no doubt, add its contribution to the success of the fight against the disease.

TABLE X

## Doubtful Cases of Trachoma — "Conjunctivitis" — Examined during 1954

School		No. of cases January 1954	No. of cases July 1954	No. examined Autumn 1954	No. of new cases Autumn 1954	No. cured or left school	No. of cases at the end of 1954
NADUR	Boys	1	—	—	—	—	—
	Girls	1	—	218	4	—	4
QALA	Boys	—	—	—	—	—	—
	Girls	—	—	62	—	—	—
GHAJNSIELEM	Boys	—	—	—	—	—	—
	Girls	—	—	—	—	—	—
XEWKIJA	Boys	2	—	—	—	—	—
	Girls	4	—	120	—	—	—
SANNAT	Mixed	—	—	55	2	—	2
MUNXAR	Mixed	—	—	13	—	—	—
VICTORIA	Boys	1	—	—	—	—	—
	Girls	3	—	105	2	—	2
XAGHRA	Boys	—	—	—	—	—	—
	Girls	1	—	116	1	—	1
KERC'EM	Mixed	1	—	128	1	—	1
ST. LUCIA	Mixed	—	—	10	—	—	—
ZEBBUG	Mixed	1	—	48	1	—	1
GHARB	Mixed	2	—	28	—	—	—
SAN LAWRENZ	Mixed	2	—	14	—	—	—
GHASRI	Mixed	—	—	19	2	—	2
Total ...	...	19	—	902	13	—	13

TABLE XI

## Clinics held at Government Dispensaries in 1954

Place	No. of clinics	No. seen	No found cured	No. still on register
Victoria ... ..	5	80	8	69
Xaghra ... ..	6	50	25	78
Nadur ... ..	7	34	7	62
Qala ... ..	2	26	1	86
Xewkija ... ..	2	54	7	88
Sannat ... ..	1	9	—	32
Ghajnsielem ... ..	2	20	1	25
Kercem ... ..	1	2	1	—
Gharb ... ..	—	—	—	—
S. Lawrenz ... ..	—	—	—	—
Ghasri ... ..	—	—	—	—
Zebbug ... ..	—	—	—	—
<b>Total ...</b>	<b>26</b>	<b>275</b>	<b>50</b>	<b>438</b>

TABLE XII

## Number of cases of active trachoma examined during 1954

School	No. of cases January 1954	No. of cases July 1954	No. examined Autumn 1954	No. of new cases Autumn 1954	No. cured or left school	No. of cases at the end of 1954
NADUR	Boys 6 Girls 9	— 3	— 128	— 4	— 2	— 5
QALA	Boys (*) 6 Girls 15	4 6	— 62	— 4	1 4	3 6
GHAJNSIELEM	Boys 6 Girls 14	3 2	— 56	— 9	— —	3 11
XEWKIJA	Boys 4 Girls 14	— —	— 120	— 10	— —	— 10
SANNAT	Mixed 25	5	55	7	1	11
MUNXAR	Mixed 5	1	13	2	—	3
VICTORIA	Boys 4 Girls 12	1 5	— 105	— 10	— —	1 15
XAGHRA	Boys 4 Girls 12	— 1	— 116	— 6	— —	— 7
KEROEM	Mixed 5	2	128	2	1	3
S. LUCIA	Mixed —	—	10	—	—	—
ZEBBUG	Mixed 1	—	48	—	—	—
GHARB	Mixed 2	—	28	—	—	—
S. LAWRENZ	Mixed 3	11	14	—	—	1
GHASRI	Mixed —	—	19	—	—	—
<b>Total ...</b>	<b>147</b>	<b>34</b>	<b>902</b>	<b>54</b>	<b>9</b>	<b>79</b>

(\*) One pupil left school at the beginning of the year.

**Leprosy.** The number of leper patients notified during the year was 10. This is the first time when no female patients were notified during the whole year. The age and sex distribution is shown in Table XIII.

TABLE XIII

## Age and Sex Distribution of Cases of Leprosy notified during the year

Ages	Males	Females	Total
1 — 10	—	—	—
11 — 20	—	—	—
21 — 30	2	—	2
31 — 40	2	—	2
41 — 50	4	—	4
51 — 60	1	—	1
61 — 70	—	—	—
71 — 80	1	—	1
81 — 90	—	—	—
Total	10	—	10

The number of notified cases during the last ten years is given in Table XIV.

TABLE XIV

## Cases notified during 1954 and nine preceding years.

	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
Males ...	6	—	10	7	10	6	4	9	6	10
Females ...	9	4	3	7	5	6	1	5	5	—
Total ...	15	4	13	14	15	12	5	14	11	10

There are at present 154 cases of leprosy known in these Islands. Table XV explains the type of the disease.

TABLE XV

		Males	Females	
<i>In-patients</i> :—	Malta ... ..	57	19	
	Gozo ... ..	3	3	
		60	22	82 (1)
<i>Out-patients</i> :—	Malta ... ..	15	17	32 (2)
		16	19	35 (3)
	Gozo ... ..	1	—	1 (2)
		2	2	4 (3)
Total ... ..		94	60	154

(1) The nature of the disease in these patients is as follows :—

Lepromatous, 72 (51 males, 21 females)

Indeterminate, 6 (5 males, 1 female)

4 Burnt out cases at the St. Vincent de Paul Hospital.

(2) These patients were discharged at request and the nature of the disease is as follows :—

Lepromatous, 26 (13 males, 13 females)

Indeterminate, 6 (3 males, 3 females)

Major Tuberculoid, 1 female.

(3) These patients are suffering from the Tuberculoid form of the disease and are all 'old' out-patients.

### VENEREAL DISEASES

The venereal diseases department is under the general direction of a V. D. Officer and his assistants. A clinic is kept open daily and no fees are charged for examination and medical advice and treatment. As in previous years the incidence of the disease has been very low. In fact it is lowest when compared with that in other Mediterranean seaports. The number of new patients was 107 (55 males and 52 females) as against 96 (62 males and 34 females) for the previous years. Of these 9 were treated as in-patients (5 males and 4 females).

**In-patients.** Venereal disease patients are treated in the same wards as patients suffering from skin diseases. This arrangement is very much appreciated by the patients who in this way are not singled out as suffering from V. D.

Nine patients were treated in the wards. Their conditions are detailed in the following table:—

Diagnosis	Males	Females	Total
Syphilis secondary ... ..	—	1	1
Gonorrhoea acute ... ..	1	1	2
Gonorrhoea chronic ... ..	—	2	2
Non-specific urethritis ... ..	3	—	3
Observation for V.D. ... ..	1	—	1
Total ... ..	5	4	9

It is evident from the above that the clinic still serves the very useful purpose of preventing the increase of congenitals and checking the spread of venereal diseases in our islands. Besides it gives indispensable advice and treatment to merchant-navy seamen for whom the clinic is available day and night.

**Out-patients.** The following is the classification of the new patients:—

Diagnosis	Males	Females	Total
Syphilis congenital ... ..	—	4	4
Syphilis primary ... ..	1	1	2
Syphilis secondary ... ..	7	7	14
Syphilis tertiary ... ..	6	5	11
Gonorrhoea acute ... ..	15	13	28
Gonorrhoea chronic ... ..	1	8	9
Non-gonococcal urethritis ... ..	6	3	9
Balanitis ... ..	2	—	2
Herpes preputialis ... ..	1	—	1
Observation for Venereal Disease... ..	16	11	27
TOTAL	55	52	107

The source of infection was ascertained as follows:— Promiscuous intercourse 31; friends 14; infection contracted abroad 14; husbands 10; wife 1; congenital 3.

The occupation of the persons who made use of the clinic was as follows:— barmaids 36; labourers 23; housewives 15; seamen 16; prisoners 3; inmates of St. Vincent de Paul Hospital 3; street girls 2; different occupations 9.

30 of the new patients reported at the clinic of their own accord, 13 were remitted from other civil hospitals, 13 by the Police, 12 by private practitioners, 18 by the Medical and Health Department, 10 by District Medical Officers, 4 by Shipping agents, 3 by the Prison Medical Officer and 1 by the Emigration Department.



## TUBERCULOSIS

Our TB service was proceeded with on the lines which have now been tested and found suitable for the special conditions obtaining in our Islands. In addition to our usual drawbacks as regard hospital accommodation this year we were also handicapped by the shortage of specialist staff.

**Control.** During the year under review the control measures set up in the previous years have been followed and intensified.

A total number of 5642 persons have attended the Chest Clinic for medical examinations, a decrease of 1248 from last year's number. This is due to the transfer of the clinic from the Central Hospital, Floriana to St. Luke's Hospital, which involved a period of almost 3 months during which practically very little control work could be done. In view of this interruption the attendance is considered satisfactory.

157 new cases of pulmonary tuberculosis were notified during the year; these involved 624 contacts, of whom 520 (i.e. 81.7%) attended the Chest Clinic for examination. The rest for some reason or other could not attend before the end of the year.

The additional work which the X-ray Section of the Department was doing in connection with the examination of prospective migrants had reduced the facilities for X-ray examinations and in consequence only contacts of newly notified cases and other patients who on clinical examination presented some suspicious signs were X-rayed. This situation is however gradually improving, and it is hoped that the Chest Clinic will in the near future resume its full normal work.

The high response for medical examination is attributable to the propaganda being made by the Department, to the organization of the TB Service which has now gathered sufficient experience to deal with all ordinary aspects of prevention and treatment.

**X-ray Survey.** X-ray surveys have been carried out during the year under review on a group of persons selected at random from the whole population.

Out of 10,163 prospective adult emigrants who were X-rayed and 7,093 children under 12 years of age who were screened, a total of 147 doubtful cases were referred to the Chest Clinic for clinical, bacteriological investigations and diagnosis. Mycobacterium tuberculosis was detected in 30 cases, and in nearly all of these there had been no warning symptoms. A case of bronchiectasis and another suffering from lung abscess have also been found whilst in most of the other cases calcifications and fibrotic changes due to former tuberculous lesions were discovered, of these 15 only were aware of their condition and received treatment for tuberculosis, the rest never knew or suspected that they ever harboured the disease, which must have healed spontaneously.

Compared with the survey for the previous year the number of persons considered this year is more than four times as much (4,210 and 17,256 respectively). The number of doubtful cases were 48 (1.13%) and 147 (.85%) and the number of cases notified were 6 (.14%) and 30 (.17%) respectively. The above figures compare favourably with those of other countries.

**Notifications of Cases.** Notification of all new cases of respiratory tuberculosis was made compulsory as early as the year 1908, while all other forms of non-pulmonary tuberculosis were also made notifiable in the year 1949 thus bringing under potential control all forms of infection.

The valuable contribution resulting from notifications lies not only on its means of affording information for drawing epidemiological records but on the advantage it affords for early treatment and prevention work and especially for the timely examination of contacts as a matter of fact 26 cases of active Pulmonary Tuberculosis have been detected from the examination of new contacts, an increase of 11 over that of the previous year. Eleven children suffering from primary complex and tracheo-adenitis were diagnosed as compared with 12 cases of last year.

**Incidence — Future development.** As in most other countries the incidence figures is declining very slowly when compared with that of mortality. Notwithstanding the intensified case finding survey carried out during the year under review it has been ascertained that there is a decided fall in the incidence of both pulmonary and non pulmonary tuberculosis.

A feature to which some importance should be given is the incidence of tuberculosis in relation to sex and age. From Table XVIII it results that in both the male and female the highest incidence peaks are in the age groups (10-20) (21-30) (31-40) an indication that the incidence is still in the young and adult groups, whereas in other countries, where tuberculosis control was organised years before it started in Malta, the incidence has shifted to the older age group. It is the future aim of the department to achieve what has been achieved in other countries in keeping the young and adult immune from tuberculosis and shift the incidence to older age.

To achieve this first step towards eradication of the disease, preventive measures have to be strengthened, and carried out on two principal bases, the prevention of the spread of disease and the building up of the general resistance.

The main weapon in this fight are mass Radiography and B.C.G. vaccination. Mass Radiography is at present not feasible, but a good proportion of the population is being X-rayed. Pending fuller development of case finding, our service is directed towards examination of selected groups such as contacts and relatives of patients, contacts in communities, prospective teachers, nurses, police, school children as referred to us by the School Medical Officers, etc.

**B.C.G. Campaign.** The B.C.G. Campaign has been carried out as planned in the two previous years; one vaccinating team has been continuously in the field testing and vaccinating. Unfortunately this year the immunization work had to be suspended temporarily from the 8th March to 19th June, owing to an outbreak of measles epidemic, and again during the summer months when owing to excessive heat there is little response from the population. As in the other previous two years not a single complication, or any Koch phenomena has been recorded. This record has been maintained for the 3rd year running.

There has been a slight decline in the popularity of B.C.G. immunization following the mass campaign in 1950, when six teams were put in the field and 54,252 persons were tuberculin tested of whom 36,681 were vaccinated. Following this mass campaign it was proposed that a single team should continue vaccinating all round the year. This slight decline of popularity does not mean that the public has lost its enthusiasm for B.C.G. vaccination, in fact the number of B.C.G. vaccination is greater than that for diphtheria and typhoid fever.

During the years 1951-52-53-54 the number of persons tested were 10,985, 7,799, 11,735 and 7,239 respectively while those vaccinated were 8,461, 2,428, 5,201 and 5,001 respectively. The decrease in vaccination noted this year may be accounted for by the fact that the campaign had to be suspended during the measles epidemic.

The investigation carried out on 1,141 persons vaccinated during the mass campaign of 1950 has shown that only 24% of these persons are still positive reactors, which is in accordance with the general belief that B.C.G. immunisation is retained for a period of about 4 or 5 years, after which time the majority of such converters will become reverters.

This factor coupled with that of the relatively small number of vaccinations carried out during the last 3 years, has reduced the global number of persons immunized against tuberculosis and the good results achieved during the mass campaign are expected to become less apparent.

Every effort is therefore being made to encourage reverters for re-vaccination and to intensify the campaign to increase the total number of B.C.G. converters thus building up the general resistance of the children and adult group, and this not only to keep the younger population immune, but also in view of the recent statistical, and

clinical studies which are being carried out especially on the continent, where statistics tend to show that receivers of B.C.G. immunization are not liable to contract the most serious forms of tuberculosis, — miliary and disseminated nodular. We are unable to give our opinion on this point, four persons amongst those who have been vaccinated with B.C.G. since it was started in 1950, are known to have contracted tuberculosis.

B.C.G. vaccination is receiving an increasing attention in England and in other countries and later on we may be in a position to compare our observations and results with those obtaining elsewhere.

**Home Visiting.** During the year 1,409 homes were visited by the Sanitary Inspectors attached to the clinic; each household were given advice on the measures to be taken to avoid the spread of infection, on the importance of contacts to attend the chest clinic for examination, or the best way of spending subsidies and on the utility of follow up.

Gross overcrowding however still presents serious problems. There are still 67 cases who lack a separate bed-room, and 29 who share a common bed with other members of the family. Houses in general are small and overcrowded. This is prevalent among the poorer classes. The majority of the houses, however, are clean and tidy and the residents do their best with the accommodation at their disposal.

TABLE XVI

Number of Pulmonary Tuberculosis cases alive on 31st December, 1954

District	Cases	Population	%
<b>MALTA :—</b>			
Attard ... ..	11	1,515	7.26
Balzan ... ..	26	2,393	10.87
B'kara ... ..	189	18,023	10.48
B'buga ... ..	52	5,250	9.91
Cospicua ... ..	48	8,308	5.78
Dingli ... ..	8	1,053	4.84
Floriana ... ..	39	5,754	6.78
Għarghur ... ..	10	1,097	5.27
Għaxaq ... ..	16	2,721	5.88
Gudja ... ..	—	1,747	—
Gżira ... ..	94	9,228	10.19
Hamrun/Pieta ... ..	305	19,107	15.89
Kalkara ... ..	21	2,152	9.76
Kirkop ... ..	4	1,165	3.43
Lija ... ..	28	2,433	11.51
Luqa ... ..	28	4,103	6.82
Marsa ... ..	119	13,583	8.76
Mellicha ... ..	9	4,524	1.99
Mgarr ... ..	—	2,302	—
Mosta ... ..	27	7,816	2.41
Mqabba ... ..	5	2,153	2.32
Msida ... ..	77	9,083	8.50
Naxxar ... ..	30	4,042	7.42
Pawla/Tarxien ... ..	201	20,408	9.85
Qormi ... ..	90	15,318	5.88
Qrendi ... ..	9	2,253	3.99
Rabat ... ..	62	14,892	4.16
Safi ... ..	1	713	1.40
St. Julian's ... ..	44	6,700	6.57
St. Paul's Bay ... ..	10	3,475	2.88
Senglea ... ..	39	4,293	9.08
Siggiewi ... ..	24	5,002	4.80
Sliema ... ..	195	24,160	8.08
Valetta ... ..	265	19,146	13.84
Vi toriosa ... ..	42	3,664	11.46
Zabbar/M'Skala ... ..	95	12,385	7.67
Zebbug ... ..	32	8,084	3.96
Żjetun/M'Xlokk ... ..	62	13,448	4.61
Zurrieq ... ..	26	6,519	3.99
<b>Total Malta</b>	<b>2,343</b>	<b>291,502</b>	<b>8.08</b>
<b>GOZO :—</b>			
Għe'nsiela ... ..	12	1,852	6.54
Għarb ... ..	3	1,249	2.40
Għasri ... ..	2	482	4.15
Kerċem ... ..	—	1,271	—
Marsalforn ... ..	—	—	—
Mgarr ... ..	—	—	—
Nadur ... ..	17	4,186	4.06
Qala ... ..	9	1,816	4.96
Rabat ... ..	32	6,566	4.87
San Lawrenz ... ..	1	574	1.76
Sannat ... ..	2	1,751	1.14
Xagħra ... ..	4	4,028	0.99
Xewkija ... ..	16	3,274	4.76
Zebbug ... ..	6	1,236	4.85
<b>Total Gozo</b>	<b>104</b>	<b>28,285</b>	<b>3.70</b>
<b>Total both Islands</b>	<b>2,447</b>	<b>319,787</b>	<b>7.60</b>

TABLE XVII

## Distribution of New Cases of Pulmonary Tuberculosis by District.

District	Males	Females	Total
MALTA :—			
Attard	—	—	—
Balzan	1	1	2
B'kara	6	4	10
B'buga	3	—	3
Cospicua	6	1	7
Dingli	—	—	—
Floriana	2	—	2
Għargħur	—	2	2
Għaxaq	1	1	2
Gudja	—	2	2
Gżira	2	2	4
Hamrun/Pieta	14	8	22
Kalkara	—	—	—
Kirkop	—	—	—
Lija	—	—	—
Luqa	—	2	2
Marsa	6	—	6
Mellieħa	—	—	—
Mgarr	—	—	—
Mosta	1	—	1
Mqabba	1	—	1
Msida	3	—	3
Naxxar	3	—	3
Pawla	3	3	6
Qormi	12	2	14
Qrendi	1	—	1
Rabat	2	1	3
Safi	—	—	—
St. Julian's	4	1	5
St. Paul's Bay	—	—	—
Senglea	—	1	1
Siggiewi	1	—	1
Shema	4	6	10
Tarxien	—	—	—
Valletta	4	4	8
Vittorosa	—	1	1
Zabbar/M'Skala	9	5	14
Zebbuġ	2	2	4
Żejtun/M'Xlokk	4	2	6
Zurriq	1	1	2
Total Malta	96	52	148
GOZO :—			
Victoria	1	3	4
Għajnsielem	1	—	1
Għarb	—	—	—
Għasri	—	—	—
Kerċem	—	—	—
Marsalforn	—	—	—
Mgarr	—	—	—
Nadur	1	—	1
Qata	1	—	1
San Lawrenz	—	—	—
Sannat	—	—	—
Xagħra	—	—	—
Xewkija	1	1	2
Zebbuġ	—	—	—
Total Gozo	5	4	9
Total both Islands	101	56	157

TABLE XVIII  
Incidence of new cases of Pulmonary Tuberculosis by sex and age

Age Periods	Males	Females	Total
0 — 5 years	—	—	—
6 — 10 "	—	—	—
11 — 20 "	17	11	28
21 — 30 "	23	20	43
31 — 40 "	19	6	25
41 — 50 "	14	7	21
51 — 60 "	15	6	21
61 — 70 " and over	13	6	19
Total	101	56	157

TABLE XIX  
Incidence of new cases of Pulmonary Tuberculosis by month

Months	Males	Females	Total
January ... ..	7	2	9
February ... ..	7	2	9
March ... ..	11	4	15
April ... ..	8	1	9
May ... ..	8	4	12
June ... ..	9	4	13
July ... ..	8	6	14
August ... ..	5	5	10
September ... ..	6	3	9
October ... ..	9	9	18
November ... ..	12	8	20
December ... ..	11	8	19
Total	101	56	157

TABLE XX  
Mortality by age periods from Pulmonary Tuberculosis

Age Periods	Males	Females	Total
0 — 5 years	—	—	—
6 — 10 "	—	—	—
11 — 20 "	1	—	1
21 — 30 "	3	—	3
31 — 40 "	4	6	10
41 — 50 "	2	1	3
51 — 60 "	5	3	8
61 — 70 " and over	6	5	11
Total	21	15	36

TABLE XXI  
Mortality by month from Pulmonary Tuberculosis

Months	Males	Females	Total
January ... ..	2	2	4
February ... ..	3	2	5
March ... ..	4	1	5
April ... ..	1	1	2
May ... ..	1	—	1
June ... ..	3	—	3
July ... ..	—	2	2
August ... ..	1	2	3
September ... ..	1	—	1
October ... ..	1	1	2
November ... ..	4	2	6
December ... ..	—	2	2
Total	21	15	36

TABLE XXII

## Analysis of Cases and Deaths from Pulmonary Tuberculosis

Year	Estimated Population at end of year	Cases Notified	Case-rate per 1000 Population	No. of Deaths	Death-rate per 1000 Population
1947	303,998	220	0.72	161	0.52
1948	305,991	202	0.66	104	0.34
1949	310,985	228	0.73	97	0.31
1950	311,973	208	0.66	82	0.27
1951	312,446	171	0.54	68	0.21
1952	316,619	146	0.46	34	0.09
1953	317,248	177	0.55	39	0.12
1954	319,787	157	0.48	36	0.11

TABLE XXIII

## Monthly notification of Pulmonary Tuberculosis

Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1947 ...	14	17	14	21	23	24	28	17	22	10	10	20	220
1948 ...	15	10	17	18	15	17	27	18	20	13	19	15	204
1949 ...	16	10	18	20	23	12	22	27	27	16	17	20	228
1950 ...	9	20	17	15	16	17	22	30	14	20	16	12	208
1951 ...	15	12	19	13	14	10	17	19	16	11	19	7	172
1952 ...	6	13	14	8	8	14	24	13	11	14	11	10	146
1953 ...	17	13	10	11	16	8	19	26	17	22	8	9	177
1954 ...	9	9	15	9	12	13	14	10	9	18	20	19	157

TABLE XXIV

## An analysis of the sources of notification of new cases

From Hospitals	57
From Private Practitioners	53
From Chest Clinic	15
From H.M's Services	2
From Examination of Prospective Emigrants	30

157

TABLE XXV

## Synopsis of occupation of cases of Pulmonary Tuberculosis, 1954

Baker	1
Barbers	3
Carpenters	3
Charwoman	1
Clerks	8
Domestic servants	3
Draughtsmen	2
Drapers	2
Drivers	3
Factory employees	4
Farmers	3
Goldsmith	1
Hawker	1
Housewives	46
Inmates of Government and Private Institutions	2
Labourers	34
Members of H.M. Forces	4
Messenger	1
Minister of Religion and Nun	2
N.A.A.F.I. employee	1
Nurse	1
Pensioners	5
Plasterers	2
Plumber	1
Shipwrights	2
Shopkeepers	2
Stone dresser	1
Storeman	1
Students	5
Telephone Operator	1
Unemployed	11

TABLE XXVI

## Attendance at Contacts' Clinic

	MALES	FEMALES
January	314	174
February	288	169
March	179	152
April	148	117
May	183	89
June	231	154
July	273	153
August	299	181
September	333	204
October	421	263
November	451	180
December	474	242
<b>Total</b>	<b>3,594</b>	<b>2,078</b>



TABLE XXVII

## Number of Cases of Non-Respiratory and Intrathoracic Tuberculosis during 1954

Tuberculosis of the Meninges and C.N.S. ... ..	4
„ „ „ Intestines, Peritoneum & Mesenteric Glands ...	1
„ „ „ Bones and Joints ... ..	4
„ „ „ Vertebral Column ... ..	1
„ „ „ Lymphatic System ... ..	10
„ „ „ Genito-Urinary System ... ..	5
„ „ „ Pleurisy ... ..	5
„ „ „ Primary Complex ... ..	11
Total ... ..	41

TABLE XXVIII

## Home visiting — Environmental Figures

Size of families visited	Size of home visited	Room accommodation	Bed accommodation	Sanitation
3 families of 1 person	9 houses of 1 room	90 patients have their own room	128 patients have their own bed	149 clean (94·0%)
18 families of 2 persons	43 „ „ 2 rooms	(57·32%)	(81·52%)	8 dirty (5·09%)
17 families of 3 persons	49 „ „ 3 „			
25 families of 4 persons	42 „ „ 4 „	67 patients have no room of their own	29 patients have no bed of their own	
22 families of 5 persons	8 „ „ 5 „	(42·03%)	(18·47%)	
21 families of 6 persons	4 „ „ 6 „			
13 families of 8 persons	1 „ „ 7 „			
16 families of 9 persons	1 „ „ 8 „			
3 families of 10 persons				
8 families of 11 persons				

TABLE XXIX

## Home visits

District	January	February	March	April	May	June	July	August	September	October	November	December	Total
<b>MALTA</b>													
Attard ... ..	3	3	2	4	1	1	3	2	2	1	1	4	27
Balzan ... ..	4	3	3	5	2	4	6	2	1	...	2	3	35
Birkirkara ... ..	10	11	12	10	9	15	10	6	10	1	11	12	117
Birzebbuga ... ..	1	6	2	2	2	2	4	6	5	4	12	4	50
Cospicua ... ..	2	1	3	2	4	5	2	3	3	2	4	4	33
Dingli ... ..	1	2	1	...	1	...	...	...	4	...	...	...	10
Floriana ... ..	2	...	...	3	1	...	6	1	2	...	...	2	17
Gharghur ... ..	1	...	2	...	1	1	1	...	2	...	1	2	11
Ghaxaq ... ..	1	1	2	1	1	1	1	...	...	1	1	...	10
Gudja ... ..	...	...	1	...	...	1	...	1	...	...	...	...	3
Gżira ... ..	1	1	1	1	...	...	...	1	...	...	...	1	6
Hamrun ... ..	10	9	12	11	5	7	9	10	11	12	10	11	117
Kalkara ... ..	...	...	1	...	...	...	...	...	...	1	1	...	5
Kirkop ... ..	2	1	...	...	2	1	...	...	1	1	1	...	9
Lija ... ..	1	1	...	...	1	...	...	1	2	2	...	3	11
Luqa ... ..	1	2	1	...	1	2	2	1	1	2	...	1	14
Marsa ... ..	5	6	7	2	5	6	7	1	2	3	6	...	50
Mellicha ... ..	1	...	...	1	...	...	2	1	...	1	...	...	6
Mgarr ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Mosta ... ..	1	...	...	1	1	...	...	1	1	...	...	...	5
Mqabba ... ..	...	1	2	...	1	...	1	2	...	1	2	...	10
Msida ... ..	3	4	5	6	4	6	2	4	3	6	1	2	46
Naxxar ... ..	1	1	2	3	...	1	5	6	1	2	3	1	26
Pawla ... ..	6	7	6	7	9	10	10	11	10	11	6	5	98
Qormi ... ..	7	6	7	6	1	4	5	6	1	2	...	6	51
Qrendi ... ..	4	1	1	...	1	...	2	...	...	...	1	...	10
Rabat ... ..	2	4	...	6	1	2	6	...	...	1	1	...	23
Safi ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
St Julian's ... ..	1	3	6	1	...	4	6	6	...	4	6	...	37
St. Paul's Bay ... ..	1	...	...	1	...	...	1	...	...	...	...	...	3
Senglea... ..	2	6	3	4	5	...	6	7	8	...	2	3	46
Siggiewi ... ..	1	2	6	1	...	...	2	6	1	...	1	3	23
Slieima ... ..	10	9	12	23	5	6	7	10	15	10	21	20	148
Tarxien ... ..	10	6	8	9	4	...	...	2	6	11	19	...	75
Valletta ... ..	9	6	14	10	15	16	7	16	12	15	9	12	135
Vittoriosa ... ..	4	...	2	4	6	...	1	2	...	1	...	...	20
Zabbar & M'Skala ... ..	1	...	1	2	5	6	7	10	10	1	4	4	51
Zebbug ... ..	4	2	...	1	4	...	2	6	1	5	...	1	26
Żejtun & M'Xlokk ... ..	1	6	...	2	1	...	1	1	6	...	10	4	32
Zurrieq ... ..	...	6	1	2	1	...	1	...	1	...	...	1	13
<b>Total</b> ... ..	<b>114</b>	<b>117</b>	<b>126</b>	<b>133</b>	<b>100</b>	<b>101</b>	<b>125</b>	<b>127</b>	<b>122</b>	<b>101</b>	<b>134</b>	<b>109</b>	<b>1409</b>
<b>GOZO</b>													
Ghajnsielem ... ..	...	...	...	1	...	...	1	2	...	...	...	...	4
Gharb ... ..	...	...	...	...	...	...	...	...	...	...	...	...	1
Ghasri ... ..	...	...	...	...	1	...	...	...	...	...	...	...	1
Kerċem ... ..	...	...	...	...	...	1	...	...	...	...	...	...	1
Marsalforn ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Mgarr ... ..	...	...	2	...	...	...	2	...	...	...	...	...	4
Nadur ... ..	...	...	1	...	1	...	...	1	...	...	4	...	7
Qala ... ..	1	...	1	...	...	...	...	1	...	1	...	...	4
Rabat ... ..	...	2	...	3	...	1	1	...	1	...	2	4	14
San Lawrenz ... ..	...	...	...	...	...	...	...	1	2	...	...	...	3
Sannat ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Xaghra ... ..	...	1	...	1	1	...	1	1	1	...	...	...	6
Xewkija ... ..	2	2	...	...	1	...	...	...	1	...	...	...	6
Zebbug ... ..	1	...	1	...	...	1	...	...	...	...	1	1	5
<b>Total</b> ... ..	<b>4</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>7</b>	<b>5</b>	<b>44</b>
<b>Total both Islands</b> ... ..	<b>118</b>	<b>122</b>	<b>131</b>	<b>138</b>	<b>104</b>	<b>104</b>	<b>130</b>	<b>133</b>	<b>127</b>	<b>102</b>	<b>141</b>	<b>114</b>	<b>1464</b>

TABLE XXX

## Results of B.C.G. vaccination during 1954 (Malta)

DISTRICT	TUBERCULIN TESTING & VACCINATION WITH B.C.G. ADRENALIN-PIRQUET TUBERCULIN TESTING								B.C.G. VACCINATION			
	TESTED		POSITIVE		NEGATIVE		NOT-READ		GIVEN		NOT-GIVEN	
	M	F	M	F	M	F	M	F	M	F	M	F
Tarxien ... ..	187	263	28	34	139	205	20	24	138	201	1	4
Għaxaq ... ..	254	306	32	57	187	217	35	32	182	214	5	3
Gudja ... ..	83	86	29	17	41	52	13	17	39	48	2	4
Zurrieq ... ..	342	378	34	34	237	295	71	49	235	283	2	2
Marsaxlokk ... ..	42	62	10	13	27	42	5	7	26	4	1	—
Safi ... ..	34	35	7	5	25	25	2	5	25	25	—	—
Zabbar ... ..	899	963	143	202	616	624	140	119	590	641	26	1
Xgħajra ... ..	33	34	3	3	25	27	5	4	25	27	—	—
Marsaskala ... ..	49	56	4	13	36	34	9	9	35	34	1	—
Siggiewi ... ..	101	131	18	14	75	115	8	2	74	114	1	1
Żebbuġ ... ..	392	506	45	62	275	353	72	79	275	363	1	1
Birżebbuġia ... ..	285	459	53	161	213	282	19	16	210	278	3	4
Dingli ... ..	95	158	8	14	79	128	8	16	78	127	1	1
Żejtun ... ..	243	263	33	58	172	162	38	43	168	159	4	3
Gomerino ... ..	10	16	—	—	10	15	—	1	10	15	—	—
Baħrija ... ..	35	40	7	1	29	34	2	2	28	34	1	—
Mtaħleb ... ..	18	44	—	5	17	38	1	3	17	38	—	—
Qrendi ... ..	160	153	25	22	100	115	35	16	98	115	2	—
D.vid Bruce Military Hospital ...	10	3	1	1	9	2	—	—	9	2	—	—
Misce-laneou. ... ..	5	6	3	1	2	5	—	—	2	5	—	—
<b>TOTAL</b>	<b>3,277</b>	<b>3,962</b>	<b>483</b>	<b>717</b>	<b>2,314</b>	<b>2,798</b>	<b>483</b>	<b>444</b>	<b>2,264</b>	<b>2,737</b>	<b>51</b>	<b>24</b>

Total number of persons TESTED	7,239
„ „ „ POSITIVE REACTORS	1,200
„ „ „ persons VACCINATED	5,001
„ „ „ NEGATIVE REACTORS & NOT VACCINATED	75
„ „ „ persons with a NOT-READ TEST	927

TABLE XXXI

Vaccination by District during 1954 showing percentage of protected persons (Malta)

District	Eligible for vaccination	Tested	Positive	Negative	Vaccinated	%
Tarxien ...	2,523	450	62	384	389	7.46
Ghaxaq ...	4,375	560	89	404	386	11.04
Gudja ...	857	169	46	98	87	0.85
Zu rieg... ..	3,045	720	68	532	128	5.76
M'Xlokk ...	407	104	23	69	30	13.58
Safi ...	308	69	12	50	50	6.16
Zabbar ...	3,776	1,862	345	1,258	1,231	3.06
Xghajra ...	201	67	6	52	52	3.86
M'Skala ...	360	105	17	70	69	5.21
Siggiewi ...	2,202	232	32	190	188	12.29
Zebbug ...	4,116	898	107	638	638	6.04
B'Bugia ...	2,592	744	314	495	488	5.31
Dingli ...	819	253	22	207	205	3.99
Żejtun ...	5,281	506	91	334	327	16.14
Gomerino ...	158	26	—	25	25	6.36
Bahrija... ..	186	75	8	63	62	3.00
Mtableh ...	326	62	5	55	55	5.92
Qrendi ...	1,140	313	47	215	213	5.35
Total ...	32,673	7,215	1,194	5,094	4,983	6.55

TABLE XXXII

Result of B.C.G. Vaccination in Malta by Year of Birth

Year	Tested	Positive	Negative	Given
1953	50	NIL	45	45
1952	251	4	209	198
1951	312	7	252	246
1950	477	12	399	395
1949	522	20	421	413
1948	623	67	480	478
1947	689	62	539	531
1946	678	83	506	497
1945	686	107	486	484
1944	736	126	504	504
1943	460	103	293	288
1942	313	86	200	200
1941	251	57	157	157
1940	288	81	159	159
1939	173	58	87	86
1938	151	53	81	81
1937	98	38	45	45
1936	95	36	44	44
1935	53	23	23	23
1934	41	15	22	22
1933	74	17	14	14
1932	21	11	9	9
1931	22	13	5	5
1930	21	10	8	8
1929/25	55	29	22	22
1924/20	41	31	19	19
1919/15	25	19	5	5
1919/10	13	7	5	3
Age unknown	61	18	38	38
Total	7,280	1,199	5,075	5,009

TABLE XXXIII

Result of after investigation of persons vaccinated in 1950

District	Number Re-tested	Negative	%	Positive	%
Tarxien ... ..	134	117	87.3	17	12.7
Ghaxaq ... ..	187	156	83.4	31	16.6
Gudja ... ..	64	37	57.8	27	42.2
Żurrieq ... ..	161	131	81.3	30	18.7
Marsaxlokk ...	38	24	63.1	14	36.9
Safi ... ..	24	13	62.5	11	37.5
Nghina ... ..	—	—	—	—	—
Marsaskala ...	—	—	—	—	—
Żabbar ... ..	—	—	—	—	—
Siġġiewi ... ..	40	24	60.0	16	40.0
Żejtun ... ..	18	13	72.2	5	27.8
Żebbuġ ... ..	152	92	60.5	40	39.5
Birżebbuġa ...	74	42	56.6	32	43.4
Dingli ... ..	131	119	90.8	12	9.2
Gemerino ... ..	3	3	100	—	—
Mtaħleb ... ..	15	12	80.0	3	20.0
Baħrija ... ..	25	20	90.0	5	20.0
Qrendi ... ..	75	63	84.0	12	16.0
Total ... ..	1,141	865	75.8	255	24.2

TABLE XXXIV

X-Ray examination of persons prior to their employment in Government Service  
or to their admission into private institutions

Persons joining Religious orders:—

a) Priests and monks ... ..	—
b) Nuns ... ..	1
Admission of children into institutions ... ..	80
Teachers ... ..	139
Nurses and Hospital Attendants ... ..	22
Police Constables ... ..	112

### III. CHILD HEALTH SERVICE

The total number of live births for the year 1954 was 8,991 of which 4,636 were females. The birth rate was 28.11.

The total number of still-births was 194 as against 188 last year, giving a rate of 2.11 and 2.05 for both years.

TABLE XXXV

#### Age distribution of deaths in children under 5 years

Year	Under 1 month	Under 1 year including 1 month	Over 1 year under 5 years
1953	308	582	43
1954	298	602	82

Except for the neonatal deaths, both the under one year and "over one year and under five years" show an increase over last year's figures, this increase is most marked in the over one year and under five years which is almost double of the previous year, and is accounted for because of a severe outbreak of enteritis and pneumonia.

TABLE XXXVI

#### Neonatal Deaths

Cause of Death	Under 1 day	1 day	2 days	3 days	4 and under 7 days	Total under 1 week
Pneumonia ... ..	—	—	—	1	—	1
Spina bifida and meningocele ...	3	1	—	3	—	7
Congenital malformations of the circulatory system ... ..	3	1	2	—	1	7
All other congenital malformations	2	1	—	—	1	4
Birth injuries ... ..	24	2	1	—	4	31
Postnatal asphyxia and atelectasis	63	5	5	6	3	82
Diarrhoea of Newborn ... ..	—	—	—	—	3	3
Harmolytic diseases of newborn ...	—	—	1	—	1	2
All other defined diseases of early infancy ... ..	4	1	2	—	1	8
*Ill defined diseases peculiar to early infancy and immaturity unqualified ...	59	5	4	5	9	82
	158	16	15	15	23	227

\* Mostly prematurity, marasmus and congenital debility.

**Neonatal deaths.** Of the 602 infants dying in the first year of life 298 occurred in the first 4 weeks, and of these 227 died in the first week of life. Further it is of interest that 158 died in the first 24 hours and most of them only survived a few minutes. This of course is not taking into consideration the number of still-born babies for which the same factors are largely responsible. It is obvious that there is still lots to do in this direction.

TABLE XXXVII

#### Infant deaths between 1 and 12 months

Over 1 and under 3 months	Over 3 and under 6 months	Over 6 and under 9 months	Over 9 and under 12 months	Total 1 to 12 months
88	110	66	40	304

TABLE XXXVIII

## Causes of death between the age of 1 month to 1 year

*Alimentary* :—

Intestinal obstruction ... ..	1	
Gastro-enteritis ... ..	137	138

*Respiratory* :—

Lobar pneumonia ... ..	5	
Broncho-pneumonia ... ..	39	
Other unspecified pneumonias ... ..	1	
Bronchitis ... ..	28	73

*Other Infections* :—

Septicaemia ... ..	1	
Diphtheria ... ..	2	
Whooping cough ... ..	2	
Measles ... ..	3	
Cellulitis ... ..	1	9

*Congenital debility and prematurity* ... .. 37

*Asphyxia and atelectasis* ... .. 6

*Congenital malformations* :—

Spina bifida and meningocele ... ..	2	
Congenital heart ... ..	15	
Other and unspecified congenital malformations ... ..	7	24

*Accidents* ... .. 1

*Miscellaneous* ... .. 16

304

**Children above 1 year and under 5 years.** The total number of children under 5 years but above 1 year was 82, an increase of 39 over last year's figures. Most of this increase is accounted for in the group of over 1 year and under 2 years, 49 dying in 1954 as against 19 in 1953.

TABLE XXXIX

## Distribution of deaths by ages between 1 and 5 years

Over 1 and under 2 years	Over 2 and under 3 years	Over 3 and under 4 years	Over 4 and under 5 years	Total
49	16	11	6	82

TABLE XI.

## Causes of death between 1 and 5 years

*Infections :—*

Tuberculosis (non Pulmonary) ... ..	1	
Typhoid Fever ... ..	1	
Septicaemia ... ..	1	
Diphtheria ... ..	5	
Whooping cough ... ..	1	
Tetanus ... ..	1	
Measles ... ..	3	
Pneumonia ... ..	16	
Bronchitis ... ..	6	
Enteritis ... ..	14	
Nephritis ... ..	1	
	50	

*Congenital malformations :—*

Spina bifida and meningocele ... ..	3	
Congenital heart ... ..	10	13
New growths ... ..		2
Rheumatic fever ... ..		1
Asthma ... ..		2
Cholelithiasis and Cholecystitis ... ..		1
Accidents ... ..		7
Miscellaneous ... ..		6
		82

TABLE XLI

## Children's Department St. Luke's Hospital

Year	Out-patients Dept. (new patients)	Admissions to Children's Ward
1946 ... ..	513	—
1947 ... ..	665	—
1948 ... ..	757	314
1949 ... ..	880	596
1950 ... ..	950	692
1951 ... ..	1,603	763
1952 ... ..	1,122	919
1953 ... ..	1,052	894
1954 ... ..	1,257	1,112

Follow up cases in the Children's Out-Patients Department ran up to 4088 for 1954.

TABLE XLII

## Home visits by Health Visitors

Year	First Visit	Subsequent Visits	Total
1948 ... ..	8,685	24,602	33,487
1949 ... ..	7,988	21,950	29,938
1950 ... ..	7,457	21,965	29,422
1951 ... ..	7,156	21,131	28,287
1952 ... ..	7,012	19,659	26,671
1953 ... ..	6,797	18,981	25,778
1954 ... ..	4,812	13,905	18,217



TABLE XLIII

## Infant Mortality Rate over the last 20 years by month

Year	January	February	March	April	May	June	July	August	September	October	November	December	Average Rate Per Year
1935 ... ..	216.01	238.44	184.63	219.12	242.77	382.88	410.08	349.54	336.16	385.25	193.93	150.28	285.71
1936 ... ..	81.97	97.78	88.60	143.04	169.27	237.87	321.77	283.88	252.89	252.52	163.12	146.59	290.30
1937 ... ..	145.29	102.14	108.89	108.40	165.76	396.25	316.41	333.33	376.93	397.74	277.42	157.64	242.70
1938 ... ..	121.89	112.94	140.96	123.53	134.41	447.81	424.50	326.47	213.56	243.43	288.70	223.16	224.83
1939 ... ..	138.62	122.00	129.03	104.90	165.17	282.33	362.98	309.67	287.53	439.29	235.29	212.59	226.98
1940 ... ..	134.53	82.57	120.43	119.56	226.19	406.68	692.95	733.23	396.77	258.74	216.17	147.50	276.45
1941 ... ..	134.43	134.98	149.44	183.64	290.50	678.06	691.62	495.62	338.26	246.68	270.11	191.20	303.45
1942 ... ..	164.63	232.89	155.58	198.74	384.23	561.03	541.24	417.82	424.68	482.11	445.91	241.04	345.15
1943 ... ..	136.15	84.17	100.72	105.61	142.25	380.13	459.92	446.07	330.04	287.90	147.65	112.02	210.00
1944 ... ..	84.99	103.06	74.64	74.23	91.96	180.41	140.87	132.69	138.77	125.00	138.70	127.77	116.30
1945 ... ..	107.17	80.25	56.72	71.51	164.85	250.37	218.03	193.90	202.85	191.55	131.76	107.07	144.30
1946 ... ..	67.30	66.23	71.27	93.20	122.83	130.04	148.71	205.10	149.83	148.32	195.37	163.36	130.75
1947 ... ..	93.02	74.29	61.97	90.23	109.54	162.50	167.62	177.55	142.12	144.12	129.86	115.34	120.30
1948 ... ..	98.85	89.85	79.80	95.02	150.07	171.74	139.02	135.85	97.41	131.71	107.47	89.00	112.97
1949 ... ..	72.55	60.35	72.38	83.33	65.77	93.71	126.56	83.73	106.89	95.87	94.01	63.46	83.76
1950 ... ..	40.07	56.60	65.92	48.80	72.90	97.31	178.21	160.85	111.40	105.79	78.53	82.21	88.51
1951 ... ..	81.28	57.03	79.72	70.96	119.25	146.16	132.99	158.67	100.64	101.71	86.29	78.16	99.78
1952 ... ..	73.64	42.89	51.07	43.53	46.34	137.48	69.21	88.00	83.33	76.82	91.41	69.99	71.75
1953 ... ..	73.98	55.26	53.45	45.02	54.96	69.54	136.23	67.69	55.26	56.47	53.98	60.86	64.82
1954 ... ..	43.01	71.33	69.17	42.35	49.49	102.64	96.91	88.40	66.84	57.66	58.66	63.80	66.95

TABLE XLIV

## Number of deaths under 5 years of age classified by cause of death

52

DISEASES	Under 1 week	1 & under 2 weeks	2 & under 3 weeks	3 & under 4 weeks	Total under 4 weeks	4 weeks & under 3 months	3 & under 6 months	6 & under 9 months	9 & under 12 months	Total under 1 year	1 year & under 2 years	2 & under 3 years	3 & under 4 years	4 & under 5 years	Total 1 to under 5 years	Total under 5 years
T. B. of meninges and central nervous system ...	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1
Typhoid fever ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Septicaemia and pyaemia ...	—	—	—	—	—	—	1	—	—	1	1	—	—	—	2	2
Diphtheria ...	—	—	—	—	—	1	—	1	—	2	1	1	—	—	3	3
Whooping Cough ...	—	—	—	—	—	—	1	1	—	—	—	—	—	—	2	2
Tetanus ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Measles ...	—	—	—	—	—	—	—	—	3	3	2	1	—	—	3	3
Malignant neoplasm of all other unspecified sites ...	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2	2
Asthma ...	—	—	—	—	—	—	—	—	—	—	2	—	—	—	2	2
All other allergic disorders, endocrine, metabolic and blood diseases ...	—	—	—	—	—	—	1	1	—	2	1	—	1	—	2	4
Diseases of the nervous system and sense organs ...	—	—	—	—	—	—	—	—	1	1	2	—	—	—	2	3
Rheumatic fever ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Lobar pneumonia ...	1	—	—	—	1	2	2	—	1	6	1	—	—	—	1	7
Broncho-pneumonia ...	—	1	2	2	5	5	17	11	6	44	12	2	—	1	15	59
Primary atypical, other and unspecified pneumonias ...	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	1
Acute bronchitis ...	2	1	2	2	7	6	16	4	2	35	3	2	1	—	6	41
All other respiratory diseases ...	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	1
Gastritis and duodenitis ...	—	—	—	1	1	—	—	—	—	1	—	—	—	—	—	1
Intestinal obstruction and hernia ...	—	1	—	—	1	1	—	—	—	2	—	—	—	—	—	2
Gastro-enteritis and colitis between 4 weeks 2 years ...	—	—	—	—	—	38	48	36	15	137	12	—	—	—	12	149
Gastro-enteritis and colitis, ages 2 years and over ...	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	2
Cholelithiasis and cholecystitis ...	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1
Other diseases of the digestive system ...	—	—	—	—	—	—	—	—	1	1	—	1	—	—	1	2
Acute nephritis ...	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Infections of kidney ...	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1
All other diseases of the genito-urinary system ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Infections of skin and subcutaneous tissue ...	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	1
Spina bifida and meningocele ...	7	1	1	—	9	1	—	—	1	11	2	—	1	—	3	14
Congenital malformation of the circulatory system ...	5	—	—	3	8	7	3	1	4	23	4	4	—	2	10	33
All other congenital malformations ...	4	2	1	—	7	3	1	—	2	14	—	—	—	—	—	14
Birth injuries ...	31	2	—	1	34	—	—	—	—	34	—	—	—	—	—	34
Post-natal asphyxia and atelectasis ...	82	3	3	—	88	5	—	1	—	94	—	—	—	—	—	94
Diarrhoea of newborn (under 4 weeks) ...	3	1	2	3	9	—	—	—	—	9	—	—	—	—	—	9
Haemolytic diseases of newborn ...	2	—	—	1	3	—	—	—	—	3	—	—	—	—	—	3
All other defined diseases of early infancy	8	4	1	—	13	3	4	3	—	23	—	—	—	—	—	23
Ill-defined diseases of early infancy and immaturity unqualified	82	12	11	7	112	15	14	5	3	149	—	—	—	—	—	149
Motor vehicle accidents ...	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	1
Accident caused by fire and explosion of combustible material ...	—	—	—	—	—	—	—	—	—	—	1	1	1	—	3	3
Accidental drowning and submersion ...	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Foreign body entering eye and adnexa ...	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Foreign body entering other orifice ...	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
All other accidental causes ...	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1
Total ...	227	28	23	20	298	88	110	66	40	602	49	16	11	6	82	684

TABLE XLV

**Population, Live Births, Live Birth-rate, Still Births,  
Still Birth-rate by District.**

Locality	Population	Live Births	Live Birth-Rate per 1000 population	Still Births	Rate per 100 Total Births
<b>MALTA</b>					
Attard ... ..	1,515	35	23.1	—	—
Balzan ... ..	2,393	71	29.7	3	4.0
B'Kara ... ..	18,023	539	29.9	11	1.0
B'Bugia ... ..	5,250	202	38.5	3	1.5
Cospicua ... ..	8,308	277	33.3	7	2.5
Dingli ... ..	1,653	45	27.2	—	—
Floriana ... ..	5,754	150	26.1	4	2.6
Gharghur ... ..	1,897	51	26.9	—	—
Ghaxaq ... ..	2,721	94	34.5	3	3.1
Gudja ... ..	1,747	54	30.9	—	—
Gzira ... ..	9,228	301	32.6	8	2.6
Hamrun & St. Venera ...	19,197	507	26.4	13	2.5
Kalkara ... ..	2,152	94	43.7	1	1.0
Kirkop ... ..	1,165	43	36.9	1	2.4
Lija ... ..	2,433	53	20.2	2	3.6
Luqa ... ..	4,103	138	33.6	5	3.5
Marsa ... ..	13,583	347	25.5	7	3.5
Marsaxlokk ... ..	1,368	43	31.4	—	—
Mellieha ... ..	4,524	114	25.2	3	2.6
Mgarr ... ..	2,302	65	28.2	2	3.0
Mosta ... ..	7,816	197	25.2	4	2.0
Mqabba ... ..	2,153	59	22.7	2	3.3
Msida & Pietà ... ..	9,083	306	33.7	6	1.9
Naxxar ... ..	4,042	106	26.2	4	3.6
Pawla & Tarxien ... ..	20,408	593	29.0	9	1.5
Qormi ... ..	15,318	491	32.0	4	0.8
Qrendi ... ..	2,253	57	25.3	1	1.7
Rabat & Mdina ... ..	14,892	372	25.0	8	2.1
Safi ... ..	713	8	11.2	—	—
St. Julians ... ..	6,700	251	37.5	2	0.8
St. Paul's Bay ... ..	3,475	98	28.2	1	1.0
Senglea ... ..	4,293	190	44.2	4	2.1
Siggiewi ... ..	5,002	120	24.0	2	1.6
Sliema ... ..	24,160	590	24.4	15	2.5
Valetta ... ..	19,146	469	24.5	4	3.0
Vittoriosa ... ..	3,664	137	37.4	1	0.7
Zabbar & M'Scala ... ..	12,385	304	24.5	12	3.8
Żebbuġ ... ..	8,084	174	21.5	7	3.9
Żejtun ... ..	12,080	315	26.1	3	0.9
Żurrieq ... ..	6,519	227	34.8	3	1.3
<b>GOZO</b>					
Victoria ... ..	6,566	172	26.2	2	1.1
Ghajnsielem & Comino ...	1,852	42	22.7	1	2.3
Gharb ... ..	1,249	27	21.6	1	3.6
Ghasri ... ..	482	11	22.8	—	—
Keréem ... ..	1,271	24	18.9	—	—
Nadur ... ..	4,186	111	26.5	5	4.3
Qala ... ..	1,816	23	12.6	1	4.2
San Lawrenz ... ..	574	13	22.6	—	—
Sannat & Munxar ... ..	1,751	58	33.1	1	1.7
Xaghra & Marsalforn ...	4,028	92	22.8	3	3.1
Xewkija ... ..	3,274	98	29.9	4	3.9
Żebbuġ ... ..	1,236	33	26.7	1	2.9

TABLE XLVI

## Return of attendances at Child Health Clinics

Centre	No. of clinics held	NEW CASES			OLD CASES			TOTALS
				Total			Total	
		Under 1 year	Over 1 year		Under 1 year	Over 1 year		
B'Kara ...	46	136	41	177	464	30	494	671
B'Buġa ...	24	55	90	145	307	151	458	603
Floriana ...	23	71	25	96	182	17	199	295
Għargħur ...	25	22	5	27	113	12	125	152
Għaxaq ...	49	68	11	79	456	112	568	647
Gudja ...	25	27	—	27	176	61	237	264
Gżira ...	48	540	112	652	632	71	703	1,355
Kirkop ...	24	77	45	122	253	87	340	462
Lija ...	25	59	14	73	301	38	339	412
Luqa ...	26	70	25	95	275	62	337	432
Marsa ...	49	310	29	339	1,121	51	1,172	1,511
Mellieha ...	22	127	40	167	261	39	300	467
Mosta ...	49	115	30	145	764	103	867	1,012
Mqabba ...	23	52	42	94	101	55	156	250
Msida ...	48	92	—	92	1,179	275	1,454	1,546
Naxxar ...	48	78	35	113	579	63	642	755
Qormi ...	49	139	—	139	796	1	797	936
Qrendi ...	25	55	88	143	165	108	273	416
Rabat ...	48	246	67	313	535	34	569	882
Senglea ...	25	71	8	79	416	14	430	509
St. Julian's ...	51	129	64	193	132	42	174	367
Siggiewi ...	48	61	29	90	352	63	415	505
Sliema ...	46	58	10	68	353	86	439	507
Tarxien ...	48	304	162	466	1,318	323	1,641	2,107
Vittoriosa ...	24	116	81	197	21	1	22	219
Żabbar ...	48	88	—	88	484	11	495	583
Żebbuġ ...	47	138	13	151	687	76	763	914
Żorrieq and Safi ...	44	233	38	271	318	129	447	718
Total ...	1,055	3,537	1,164	4,641	12,741	2,115	14,856	19,497

## SCHOOL MEDICAL SERVICE

The School Medical Service continued to advance in conformity with the ever increasing school population. This year another School Medical Officer was appointed but this addition is hardly enough to cope with the calls made on the School Medical Officers especially in connection with entrants who very often require some medical attention. Many of the school entrants have been through the child health clinics but in the interval between these clinics and the school medical service they have not come under medical attention at all. This is unwise for between the age of two and five after which most children come under the service of the school medical service, much avoidable physical and psychological damage may be done.

**Staff.** The staff of the School Medical Service in Malta consists of:—

- \* 4 School Medical Officers
- † 2 Eye Specialists
- 2 Dental Surgeons
- 2 School Nurses
- 2 School Dental Nurses

The Education Authorities provided the following ancillary services.

1 Speech Therapist — Speech Therapy is still in its infancy but it is expected that it will develop in the near future.

2 Health Education Officers — Their function is to instruct children and parents in health education.

1 Child Welfare Officer — In charge of the provision and distribution of free milk in schools, etc.

**Medical Inspections.** The school population was 47,290 of which 7,542 were newly admitted children. 108 schools were visited and all the new entrants were medically examined. Table XLVII shows the number of children examined during the year under review.

TABLE XLVII

### Medical Inspections

No. of schools visited	Routine Medical Inspections	Special Inspections	Re-Inspections	Total
108	28,278	1,620	18,381	48,279

**Routine Medical Inspections.** Medical inspections in school premises could not always be carried out under the best conditions. The schools were not furnished with adequate facilities such as; an examination room properly equipped and suitable waiting room or accomodation for parents.

The value of periodic examinations of children is beyond question, though the intervals between examinations were in many cases too long for securing the maximum benefit.

The school medical officers examine each child at least three times in his school career:—as an infant, as an intermediate (7 to 11 years) and in the term before he leaves school. Many of the children, however, are seen much more often. All those for whom treatment has been recommended and who are having milk are re-examined periodically. Parents are invited to attend the inspections.

\* The Medical Officer of Health, Gozo, is the School Medical Officer for that Island.

† One engaged on part time basis for Gozo.

Children may also be specially examined at the request of the teachers, the parents, or, after special instruction, by the Education and the Medical Authorities.

The routine medical inspections consist of a thorough physical examination including special tests for the eyes, throat, teeth, weight, growth, nutrition etc. The doctor may recommend treatment for teeth, tonsils, vision etc. He may advise some treatment at a hospital and may recommend milk, cod liver oil, iron pills, vitamin tablets etc. in school. The hospitals or clinics furnish the school medical officers with pertinent notes giving particulars of cases referred from schools. A close co-operation between the hospital service and the school medical service is maintained as much as possible.

The defects noticed during medical inspections are always brought to the notice of the parents and subsequently followed up.

**TABLE XLVIII**  
**Children referred to Out-Patient departments of Hospitals**

Clinic	Number of Children
B. N. T. ...	451
School Dental ...	851
Ophthalmic ...	152
Skin ...	88
T.B. (Contact) ...	11
Orthopaedic ...	3
Medical ...	3
Psychiatric ...	3
Child Health ...	2
Surgical ...	1
<b>Total</b> ...	<b>1,065</b>

**Results of Medical Inspections.** The most important ailments noticed in school children were:— Malnutrition, nutritional anaemia, enlarged tonsils, adenoids, squints, defective vision, skin diseases and dental diseases.

TABLE XLIX

## Return of defects found in course of routine Medical Inspections

Defects or Diseases	No. of Defects
<i>Skin :</i>	
Ringworm (head) ... ..	75
Impetigo ... ..	60
Ringworm (body) ... ..	21
Scabies ... ..	13
Other diseases ... ..	29
<i>Eye :</i>	
Squints ... ..	117
Conjunctivitis ... ..	96
Defective vision ... ..	83
Elepharitis ... ..	38
Corneal Ulcer & opacities ... ..	6
Myopia (progressive) ... ..	2
Other diseases ... ..	27
<i>Ear :</i>	
Defective hearing ... ..	11
Otitis Media ... ..	7
Other diseases ... ..	11
<i>Nose &amp; Throat :</i>	
Enlarged Tonsils & Adenoids ... ..	757
Enlarged Adenoids ... ..	68
Other conditions ... ..	35
<i>Enlarged Cervical Glands (non tubercular):</i> ... ..	174
<i>Defective Speech:</i> ... ..	11
<i>Dental Diseases:</i> ... ..	623
<i>Digestive Tract :</i>	
Stomach ... ..	30
Intestines ... ..	—
Other diseases ... ..	3
<i>Heart &amp; Circulation :</i>	
Heart Diseases Functions ... ..	3
Heart Diseases Organic (Rheumatic) ... ..	5
Heart Diseases Organic (Congenital) ... ..	2
Anaemia ... ..	181
<i>Lungs :</i>	
Bronchitis ... ..	5
Other Diseases ... ..	5
<i>Tuberculosis :</i>	
Pulmonary (Primary Complex) ... ..	1
Non Pulmonary ... ..	—
Other diseases: Hilary adenitis ... ..	2
<i>Nervous System :</i>	
Epilepsy ... ..	6
Chorea ... ..	1
Other conditions ... ..	32
<i>Deformities :</i>	
Rickets ... ..	1
Spinal curvature (postural scoliosis) ... ..	2
Other forms ... ..	4

*Mental conditions :*

Backward ... ..	43
Dull ... ..	9
Feeble minded ... ..	4
Idiots ... ..	—
Other conditions ... ..	6

*Other diseases or defects :*

Thread worms ... ..	18
Tinea solium ... ..	3
Migraine ... ..	2
Myxoedema (Thyroid deficiency) ... ..	1
Hypopituitarism ... ..	1

**Skin Diseases.** Other skin diseases which were not specified in Table XLIX were the following :— Warts 12; urticaria 8; chilblains 4; boils 3; ichthyosis 3; leucoderma 1; dermatosis 1; erythema of legs 1; herpes febrilis 1; eczema 1; pediculosis of eyelids 1.

**Eye Diseases.** 28,704 school children (in Malta and Gozo) were examined by the Eye specialist and diseases and defects were treated by them or by the Ophthalmic Surgeon at the Government Clinic. The school medical officers gave due attention to the condition of the eyes during inspections and referred cases who needed treatment either to the Ophthalmic Surgeon or to the Out-Patients' Section of the Government Ophthalmic Clinic. 221 have applied for glasses and 119 spectacles were supplied free of charge by Government to school children. Cases suffering from squint were either dealt with surgically or advised to undergo orthoptic treatment. The number of school children operated upon for squint during 1953/54 was 10. The other eye diseases met with during inspections were : styes 16; vernal conjunctivitis 1; blindness (left eye) 1; kalazion 1; trachoma 8.

TABLE I

**School Children inspected by the Eye Specialist in Malta**

No. of children examined	Defective vision	Trachoma			Conjunctivitis		
		New	Old	Cured	New	Old	Cured
27,802	412	7	8	11	91	90	121

**Ear Diseases.** Other ear diseases not specified in Table XLIX were :— cerumen 5, deaf and dumb 2; eczema ear 1.

**Nose and throat.** Other nose and throat diseases not specified were :— rhinitis 29; cleft palate 3; harelip 1; cleft uvula 1; deviated nasal septum 1; children suffering from enlarged tonsils and adenoids were referred to the E.N.T. clinic for operation. 40 children were operated this year.

**Digestive system.** Other diseases were :— diabetes mellitus 2; para-umbilical hernia 1.

**Defective Speech.** Many of the children suffering from defective speech were dealt with by the speech therapist.

**Heart & Blood.** Parents of children suffering from heart diseases were interviewed and advised and as usual instructions were given to teachers to exclude such children from exhaustive physical training and to protect them from undue exposure to cold and overstrain. Two cases of congenital heart diseases were referred to hospital for investigation with a view to operating them. Children suffering from nutritional anaemia were given iron pills in addition to milk, cod liver oil and vitamin tablets.



**Lungs.** Other lung diseases noticed and not mentioned above were:— bronchial asthma 3; allergic asthma 1; bronchiectasis 1.

**Tuberculosis.** All T.B. contacts met with during inspections were referred to Chest clinic for examination and X-ray investigation and kept under observation. Amongst the school population there was only one case of pulmonary T.B. (Primary Complex). The two cases of extra pulmonary T.B. (Hilary adenitis) were met with amongst the contacts referred for follow up.

**Nervous System.** Other nervous diseases were: enuresis 23; birth palsy 3; post-polio paralysis 1.

**Deformities.** The other deformity not mentioned above was Genus Valgus.

**Mental conditions.** Besides the ones mentioned in Table XLIX 6 children with maladjusted and anti-social behaviour were noticed.

**Nutrition.** One of the most important health questions in the service is the problem of maintaining optimum nutrition in school children.

The assessment of nutrition was based mainly on clinical inspections aided by a comparison of the child's age, weight and height with those of the average child. The clinical examination classified the children into three categories in accordance with the state of nutrition, namely 'Good', 'Fair' and 'Poor'.

The state of nutrition was encouraging and I am to report that the incidence of undernourished children has been maintained low. This satisfactory state of affairs may be explained not on the basis of the amount of food available but on the fact that many parents, in spite of the high cost of living, have become more conscious that children need a generous diet consisting of rich food such as milk, butter, fish and meat in addition to bread, cereals, vegetables and fruits. Milk and food accessories and drugs given in schools have helped a great deal in keeping up the standard of nutrition of school children. Parents fortunately realised that fresh air and out-door activities combined with rest and sound sleep were essential factors for promoting the proper physical and mental growth of their children.

TABLE LI

**Classification of Children during Routine Medical Inspections  
according to their state of nutrition**

No. of children inspected	A. — Good (Excellent, normal)		B. — Fair (Slightly subnormal)		C. — Poor (Bad)	
	No.	%	No.	%	No.	%
26,961	24,211	91.0	2,483	8.1	267	0.9

TABLE LII

**Average state of Nutrition from 1949/54**

Nutrition	1949/50	1950/51	1951/52	1952/53	1953/54
Good ... ..	84.1 %	87.1 %	86.9 %	88.6 %	91.0 %
Fair .. ..	13.3 %	11.9 %	11.7 %	10.5 %	8.1 %
Poor ... ..	2.6 %	1.0 %	1.4 %	0.9 %	0.9 %

TABLE LIII  
 Child Welfare Scheme — Average Weights of Children  
 Age Groups 5-15 Years

Age Group	Area 1			Area 2			Area 3			Area 4		
	Stones	lbs.	ozs.	Stones	lbs.	ozs.	Stones	lbs.	ozs.	Stones	lbs.	ozs.
	Boys											
5-6 years	3	2	7	3	1	9	3	1	15	2	13	9
6-7 "	3	3	0	3	2	15	3	3	3	3	4	11
7-8 "	3	7	6	3	7	4	3	7	5	3	7	12
8-9 "	3	12	8	3	11	15	3	12	3	3	12	13
9-10 "	4	3	5	4	3	0	4	3	2	4	3	0
10-11 "	4	8	14	4	8	5	4	8	14	4	8	14
11-12 "	5	0	5	5	0	7	4	13	14	5	1	4
12-13 "	5	6	11	5	6	1	5	6	1	5	7	12
13-14 "	6	0	8	5	12	9	5	13	0	6	5	4
14-15 "	6	12	0	6	4	11	6	9	14	6	13	11
	GIRLS											
5-6 years	3	3	4	2	13	11	3	0	6	2	13	0
6-7 "	3	1	12	3	1	15	3	2	4	3	2	7
7-8 "	3	5	15	3	5	13	3	6	0	3	7	5
8-9 "	3	10	13	3	10	7	3	11	2	3	12	0
9-10 "	4	2	5	4	1	13	4	1	11	4	3	3
10-11 "	4	7	14	4	7	7	4	7	3	4	9	11
11-12 "	5	2	1	5	1	0	5	1	6	5	3	11
12-13 "	5	10	6	5	10	7	5	8	4	5	11	7
13-14 "	6	6	12	6	6	14	6	5	12	6	7	8
14-15 "	6	11	3	6	13	10	7	1	14	6	10	10

TABLE LIV  
 Average Heights of Children  
 Age Groups 5-15 Years

Age Group	Area 1		Area 2		Area 3		Area 4	
	Ft.	ins.	Ft.	ins.	Ft.	ins.	Ft.	ins.
	Boys							
5-6 years	3	7	3	7	3	6	3	6
6-7 "	3	8	3	8	3	8	3	8
7-8 "	3	10	3	10	3	10	3	10
8-9 "	4	—	4	—	4	—	4	—
9-10 "	4	2	4	1	4	1	4	2
10-11 "	4	4	4	3	4	3	4	4
11-12 "	4	5	4	5	4	5	4	5
12-13 "	4	7	4	7	4	7	4	7
13-14 "	4	9	4	8	4	8	4	9
14-15 "	4	11	4	9	4	10	4	11
	GIRLS							
5-6 years	3	8	3	6	3	6	3	6
6-7 "	3	8	3	7	3	7	3	8
7-8 "	3	10	3	9	3	9	3	10
8-9 "	4	—	3	11	3	11	3	11
9-10 "	4	2	4	1	4	1	4	1
10-11 "	4	3	4	3	4	3	4	3
11-12 "	4	5	4	5	4	5	4	5
12-13 "	4	8	4	7	4	7	4	7
13-14 "	4	9	4	9	4	9	4	9
14-15 "	4	11	4	11	4	11	4	8

AREA 1 comprises Valletta, Floriana, Msida, Gzira, Sliema, St. Julians, St. George's, Mensija, Bir-kirkara, Lija, Attard, Hamrun, Balzan, Ta' Xbiex, St. Venera.  
 AREA 2 " Marsa, Pawla, Tarxien, Ghaxaq, Marsaxlokk, Birzebbuga, Zabbar, Fgura, Zejtun, Marsaskala, Cospicua, Kalkara, Senglea, Vittoriosa.  
 AREA 3 " Gudja, Luqa, Kirkop, Safi, Zurrieq, Qrendi, Mqabba, Siggiewi, Zebbug, Qormi.  
 AREA 4 " Mosta, Naxxar, Gharghur, Rabat, Dingli, St. Paul's Bay, Mellieha, Mgarr, Mtarfa.

Weighing and measuring is very necessary to assess the health progress of children. It is a ready means whereby the interest of the children and parents is stimulated. Height-Weight Tables are kept not only by the school medical officers who register them on the medical card, but also by the officer in charge of the child welfare scheme.

**Provision of milk.** The value of milk in supplementing the diet of children is now universally recognised.

Milk is given free of charge to school children on medical, financial grounds or for other reasons. The average supply is  $\frac{1}{2}$  of a pint per child per school day. The number of school children who received milk was 11,220.

School medical officers tried very hard to explain to parents during the inspections the importance of giving milk to children in homes. Whilst parents seemed to appreciate the nutritive value of milk and showed willingness to take our advice the majority complained that because of financial difficulties they were unable to afford extra milk.

**Provision of Cod Liver Oil and other food accessories.** Cod liver oil and other food accessories were given in schools and the necessary arrangements for their distribution were made by the head teachers.

Cod liver oil was available for all children during the winter months and the average dose was one tablespoonful daily. I am glad to observe that the consumption of cod liver oil was increased thanks to the co-operation of the teaching staff. I notice with satisfaction that the largest consumers of cod liver oil were the pupils of the Infants' Schools. This is indeed most gratifying as this mostly compensates for lack of milk which is needed by all children of this age.

Special drugs such as Glutamic Acid Capsules, Pluriglandular tablets, Ascorbic Acid tablets, Vitamin K tablets were prescribed in small quantities and supplied to children suffering from diseases such as mongolism, myxoedema, glandular troubles and haemophilia.

TABLE LV

**Food accessories and drugs prescribed to children**

Cod Liver Oil	...	...	...	...	...	940 gallons
Iron tablets	...	...	...	...	...	227,500 tablets
Yeast Food tablets	...	...	...	...	...	234,500 tablets
Calcium tablets	...	...	...	...	...	316,500 tablets
D.I.T. Hair Emulsion	...	...	...	...	...	220 ounces

**Infectious and contagious diseases.** The control of the spread of infectious diseases in schools is an important function of the service. All communicable diseases were duly notified and the affected children were excluded from school for definite periods whilst contacts were also excluded.

The number of school children reported to be suffering from notifiable infectious diseases was 399.

TABLE LVI

**Notifiable Infectious Diseases found in school children**

Diseases	No. of Cases
Measles	333
Whooping cough	33
Chickenpox	16
Trachoma	7
Diphtheria	5
Undulant Fever	1
Typhoid	1
Hilary-adenitis T.B.	2
Primary complex T.B.	1

**Exemption from school.** Ten children were recommended to be exempted from school on medical grounds. These children were recommended for exemption at the request either of the Education authorities or the parents.

The establishment of a special school or special classes is badly needed as it is now a recognised fact that children with defects of certain types and certain degree of severity must receive education. Some of the children can receive education in an ordinary school if suitable arrangements are made; most of them however, must be sent to special schools.

TABLE LVII

**Physically handicapped and educationally subnormal children exempted from schools**

Ailments	Males	Females	Total
Mentally deficient ... ..	3	—	3
Educationally subnormal ... ..	1	1	2
Chorea ... ..	—	1	1
Migraine ... ..	—	1	1
Idiot ... ..	—	1	1
Primary Complex T.B. ... ..	1	—	1
Nervous & Difficult Children ... ..	1	—	1
Total ... ..	6	4	10

**Cleanliness.** Children in school maintained a very satisfactory standard of cleanliness. Routine cleanliness inspections were carried out periodically by the school nurses; they have inspected 40,022 children during the year under review. Suitable preparations and necessary advice were given to children found infested with lice.

**Diphtheria Immunization.** Prevention of diphtheria remains a paramount goal and immunization of children in schools is one of the most important activities. Every effort is being made to ensure that immunization against diphtheria is done in pre-school age and then school children receive further maintenance doses during their school life.

Inoculations against diphtheria were carried out as in previous years. The majority of children inoculated were new entrants; the relatively small number of children immunized was due to the fact that many of the children were inoculated during the pre-school age.

Refresher doses were given to children who had received the immunization three or four years previously.

TABLE LVIII

**Children immunized against Diphtheria**

Newly admitted children ... ..	7,542
Newly admitted children inoculated in school ... ..	2,277
Number of children who received a refresher dose ... ..	256

**B.C.G. Campaign.** Vaccination against T.B. has been carried out amongst school children as in previous years by a special team of vaccinators.

**School Dental Service.** The installation of the principles of oral hygiene and the control of dental diseases amongst school children is one of the principal aims of the school dental service.

Dental caries is the most serious problem in schools being the commonest of all defects in childhood and consequently steps have been taken not only to find the cause and correct teeth defects but also to prevent their recurrence.

Table LIX shows the work carried out by School Dental Surgeons.

TABLE LIX

## School Dental Clinic (Malta)

Report of work carried out from 1st October 1953 to 30th September 1954

(1)	Number inspected	...	...	...	...	...	...	4,359
(2)	Number found to require treatment	...	...	...	...	...	...	2,251
(3)	Number attended	...	...	...	...	...	...	6,381
(4)	Number sent for emergency treatment	...	...	...	...	...	...	2,628
(5)	Half days devoted to :	a) Inspection	...	...	61			
		b) Treatment	...	...	691			
					-----			752
(6)	Fillings :	Permanent teeth	...	...	818			
		Temporary teeth	...	...	46			
					-----			864
(7)	Extractions :	Permanent teeth	...	...	839			
		Temporary teeth	...	...	6,201			
		For regulation purposes	...	...	924			
					-----			7,964
(8)	Teeth extracted under General Anesthesia :							
		Permanent	...	...	44			
		Temporary	...	...	454			
					-----			498
(9)	Administration of general anesthetics :							
		Number of sessions	...	...	28			
		Number attended	...	...	95			
					-----			123
(10)	Scaling and polishing	...	...	...	...	...	...	52
(11)	Miscellaneous treatment	...	...	...	...	...	...	354
(12)	Refusals	...	...	...	...	...	...	29
(13)	Cases referred for X Rays	...	...	...	...	...	...	38
(14)	Applications for artificial restorations	...	...	...	...	...	...	49

**Physical Training.** Physical training plays an important role in the life of school children. I am glad to state that the beneficial effect of this training has contributed to the better physique that children are developing. Public interest in physical training is being stimulated and it is hoped that this subject will have a more prominent place in our schools.

**Health education.** The teaching and practice of the art of hygienic living is imparted to children and also to parents not only by the school medical officers but also by the health education officers and the school nurses.

**School Premises.** The cleanliness of the schools on the whole was very satisfactory. Lavatories and sanitary accommodation and water supply in schools were adequate but unfortunately some existing buildings fall below the ideal standard of a modern school. However it is gratifying to note that new schools are being constructed to replace the premises which are much below present day standards of hygiene. It is sincerely hoped that in the construction of a new school, building arrangements will be made for the provision of a medical inspection room and instructions to be given to teachers that such room should not, under any circumstances, be used for other purposes.

## HEALTH SERVICES

### Public Health Laboratory

The total number of samples examined and/or analyzed during the year was 18,883. These samples were submitted by the district medical officers, general practitioners, sanitary inspectors as well as by other Government Departments and the Services.

The samples examined may be classified as follows :—

Food and Drink for chemical analysis	8,361
Water from public springs	1,524
,, ,, public boreholes	179
,, ,, private tanks	306
,, ,, service mains and taps	155
,, ,, other sources	50
Food for bacteriological examination	156
Blood for serum reaction and titration	3,185
Throat swabs etc.	1,785
Urine of individuals being medically examined	705
Rats from Rodent Control Officer and Defence Services	2,112
At the request of the Customs and other Government Departments	533
At the request of the Defence Services	36
Total	18,983

## CHEMICAL SECTION

**Public Water Supply.** Samples of water were taken regularly from the various sources of water supply in different localities of the island. The water was consistently found fit, except at Birżebbuġa, during the period from the end of September to the middle of October, when several samples taken from different taps were found to contain free ammonia, and it was considered expedient to recommend boiling of the water in the Birżebbuġa area. By the 15th October the free ammonia had disappeared and water samples from taps were found to be bacteriologically free from contamination.

**Service mains and taps.** A number of samples of water, totalling 139, taken from service mains as a precautionary measure owing to the vicinity of repair, were examined for free ammonia; 31 were found to contain some traces. After complaints by tenants, 16 samples were taken from taps in different houses and submitted for laboratory examination; in all these samples the results were favourable. These, of course, do not include the samples from the Birżebbuġa area, which as already stated were found to contain free ammonia.

**Private cisterns and wells.** Out of 249 samples of water taken from private cisterns and wells, 112 samples were found to be grossly contaminated and were declared unfit for drinking, while 56 were found to be only slightly contaminated and were therefore recommended for correction with chlorinated lime; the remaining 31 samples were found free from contamination.

**Boreholes and shafts.** The number of water samples from boreholes and shafts examined this year was 179. The saline content was found to vary from 10 parts per 100,000 up to 90 parts per 100,000.

**Food and Drink.** The number of foods and drinks analysed in terms of the Food, Drugs and Drinking Water Ordinance, was 8,281. The number of the different articles analysed, with the respective number found abnormal, are shown in Table LX.

TABLE LX

## Analysis in accordance with the Food, Drugs, and Drinking Water Ordinance

Nature of sample	Number Examined	Found Abnormal	Nature of sample	Number Examined	Found Abnormal
Wheat ... ..	308	—	Salt ... ..	36	—
Bread ... ..	1,364	12	Spices ... ..	17	—
Flour and Semolina	2,299	—	Pepper ... ..	37	—
Cornflour ... ..	1	—	Aerated water ... ..	424	—
Baking Powder ... ..	5	—	Squash ... ..	4	2
Dough ... ..	5	—	Wine ... ..	353	10
Paste ... ..	745	1	Vinegar ... ..	1	—
Biscuits and Rusks ... ..	57	—	Spirits ... ..	25	—
Milk Pasteurized ... ..	18	2	Beer ... ..	25	—
Milk tinned ... ..	14	—	Eggs ... ..	30	—
Milk powder ... ..	1	—	Egg powder ... ..	1	—
Rkotta ... ..	12	—	Cheesecakes ... ..	15	—
Cheese ... ..	199	9	Tomato paste ... ..	384	17
Maltese Cheese ... ..	7	3 lots	Cereals ... ..	91	—
Butter ... ..	176	46	Dried Fruit ... ..	36	1
Margarine ... ..	277	—	Chestnuts etc. ... ..	6	—
Lard ... ..	467	1	Jam ... ..	1	—
Oil ... ..	177	—	Food Colour matter ... ..	2	—
Rice ... ..	185	—	Meat preparations ... ..	77	—
Tea ... ..	93	—	Fish preparations ... ..	29	1
Coffee ... ..	90	—	Sauce ... ..	8	—
Cocoa ... ..	1	—	Miscellaneous ... ..	10	—
Onion ... ..	7	—			
Sugar ... ..	103	—	Total ... ..	8,367	105
Confectionery ... ..	140	—			

**Pharmacy Inspection.** All the pharmacies in Malta and Gozo were visited during the year conjointly with a Medical Officer of Health, in accordance with Section 36, Chapter 51, of the Laws of Malta.

**Officer in charge Supplies, Medical & Health Department and Commissioner for Gozo.** The Officer i/c Supplies sent various samples, mostly foodstuffs for examination for fitness or quality. The number totalled 338, of which 304 were ground coffee, one being found to be adulterated with starchy matter, and 8 were samples of dried peas, three being found stale. The Commissioner for Gozo, likewise, sent some food samples, 52 in all, for examination, of which 42 were ground coffee, four being found to be adulterated with starchy matter.

**Medical Officer of Health.** A case of food-poisoning at Mosta was investigated by the Medical Officer of Health for the district, who sent broth soup for examination. No pathogenic organisms were grown, however, and no metals were isolated.

**Government Departments.** It is the practice with Government Departments to avail themselves of the laboratory services whenever they have materials requiring some sort of chemical analysis. As the laboratory is a Public Health one, the P.L.O. is looking forward to an organization in staff and equipment which will extend the scope of its utility. This year samples were analysed on behalf of the Police, the Food and Commerce Control Office, the Customs, the Agriculture Department, the Public Works Department and the Milk Marketing Undertaking. The Defence Services also made use of our laboratory. The Chief Inspector Officer at the Aeronautical Inspection Service, Safi, sent 18 samples of distilled water which were analysed according to the R.A.E. Chemistry Notes for requirements for purity and out of which one was found not to conform with the required standards. On behalf of the R.A.F. again, leaves taken in conjunction with the S.H.O. from carob trees in the vicinity of an Air Ministry asphalt mixer at Hal Farruġ, were found to be covered with dust containing carbon and hydrocarbons.

From the Army Headquarters, various articles of food and drink (whisky, brandy, aerated waters and one box ration pack) were received for examination. Two of the aerated waters were found to be opaque owing to organic matter and undissolved colouring matter in suspension. From the same Headquarters a sample of stomach washings and one sample of urine were received in connection with a case of suspected poisoning with barbiturates. Marshall's method of analysis for barbiturates was used, with negative results as for the stomach washings, and with positive results as for the urine.

## BACTERIOLOGICAL SECTION

The Bacteriological Section of the Public Health Laboratory performed clinical tests and investigations for general practitioners, and carried out frequent and regular examinations of the sources of water-supply as shown in Table LXI. Bacteriological examinations were also carried out in connection with food poisoning and also for testing the purity of ingredients used in the preparation of ice-cream, cheese and other food-stuffs. Many specimens were submitted for bacteriological examination from hospitals and other Government Departments.

**Agglutination reactions.** 3,154 samples of blood sera were submitted for agglutination test against the causative microorganism of typhoid and undulant fever by the slide method. The results are given in Table LXI hereunder:—

TABLE LXI  
Results of Examination of Blood for Undulant and Typhoid Fever

	Positive reactions against <i>Br. melitensis</i>			Positive reactions against <i>Salm. typhi</i>			Negative Reactions	Total No. of Tests
	Malta	Gozo	Total	Malta	Gozo	Total		
January	19	2	21	1	1	2	111	134
February	15	7	22	3	—	3	106	131
March	25	13	38	2	2	4	165	207
April	35	11	46	2	—	2	163	211
May	41	19	60	3	1	4	203	267
June	47	18	65	7	2	9	250	324
July	78	23	101	10	1	11	342	454
August	54	12	66	8	2	10	297	373
September	53	8	61	28	4	32	322	415
October	26	8	34	13	8	21	202	257
November	21	2	23	12	1	13	185	231
December	28	2	30	6	4	10	110	150
Total ...	442	125	567	95	36	131	2,456	3,154

In 31 other cases complete titrations were carried out and test was repeated in certain cases to observe changes in titre. In 2 of such cases positive results were obtained against *Brucella Melitensis*, in 8 cases against *Salmonella typhi*, and in 11 cases against *Proteus O X 91*.

**Abscesses.** Out of six samples of the contents of abscesses, one showed the presence of *Staphylococcus aureus*, one of *Bacterium coli* and one of *B. proteus*.

**Pleural fluids.** Out of two samples of pleural fluids submitted, which were examined by cultural and animal inoculation tests, the *Mycobacterium tuberculosis* was detected in one.

**Cerebrospinal fluids.** Seven samples were examined. *Neisseria meningitidis* was isolated in 2 cases.

**Diphtheria Control.** In connection with measures to control diphtheria 1,585 swabs were examined throughout the year. The purpose of this procedure is to confirm bacteriologically every case remitted to the Isolation Hospital in Malta and Gozo, and not to discharge the patient from isolation before at least two consecutive swabs have failed to show the presence of *Corynebacterium diphtheriae*.

In special circumstances when the contacts of a case were engaged in occupations making them unusually liable to spread the infection, these contacts were also swabbed. Out of 207 thus examined 7 were found to carry *Corynebacterium diphtheriae*...

Virulence tests were carried out when *Corynebacterium diphtheriae* was isolated from discharging ears, and also in cases of diphtheria which yielded a positive result in spite of intensive treatment and when the patient was declared to be clinically cured.

A diagnostic service for medical practitioners is also provided free of charge.

Details of the number of examinations carried out are given in Table LXII.



TABLE LXII

Results of examination of Swabs for *C. Diphtheriae*

Swabs	Onset of Disease			Period of Convalescence										Swabs from Contacts	Swabs from Practitioners	Total
	1st	2nd	3rd	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th			
Positive ... ..	54	6	2	24	14	8	10	8	6	3	4	4	—	7	22	172
Negative ... ..	180	259	221	154	132	54	32	24	20	17	6	4	8	200	102	1,411
Total ... ..	234	265	223	178	146	62	42	32	26	20	10	8	8	207	124	1,585

**Faeces and Urine.** Out of 6 samples of faeces examined, coming from convalescent cases of typhoid fever, no pathogenic organisms were cultivated.

Four catheter samples of urine were received for bacteriological examination. In one *B. faecalis alkaligenes* was cultivated and in another gram negative cocci were isolated.

In connection with the medical examination of candidates for Government appointments 705 samples of urine were examined; 16 showed the presence of albumin and 1 contained glucose.

**Food poisoning.** In connection with two suspected cases of milk poisoning, 6 different samples of goat's milk were examined. In one case the *Staphylococcus aureus* was cultivated and the sample contained pus as well. The goat was found to be suffering from mastitis.

In connection with 2 cases of ice-cream poisoning three samples of ice-cream were examined with negative findings.

Another case of food poisoning due to ingestion of Roman cheese was investigated. No pathogenic bacteria were isolated and the poisoning was due to the presence of thyrotoxin in the cheese.

In connection with another case of food poisoning 2 samples of preserved meat and a tin of condensed milk were examined with negative results.

Meat soup and a sample of aerated water were examined in connection with another case of poisoning. No pathogenic organisms were isolated.

Pork sausages were examined with negative findings in connection with another case of poisoning.

A sample of cooked pork was submitted in connection with a case of food poisoning in one family. The *Shigella Boyd II* was cultivated.

A piece of Christmas cake was examined in connection with another case of food poisoning but no bacteria were cultivated.

**Tuberculosis.** 215 sputa were examined. Sixty-six samples revealed the presence of *Mycobacterium tuberculosis* on direct examination.

8 samples of gastric washings were examined by guinea-pig inoculation and cultural methods for the presence of *Mycobacterium tuberculosis*. The tubercle bacillus was isolated from one case.

**Ice-cream.** Samples of ice-cream were submitted to the laboratory and were examined by the methylene blue test for grading from the hygienic standpoint. 117 samples were examined. Of these 88 were found to be Grade 1, 17 were found to be Grade 2 (satisfactory) and 12 failed to reach the necessary standard.

**Malaria.** On four occasions blood smears for malaria were examined with negative results. No cases of suspected local origin were reported during the year.

**Leprosy.** Two nasal smears and two smears from a skin slit were examined for the presence of *Mycobacterium leprae*. Hansen's bacillus was detected in one nasal smear and in its corresponding skin slit smear.

**E.N.T.** Five swabs were submitted from cases of ear discharge for the isolation of the responsible microorganisms and their sensitivity to sulphathiazole, aureomycin, terramycin, chloromycetin, streptomycin and penicillin.

**Miscellaneous.** Four swabs from discharging sinuses were submitted for the isolation of the responsible microorganisms and their sensitivity to the antibiotics commonly used.

Two smears from cases of urethral discharge were submitted and one revealed the presence of *N. gonorrhoeae*.

One bone-marrow smear was submitted for examination and *Leishmania donovani* detected.

Samples of ham, brandy and lemonade were examined for the presence of bacteria with negative findings.

A spleen and a lymph gland of a pig were submitted from Government Experimental Farm at Ghammieri. Samples were examined for presence of acid fast bacteria with a negative result. A sample of raw cow's milk was submitted from Ghammieri to exclude tuberculous mastitis in a cow. No pathogenic organisms were isolated.

**Milk and Fresh Cheese.** A full bacteriological examination of pasteurized milk is carried out weekly. In all 15 samples of milk were thus examined. The tests are:—

- i) Estimation of the number of viable bacteria per mil.
- ii) Presence of *B. coli*.
- iii) Methylene blue tests.
- iv) Presence of pathogenic bacteria.

All samples were found to fulfil the required standards and no pathogenic bacteria were isolated.

Ten samples of fresh cheese were examined to exclude the presence of *Brucella melitensis*. All samples were found fit for consumption and no pathogenic bacteria were isolated.

**Plague.** No cases of suspected plague were reported during the year. Dead rats and mice were examined for any suspicion of plague infection. The rats were submitted by the Rodent Control Officer and by the Services — none showed any suspicious signs of the disease. The number and species of the rats is shown in Tables LXIII and LXIV.

**TABLE LXIII**  
**Number and species of rats examined (Civil).**

Month	Rattus Norvegicus	Rattus Frugiverus	Rattus Rattus	Mus Musculus	Total	Found infected
January ...	58	7	—	10	75	Nil
February ...	79	—	—	2	81	Nil
March ...	46	2	—	—	48	Nil
April ...	40	—	—	—	40	Nil
May ...	68	—	—	1	69	Nil
June ...	208	—	—	5	213	Nil
July ...	71	—	—	2	73	Nil
August ...	91	—	—	9	100	Nil
September ...	56	1	—	6	63	Nil
October ...	120	5	—	2	127	Nil
November ...	229	5	—	8	242	Nil
December ...	184	4	—	7	195	Nil
Total ...	1,250	24	—	52	1,326	Nil

**TABLE LXIV**  
**Number and species of rats examined (H.M. Dockyard and Services).**

Month	Rattus Norvegicus	Rattus Frugiverus	Rattus Rattus	Mus Musculus	Total	Found infected
January ...	18	2	107	8	135	Nil
February ...	5	—	47	8	60	Nil
March ...	9	25	23	10	65	Nil
April ...	4	8	26	4	42	Nil
May ...	8	1	22	5	36	Nil
June ...	6	1	59	29	95	Nil
July ...	5	2	22	11	40	Nil
August ...	9	25	16	4	54	Nil
September ...	23	7	41	22	93	Nil
October ...	9	11	29	28	77	Nil
November ...	13	4	31	11	59	Nil
December ...	9	2	12	7	30	Nil
Total ...	118	86	435	147	786	Nil

TABLE LXV

## Bacteriological Examination of Water.

Springs, etc.	Probable number of coliform organisms in 100 ml. of sample (McCready's Tables)								Total number of samples tested
	Nil	3 to 10	11 to 20	21 to 30	31 to 40	41 to 50	90	180	
Malta:									
Fawwara (Qrendi) ... ..	52	...	...	...	...	...	...	...	52
Buskott (Siggiewi) ... ..	52	...	...	...	...	...	...	...	52
Ghajn Qajjed ... ..	52	1	...	...	...	...	...	...	53
Ghajn Tuffieha ... ..	52	...	...	...	...	...	...	1	53
Mellieha ... ..	52	1	...	...	...	...	...	...	53
Gozo:									
Ghajn Abdul ... ..	26	...	...	...	...	...	...	...	26
Ghar Ilma ... ..	26	...	1	...	...	...	...	1	28
Marsalforn ... ..	26	2	...	...	...	...	...	7	35
Mgarr ... ..	26	1	...	...	1	...	...	2	30
Mgarr Tax-Xini ... ..	26	1	...	...	...	...	1	7	35
Pumping Stations:									
Wied il Kbir ... ..	52	...	...	...	...	...	...	1	53
Tal Hlas ... ..	52	...	...	...	...	...	...	1	53
Dingli Road ... ..	52	...	...	...	...	...	...	...	52
Ta' Qali ... ..	52	...	...	...	...	...	...	...	52
Wied il Ghasel ... ..	52	...	...	...	...	...	...	...	52
Ta' Kandia ... ..	52	...	...	...	...	...	...	...	52
Wied Dalam ... ..	16	1	...	...	...	...	...	1	18
Reservoirs:									
Schinas ... ..	52	...	...	...	...	...	...	...	52
Luqa ... ..	52	...	...	...	...	...	...	...	52
Gnaxaq ... ..	52	...	...	...	...	...	...	...	52
Ta' Qali ... ..	52	...	...	...	...	1	...	1	54
Taps:									
Valletta ... ..	52	...	...	...	...	...	...	...	52
Floriana ... ..	52	1	1	...	...	...	...	...	54
Hamrun ... ..	52	...	...	...	...	...	...	...	52
Sliema ... ..	52	...	...	...	...	...	...	...	52
Msida ... ..	52	...	...	...	...	...	...	...	52
Cospicua ... ..	104	...	...	...	...	...	...	1	105
Qormi ... ..	52	...	...	...	...	...	...	...	52
Zebbug ... ..	52	...	...	...	...	...	...	...	52
Zejtun ... ..	52	...	...	...	...	...	...	...	52
Birzebbugia ... ..	24	3	1	3	3	3	3	2	42
Total ... ..	1,470	11	3	3	4	4	4	25	1,524

## ENTOMOLOGICAL SECTION

The Laboratory is interested also in entomological research.

**Kala-Azar.** During the year 44 premises scattered throughout the Island, where cases of Kala-Azar had occurred, were visited by one of the Medical Officers from the laboratory, who succeeded to detect the *Phlebotomus Pappatasii* in three of the buildings.

**Flea-Index.** In the campaign by the Rodent Control Officer and the Defence Services, against rats and plague, 128 live rats were submitted for flea-indexing. From this number of rats 123 fleas were collected and classified as follows: 36 *Xenopsylla*, 51 *Laptosylla*, and 36 *Ctenocephalus*.

**Termites.** The Naval Medical Officer of Health, Mediterranean, sought the opinion of the laboratory on ant-like insects which were destroying woodwork at one of the naval residences at Ta' Xbiex; the insects were identified as white ants (termites).

## PORT HEALTH SERVICE

The number of ships and aircraft inspected during the year under review was 1714 and 490 respectively as against 1636 and 1546 respectively during the previous year. The decrease in the number of aircraft inspected is due to the fact that service chartered aircraft, usually carrying troops, aircraft carrying passengers in transit, and aircraft coming from healthy areas have not been subjected to medical inspection.

During the year under review there were no major epidemics abroad which threatened directly the health of the population of these Islands. Nevertheless, owing to sporadic cases of smallpox, typhus and relapsing fever in North Africa and the Near East, constant vigilance had to be kept all the year round as passengers arrived here within incubation period of the disease.

One passenger arriving by air was suffering from poliomyelitis and was accommodated at the Quarantine Station during his stay in Malta. This passenger was travelling from Abyssinia to London and in transit through Malta. Various other cases of infectious diseases were landed from ships but the more frequent were measles and chickenpox. The cases of infectious diseases of passengers in transit, excluding venereal diseases, were tuberculosis of the lungs, followed by measles, chickenpox and mumps in the order stated.

The use of wireless telegraphy by ships of various nationality asking for medical advice has been on the increase. Prompt action has been invariably taken and in most cases ships have been able to proceed to their destination without interrupting their voyage. Several patients were also landed for hospital treatment in Malta as a result of this service.

The frequent visits of naval vessels of the N.A.T.O. powers have necessitated the occasional boarding of foreign men-of-war for purposes of pratique.

The number of passengers (excluding service personnel and passengers in transit) arriving in Malta by sea was 11,085 and by air 24,208, amounting in all 35,293. Out of this total, 1,093 passengers were served with a warning for medical surveillance and 789 were served with the notice advising them to report to a medical practitioner immediately if they felt unwell.

The Port Sanitary Inspector paid various visits of inspection on board ships and advised about sanitary accommodation. He also kept under constant supervision for hygienic purposes, bonded stores, warehouses and the other establishments for the storage of foodstuffs in the harbour area. Samples were regularly taken and submitted to the laboratory of the Department for examination. Regular inspections were also carried out at the Luqa Air port and the restaurant at the terminus which is frequented by passengers and air-crews.

A summary of the work performed by the Port and Airport Health Staff during 1954 is shown in Table LXVI.

## TABLE LXVI

## Summary of work performed by the Port Health Staff in 1954

Ships inspected in all the harbours	1,714
Ships inspected in the Grand Harbour	1,560
Ships inspected at Marsaxlokk Bay	72
Ships inspected at Marsamxett Harbour	78
Ships inspected outside harbour	4
Aircraft dealt with by the Port Medical Officers	490
Ships inspected and admitted to pratique	1,710
Ships inspected and kept in quarantine	4
Ships having or having had infectious diseases on board	28
Aircraft having infectious diseases on board	1
Number of cases of infectious diseases on board	48
Number of cases of infectious diseases disposed of prior to arrival	6
Number of cases of infectious diseases landed at Malta	11
Passengers arriving (by sea) served with warning for surveillance	763
Passengers arriving (by air) served with warning for surveillance	330
Passengers arriving (by sea) served with Notice re infectious disease	295
Passengers arriving (by air) served with Notice re infectious disease	494
Passengers kept under surveillance inspected at the Port Health Office	38
Inspections of imported fish	159 tons
Ships partially disinfected	10
Ships, lighters and other craft inspected by the Port Sanitary Inspector	1,632
Certificates re Hay, Straw and Cotton seed, examined	7
Certificates re Tomatoes examined	55
Certificates re Lard examined	48

## Foodstuffs etc. examined by the Port Sanitary Inspector :—

Preserved Fruit	1,700 lbs.
Preserved Vegetables	10,300 lbs.
Tinned Meat	22,114 lbs.
Frozen Meat	1,500 lbs.
Pigs Feet	1,700 lbs.
Fats	5,667 lbs.
Soups	3,950 lbs.
Tinned Fish	6,208 lbs.
Tinned Milk	17,803 tins
Sugar	2,400 bags
Jams	4,042 lbs.
Biscuits	5,480 lbs.
Chocolate & Sweets	5,116 lbs.
Coffee	4,578 lbs.
Oatmeal	1,247 lbs.
Flour	7,140 lbs.
Rice	1,700 lbs.

## FREE IMMUNIZATION SERVICE

As in previous years the service was under the direction of a medical officer assisted by two sanitary inspectors and one nurse, in addition the help of the sanitary inspector and the health visitor of the particular town or village was also available.

The team visited towns and villages in rotation and offered free immunization against typhoid fever and diphtheria as well as B.C.G. vaccination. This work was mostly carried out at Government Schools for school children and adults. Whenever possible private schools were also visited.

The sanitary inspector attached to the team called on the headteacher of the local schools of the district which it was intended to visit and explained the nature of our work. The Reverend Parish Priests were also contacted and their co-operation solicited so as to make the session of immunization in each district a success.

A few days prior to starting immunization in each district the Mobile Cinema van of the department visited the district in the evening and exhibited films with a running commentary to emphasize the value of immunization to the public.

The sanitary inspector of each district also carried out house visits explaining the value of immunization to parents and handing out to them cards for all those children requiring immunization.

The health officers of the Education Department likewise extended their co-operation by explaining the nature of our work to teachers, parents and the older school children.

Immunization against tuberculosis and typhoid or diphtheria were mostly carried out on alternate weeks. During B.C.G. vaccination the first three days of the week were spent in testing with the Adrenaline Von Pirquet method and the following three days to vaccinating with B.C.G. all the negative reactors (less than 3mm infiltration). The age groups involved were from 1 year to 18 years. The dose given was 0.1cc of a fresh suspension of B.C.G. bacilli prepared at the State Serum Institute of Denmark.

As regards diphtheria children from 6 months to 7 years were given two injections of 0.5cc A.P.T. with an interval of 4 weeks between the first and the second dose.

Inoculations against typhoid were carried out with anti-typhoid paratyphoid A.B.C. Vaccine (T.P. 3) and were given to children and young adults from 8 to 21 years. The initial dose for children was 0.2 — 0.3cc and the second dose after an interval of 4 weeks was 0.4 — 0.6cc. In young adults the initial dose was 0.4cc and the second inoculation was 0.8cc given after the same interval as in children.

During 1954 the total attendance for diphtheria was :—

1st Dose	3133
2nd Dose	2028

giving a 21.9% of immunized children in the towns and villages visited by the team. 80 children were given a 'booster' dose and 129 others attended but were found unfit for vaccination.

During the same year the anti-typhoid totals were :—

1st Dose	3274
2nd Dose	2553

giving a percentage of 27.4 in towns and villages visited by the vaccinating team.

The above figures are in addition to the figures given in previous reports and do not include children inoculated by the school medical officer, child health officer and 154 children inoculated by private practitioners.

**B.C.G.** During the same year 7,239 persons were tested with the Adrenaline Von Pirquet method and out of these totals 5,001 were vaccinated with B.C.G., being negative reactors, 1,200 were positive reactors, 927 failed to present themselves for assessment of the test and 75 negative reactors refused vaccination.

The figures for anti-typhoid showed a rise of 325 and those for diphtheria a favourable rise of 445 over the 1953 figures.

The figures for B.C.G. showed a decrease from the previous year's; the number of people tested with Adrenaline Von Pirquet was 4520 less and the number of vaccinated was 218 less than the 1953 figures. This can be accounted for by the fact that from March 8th to June 19th 1954 B.C.G. vaccination had to be suspended due to an epidemic of measles. It is a well known fact that diseases such as measles have the effect of temporarily inverting reactors to tuberculin into non-reactors and therefore no vaccination can be carried out as the testing is unreliable.

The increasing interest being shown in Britain as regards B.C.G. was also reflected locally by the fact that we were asked by the R.A.M.C. at Mtarfa to test and vaccinate thirteen adults of whom 11 were B.C.G. vaccinated and two were positive.

Two twin babies at 3 months of age whose mother was tuberculous were also tested and B.C.G. vaccinated at Mtarfa after being isolated from the mother. About 8 weeks after B.C.G. vaccination the babies were re-tested and found to be positive.

Tables LXVII & LXVIII show the areas visited by the team and the number of persons inoculated. The figures showing the result of B.C.G. vaccination is given in Table XXXII.

TABLE LXVII  
Typhoid Immunisation

DISTRICT	No. of Persons Registered	1st Dose	2nd Dose	Refresher Dose	Ex-Patient	Unfit for Vaccination	% Immunised
Attard ... ..	393	82	72	—	—	2	19.8
Lija-Balzan ... ..	1,054	217	209	—	—	8	19.8
Kalkara ... ..	293	223	172	—	—	20	58.7
Cospicua ... ..	1,202	909	727	—	—	33	60.4
Mqabba ... ..	512	170	129	—	—	10	25.1
Mgarr ... ..	200	258	148	—	—	10	74.0
Senglea ... ..	804	192	153	—	—	—	19.0
Prince Albert Town ... ..	54	25	18	—	—	5	46.2
St. Julian's ... ..	1,498	431	371	—	—	9	24.7
Luqa ... ..	812	117	45	—	—	2	5.5
Gharghur & Mgħatab ... ..	441	167	122	—	—	—	27.6
St. Paul's Bay ... ..	500	309	244	—	—	3	48.8
Naxxar ... ..	1,184	174	143	—	—	3	12.0
Total Malta ... ..	8,957	3,274	2,553	—	—	105	27.4

TABLE LXVIII  
Diphtheria Immunisation

DISTRICT	No. of Persons Registered	1st Dose	2nd Dose	Refresher Dose	Ex-Patient	Unfit for Vaccination	% Immunised
Msida ... ..	650	148	106	—	—	6	16.3
Gzira ... ..	1,215	199	158	8	—	5	13.0
Qormi ... ..	732	619	318	40	—	19	43.4
Attard ... ..	197	40	34	—	—	4	17.2
Lija-Balzan ... ..	562	47	38	1	—	2	6.9
Kalkara ... ..	175	137	81	—	—	4	46.3
Cospicua ... ..	943	400	246	—	—	—	26.0
Mqabba ... ..	409	165	127	18	—	12	35.4
Mgarr ... ..	190	257	101	2	—	2	54.0
Senglea ... ..	822	162	120	—	—	1	14.5
Prince Albert Town ... ..	54	29	25	—	—	3	46.2
Luqa ... ..	718	63	9	3	—	9	1.5
St. Paul's Bay ... ..	356	231	180	—	—	23	50.5
Gharghur ... ..	339	146	115	—	—	—	33.9
Naxxar ... ..	875	159	115	1	—	18	13.1
St. Julian's ... ..	1,356	331	255	7	—	21	18.8
Total Malta ... ..	9,593	3,133	2,028	80	—	129	21.9



## PUBLIC CLEANSING SERVICE

This service carried out its activities under the usual difficulties resulting from indifferent cooperation by a section of the public. The problem of maintaining our streets clean would be easily solved if all citizens took an active interest in keeping their streets and open spaces clean. We are doing our utmost to cultivate a sense of civic pride amongst the inhabitants of these Islands and although many of them have now been imbued with this sense others have remained sadly unresponsive.

During the summer period a new and sufficient system was introduced to keep the beaches clean and tidy. A motor-truck and a flying squad of scavengers was detailed for the specific purpose of cleaning beaches in rotation or as necessary. Very good results were obtained and the recurrent complaints from the public in this connection were virtually eliminated.

Towards the end of the year a new service for the free emptying of cesspits was introduced. This service is working smoothly and efficiently and, coupled with the service already in existence for the removal of slop-water it has helped in no small degree in reducing complaints from those localities not yet connected with the main sewer.

No efforts were spared to raise the standard of public cleanliness in the island. In this respect the service depends for its smooth-running and stable success on many factors, ranging from efficient supervision and direction of the personnel concerned, to effective co-operation from the public. However, we would welcome an active and more practical interest by the public with regard to urban cleansing. This is not only desirable but a necessity which is not yet fully appreciated.

**House-Refuse Collection Service.** The daily collection of house-refuse was regularly carried out while the removal of ashes and other rubbish from Military Areas also continued to be regularly performed as formerly.

The Pulverising Plant in the Refuse Disposal Centre started functioning to full capacity towards the end of the year and it is hoped that this will render possible the treatment of most of the collected house-refuse to the greater benefit of local farmers to whom the resulting material is sold at a minimum price as manure.

The following by-products were taken from the house-refuse, collected during the year, which amounted to 11,587,396 tons:—

Pulverized manure	...	...	...	...	7,776 tons
Scrap-paper	...	...	...	...	285 tons
Waste cardboard	...	...	...	...	37 tons
Firewood	...	...	...	...	14 tons
Rags	...	...	...	...	13 tons
Scrap-iron	...	...	...	...	45 tons
Glass-bottles	...	...	...	...	1 ton

The by-products were sorted out, treated and disposed of on the local market for £2,958. 2s. 10d. Fees raised paid for the use by private parties of the weighbridge installed at the Refuse Disposal Centre amounted to £408. 10s. 1d. From the sale of by products, left over from last year, and collected during the year and from weighbridge fees a total of £3,366. 12. 11 was realized as detailed hereunder:—

Pulverized manure	...	...	...	7,691 tons for	£1,923. 6. 9
Scrap-paper	...	...	...	285 " "	279. 9. 4
Waste cardboard	...	...	...	37 " "	105. 7. —
Firewood	...	...	...	12 " "	63. 6. —
Rags	...	...	...	13 " "	61. 2. 6
Scrap iron	...	...	...	85 " "	506. 2. —
Glass-bottles	...	...	...	2 " "	18. 9. 3
Weeds and wild grass (small quantity)					1. — —
					£2,958. 2. 10
Weighbridge fees	...	...	...	...	408. 10. 1
					£3,366. 12. 11

3,434 tons of other refuse of no value were disposed of at Luqa Dump while 316 tons of glass-bottles were supplied to the Medical store.

**Maintenance of Public Conveniences.** The up-keep of public conveniences continued to receive the usual attention during the year.

Two new modern latrines for women were opened at Kingsgate and at Mellieħa respectively, while a new latrine for men was also opened at Mellieħa.

The beach latrines at Sliema, St. Paul's Bay, Armier and Ghadira were opened as formerly during the summer months, and were duly attended by caretakers.

#### RODENT CONTROL

The control of the rat infestation and the keeping down of the rat population within a reasonable limits, remains inevitably one of the activities of the Medical and Health Department. These activities were carried out by the Rodent Control Service.

During the year under review Rodent Control has followed the established method of laying plain baits for several days, to accustom the rat to eat with confidence, and then to add poison to the bait, preferably zinc phosphide. Arsenic red squill powder and alpha-naphthyl-thio-urea were however also used with good results. When an area has been successfully treated the department instructs owners of defective premises to render their property rat-proof. The public are continually advised, through propaganda talks by the Rodent Control Officer or through personal contact on the approved methods of destruction of rats.

During the year 17,017 complaints were received about rat infestations, and 2,566 about mice infestations. Poison bait was supplied free by the rodent control service. From information received it was calculated that the poison thus supplied to householders had accounted for 16,143 dead rats and 2,771 dead mice.

During the year 36 towns and villages in Malta and Gozo received regular deratting treatment, while the sewers in Valletta and Floriana in Malta, and Victoria and Ghajnsielem in Gozo were also treated regularly at six months interval.

Rodent control squads inspected 35,938 premises for signs of rat infestation. Out of this total 8,776 premises were found to require deratting.

Rodent operators called the attention of the Sanitary Inspector to all cases of premises which, in their opinion, required rat-proofing, and to accumulations of rubbish which needed removal.

The incidence of murine typhus showed an increase over that recorded in the previous year. All premises in which cases of murine typhus occurred were immediately visited by the rodent control squad and the neighbourhood inspected for any evidence of rat infestation.

81 live rats were trapped and submitted to the Laboratory of the department for flea index examination.

The rodent control board which includes representatives from three Fighting Services met six times during the year and discussed the rat control as well as other items of health interest.

Instructional lectures were given by the Rodent Control Officer to personnel from the Royal Air Force, and to employees from Civil Government Departments.

The estimated number of rats destroyed and the number of rats found dead during the year is given in Table LXIX. Other information in connection with rat control work is given in Table LXX and LXXI.

TABLE LXIX  
Number of rats destroyed during 1954

Period	Estimated number of rats killed	Corresponding number for previous year	Dead rats collected	Corresponding number for previous year
16th December, 1953 to 15th February, 1954 ... ..	2,784	4,323	339	191
16th February, 1954 to 15th April, 1954	3,973	3,320	246	248
16th April, 1954 to 15th June, 1954 ...	2,372	3,528	547	506
16th June, 1954 to 15th August, 1954 ...	3,363	3,062	300	472
16th August, 1954 to 15th October, 1954	2,986	3,083	357	618
16th October, 1954 to 15th December, 1954 .. ...	3,941	3,238	718	300
Total ... ..	19,419	20,554	2,507	2,335

TABLE LXX

Quantity of poison in the preparation of baits  
(in ounces)

Zinc Phosphide	Arsenic	Alpha-Naphthyl-thio-urea (Antu)	Red Squill Powder
2882 ozs.	Nil	25 $\frac{1}{4}$ ozs.	281 $\frac{3}{4}$ ozs.

TABLE LXXI

Summary of operational details in connection with the destruction of rats by the prebaiting method

## First Treatment

No. of Areas given first treatment	Quantity of plain baits laid (in ounces)	Plain bait takes observed	Quantity of poison baits laid (in ounces)	Poison bait takes observed (in ounces)	Dead rats collected	Estimated number of rats killed by poisoning
230	39,497	13,989	11,302	6,953	2,467	18 504

## Second Treatment

No. of Areas given second treatment	Quantity of plain baits laid (in ounces)	Plain bait takes observed	Quantity of poison baits laid (in ounces)	Poison bait takes observed (in ounces)	Dead rats collected	Estimated number of rats killed by poisoning
207	11,742	1,013	847	366	40	915

## INSECT CONTROL

During 1954 the campaign for the control of insect pests was maintained and D.D.T. in powder and liquid forms was the insecticide most commonly used. The liquid solution of 5% strength prepared by this Department was mostly applied in sprays for the eradication of flies and cockroaches from hospitals, factories, shops and stores.

Refuse dumps and accumulations of organic matter serving as breeding places for flies were also treated with D.D.T. solutions. In some cases however it was observed that although the treatment was regularly applied it did not produce the expected results. A good reason to account for this failure is perhaps the resistance which some flies may have now developed against the poison.

D.D.T. powder of 5 or 10% strength was also used in the treatment of private dwellings for elimination of bugs, cockroaches and other insects. Rotary-blowers have also been used for disinfestation of dormitories of some institutes and hotels.

Attention was drawn as usual to the checking of possible breeding grounds for mosquitoes; a number of water cisterns in gardens and of water tanks on roofs of houses, which showed larvae of mosquitoes were treated with D.D.T. and rendered mosquito-proof. So also were treated with D.D.T. and other insecticides pools and water courses in the countryside.

Liquid D.D.T. solution was also used to disinfect 44 houses and their neighbourhood where cases of Leishmaniasis had been reported.

TABLE LXXII

## Summary of work performed in connection with Insect Control

Places treated with D.D.T.	Liquid 5 % solution	5 or 10 % dust
Government hospitals and Institutions ... ..	709 gallons	120 lbs.
Private dwellings ... ..	215 "	301 "
Private schools... ..	22 "	21 "
Factories and shops ... ..	102 "	150 "
Markets... ..	91 "	22 "
Civil Abattoir ... ..	49 "	—
Refuse dumps... ..	110 "	101 lbs.

## FOOD AND DRINK

During the year Medical Officers of Health and Sanitary Inspectors kept under constant control and paid frequent visits of inspections to bakehouses, flour mills, fruit canning factories, wine, beer and aerated water factories, confectioneries, restaurants, dairies, coffee shops and all other premises in which food and drink were prepared, manufactured, cooked, stored or sold. Samples were regularly taken from such premises for examination and analysis at the laboratory of this department.

Officials of this department were often called to examine tins of sweetened condensed milk which had been returned by customers to the Milk Marketing Department as unfit for human consumption. 3,194 tins sweetened condensed milk were thus examined and 547 tins were found unfit for human consumption. The rest were found to be unmarketable and allowed to be used in the preparation of confectionery.

A number of certificates were issued at the request of persons who submitted food-stuffs for examination by this department; a total of 18,525 lbs. of various foodstuffs were found to be unfit for human consumption and disposed of under the direction and supervision of this department. The relevant certificates were consequently issued to the persons concerned.

The following table shows the articles of food unfit for human consumption and destroyed by Sanitary Inspectors during the year.

TABLE LXXIII

	Number of articles	Weight in lbs.
Tinned meat ... ..	1,351 tins	1,575
Fresh or prepared meat ... ..	24 parcels	1,013
Rabbits and poultry ... ..	32 heads	70
Eggs ... ..	1 parcel	2
Tinned milk ... ..	1,047 tins	1,008
Cheese ... ..	10 parcels & 49 tins	141
Lard, butter, and margarine ... ..	82 packets	166
Bread and paste ... ..	7 parcels	46
Flour ... ..	47 packets	24
Fresh or cured fish ... ..	4 parcels	130
Tinned fish ... ..	74 tins	53
Dried fruits ... ..	2 parcels	13
Tinned fruits ... ..	68 tins	25
Condiments ... ..	19 packets	7
Confectionery ... ..	65 packets	40
Total ... ..	2,892 articles	4,313 lbs.

### FOOD POISONING

Most of the cases of food poisoning in Malta occur during the hot summer months when, owing to the moist heat, multiplication of bacteria is very rapid and contamination is common. Many households have no facilities for food preservation and handling easily causes contamination and deterioration.

During the year there were 8 cases of food poisoning which occurred in three different families. Four poisonings were due to the consumption of cheese, two resulted from eating of ice-cream and the other two were cases of milk poisonings.

In all the cases the symptoms were not very severe, there were no deaths. All cases had the usual gastro-intestinal conditions followed by collapse in two of the poisonings by cheese.

The poisoning by cheese was very rapid and had all the signs and symptoms of intoxication. Out of a family of six, four members ate some cheese which was bought the day before from a neighbouring shop. The cheese was consumed at breakfast time about 9 a.m. and an hour later all the four who had partaken of the cheese complained of nausea followed rapidly by vomiting and diarrhoea. Two of them collapsed on their way to hospital, but eventually all the four recovered in 24 hours.

Samples from the remaining piece of cheese was taken and submitted for examination at the laboratory of this department, so also other samples of cheese from the shop were taken for examination.

The samples taken from the shop were found good whilst the sample taken from the home of the patients was found to contain thyrotoxin.

The two other cases of poisoning resulted from contamination of the ice-cream consumed by the patients themselves because all other samples taken from the confectionery supplying the ice-cream were on examination found to be wholesome.

The milk poisoning was due to consumption of milk supplied by a goat belonging to the family of the patients. Fortunately on that day of the accident only two members of the family had drunk milk which must have been contaminated because samples of milk taken from the goat were on analysis found to contain pus, blood and staphylococci. The goat eventually developed mastitis and died in a matter of days.

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## SANITARY INSPECTORATE

District Sanitary Inspectors carried out 189,268 inspections of licensed premises in Malta and Gozo during the year.

	Malta	Gozo
Bakehouses, flour mills, paste factories ... ..	25,291	2,916
Grocery shops ... ..	27,673	6,359
Grocery shops licensed also for the sale of wine and spirits ...	18,219	1,795
Confectioneries and shops for the sale of cheesecakes ... ..	12,018	403
Restaurants and coffee shops ... ..	16,556	1,257
Butchershops ... ..	17,371	3,000
Wine and spirits shops ... ..	24,612	5,235
Aerated water factories ... ..	2,366	210
Milk shops and dairies ... ..	17,875	539
Barbers ... ..	4,783	790

The number of samples submitted by Sanitary Inspectors to the Laboratory for examination was:—

	Malta	Gozo
Foodstuffs ... ..	7,400	1,009
Drinks ... ..	972	40
Water ... ..	539	49

The number of inspections of houses made by Sanitary Inspectors in Malta and Gozo during 1954 was 109,412 and legal proceedings were instituted as follows:—

	Malta	Gozo
Houses kept dirty ... ..	2,984	515
Houses having accumulation of refuse or dung... ..	1,511	365
Houses where animals were kept in contravention ... ..	1,206	279
Households ordered to remove nuisances ... ..	5,082	1,072
Households reported in contravention of sanitary laws and regulations ... ..	619	87
Households reported upon for special defects ... ..	10,130	1,402

The number of inspections of house-drains was as follows:—

	Malta	Gozo
Drains inspected ... ..	36,417	2,934
Drains tested ... ..	4,513	257
Drains found defective ... ..	3,406	54
Drains found obstructed ... ..	3,421	25
Cesspits cleaned by order of the Sanitary Authorities ... ..	9,462	513
Cesspits reported in contravention ... ..	324	8

The number of new houses and other buildings completed during the year was 1,816 and the number of alterations in existing buildings was 672.

During the same period 995 houses were connected with the public sewer and 348 were connected with cesspits.

The number of alterations in existing drains connected with the public sewer was 862 and in those connected with cesspits 122.

A total of 22,292 inspections of premises under construction were made during the year.

The number of disinfections or disinfestations of houses performed by Sanitary Inspectors in Malta and Gozo after cases or suspected cases of Infectious diseases during the year was as follows:—

	Malta	Gozo
Typhoid Fever ... ..	81	20
Tuberculosis ... ..	111	5
Diphtheria ... ..	136	22
Cerebro-spinal Meningitis ... ..	4	1
Poliomyelitis ... ..	13	2
Scarlet Fever ... ..	10	—
Typhus Murine ... ..	7	—
Leprosy ... ..	2	—
Erysipelas ... ..	1	—
Puerperal fever ... ..	4	1
Leishmaniasis ... ..	38	—
Broncho-pneumonia ... ..	3	—

The number of Statutory Notices issued during the year was as follows:—

General defects and minor nuisances ... ..	2,620
The laying of house drains and their connection with the public sewer ... ..	390
The emptying of polluted water tanks ... ..	75

### POPULAR HEALTH EDUCATION

During 1954 the Mobile Cinema Unit of this department continued its good work and gave 110 open-air shows. All large towns and villages were visited and in addition places as far afield as Armier and Bidnija were visited for the first time.

During the immunization sessions over 145 corner talks were given and the public was fully informed of the purposes of the session, of the utility of immunization and of any change of programme.

Eight health films with the following titles were shown:— "You and your children", "Fly about the house", "Good housewife in her kitchen", "House Fly about the house", "Defeat Diphtheria", "Unseen enemy", "Your enemy — Tuberculosis" and "Undulant Fever in Malta". The last mentioned film was produced by a member of the Mobile Cinema Unit, and is the first Health Education film to be made in this country.

The films "Unseen enemy" and "Defeat Diphtheria" were shown in the towns and villages where the free immunization team was carrying out inoculations against typhoid fever and diphtheria and the film "Your enemy — Tuberculosis" when the team was vaccinating with B.C.G. On these occasions the locally made feature film "Medical and Health Department Immunization Team" was also shown. This film has a direct propaganda value as it shows to the audiences well-known people and their children being immunized and this encourages those who are shy to come forward.

A special film show, the third of its kind, was given to the personnel of this Department. The following films were shown for the first time:— "Your children's meals", "Mary's Birthday", "Body defence against disease", "Control of Bacteria in food" and "District Nurse" and the programme was well received by the audience.

In Gozo the Mobile Cinema organization of that Island held 17 open-air shows covering all the villages and towns of the island. The films shown were the one concerning food-handling called "Another case of food poisoning" and another titled "Daily Bread". Sanitary Inspectors gave 20 broadcast talks about health matters on the Gozo rediffusion network.



The services of the Mobile Cinema Unit were also availed of by the Agriculture Department and the Department of Emigration. Continuous liaison and exchange of programmes was maintained with the Civil Defence Mobile Cinema Unit so that there was no overlapping in the district visited. A total of 22 films went to build up the programmes and the British Council in Malta very generously supplied films free of charge. In all the programmes a short feature film "Malta News" was shown. Other open air shows were held at St. Anton Gardens on behalf of the Malta Memorial District Nursing Association, at the San Cajetan Band Club, Hamrun and at Santo Spirito Hospital. The programmes included short films of topical interest and the usual health features.

The estimated total attendance at these open-air shows was 61,528 of which 50,728 in Malta and 10,800 in Gozo.

The Health Education Section is also responsible for the distribution of leaflets, posters and other propaganda material. Anti-diphtheria and whooping-cough leaflets were distributed and during the measles epidemic 50,000 leaflets on that disease were distributed. Posters, both in English and Maltese, were also utilised and during the measles epidemic 500 posters were affixed in prominent places in all the districts of Malta and Gozo, 200 whooping cough, 100 undulant fever, 300 diphtheria, 300 typhoid fever and 300 B.C.G. vaccine posters were also exhibited to the public. A special food handling poster was produced in Maltese and was sent to all Government Primary Schools in Malta and Gozo and to many other establishments including H. M. Dockyard. It is gratifying to note that many public citizens wrote to the press letters of encouragement regarding this poster.

Several World Health Organization press releases and the WHO Newsletter was distributed during the year and several items were reproduced in the local press.

## WATER SUPPLY

(From information supplied by the Senior Water Engineer —  
Water & Electricity Department)

**Pumping Plant.** One pump set was erected at Dingli Pumping Station and another one at Mgarr-ix-Xini, Gozo.

**Maintenance of Galleries.** Cleaning of Wied-il-Kbir Galleries was taken in hand and large fissures, which are a dangerous source of contamination have been cemented.

Similar works were carried out at Mgarr, Gozo which have improved considerably the source of supply at Mgarr Pumping Station.

**Reservoirs.** Repair due to war damage of Santa Maria Reservoir was completed at the end of the financial year.

Works on San Niklaw reservoir was continued and the roof columns 80 per cent completed. Construction at Kirkop Reservoir was, except for minor works completed by the end of the year. Construction of Ta' Cené reservoir, Gozo was also continued and the roof columns and concreting of floor was completed by the end of the year.

**Water Mains.** The 14" trunk main from Miziep to Buqana was completed by the end of March and about 45,000 ft. of street mains of various sizes, mainly 3", were laid during the year.

**Water Development Works.** At Ta' Kandja driving of galleries were continued and have provided a total supply of 850,000 galls. per day. At Miziep the sinking of works shaft, 10'6" x 9'6" on plan was continued and a new shaft 6' x 6' started within the station premises.

The station building itself was completed in August of the year under review.

**Rainfall.** From 1st April 1954, to 31st March 1955, the average rainfall was 23.88 inches in Malta and 25.93 inches in Gozo, and the yield from springs in the Upper Water Table in Malta including Dingli Road Galleries was 198.8 million gallons.

**Water Consumption.** The consumption of water during the year in Malta was 2138.9 million gallons, an increase of about 55.1 million gallons on last year, whilst that in Gozo was 108.2 million gallons decrease of about 2.4 million gallons. The highest recorded consumption in Malta in one day was 6,925,400 gallons.

**Testing and Sterilization of Water Supplies.** The maximum and minimum recorded salinity in the Lower Water Table was 219 parts and 10 parts chl. per 100,000 and that in the Upper Water Table 37 parts and 10 parts respectively. The overall average salinity of the Lower Water Table during the year was 77.1 parts chl. per 100,000.

The corresponding figures recorded last year were 225 parts and 10 parts in the Lower Water Table and 39 parts and 10 parts per 100,000 in the Upper Water Table and the overall average salinity was 73.3 parts chl. per 100,000.

## SEWERAGE

(From information supplied by the Engineer, Public Works Dept.)

It is to be noted with satisfaction that, on the whole, excellent progress was made in the extension of sewers to all parts of the Island. In particular, works moved very rapidly at Birżebbuġia despite the fact that along the water front, progress was very seriously hampered by the continuous seepage of sea water into the trenches. This had to be pumped before any pipes could be laid. Incidentally all pipes laid along the water front were cast iron. A total length of 1320 feet of these pipes was laid and, in addition, a further length of 2744 feet of glazed pipes was laid in the side streets. The following streets are now sewered; St. Catherine Street, Sacred Heart promenade, Queen Victoria Street, St. Michael Street and Our Lady of Sorrows Street. In the last mentioned street, a water culvert is being constructed over the sewer in order to take on to it what has been pronounced as subsoil water and which had previously been flowing into the streets via the cesspit outlets.

In addition, work on the interceptor galleries was also commenced during the year but the contractor abandoned it due to the hardness of the rock encountered. A fresh call for tenders has however been made.

Work on Dingli Pumping Station was held up a little due to the late delivery of the machinery. This however, has been installed and the work is now nearing completion.

Preliminary work on the Meliëha Purification Plant was taken in hand and a survey is in the course of preparation prior to a definite decision being taken on where to fix the site. This has been provisionally earmarked but its final choice will eventually depend on the levelling survey being made.

The following are details on the extension of street sewers in all the various localities:

*Pietà*: Schinas Street, St. Gregorv Street, St. Joseph Street, and Hookham Frere Street — Total 1,357 feet.

*Msida*: New Street, Bishop Caruana Street, Saw Mill Street, 5th Street and Testa-ferrata Street — Total 1,252 feet.

*Gżira*: Bouverie Street, St. Albert Street, Garden Street, part of Ta' Xbiex Wharf and Victory Street — Total 1,179 feet.

*Sliema*: Bonavita Street, New Street, Branching of Prince of Wales Road and New Tigne Road — Total 542 feet.

*St. Julians*: St. George's Road, Ta' Ġiorni, and Mensija Road — Total 865 feet.

*Mosta*: St. Anthony Street, Constitution Street, Main Street and Alley 6, Salvu Dimech Street, Orchard Street, Dun Mikiel Xerri Street and Alley 1, Hope Street, Stivala Street, Britannia Square, St. Margaret Street, Old Mill Street, St. Mary Street, Cassar Street, Tonna Street, St. Sylvester Street — Total 2,974 feet.

- Naxxar*: Mosta-Naxxar Road, (Interceptor), Alley 2, St. Lucy Street — Total 1,166 feet.
- Mellieħa*: Qasam Barrani Street, New Mill Street, 5th Street, 4th Street, 7th Street, Gnien Ingraw Street, Valley Street, St. Mary Street and Old Mill Street — Total 1,783 feet.
- Pawla & Tarxien*: Zabbar Road, Old Temple Street, Upper Arcade Street, Sammat Street, St. Teresa Street, St. Augustine Street, Xintil Street — Total 1,338 feet.
- Għaxaq*: Gebelin Alley — Total 95 feet.
- Zabbar*: Spadaro Street and St. Joseph Street — Total 863 feet.
- Żejtun*: Our Lady of Sorrows Street — Total 867 feet.
- Gudġa*: Intercepting sewer in galleries (High Street) — Total 1,100 feet.
- Rabat*: Vitale Street — Total 145 feet.
- Dingli*: Parish Street, Narrow Street, Conception Street, Boschetto Street, Rill Street, Open channel along P.S. grounds — Total 2,119 feet.
- Birkirkara*: St. Julian Street, and Alley 2, Haifer Lane, Karla Lane, St. Helen Street, Chewers Lane, Slave Street — Total 2,159 feet.
- Attard*: St. Anthony Street and Birkirkara Road — Total 650 feet.
- Balzan*: St. Francis Street, New Street 'B' — Total 510 feet.
- Hamrun*: St. Vennera Street, Alley in Sulphur Lane, Sulphur Lane, Alley in Broad Street, Zerafa Street, St. Thomas Street, Misraħ il-Barrieri, St. Luke Street, St. Luke Square, Timber Wharf (Marsa) — Total 1,995 feet.
- Żebbuġ*: Our Lady Street, Hali Street, and Alley 1, Siggiewi Road, Notabile Road, Main Street — Total 1,502 feet.
- Siggiewi*: Ramija Street, St. Nicholas Street, St. Nicholas Square, St. James's Street, St. Margaret Street, New Street, branching off St. Margaret Street, Notabile Road — Total 5,792 feet.

Intercepting sewer in Galleries

(Main Street and St. Nicholas Square) — Total 2,164 feet.

Grand Total — 36,481 feet.

It will be seen, therefore, that about 7 miles of sewers were constructed.

During the year under review an unfortunate accident occurred, when the Pumping Station at Marsamxett caught fire and blew up. As this damage interfered with the sewerage of Valletta reconstruction work on the Station was taken up immediately and the damage made good without loss of time.

TABLE LXXIV

## Bed and Patient Statistics in Hospitals for 1954

	St. Luke's Hospital	Central Hospital	Connaught Hospital	Santo Spirito Hospital	Hospital for Mental Diseases	St. Vincent de Paul Hospital	St. Bartholomew's Hospital	Isolation Hospital	Victoria Hospital	St. John the Baptist Hospital	St. Theresa Hospital	Chambray Hospital	Sacred Heart Hospital	Isolation Hospital Gozo	TOTAL
1. Total bed complement ...	493	77	156	70	754†	893	118	80	94	147	16	200	27	20	3,155
2. Average daily number of occupied beds ...	515	56	114	58	909	918	73	20	64	92	13	169	7	4	2,902
3. Highest daily occupation ...	557	75	77	65	938	932	78	33	74	86	14	172	8	11	3,020
4. Lowest daily occupation ...	477	45	60	50	882	808	70	9	33	76	11	165	6	3	2,695
5. Total No. of in-patients treated ...	6,952	1,107	241	325	1,139	981	82	425	822	110	18	186	8	69	12,465
6. Radiological examinations ...	11,850	—	—	77	—	—	—	—	4,505	—	—	—	—	1	16,433
7. Pathological examinations ...	13,048	—	1,841	156	3,829	—	—	—	1,283	—	—	—	—	112	20,269
8. Patients treated by Physiotherapy Departments ...	1,515	—	—	—	—	—	—	—	—	—	—	—	—	—	1,515
9. Treatments given by Physiotherapy Dents. ...	4,744	—	—	—	—	—	—	—	—	—	—	—	—	—	4,744
10. New out-patients ...	17,273	6,144	208	—	179	—	7	—	820	—	—	—	—	—	24,632
11. Total out-patient attendances ...	34,918	22,232	4,404	197	1,933	—	85	—	3,280	—	—	12	37	—	67,098
BEDS ALLOCATED															
12. General Medicine ...	120	—	—	—	—	26	—	—	26	—	—	—	—	—	172
13. General Surgery ...	152	—	—	—	—	40	—	—	40	—	—	—	—	—	232
14. Gynaecology ...	30	—	—	—	—	—	—	—	6	—	—	—	—	—	36
15. Obstetrics ...	60	—	—	—	—	—	—	—	12	—	—	—	—	—	72
16. Paediatrics ...	41	—	—	—	—	—	—	—	10	—	—	—	—	—	51
17. Psychiatry (including Mental Deficiency) ...	—	—	—	—	733	—	—	—	—	—	—	178	—	—	911
18. Cardiology ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
19. Dentistry ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20. Dermatology ...	—	14	—	—	—	—	—	—	—	—	—	—	—	—	14
21. Tuberculosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
a) Respiratory ...	—	—	156	—	—	30	—	—	—	—	16	2	—	—	204
b) Non-respiratory ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
22. E. N. T. ...	30	16	—	—	—	—	—	—	—	—	—	—	—	—	46
23. Infectious Diseases ...	—	—	—	—	—	—	—	80	—	—	—	—	—	30	110
24. Ophthalmology ...	—	45	—	—	—	—	—	—	—	—	—	—	—	—	45
25. Orthopaedic Surgery ...	60	—	—	70	—	—	—	—	—	—	—	—	—	—	130
26. V. D. ...	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2
27. Chronic Sick ...	—	—	—	—	21	797	—	—	—	147	—	20	—	—	985
28. Leprosy ...	—	—	—	—	—	—	118	—	—	—	—	—	27	—	145

† Nominal.

## VI HOSPITAL SERVICES

## ST. LUKE'S HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Transferred to other Hospitals	Discharged				Remaining at end of 1954
				At Request	Cured	Relieved	Died	
Males 190	2820	14	143	427	1293	854	143	164
Females 246	5208	4	97	566	1823	2409	251	279
<b>Total 406</b>	<b>8028</b>	<b>18</b>	<b>240</b>	<b>993</b>	<b>3116</b>	<b>3263</b>	<b>397</b>	<b>443</b>

The daily average number of patients in all wards was 515 (212 males, 303 females).

The classification of diseases and deaths is included in Appendix MA.

The number of patients who attended the out-patients clinics attached to the hospital was as follows:—

Medical	...	...	...	...	1,515
Surgical	...	...	...	...	2,495
Orthopaedic	...	...	...	...	2,023
Children	...	...	...	...	1,254
Ear, Nose & Throat	...	...	...	...	2,720
Maternity/Gynaecological	...	...	...	...	1,581
Casualty	...	...	...	...	4,170
Physiotherapy	...	...	...	...	4,744 (out-patients)
					1,515 ( in-patients)
					<hr/> 22,017 <hr/>

**Surgical Division.** The following operations were performed during the year:—

**Alimentary Tract.** Appendicectomy 231; gastrectomy 80; exploratory laparotomy 31; cholecystectomy 20; perforated gastric ulcer 10; gastro-enterostomy 8; colectomy 8; colostomy 8; Ramstedt's operation 7; intestinal obstruction 7; gastrostomy 3; abdomino-perineal resection 3; intussusception 2; oesophagectomy 1. Haemorrhoidectomy 60; Sigmoidoscopy 33; Cholecystectomy 32; Fistula in ano 29; Sinus 11; Splenectomy 5; Undescended testicle 2; Pancreatic dermoid cyst 1.

**Herniae:** Inguinal 218; umbilical 73; strangulated 33; femoral 18; incisional 10

**Genito-urinary tract.** Cystoscopy 153; prostatectomy 43; hydrocele 22; partial cystectomy 15; nephrectomy 12; fulguration 11; supra-pubic cystostomy 9; ovarian cyst 9; removal of stone in urether 8; urethral transplantation 5; nephrolithiasis 4; hysterectomy 4; ectopic gestation 2; nephro-urethrectomy 2; varicocele 2.

**Respiratory tract.** Thorocoplasty 19; bronchoscopy 5; lobectomy 3; empyema drainage 3.

**Miscellaneous.** Block dissection of gland 58; thyroidectomy 21; radical mastectomy 21; lumbar sympathectomy 13; adenoma of breast 10; epithelioma of lip 4; excision for cancer of mouth 3; excision of rodent ulcer 2; infiltration 2.

**Trauma.** Extensive lacero-contused wound 16; amputation of lower limb 8; suturing of cut tendon 7; compound fracture 6; amputation of digits 5; amputation of hand 4; open reduction of fracture 3; craniotomy (trephining for depressed fracture) 2; stab wound 1; excision of patella 1; amputation of tongue 1; amputation of penis 1. Miscellaneous minor operations 268.

## MATERNITY/GYNAECOLOGICAL DEPARTMENT

**Maternity Division.** The number of patients admitted to the Obstetric Division in 1954 totalled 910. Ten of these were discharged before delivery, after being kept under observation for some time. 71 of the admissions were delivered by caesarean section a rate of 7.7% of admissions. The cases of caesarean section are considered separately and in detail at the end of this report; their compilation provides an example of the manner it is intended henceforth to submit all the cases in this annual report.

It is pointed out that this section of the report deals only with the 829 cases that were delivered vaginally.

Complications were noted in 207 pregnancies (25.3%) and these were as follows:—

Toxaemia :			
(a)	Pre-eclampsia	67	
(b)	Eclampsia	4	
		—	71
Ante-partum haemorrhage :			
(a)	Pregnancy continues	5	
(b)	With spontaneous delivery sometimes prematurely	26	
		—	31
Twins — 28.			
Abortion at 5 to 7 months :			
(a)	Threatened	2	
(b)	Inevitable	9	
		—	11
Placenta praevia :			
(a)	Marginal	5	
(b)	lateral	4	
(c)	central	1	
		—	10

Diabetes 11; heart disease 10; pyelonephritis 8; hydramnios 7; epilepsy 4; anaemia 3; pulmonary tuberculosis 3; hyperemesis gravidarum 2; uterine fibroids 2; pendulous abdomen 1; acute appendicitis 1; cholecystitis 1; pleural effusion 1; brucellosis 1; disseminated sclerosis 1.

There was one case of status epilepticus at term. The patient was unconscious for 72 hours before delivery. Lumbar puncture was carried out. She was delivered of a healthy female baby by a mid-application of the forceps, and consciousness was recovered 12 hours later.

Labour was spontaneous in 605 cases (72.3%). This figure includes one case of trial labour, and one case of vaginal delivery subsequent to a previous caesarean section. Another case similar to the latter necessitated the application of low forceps.

The following abnormalities of labour occurred:—

Breech presentation :			
(a)	Frank and footling	29	
(b)	After internal podalic version	28	
(c)	With extended legs	9	
		—	66
Prolonged second stage — 32.			
Deep transverse arrest of the head — 31.			
Occipito-posterior presentation :			
(a)	spontaneous rotation	2	
(b)	forceps rotation	7	
(c)	forceps extraction, with or without previous manual rotation	21	
		—	30
Perineal tear :			
(a)	first degree	10	
(b)	second degree	8	
(c)	third degree	3	
		—	21

Prolapse of the cord 14; transverse presentation 8; impacted shoulders 7; prolapse of a hand — 6.

Face presentation :

(a) mento-anterior ... ..	1
(b) mento posterior :	
i) spontaneous rotation ... ..	1
ii) manual rotation ... ..	1
iii) internal rotation ... ..	1
	4

Maternal collapse 3; rigid perineum 2; intra-partum eclampsia 1.

The puerperium was smooth and uneventful in the majority of cases. Only 81 cases (9.8%) of complications are recorded, viz:—

Post-partum haemorrhage :

(a) delivery in hospital ... ..	22
(b) delivery at home... ..	4
	26

Mastitis and breast engorgement 20; pyrexia 18; anaemia 8; thrombophlebitis 5; pyelitis 1; post-partum eclampsia 1; melancholia 1; paranoia .1.

The following operative interventions were carried out:—

1. *Forceps* (usually with an accompanying episiotomy) :

(a) Prolonged second stage ... ..	33
(b) Deep transverse arrests ... ..	30
(c) Persistent occipito-posterior presentation ... ..	27
(d) After-coming head in breech deliveries ... ..	15
(e) Foetal distress ... ..	4
(f) Eclampsia ... ..	2
(g) Mento-anterior presentation ... ..	1
(h) Status epilepticus ... ..	1
(i) Interlocked twins ... ..	1
	114

There were seven cases admitted as "failed forceps at home". Kielland's forceps was used in 14 of the above cases of deep transverse arrest of the head, and in 2 cases of persistent occipito-posterior presentation.

2. *Artificial rupture of the membranes* :

(a) Toxaemia ... ..	16
(b) At term (bad obstetric history or large baby) ... ..	14
(c) Ante-partum haemorrhage ... ..	14
(d) Diabetes ... ..	8
(e) Postmaturity ... ..	4
(f) Prolonged first stage ... ..	4
(g) Placenta praevia ... ..	3
	63

3. *Internal podalic version* :

(a) Head not engaged ... ..	9
(b) Second or both twins ... ..	9
(c) Obstructed labour ... ..	8
(d) Prolapse of the cord ... ..	6
(e) Transverse presentation ... ..	5
(f) Placenta praevia ... ..	3
(g) Prolapse of a hand ... ..	3
(s) Mento-posterior presentation ... ..	1
	44

4. <i>Medical induction</i> :							
(a)	At term (bad history or large baby)	...	...	...	...	...	10
(b)	Postmaturity	...	...	...	...	...	4
(c)	Flat pelvis	...	...	...	...	...	1
(d)	Android pelvis	...	...	...	...	...	1
(e)	Intra-uterine death of foetus	...	...	...	...	...	1
(f)	Diabetes	...	...	...	...	...	1
					...	Total	18
5. <i>Blood transfusion</i> ... .. 16							
6. <i>Hobb's treatment</i> ... .. 8							
7. <i>Episiotomy (by itself)</i> ... .. 7							
8. <i>External cephalic version</i> :							
(a)	Breech presentation	...	...	...	...	...	3
(b)	Transverse presentation	...	...	...	...	...	1
						Total	4
9. <i>Dührssen's incisions</i> ... .. 2							
10. <i>Puncture of hydrocephalic head</i> ... .. 1							

The total number of babies born was 848; (456 males and 392 females). Of these, 756 babies (405 males and 351 females) remained alive and well up to the time of their mother's discharge from hospital. The still births amounted to 69 (38 males, 31 females), 29 of which were born in a state of maceration. There were 23 neonatal deaths (13 males and 10 females).

There were 28 sets of twins. This included a pair of male siamese twins. Their presentation was footling, and there was no obstruction to delivery. Their conjoint area was in the hepatic region, but they were detached spontaneously during delivery. The first one weighed 2 lb. 10 ozs. and lived for 15 minutes; the second one was still-born and weighed 2 lb. 2 oz.

There were relatively very few abnormalities to be reported in the newborn. There were 6 cases of discharging eyes, four of which were due to staphylococcal conjunctivitis. Erb's palsy occurred in two babies, facial palsy in one. There was one case of fracture of the humerus, and another case of fracture of the femur. Single cases occurred of hydrocephalus, meningocele, microphthalmos, multiple angiomata, cellulitis, and broncho-pneumonia.

Maternal deaths in the obstetric divisions amounted to four (0.5 per cent of admissions.)

**Caesarean Section.** The above obstetric report excludes entirely all cases of caesarean section. During the year under review there were 71 such operations. There was only one maternal death (1.4%); this occurred in a severe case of placenta praevia in an elderly primigravida (M.M. 40 years. There were 13 stillbirths and neonatal deaths (19.1%), but 6 of these occurred in cases of rupture of the uterus.

Of the operated patients, 28 (51.9%) were primigravidae one patient had had 13 full term previous pregnancies. The youngest patient was 19 years old, and the oldest 44. All the operations were of the lower segment type, except 9 cases (13%) of subtotal hysterectomy. Sterilization was procured in 4 cases (6.9%).

As regards the maturity of the pregnancies, 32 (58.1%) were at term, 14 (25.5%) were postmature, and 9 (16.4%) premature. The youngest baby that lived had a gestation of 35 weeks, and weighed 5 lb. There were two other babies of a shorter gestation, but they were both stillborn. The average weight of the babies delivered by caesarean section was 7.4lb. (56% were males and 44% females). There was one set of twins.



The main indications for the operation were as follows:—

- a) Cephalo-pelvic disproportion — 22.9%
- b) Second or third caesarean section — 21.3%
- c) Malpresentation — 15.7%
- d) Rupture of the uterus — 12.9%
- e) Placenta praevia — 8.6%
- f) Elderly primigravida with an associated complication — 8.6%
- g) Severe toxæmia — 4.3%
- h) Rigid cervix — 4.3%
- i) Bad obstetric history — 1.4%

**Gynaecological Division.** In preparing this report it was decided to include in the gynaecological section all cases of abortion under five months; on the other hand, all cases of caesarean section and of rupture of the uterus are enlisted as obstetrical cases, even though these are all admitted to the gynaecological ward.

In the out-patient department 1580 new cases and 1240 old cases were investigated and treated.

... There were 559 admissions to the gynaecological ward, 23 of these being cases of malignancy of the genital organs. The bulk of the admissions was made up of abortions (31%), metropathia hæmorrhagica and post-menopausal bleeding (12%), and different degrees of prolapse of the uterus or rectum (10%).

The following is a classification of all admissions according to the diagnosis, in order of frequency:—

Abortion:—

incomplete	...	...	...	...	...	...	129
threatened	...	...	...	...	...	...	13
complete	...	...	...	...	...	...	13
inevitable	...	...	...	...	...	...	9
missed	...	...	...	...	...	...	8

— 175

Prolapse of the uterus	...	...	...	...	...	...	48
Metropathia hæmorrhagica	...	...	...	...	...	...	37
Fibroid of the uterus, cervix or vagina	...	...	...	...	...	...	33
Cervical laceration and/or ectropion	...	...	...	...	...	...	30
Cervical polyp	...	...	...	...	...	...	26
Metrorrhagia or post-menopausal bleeding	...	...	...	...	...	...	25
Vaginitis, cervicitis or cervical erosion	...	...	...	...	...	...	21
Fibrosis of the uterus	...	...	...	...	...	...	14
Chronic endometritis	...	...	...	...	...	...	14
Oophoro-salpingitis or pyosalpinx	...	...	...	...	...	...	12
Carcinoma of the cervix	...	...	...	...	...	...	10
Ovarian cyst	...	...	...	...	...	...	10
Rectocele or enterocele	...	...	...	...	...	...	0
Pelvic cellulitis or parametritis	...	...	...	...	...	...	8
Retention of the placenta	...	...	...	...	...	...	8
Dysmenorrhœa or dyspareunia	...	...	...	...	...	...	7
Adeno-carcinoma of the corpus	...	...	...	...	...	...	6
Ectopic gestation	...	...	...	...	...	...	6
Cystitis or pyelitis	...	...	...	...	...	...	6
Epithelioma vulvæ	...	...	...	...	...	...	3
Sarcoma uteri	...	...	...	...	...	...	3
Perineal laceration	...	...	...	...	...	...	3
Perforation of the uterus	...	...	...	...	...	...	2
Contusion of the perineum	...	...	...	...	...	...	1
Carcinoma of the ovary	...	...	...	...	...	...	1
Vesico-vaginal fistula	...	...	...	...	...	...	1
Urethral caruncle	...	...	...	...	...	...	1
Peri-urethral abscess	...	...	...	...	...	...	1
Bartholin's cyst	...	...	...	...	...	...	1
Under observation for pain, amenorrhœa, etc.	...	...	...	...	...	...	36

The cases of malignancy are dealt with in more detail at the end of this section.

The two cases of uterine perforation both occurred at home as a result of indifferent curettage. All the cases of ectopic gestation were ruptured tubal pregnancies, with the possible exception of one which may have been ovarian. The figure for cervical erosion is, of course, no indication of the incidence of this condition, as most of these cases are treated in the out-patient department. One of the cases of cystitis was found to be tuberculous in nature. Of the 36 patients admitted for observation and investigation, one proved to be suffering from a newgrowth of the bladder, and another was a twelve year old girl with rather severe uterine bleeding associated with thrombocytopenic purpura.

There were 402 gynaecological operations. This figure includes curettage of the uterus, with or without cervical dilatation — whether for diagnostic or for therapeutic purposes.

A complete list of the operations is as follows:—

Curettage . . . . .	229
Abdominal hysterectomy: subtotal . . . . .	18
total . . . . .	7
with removal of one ovary . . . . .	3
with removal of both ovaries . . . . .	21
	— 49
Trachelorrhaphy . . . . .	24
Polypectomy . . . . .	23
Fothergill's operation . . . . .	18
Anterior or posterior colporrhaphy and perineorrhaphy . . . . .	18
Vaginal hysterectomy . . . . .	17
Ovariectomy and/or salpingectomy . . . . .	14
Biopsy of the cervix . . . . .	2
Le Port's operation . . . . .	2
Fenton's operation . . . . .	2
Myomectomy . . . . .	1
Repair of vesico-vaginal fistula . . . . .	1
Fulguration . . . . .	1
Cauterization . . . . .	1

There were seven deaths in all — which amount to a mortality rate of 1.25 per cent of admissions. All these deaths occurred in patients suffering from a malignant tumour. Moreover, only two of these seven patients were operated upon, so that the operation mortality rate was 0.5 per cent.

This mortality should constitute a forceful reminder of the meticulous attention needed for the early detection of malignancy of the female genital tract. These cases often demand formidable operations and, whenever indicated, no time should be lost in recommending radiotherapy treatment. Nevertheless it is noted that more than half the cases of malignancy referred to the gynaecological department arrived when operation or radiotherapy was of no avail. It is well worth stressing to patients that pain is a terribly late symptom in cases of carcinoma, and that the occurrence of metrorrhagia or post-menopausal bleeding demands urgent and accurate investigation. And a relatively young age does not, by itself, exclude the possibility of malignancy.

**Pathological department.** A total of 13,078 specimens including specimens submitted by District Medical Officers and private medical practitioners were examined during the year.

**Morbid Anatomy and Histology.** Surgical histology 538; postmortem examination 41.

**Haematology.** Blood count and picture 4,843; haemoglobin estimations 392; myelograms 113; marrow and splenic pulp LDBs. 66; haematocrit estimation 59; platelet counts 47; reticulocyte counts 31; erythrocyte fragility tests 21; erythrocyte diameter 12.

**Chemical Pathology.** Urine analysis and microscopical examinations 3,797; blood urea estimations 954; plasma alkaline phosphatase 72; plasma bilirubin estimation 60; Van den Bergh reaction 50; plasma acid phosphatase 45; urea clearance tests 30; blood cholesterol 31; blood urea, acid estimations 18.

C.S.F. exudates and transudates 544; gastric juice, test meal analysis 192; faeces, occult blood, chemical tests 188; glucose tolerance tests 142; blood sugar estimations 128; microscopical examinations 85; prothrombin estimations 68; plasma proteins estimation 48; pregnancy tests, Friedman's 46; plasma amylase determinations 36; serum calcium estimations 15.

Flocculation tests: Takata ara reaction 122; Cadmium sulphate tests 120; Thyroid turbidity 124.

**Bacteriological laboratory.** A total of 6,827 examinations were carried, out of which the following are the details.

**Blood cultures.** A total of 475 samples were cultivated: in 106 cases *Bruc. melitensis* was recovered, and in 8 cases *Salm. typhi*. Castaned's method is followed—the use of a liquid medium (citrated tryptose broth) combined with a solid medium, consisting of a layer of tryptose agar, which lies along one side of the culture bottle. This allowed repeated sub-cultures on the same medium, being therefore economical in the long run and quite efficient as the chances of contaminating while subculturing are completely avoided and one can use a very large inoculum, both of which are important considerations when one may be dealing with the slow growing *Bruc. melitensis* as may often be the case in this laboratory.

From fifty samples of bone marrow obtained by sternal puncture, *Bruc. melitensis* was isolated in 14 cases and Staphylococci in 2 cases.

**Agglutinin tests.** On 1,314 blood samples titrations for agglutinins were carried out; in 306 cases, reactions were obtained against *Bruc. melitensis*, in another 166 against *Salm. typhi* and in 12 against *Proteus O* × 19. There were a number of low titre reactions against *Shig. flexneri* 288, *Shig. boydii* 170, and *Salm. paratyphi B*.

Another 691 samples, consisting only of capillary tubefuls of blood were received, and these were examined by the slide method. Of them 90 reacted against *Bruc. melitensis* and 11 against *Salm. typhi*.

The Paul-Bunnell test was carried out on 15 sera with a positive result up to 1/20 only in one.

**Wassermann Complement Fixation Tests and Kahn Tests.** These tests were carried out on 700 samples of serum. Positive Wassermann and Kahn tests were obtained in 34 cases; the Wassermann test alone was positive in 102 cases and the Kahn alone in 2. Four samples of cerebro-spinal fluid were examined, one giving a positive Wassermann and Kahn tests, the other three being negative.

**Faeces examinations.** 732 samples of faeces, most of them submitted routinely before the discharge from hospital of typhoid cases, were examined, in 2 cases *Salm. typhi* were isolated, *Shig. flexneri* in 13 cases, *Shig. Schmitzi* in 1 case, *Shig. Boydii III* in 2 cases. The presence of *Endamoeba histolytica* was found in 14 cases and *Giardia lamblia* in 11 cases. One case showed a large number of Trypanemes with a morphology not inconsistent with their being *T. pallidum*.

**Urine examinations.** A total of 439 samples examined yielded the presence of *Myco. tuberculosis* in 17 cases, of *Bact. coli* in 43, Staphylococci in 46, both staphylococci and *Bact. coli* in 31 cases, non-haemolytic streptococci in 2 cases, *Pseudomonas pyocyanea* in 2 cases, *Proteus* in 5, yeast cells in 3. *Bact. aerogenes*, *Bact. friedlanderi*, aerobic Bacilli, *Str. pneumoniae* and *Neis. catarrhalis* were also met with.

**Urethral and vaginal discharges.** 138 samples of discharges from cases of urethritis, leucorrhoea etc. were received. *Neis. gonorrhoeae* was detected in 9 cases, *Candida albicans* in 2, and *Trichomonas vaginalis* in 12.

**Cerebro-Spinal Fluid examinations.** 95 samples of cerebro-spinal fluid were examined. In most cases direct smears were examined, cultures were made on blood agar, on Lowenstein-Jensen's medium and on Dubo's medium, and guinea-pigs were inoculated. *Neis. meningitidis* was found in 5 cases, *Myco. tuberculosis* in 2, *Staphylococci* in 5, *Str. pneumoniae* in 2 cases.

**Sputum examinations.** A total of 697 sputa were examined, in 74 of which the presence of *Myco. tuberculosis* was detected; in a number of cases the nature of the predominant flora was determined.

**Pleural fluids.** *Myco. tuberculosis* was detected in 7 out of 38 samples examined; staphylococci were cultivated in 4 cases. In one case, the fluid gave an agglutination reaction against *Salm. typhi* up to a dilution of 1/320, and in two others against *Bruc. melitensis* up to a dilution of 1/280 in one case and up to 1/320 in the other.

**Gastric contents.** In cases of patients and in cases of prospective emigrants in whom the possibility of pulmonary tuberculosis was suspected but who were incapable of supplying a sample of sputum, examination of the stomach contents was carried, generally by direct smear and by guinea-pig inoculations. Out of 281 such samples, 54 showed the presence of *Myco. tuberculosis*.

**Pus.** Ninety-nine samples from various sources were examined; in 42 cases staphylococci were present; in 1 case staphylococci and streptococci occurred; in 9 cases *Myco. tuberculosis* were present; in 1 case *Bruc. melitensis* was cultivated whilst another sample yielded no growth but gave no agglutination reaction against *Bruc. melitensis* up to 1/160.

Pus taken from a cervical adenitis in a girl of 19, who had been suffering from this condition since three weeks, yielded findings of unusual interest. These consisted in the detection, by direct smear examination, and in the cultivation, on seven occasions as far as 60 days apart, of an acid- and alcohol-fast bacillus which grew easily within 72 hours on tryptose-agar as well as on nutrient broth, on Lowenstein-Jensen medium and on plain Dorset egg medium (with no glycerine). It was the only micro-organism detected and appeared to have a pathogenic role. On intra-muscular injection into a guinea-pig it produced a limited purulent adenitis showing the micro-organism in the pus in great numbers, but the lesion being of a retrogressive character. These characteristics pointed to the fact that whilst a member of the Mycobacterium group, it was not identifiable as any of those described in standard works, being neither a *Myco. tuberculosis* nor a saprophytic acid-fast. Cultures were sent to the Curator of the National Collection of Type Cultures of Great Britain, who took it into the collection as no. 8,573, and to Dr. A. Q. Wells, the bacteriologist in charge of the Mycobacterium Reference Laboratory of the Public Health Laboratory Service, at the Sir William Dunn School of Pathology in Oxford. Dr. Wells studied the micro-organisms in very great detail, conferring on the matter with Dr. Ruth Gordon of Rutgers University, New Jersey, U.S.A.; he also came to Malta, on behalf of the Medical Research Council and studied the case at first hand with our Bacteriologist Dr. E. Agius who had first observed the micro-organism in question. For a time the micro-organism was thought to be a strain of *Myco. fortuitum* but further studies suggested similarity to *Myco. minnetti*. A paper describing exhaustive studies of the micro-organism in all its aspects, by Dr. A. Q. Wells, Dr. N. Smith, and Dr. E. Agius will be published fairly soon in one of the specialised journals.

**Joint fluids.** Twenty-one samples examined showed the presence of *Bruc. melitensis* in 2 cases, Staphylococci in 2, and *Myco. tuberculosis* in another 2 cases.

**Antibiotics sensitivity tests.** On 82 occasions material was submitted for the identification of the bacteria present and their sensitivity to the antibiotics in clinical use. The cases were mainly ones of otitis, tonsillitis or purulent infections and various bacteria were cultivated, including *Bact. coli*, *Bact. friedlanderi*, Staphylococci, Streptococci, *Pneumococci*, Proteus, *Pseudomonas*, *Myco. tuberculosis* etc. The disc method was adopted, the bacteria being tested against Penicillin, Streptomycin, Terramycin, Aureomycin and Chloromycetin.

**E.N.T. swabs.** Swabs from the throat, nose and ears were examined for the presence of the infecting bacteria; 83 such swabs from the throat included two cases of *Coryn. diphtheriae* and one of *Candida albicans*; 31 swabs from the ears gave three cases of diphtheria, 2 of *Pseudomonas pyocyanea*, one of *Str. pneumoniae*, etc. Scrapings from the nasal mucosa were carried out in 25 cases, generally in conjunction with the examination of fluid obtained from a slit made in the skin where it showed an inflammatory or a nodular condition for the diagnosis of infection with *Myco. leprae*. The specific micro-organism was found twice both in the nasal scrapings and in the skin slit, and in another six cases in the skin only.

**Hair examinations.** These were carried out on 46 cases, most of them were ones of cicatricial alopecia in which the examination was required to eliminate the possibility of infection in connection with the requirements of Emigration authorities. Two positive cases were found.

**Miscellaneous.** Other work carried out included examinations of conjunctival exudates, ascitic fluid, bile and splenic juice identification of endoparasites, examination of surgical dressings for sterility, etc. A certain amount of work done for the Government Veterinary surgeon, included a positive case of *Eryseplothrix rhusiopathiae* in a vaccinated pig, and a case of bovine tuberculosis.

**Radiological Department.** During the year 11,850 patients were X-rayed.

The number of films used was ... ..	18,859
The number of dentals used was ... ..	181
The number of occlusals used was ... ..	74

In connection with emigrants:—

910 persons were X-rayed.

949 films were used.

### CENTRAL HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged					Remaining at end of 1954
			Transferred to other Hospitals	At Request	Cured	Relieved	Died	
Males 27	513	5	11	—	509	—	3	22
Females 24	581	8	10	—	570	—	—	33
Total 51	1,094	13	21	—	1,079	—	3	55

The total number of in-patients treated was 1158, of which 1107 were new admissions. The average daily population was 59 (23 males and 36 females). The average stay of patients in hospital was 16 days.

The classification of diseases and deaths is given in Appendix MA.

The number of out-patients treated was 6144 (3107 males; 3037 females).

First aid treatment to casualties was given to 63 cases (47 males and 16 females).

**Ophthalmic Division.** The number of patients who received treatment was as follows:—

	Males	Females	Total
In patients ... ..	209	235	444
Out-patients ... ..	2467	2298	4765
Operations performed ... ..	130	147	277

The in-patients were treated for the following conditions:— anomalies of external muscles 110; diseases of the lens 104; diseases of the cornea 97; conjunctivitis 29; diseases of the eyelid 27; affections of eyeball 16; diseases of retina 15; diseases of lacrymal apparatus 13; glaucoma 12; diseases of orbit and neighbouring parts 11; diseases of the Iris 5; diseases of sclerotic 3; diseases of the ciliary body 2.

Out of a total of 4765 patients who attended at the clinic 1812 were examined for errors of refraction and had glasses prescribed and 2132 were prospective migrants who had been referred for routine examination by the Department of Emigration. The total number of attendances at the clinic was 10404.

**Dermatological Division.** The number of patients who received treatment was as follows:—

	Males	Females	Total
In-patients	53	44	97
Out-patients	485	586	1071

The in-patients were treated for the following diseases:—

*Males:* Dermatitis:— septic 20; allergic 12; stasis 6; seborrhoeic 2; stasis ulcer 8; pemphigus 1; sarcoidosis 1; tinea capitis 1; urticaria 1; verrucae 1.

*Females:* Dermatitis:— allergic 9; septic 9; stasis 13; psoriasis 4; dermatomycosis 2; impetigo 2; pruritus valvae 2; herpes zoster 1; tinea capitis 1; urticaria 1.

The number of out-patients who attended the clinic was 1071 (485 males and 586 females).

**E.N.T. Clinic.** On the 16th February a ward was opened as an extension of E.N.T. department of St. Luke hospital for admission of cases requiring treatment and removal of Tonsils and Adenoids. The operations performed in this section amounted to 421, i.e. 191 boys and 230 girls.

**Chest Clinic.** The T.B. out-patient clinic was transferred to St. Luke Hospital on the 20th April.

**Radiological Division.** 12704 were X-rayed during the year involving the use of 13839 films. Of the total number of persons examined only 2541 were hospital cases, the remaining 10163 were prospective migrants. In addition, a total of 7093 screen examinations were carried out on prospective migrants under the age of 12 years.

Patients who received radio-therapy totalled 75; the total number of sittings held was 694.

The conditions treated were as follows:—

Ulcer rodens 13; new growth of the breast 11; keloid 10; dermatitis capillitiae 10; dermatitis 8; Hodgkins disease 7; dermatiophyosis 3; sarcoidosis 1; adenoma of thyroid 1; malignant adenitis 1; tinea corporis 1; mycosis fungoides 1; lupus-vulgaris 1; verruca plantaris 1; sycosis barbae 1; cheiropompholix 1; cavernous-angioma 1; verruca vulgaris 1; sebaceous adenoma 1; pruritus ani 1.

On the 12th March, the greater part of the premises of the Central Hospital was occupied by the police as their Headquarters. As a result the patients and the hospital staff found themselves in a very crowded condition, with the minimum of comfort, and other amenities so useful in hospitals.

**Dental Division.** Owing to the retirement from the service of the Senior Dental Surgeon, the work of this division was carried out by the Junior Dental Surgeon. The students of the course of Dentistry who attended the clinic for training gave very valuable help which proved of great value in view of the ever increasing volume of work in all sections. On obtaining their degree, two of these students were employed at the Clinic.

The steady increase in the volume of work was partly due to the greater number of patients referred from St. Luke's hospital, to the greater number of emigrants treated before their departure and to the higher degree of public consciousness of the importance of dental treatment.

It is also worth mentioning that notwithstanding the hard pressure of work opportunities to introduce improvements in dental treatment were not missed. New experiments were made through the introduction of the Roger Anderson pins in fractures of jaws, Xylocaine, Anesthesia, Aureomycin and the irreversible hydrocolloid materials.

The work performed during the year was as follows :—

No. of patients attended to	6,344
New patients	2,343
Extractions under local anaesthesia	7,919
Visits in connection with prosthetic appliances	3,769
Prophylactic treatment	802
Operations under general anaesthesia including impacted and buried teeth, alveoectomies, enucleation of cyst, surgical treatment of epulides etc.	137
Patients referred for Extravial Radiology	41
Complete and partial dentures supplied	765
Restoration of teeth	316
Scaling and gum treatment	229
Patients refusing treatment	10
Patients treated for fractures of the jaws	9
Patients referred to hospital for extraction under general anaesthesia	103

In addition to the above-mentioned work dental service was regularly provided at various Government Institutions concerned.

#### SANTO SPIRITO HOSPITAL

The movement of the hospital population during the year was as follows :—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Di-charged					Remaining at end of 1954
			Transferred to other Hospitals	At request	Cured	Relieved	Died	
Males 31	26	118	19	11	69	23	23	30
Females 28	24	98	15	14	56	15	16	34
Total 59	50	216	34	25	125	38	39	64

All types of chronic medical and surgical cases are admitted into this hospital. 209 cases were transfers from St. Luke's in this way relieving congestion in that hospital; 50 cases came directly from their homes and seven cases from other hospitals.

The established number of beds is 70, thirty-five in each Division.

The daily average number of in-patients during the year was 58, 30 men and 28 women. The highest number of patients on any one single day was 65 the lowest being 50.

The 325 cases treated during the year may be subdivided as follows :— Surgical 145, Medical 122, Orthopaedic 58.

The following is a classification of diseases treated: Trauma, fractures, wounds 49; new growths 33; osteo-arthritis (non-TB) 24; abscess, septic conditions 21; diabetes mellitus 18; gangrene (senile and diabetic) 16; chronic myocarditis 10; heart failure 10; cerebral thrombosis 9; burns and scalds 8; sequelae from poliomyelitis 7; valvular heart disease 6; cerebral apoplexy 6; chronic bronchial asthma 6; chronic bronchitis 5; rheumatoid arthritis 5; hernia (post-operative) 5; varicose veins 5; congenital and acquired deform 5; kerosene poisoning 5; chronic nephritis 4; hyperpyrexia 4; hyperplasia of prostate 4; primary complex 4; TB spondylitis 3; TB Osteo-arthritis 3; neuritis and sciatica 3; adenitis 3; cirrhosis of the liver 3; anemia 3; dementia (mild) 3; osteomyelitis 2; arthritis due to brucella infection 2; renal calculus

2; congenital diplegia 2; Sydenham's chorea 2; rheumatic fever 2; chronic gastritis 2; pulmonary oedema 2; coronary thrombosis 2; enteric fever (convalescence) 2; Paget's disease 1; TB kidney 1; acute proctitis 1; transverse myelitis 1; thyrotoxicosis 1; parkinsonism 1; chronic alcoholism 1; meningo-vascular syphilis 1; hysterical fits 1; amoebic dysentery 1; pleurisy 1; lobar pneumonia 1; eczema 1; herpes zoster 1; (not object for treatment) 1.

The number of X-rays taken at the hospital was 77. Examination of the following parts of the body was made:— Chest 24; spine 12; pelvis 11; ankle 8; femur 6; foot 6; knee 4; tibia 3; shoulder 1; wrist 1; urinary tract 1.

The following orthopaedic and surgical appliances were supplied to patients treated during the year:— Orthopaedic boots 7; abdominal corsets 5; Taylor braces 2; walking calipers 2; artificial limbs 2; stump socks 2; hernia trusses 2; harnesses for children 2; peg leg 1; sacro-iliac corset 1.

One hundred and three specimens were sent for examination at the pathological laboratory of St. Luke hospital. Examinations requested were as follows:— Blood counts and blood pictures 22; urine for routine analysis 21; blood urea 19; blood serum reaction 11; urine for presence of TB 11; sputum for presence of TB 4; ascitic fluid 4; Faeces for typhoid and dysentery 3; Wasserman reaction 2; pus for culture 2; cerebro-spinal fluid 1; plasma proteins 1; blood for bilirubin 1; blood for Bence-Jones test 1. Besides the above, 53 erythrocytes sedimentation tests were made at the hospital.

The number of casualties treated was 197. The injuries, or other conditions requiring urgent treatment, were as follows:— wounds 133; fractures and dislocations 17; sprains and contusions 13; burns and scalds 12; cases of suspected poisoning 7; cerebral concussion 5; foreign bodies 5; obstinate constipation 3; collapse due to heart failure 1; shock 1. Thirty of these cases were attended to, given first aid and transferred to St. Luke's for further investigation and treatment. The rest received full treatment and were sent home. One patient expired soon after being admitted to hospital.

### CONNAUGHT HOSPITAL

The average daily number of patients during the year was 114. There were 127 new admissions (76 males and 51 females) which is 7 admissions less than in the previous year.

The number of patients remaining in Hospital at the end of the preceding year was 114 (70 males and 44 females) thus bringing the total number of cases under treatment during the year to 241.

During the year 13 patients died (6 males and 7 females).

The total number of patients discharged from hospital during 1954 was 106. Table LXXXI gives the relative information.

As in former years among the patients treated in hospital the greatest number of persons affected by the disease were to be found in the 15-25-35 age groups and therefore the incidence of infection has not yet appreciably shifted from the younger to the older generations.

The average duration in hospital of the patients who were discharged during the year has been estimated to be about "fifteen months" for the types with recent exudative infiltrations but the more advanced sub-chronic cases had to remain in hospital for considerably longer periods of two and even three years duration.

On leaving hospital 23 patients were 'fit for light work' while 36 others were still considered as unfit for any kind of work.

**Treatment.** Prolonged and continuous treatment with Streptomycin in combination with P. A. S. or Isoniazid for *at least* one year and strict bed rest for at least six months, was the treatment of choice, complemented or supplemented by surgical and/or medical collapse measures in selected cases.



The immediate results in the majority of cases, were gratifying to physician and patient alike, as evidenced by:

- i. the decline in the mortality rate;
- ii. the better chance of recovery in types of the disease previously having an almost 100 per cent mortality;
- iii. the decrease in the necessity for adopting temporary collapse measures;
- iv. the wider scope for better and safer surgery;
- v. the striking rapid improvement in the general condition (fall in temperature absence of cough, conversion of sputum, gain weight etc.), with consequent uplifting of the patients' morale, and therefore with more cooperation in treatment.

Deafness is one of the most severe complications of drug toxicity which however could always be easily avoided if immediate action is taken when the timely warnings from toxic symptoms become clearly evident. During the year two patients were admitted into hospital with their hearing organs already permanently impaired. This was found to be due to excessive and uncontrolled dosage of the drug before admission into hospital.

All the patients who were submitted to chemo-therapy courses have been constantly and periodically followed up during treatment for renal and liver functions as also the blood count estimation and the sedimentation rates were taken.

The use of artificial pneumothorax has been slackening during the last three years. The A. P. inductions for the year were only 8 as compared to 12 for the previous year and 15 in 1952. For obvious reasons the pneumothorax collapse therapy is no longer considered as the ideal form of treatment when lung cavitations are in the balance but it has now become a go between the other two more modern concepts of treatment i.e. the purely medical based mainly on chemotherapy and rest, and the more radical form of treatment with surgical operations:— (Thoracoplasty, lobectomies segmental resections etc.) A. P. is at present only resorted to when cavities remain persistently un-collapsible after extensive treatment with Antibiotics and therefore no further benefit could be derived from their further use. During the year major surgical operations, were performed at St. Luke hospital by the Chest Surgeon. All the minor operations were performed at the Connaught hospital.

Satisfactory results have been obtained by applying the specific Antibiotics directly in the cavity space of the lung through direct inhalation of the drug. 5 patients all bearing thick walled and hard fibrotic cavities in one or both lungs have thus been treated during the year. In one case the cavity has completely collapsed and was no longer apparent after tomographic examination. In two other cases the cavities have diminished to about one third their former size with corresponding improvement in the general conditions. One patient did not benefit from this treatment. This very recent form of therapy is to be gradually extended during the forthcoming year to all those forms of the disease which cannot feasibly be tackled by either medical or surgical means.

**Out-Patient Clinic.** The particulars of attendance at the Chest Clinic at the Connaught Hospital and the treatment given during the year is given in Table LXXXIII.

TABLE LXXV  
Movement of population during the year

Sex	Remaining at end of 1953	Admitted		Discharged						Remaining at end of 1954
		New Entries	Re-admissions	Disease arrested	Quiescent Stage	Improved	Not Improved	Dead	Net suffering from T.B.	
Males	70	41	35	1	30	23	5	6	—	81
Females	44	32	19	—	23	9	2	7	—	54
Total	114	73	54	1	53	32	7	13	—	135

TABLE LXXVI

## Classification of In-Patients

Sex	Class "A"	Class "B" Group i	Class "B" Group ii	Class "B" Group iii	Not suffering from T.B.	Total
Males ... ..	—	7	98	41	—	146
Females ... ..	1	2	64	28	—	95
Total ... ..	1	9	162	69	—	241

TABLE LXXVII

## Age of all In-Patients

Sex	From 1 to 4 years	From 5 to 14 years	From 15 to 24 years	From 25 to 34 years	From 35 to 44 years	From 45 to 54 years	From 55 to 64 years	From 65 years and over	Total
Males ... ..	—	1	32	45	30	23	13	2	146
Females ... ..	—	1	35	23	14	12	8	2	95
Total ... ..	—	2	67	68	44	35	21	4	241

TABLE LXXVIII

## Duration of stay of patients Discharged during 1954

Sex	Under 2 weeks	From $\frac{1}{2}$ to 1 month	From 1 to 3 months	From 3 to 6 months	From 6 months to 1 year	From 1 to 2 years	From 2 to 3 years	From 3 to 4 years	From 4 to 5 years	From 5 to 6 years	6 years and over	Total
Males	6	6	5	15	16	7	3	1	—	—	—	59
Females	3	1	1	3	8	15	2	—	1	—	—	34
Total	9	7	6	18	24	22	5	1	1	—	—	93

TABLE LXXIX

## Duration of stay of patients who Died during 1954

Sex	Under 2 weeks	From $\frac{1}{2}$ to 1 month	From 1 to 3 months	From 3 to 6 months	From 6 months to 1 year	From 1 to 2 years	From 2 to 3 years	From 3 to 4 years	From 4 to 5 years	From 5 to 6 years	6 years and over	Total
Males	1	1	1	—	—	—	3	—	—	—	—	6
Females	—	2	1	—	1	2	1	—	—	—	—	7
Total	1	3	2	—	1	2	4	—	—	—	—	13

TABLE LXXX

## Special treatment of in-patients

Sex	Artificial Pneumothorax											
	Unilateral				Bilateral				Pneumo-Peritoneum			
	No. of patients	No. of Refills	Improved	Not Improved	No. of patients	No. of Refills	Improved	Not Improved	No. of patients	No. of refills	Improved	Not Improved
Males	22	814	18	4	1	101	1	—	3	126	1	2
Females	7	116	7	—	—	—	—	—	1	17	—	1
Total	29	930	25	4	1	101	1	—	4	143	1	3

TABLE LXXXI

## Ages on Discharge or Death of Patients

Sex	From 1 to 4 years	From 5 to 9 years	From 10 to 14 years	From 15 to 19 years	From 20 to 24 years	From 25 to 29 years	From 30 to 34 years	From 35 to 39 years	From 40 to 44 years	From 45 to 49 years	50 years & over	Total
Males	—	—	—	5	9	15	9	6	7	3	11	65
Females	—	—	—	6	11	7	5	3	1	2	6	41
Total	—	—	—	11	20	22	14	9	8	5	17	106

TABLE LXXXII

## Capacity for Work of Patients on Discharge

Capacity	Sex	Class A.	Class B. Group i.	Class B. Group ii.	Class B. Group iii.	Not suffering from T.B.	Total
Fit for light work	Males ...	—	3	17	3	—	23
	Females ...	—	—	9	—	—	9
Unfit for work	Males ...	—	—	25	11	—	36
	Females ...	1	—	20	4	—	25
Not Suffering from T.B.	Males ...	—	—	—	—	—	—
	Females ...	—	—	—	—	—	—
Total	...	1	3	71	18	—	93

TABLE LXXXIII

## Out-Patient T.B. Chest Clinic

Sex	No. of Pts. attending the Out-Pt. T. B. Chest Clinic				No. of Visits		
	New entries	For A. P.	For General Treatment	Total	For artificial Pneum.	For General Treatment	Total
Males ...	75	23	252	275	507	1,142	1,649
Females ...	65	27	188	215	668	1,160	1,828
Total ...	140	50	440	490	1,175	2,302	3,477

## HOSPITAL FOR MENTAL DISEASES

The movement of the hospital population during the year was as follows :—

	Males	Females	Total	Males	Females	Total
On the hospital registers						
1st January, 1954	...	...	...	446	427	873
Admissions {Certified	115	101	216			
{Voluntary	5	9	14			
Referred from other hospitals	7	9	16	127	119	246
Total under treatment	...	...	...	573	456	1,119
Discharges:						
Not insane	6	1	7			
Recovered	22	24	46			
Relieved	3	18	55			
Not improved	23	30	53			
Not requiring hospital treatment	10	11	21			
Transferred to the Hospital for Mental Diseases, (Gozo)	3	1	4			
Transferred to other hospitals	10	8	18			
Deaths	20	15	35	131	108	239
Remaining on the hospital registers						
31st December, 1954	...	...	...	442	438	880

Admissions (230) were 15 more than last year. 89 males and 77 females were first attack cases, and 16 males and 26 females suffered from previous attacks of mental disorder. Congenital cases numbered 13 (8 males and 5 females). 8 cases (6 males and 2 females) were found "not insane" on admission, 3 of whom having been admitted under observation by order of a Court of Law. One male patient, sent to hospital by order of a Court of Law was still under observation at the end of the year.

The ages on admission during 1954 averaged 40 for males and 43 for females.

Single persons numbered 126 (71 males and 55 females), married 82 (42 males and 40 females) and widowed 22 (7 males and 15 females).

#### Classification of admissions by mental disorder and sex during the year

	Males	Females	Total
Affective psychoses	33	33	66
Schizophrenia	35	33	68
Paraphrenia	4	5	9
Paranoia	2	1	3
Confusional state	4	4	8
Alcoholic psychoses	4	—	4
Epilepsy & epileptic psychoses	5	4	9
Senile & arteriopathic psychoses	10	14	24
Psychopathic state	2	—	2
Mental deficiency	8	5	13
Neuroses	2	2	4
Other types	5	7	12
Not insane on admission	6	2	8

Discharges numbered 182 of whom 46 were considered recovered and 55 relieved. Transfers to the Mental Hospital in Gozo totalled 4.

### Discharges by mental disorder and condition of discharge during the year

	Recovered	Improved	Unimproved	N.R.H.T.
Affective psychoses ... ..	36	20	9	2
Schizophrenia ... ..	6	22	19	3
Paraphrenia ... ..	—	2	4	—
Paranoia ... ..	—	2	2	—
Confusional state ... ..	3	1	—	—
Alcoholic Psychoses ... ..	—	2	2	1
Epilepsy & epileptic psychoses ... ..	—	2	3	1
Senile & arteriopathic psychoses ... ..	—	—	2	6
Psychopathic state ... ..	—	—	1	1
Mental Deficiency ... ..	—	—	8	1
Neuroses ... ..	1	2	2	—
Other types ... ..	—	2	1	6

Cases discharged as not considered suffering from mental disorder numbered 7.

All the four cases transferred to the Gozo Hospital were suffering from Schizophrenia.

Deaths during the year numbered 35 (20 males and 15 females). The death rate on the average number of patients during the year (894) was 4% same as in 1953.

The principal causes of death were:—

Heart diseases ... ..	12 or 34%
Cerebral vascular diseases ... ..	3 or 9%
Senility ... ..	7 or 20%
Other causes ... ..	13 or 37%

**General Health.** The hospital population was free from infectious illness. One case of tuberculosis reported during the year was diagnosed immediately on admission. The infirmaries are crowded with old age and senile cases.

When necessary consultants were called to the hospital for advice. During the year 40 cases were referred to the Out-patients' Clinics at the St. Luke hospital.

**Treatment.** The following is a summary of the major forms of treatment carried out during the year and of the results obtained:—

**Hypoglycaemic shock:—** Only 9 patients (8 males and 1 female) were treated, two of whom recovered, two improved and 5 remained unimproved. This form of treatment is now limited to cases who do not improve after electric shock.

**Electric Convulsive Treatment:—** 103 patients, (67 males and 36 females) treated gave the following results:—

	Males	Females
Symptom free ... ..	20	9
Improved ... ..	22	7
Not improved ... ..	13	8
Still under treatment at the end of the year ... ..	12	12

Excluding those under treatment at the end of the year, the percentage of recoveries and improvements amounted to 73%.

Modified electrical convulsive treatment was carried out on 23 patients (13 males and 10 females). The results obtained are included in the above table.

**Out-Patient Clinic.** The number of new out-patients seen at St. Luke hospital during the year was 179, practically the same as last year (178). Total cases attending numbered 326 compared to 275 in 1953, and 1607 interviews were held.

### Diagnostic Classification of New Cases

Anxiety state ... ..	29
Hysteria ... ..	7
Obsessional compulsive state ... ..	7
Hypochondriasis ... ..	13
Affective psychoses ... ..	38
Schizophrenia ... ..	20
Paraphrenia ... ..	3
Paranoia ... ..	3
Confusional state ... ..	2
Epilepsy ... ..	26
Senile psychoses ... ..	2
Mental deficiency ... ..	15
Abnormalities in children ... ..	6
Unclassified ... ..	6
No psychiatric disability ... ..	2

### Disposal of New Material

A. Consultations ... ..	16
B. Treatment :	
(a) ceased attending or refused treatment ... ..	42
(b) admitted as in-patients ... ..	17
(c) remained for treatment ... ..	85
(d) recovered or improved ... ..	19

**Electrical Convulsive Treatment.** 33 patients (14 males and 19 females) attended as out-patients, with the following results:—

	Males	Females
Symptom free ... ..	6	6
Improved ... ..	1	3
Not improved ... ..	2	1
Stopped attending but improved ... ..	2	6
Stopped attending but no response ... ..	1	1
Admitted as in-patients ... ..	2	—
Still under treatment in 1955 ... ..	—	2

4 males and 11 females of the above patients had modified E.C.T.

**Pathological Laboratory.** During the year, 3,829 investigations were carried out classified as follows:—

1. *Blood.* Complete histological examination 412; differential count 414; serum reaction (Widal) 346; sugar estimation 16; sugar tolerance test 18; urea estimation 36; Van Den Bergh test 1; Kahn test 642; Kahn-Berger test 27; Wassermann reaction 575; cholesterol test 3; ketone test 1; sedimentation rate 7; total proteins 2.

2. *Cerebro-Spinal Fluid.* Chemical test 9; cytological examination 8; Lange's colloidal gold test 98; Kahn test 75; Wassermann reaction 75; total protein estimation 22; urea estimation 10.

3. *Urine.* Chemical and microscopical examination 883; other chemical tests 110; Zondek test (Friedmann's) 7.

4. *Various.* Faeces 12; gastric juice 3; sputum microscopical examination 17.

5. *Occupation and Recreation.* During the year an average of 188 patients (89 males and 99 females) were occupied daily, compared to 204 (91 males 113 females) last year.

The patients continued to enjoy char-a-banc trips four times weekly, and a good many attended films and theatrical shows in the hospital theatre.

At the end of the year there were 210 patients from the St. Vincent de Paul Hospital still housed in this Hospital.

## ST. VINCENT DE PAUL HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged					Remaining at end of 1954
			Transferred to other Hospitals	At Request	Cured	Relieved	Died	
Males 385	97	34	18	22	—	—	88	388
Females 341	89	35	13	21	—	—	94	337
Total (Inmates) 726	186	69	31	43	—	—	182	725
EXTENSION WARDS								
Male Medical Ward 25	11	35	4	16	3	4	18	26
Male Surgical Ward 22	22	43	7	15	14	3	27	21
Female Surgical Ward 13	13	18	3	3	11	1	12	14
Male T.B. Ward 26	18	7	5	7	3	1	6	29
Total (Patients) 86	64	103	19	41	31	9	63	90
S.V.P.H. Proper 726	186	69	31	43	—	—	182	725
Extension Wards 86	64	103	19	41	31	9	63	90
Grand Total 812	250	172	50	84	31	9	245	815

The daily average population of inmates was 730 (387 males and 343 females), whilst that of the patients in the four Extension Wards was 26 for the Male Medical, 24 for the Male Surgical, 13 for the Female Surgical and 25 for the Male Tuberculosis, giving a comprehensive average of 818 daily.

The number of inmates admitted during the year was 255, (131 males and 124 females), as against 293 in 1953 (128 males and 165 females). There were 182 deaths (88 males and 94 females) during the year as against 185 (64 males and 121 females) in 1953, 231 (108 males and 123 females) in 1952 and 240 (111 males and 129 females) in 1951. The causes of death were, as usual, generally due to conditions of a senile character.

46 patients, mainly transfers from St. Luke's Hospital, were admitted to the Male Medical Ward. As usual, the majority of these patients were suffering from chronic or incurable diseases. There were 18 deaths; last year's corresponding figures were 47 admissions and 21 deaths.

In the Male Tuberculosis Ward which is an extension ward of the Connaught hospital for tuberculosis there were 25 admissions with 6 deaths as against 29 admissions with 11 deaths in 1953.

In the Male Surgical Ward there were 65 admissions with 27 deaths as against 64 admissions with 20 deaths in 1953, while in the female surgical ward 31 patients were admitted with 12 deaths as against the preceedings year's 40 admissions with 20 deaths. The admissions into both these two Wards were generally transfers of inoperable or chronic cases from St. Luke's Hospital.

The reconstruction of the Wing Block in the Women's Subdivision remains the only outstanding major War Damage work to be taken in hand. The site of this Block has now been almost completely cleared and its rebuilding on a totally altered plan, is expected to be taken in hand at an early date.

The paving with cement concrete of the extensive quadrangle in the Women's Subdivision was discontinued towards the middle of the year under review.

Modern kitchen range is being installed in replacement of the old and unserviceable cooking range in the main kitchen. This work, taken in hand towards the end of August, is expected to be completed by the middle of the current year.

The construction, nearby, of a large Dutch Oven, has proved of invaluable service in the better baking of foodstuffs and more frequent serving of baked dishes, so popular with the inmates.

A start towards modernisation of the ward annexes was given effect this year through the alterations which were taken in hand in various wards. These alterations consisted mainly in the glaze tiling of the dadoes, the installation of bed-pan sinks and the construction of inlaid cupboards with marble shelves.

Maintenance work in the various sections of the Hospital was effected as necessary.

Many of the patients were encouraged to help in the hospital activities; some gave a helping hand in the carpentry, others in the shoe-maker shops, others in the kitchen and stores. Outings were organized for them, and indoor entertainments were not lacking. An invitation to a show at a visiting circus was eagerly availed of and much appreciated by the inmates of this hospital.

#### ST. BARTHOLOMEW HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Tranferred from other Hospitals	Discharged					Remaining at end of 1954
			Tranferred to other Hospitals	At request	Cured	Relieved	Died	
Males 54	5	—	—	3	—	—	3	53
Females 21	2	—	—	3	—	—	1	19
Total 75	7	—	—	6	—	—	4	72

The number of patients remaining in hospital at the end of 1953 was 75 (54 males and 21 females).

The number of patients admitted into the hospital during 1954 was 7 (5 males and 2 females).

Five of patients admitted (3 males and 2 females) were cases who, although still active, had left the hospital at their own request last year when the law of segregation was abolished. The remaining 2 males, were new cases.

Three males and two female patients in whom the disease was arrested, were discharged at request. Besides, one female patient who was still suffering from leprosy in an active stage but who could effectively be isolated in her own home, was discharged at her own request.



During the same period under review four patients died i.e. 3 males and 1 female.

The causes of death were as follows:— aplastic anaemia, chronic nephritis, pulmonary tuberculosis and acute broncho-pneumonia. The daily average number of patients this year was 73 i.e. 54 males and 18 females.

Although many different forms of treatment have been the subject of experiment in our Hospital, Sulphone treatment in various forms has remained the standard treatment of leprosy. It is now six years since Sulphone treatment was first used in our hospital and since that time marked improvements, have been noted especially in the general health and clinical appearance of patients, the majority of whom are of the lepromatous type. The death rate from leprosy has also fallen in recent years. The prolongation of life is probably due to treatment with Sulphones.

Five patients suffering from advanced lepromatous leprosy and intolerant both to DDS and Sulphetrone therapy have been undergoing treatment with Isonicotinic Acid for the last five months, the dose being three tablets (50 mg. each) daily. No other medicaments are being given.

Much improvement has been noted in the general health of the patients. An appreciable reduction in the size of the nodules has been noted and all ulcers have healed. These encouraging results were evident after four months treatment with the drug. However, no appreciable bacteriological improvement has so far been noted. Vitamin B, in high dosage has been tried in patients suffering from leprosy neuritis with no apparent results. One patient was operated upon by the senior accoucheur of St. Luke hospital for an ovarian cyst. Treatment was successful.

The ophthalmic surgeon of St. Luke's called on various occasions during the year and examined and treated the eye complications of the patients. Particular benefit has been obtained in cases of leprosy iritis from the local use of cortisone. All patients undergoing such treatment showed improvement in their vision.

The visiting physician has as usual been available for consultation during the year.

The Government Dental Surgeon also attended on various occasions.

Every effort was made to organise entertainments for the patients and theatrical companies have performed on various occasions in the Entertainment Hall of the hospital. Cinema shows took place weekly and outings were also organized.

#### ISOLATION HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged				Remaining at end of 1954	
			Transferred to other Hospitals	At Request	Cured	Relieved		Died
Males 1	200	24	19	8	148	9	7	12
Females 19	205	12	10	6	188	7	4	7
Total 20	405	36	29	14	336	16	11	19

The total number of patients treated during the year numbered 425 (201 males and 224 females). Of these 405 were new admissions, and of these 36 were transferred from other hospitals. The daily number of patients during 1954 averaged 20 (11 males and 9 females). The highest number of patients on any one single day was 33, the lowest 9.

Cases admitted into the hospital with a provisional diagnosis of diphtheria amounted to 157, of which 64 cases were confirmed bacteriologically and 6 clinically. The remaining 87 were cases of tonsillitis or of other affections of the upper respiratory tract. Of the confirmed cases, two had been immunised against diphtheria and in both cases the course of the disease was uneventful. There were 5 deaths from diphtheria; of these 3 died within 28 hours of admission. The majority of cases of diphtheria (87.14%) occurred in children up to 5 years of age. There was one case in a lady of 55 years of age.

Five cases of cerebro-spinal fever were admitted into the hospital and all were cured by Sulphonamide therapy.

Fourteen cases of Poliomyelitis were admitted one died from polio-encephalitis. Two cases were cured completely and sent home. Ten cases were transferred to St. Luke hospital for further treatment, and one case, a leading personality from Ethiopia was landed here for the night and proceeded to U.K. next morning.

Only 5 cases of chicken pox sought admission into hospital, of whom one died within 4 hours of admission from concomitant broncho pneumonia. In view of the severity of attack the Medical Officer of Health was called urgently to see the case.

There were 4 cases of scarlet fever with no deaths. The disease ran a mild course and complications were uncommon.

85 cases of whooping cough were admitted into the hospital. On the whole, the cases were of a mild form and there were no deaths. Again chloromycetin was the drug of choice.

The number of measles cases admitted into this hospital was 43. Two of these died of encephalitis, one of whom died within 24 hours of admission.

There were 7 cases of German measles, 4 of puerperal fever, 3 of mumps, 3 of influenza, and 1 septic abortion with no deaths.

15 cases of murine typhus were treated in this hospital with no deaths. Of these there were 3 members of the same family. Here again chloromycetin gave good results.

There was only one case of malaria, contracted abroad, treated in this hospital.

18 cases of erysipelas were treated in hospital, of whom one patient died. He was 80 years old.

There was in addition a death from broncho-pneumonia and senility, bringing total of deaths to 11.

The Visiting Physician, the Visiting Surgeon and E.N.T. Specialist and the Senior Ophthalmologist of the general hospital have always been available for advice and assistance.

Except for minor items the reconstruction of the disinfection station has been completed and it is hoped that it will start functioning early next year. The station includes facilities for personal disinfection and baths showers, as well as for disinfection of clothing, bedding, etc.

One whole wing of the hospital which had sustained war damage was considered unsafe and is being demolished. Plans for the construction of a new wing on modern lines have been drawn up and approved by Government.

## VICTORIA HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged					Remaining at end of 1954
			Transferred to other Hospitals	At Request	Cured	Relieved	Died	
Males 19	312	6	15	36	125	119	20	22
Females 29	452	4	13	49	249	121	22	31
Total 48	764	10	28	85	374	240	42	53

The total number of cases treated during the year was 822 as against 782 for 1953. The daily average population was 64 (26 males and 38 females) whilst the death rate was again 5%.

The classifications of diseases and deaths is given in Appendix MA.

There were five cases of closed tuberculosis of the respiratory system treated at this hospital. Two of these were discharged cured, one died, one was still under treatment and one transferred to Connaught hospital in Malta. Other forms of tuberculosis accounted for two more cases. Nineteen cases of typhoid fever, with no deaths, and twenty six of Brucellosis, with one death, came up for treatment, the corresponding figures for last year being 6, with no deaths, and 33 with one death. As usual Chloromycetin for typhoid fever and aureomycin for undulant fever were used in the treatment of these cases. A case of meningococcal meningitis that ended fatally was also admitted. Six cases of tetanus, all discharged cured, were treated, as against 5 with no deaths, for last year. Five cases of Leishmaniasis, all discharged cured, were admitted as in-patients during the year as against 3 for last year.

Seventysix cases were referred to St. Luke's or other hospitals at Malta for special investigations or treatment as against 66 for last year. Amongst them were cases requiring physiotherapy, dentures or special X-ray investigations, such as screening of the digestive tract and tomography. Other cases were transferred at the request of the Consultants for operative or other special treatment, which could not be carried out at this hospital.

The number of the more important operation performed in the hospital during the year was 186. The great majority, including all obstetric and gynaecological work and emergency operations were as usual performed, by the medical staff of this hospital, while other specialized operations that are outside the province of the general surgeon and not strictly urgent are performed by the Consultants during their monthly session at the hospital.

The operations performed were as follows:—

Bones, joints and tendons 83, E.N.T. 54, gastro-intestinal tract 44. Eye 20, gynaecological and obstetric 16, face and mouth 13, genito-urinary tract 10, neck 5, chest 1 and other operations 30.

879 cases were seen in the out-patient department during the year as against 891 for last year. As usual a good proportion of them were accidents or other cases of emergency reporting for treatment at any time of the day and night. Amongst them were claimants under the Workmen Compensation Scheme, and cases referred to the Consultants by the Medical Staff of the hospital.

The number of examinations and tests performed during the year was 1283. The tests carried out were as follows:— blood count and picture 160; blood urea estimation 75; blood serum agglutination 20; blood grouping 170; red blood cells sedimentation rate 120; complete examination of urine 180; examination of faeces for amoebae 19; examination of faeces for occult blood 14; examination of gastric contents 5; examination of C.S.F. 8; examination of urine for T.B. 11; examination for throat swabs 50;

examination of hair and scraping for parasites 90; examination of sputum 201; splenic pulp. for L.D.B. 21; Friedman test for pregnancy 98; nasal swabs for H.B. 14; vaginal swabs 5; pus discharge, scraping etc. 5; Van den Bergh's test 17.

The total number of X-ray examinations performed was 4505 which is 1729 over last year's figure of 2776. This was largely due to the greater number of migrants that came up for X-ray chest, but an all round increase took place during the year and when facilities for screening of the gastro-intestinal tract are available further increases can be expected.

The Consultant service, has consistently proved its worth and is gradually expanding its scope and activities.

With the exception of the ophthalmic surgeon, who in September and October was away from the Island on an assignment by the World Health Organization in the Far East, all the consultants held their respective sessions punctually and regularly. On several occasions the consulting physician had to face the inconvenience of bringing over with him his E.C.G. apparatus for the service of this hospital.

As in the past the patients of the Victoria Hospital and the old inmates of the St. John the Baptist Hospital were entertained in various ways by film shows, theatricals and outings.

#### ST. THERESA HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged					Remaining at end of 1954
			Transferred to other Hospitals	At request	Cured	Relieved	Died	
Males 7	2	1	1	1	—	—	1	7
Females 7	—	1	1	1	—	—	1	5
Total 14	2	2	2	2	—	—	2	12

The average daily population was 13 (6 males and 7 females).

The medical staff of the Victoria hospital are in charge of this hospital. Government specialists pay visits to the patients whenever their advice is required.

#### ST. JOHN THE BAPTIST HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged					Remaining at end of 1954
			Transferred to other Hospitals	At request	Cured	Relieved	Died	
Males 38	15	1	2	2	—	—	17	33
Females 44	13	—	—	2	—	—	11	44
Total 82	28	1	2	4	—	—	28	77

This hospital is an asylum for the aged and infirm and for chronic cases. It had an average daily population of 82 (38 males and 44 females).

The deaths were due to the following causes:— Cerebral haemorrhage 7; arterio-sclerosis 1; cerebral thrombosis 4; heart failure due to chronic nephritis 1; heart failure due to chronic myocarditis 1; acute pulmonary oedema following senile myocarditis 1; senile atrophy 1; senility 6; uraemia 1; uraemic convulsions 1; diabetes mellitus 1; dysentery (bacillary) 1; enteritis 1; epithelioma of lip with dissemination 1.

#### HOSPITAL FOR MENTAL DISEASES (GOZO)

The movement of the hospital population during the year was as follows:—

	Males	Females	Total	Males	Females	Total
On the hospital registers on 1st January, 1954	—	—	—	81	89	170
<i>Admissions:</i>						
Transferred from H.M.D. Malta	3	1	4	—	—	—
Provisionally admitted	8	4	12	11	5	16
Total cases under treatment	—	—	—	92	94	186
<i>Discharges:</i>						
Transferred to H.M.D. Malta	8	4	12	—	—	—
Total No. of Deaths	4	7	9	10	12	21
Remaining on the hospital registers on 31st December, 1954	—	—	—	82	83	165

The number of new admissions totalled 12 (8 males and 4 females) and these were subsequently transferred to the Hospital for Mental Diseases, Malta, for examination by the Board of Mental Diseases and eventual specialized treatment. Four other patients (3 males and 1 female) were transferred from the Hospital for Mental Diseases Malta.

The average daily population was 169 (82 males and 87 females).

The general health of the patients was good; there were no cases of notifiable diseases except for two old cases of pulmonary tuberculosis (1 male and 1 female). These have already been reported upon in previous reports.

One out-patient reported for examination once every month.

An average of forty patients (23 males and 17 females) were usefully occupied during the year and frequent walks and bus trips were organized for those patients who could enjoy such excursions.

Deaths totalled 9 (2 males and 7 females) and were due to the following causes; heart disease 4 (coronary thrombosis 2, chronic myocarditis 1, V. H.D. 1); status epilepticus 2; nephritis 1, senility 1.

Twelve inmates (9 males and 3 females) of the St. Vincent de Paul Hospital are still housed in emergency ward of this hospital. One new case was admitted and one was discharged; there were no deaths in this ward.

## SACRED HEART HOSPITAL

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Transferred from other Hospitals	Discharged					Remaining at end of 1954
		Transferred to other Hospitals	At request	Cured	Relieved	Died	
Males 3	—	—	—	—	—	—	3
Females 5	—	1	1	—	—	—	3
Total 8	—	1	1	—	—	—	3

Of the 2 patients (females) discharged, one was declared not suffering from Hansen's Disease and transferred to St. Vincent de Paule hospital, extension ward referred to above, and the other was discharged at her own request.

There were no admissions or deaths during the year.

Five out-patients (3 males and 2 females) attended periodically for examination and treatment. Total number of attendances was 37.

Sulphetrone is still being used as the main treatment.

## ISOLATION HOSPITAL (GOZO)

The movement of the hospital population during the year was as follows:—

Remaining at end of 1953	Admitted	Transferred from other Hospitals	Discharged					Remaining at end of 1954
			Transferred to other Hospitals	At Request	Cured	Relieved	Died	
Males 1	16	1	1	—	15	—	1	1
Females 3	22	—	—	—	24	—	1	—
Total 4	38	—	—	—	39	—	2	1

On December 31st, 1953, there were still 4 patients (1 male and 3 females) on the Hospital Register.

The total number of patients treated during 1954 was 42.

The cases treated consisted of the following:—

Diphtheria ... ..	19 (10 males and 9 females)
Acute tonsillitis ... ..	8 (5 males and 3 females)
Scarlet fever ... ..	1 (— males and 1 female)
Poliomyelitis (facial) ... ..	1 (1 male and — females)
Measles ... ..	8 (1 male and 7 females)
Influenza ... ..	1 (— males and 1 female)
Erysipelas ... ..	4 (— males and 4 females)
Total ... ..	42 (17 males and 25 females)

The age groups of the patients treated were the following :—

- Under 6 years (12 males and 17 females)
- Under 11 years (3 males and 2 females)
- Over 11 years (1 male and 7 females)

The only case of Poliomyelitis came from Xewkija (male).

The cases discharged from Hospital are classified as follows :—

- Cured 35 (15 males and 20 females)
- Transferred to Victoria Hospital 1 (female)
- Patients died of Diphtheria 1 (male)
- Patients died of Measles and Enteritis 1 (female)

On December 31st, 1954, 1 patient (male) was still under treatment.

### ADMINISTRATION AND MISCELLANEOUS

#### Staff:

*Medical* :— At Head Office : Chief Government Medical Officer, Senior Medical Officer, Senior Health Officer, Principal Laboratory Officer, Medical Officers of Health 4; Junior Analyst, Junior Bacteriologist, Medical Officer General Service.

*Administrative* :— Administrative Secretary, Accountant, Almoner, Supplies Officer.

*In Districts* :— Port Medical Officers (including Luqa Airport) 5, School Medical Officers 3, District Medical Officers 42, Child Health Officers 2, School Dentists 2, School Eye Specialist 1.

*Specialists* :— Physicians 3, Surgeons 4, Accoucheurs 2, Surgeons E.N.T. 2, Pathologists 2, Venereal Diseases Officers and Dermatologists 2, Psychiatrists 6, Bacteriologist, Tuberculosis and Chest Specialists 2, Orthopaedic Surgeons 2, Blood Transfusion Officer, Ophthalmologists 2, Radiologists 4, Anaesthetists 3.

*Hospitals* :— Resident Medical Superintendents 9, Resident Medical Officers 9, Resident Clinical Officers 3, Assistant Medical Officers 16.

*Dental Officers* :— Dental Surgeons 2, Junior Dental Surgeons 2.

*Pharmaceutical Chemists* :— Medical Stores 3, Hospitals 2, Assistant Apothecaries 13, Laboratory Assistants 6.

*Radiographers* 4.

*Health Inspectors* :— Sanitary Inspectors 61, Public Cleansing Officer, Tuberculosis Officer, Rodent Control Officer.

*Health Visitors* 38.

*School Nurses* 4.

*Nursing Sisters* :— Sister Tutors 2, Registered Nurses 23, Sick Children Nurse.

*Midwives* :— In hospitals 6, subsidized in districts 3.

*Masseuses and Physiotherapy Sisters* 6.

*Council of Health* :— No Council of Health meetings were held during 1954.

*Medical Board* :— The Medical Board held twelve sittings during the year, no extraordinary meetings were convened.

The negotiations with the Medical Board of New South Wales, Australia and with the Nurses Board of the same state with a view of establishing reciprocal recognition of Medical degrees and Nursing certificates between that state and Malta were satisfactorily concluded.

The recommendations made by the Board in respect of the revision in the tariff of fees of dentists, and midwives were approved by the Government. Two sub-committees were also appointed to study the revision of fees payable to doctors and to pharmacists.

The Board also recommended that the Medical and Kindred Professions Ordinance (Chapter 51) be amended whereby it shall be given authority to take legal action against midwives for irregularities and malpractices.

The Board also considered several applications from doctors who applied for a licence to practice the medical profession locally. Seven doctors, including two temporary licences, 9 dentists, 3 apothecaries, 3 assistant apothecaries, 4 midwives, 1 chiropodist were recommended for the grant of the relative licence, while 20 nurses and 4 physiotherapists were admitted to the Register for Nurses and the Register for Physiotherapists respectively. One application for the local practise of the medical profession was not entertained by the board.

Twelve notices for the construction of new buildings and/or structural alterations to existing buildings were brought before the Board. Of these, 10 were submitted by the Superintendent of Public Health and 2 were appeals against decisions taken by the Department. These appeals were dismissed.

The Board has also assessed fees a) claimed by persons licensed to practise the medical and kindred professions and b) due to officers of this department for services rendered to other Government Departments.

**Laws and Regulations:**— The following legislation was approved and published during the year:—

i) Government Notice No. 245 of the 4th June, 1954 amending the time-table for the stamping of sausages as required by Regulation 2 of the Food, Drugs and Drinking Water Ordinance (Chapter 54) Section 66.

ii) Publication of Tariff of fees payable to midwives—Government Notice No. 315 of 23.7.54.

**Medical Examinations:**— A total of 504 Government Officials were examined by the Medical Officers of Health prior to appointment. Nurses, teachers and police recruits also had their chest X-rayed. The Medical Officers of Health examined 65 Government Officials who had exceeded their statutory period of sick leave or who were reported unfit for further service by their Head of Department.

**Pharmacies:**— The Medical Officers of Health together with the Analyst of the Department paid 113 surprise inspections to pharmacies throughout the year. These inspections were carried out in terms of Section 36 of the Medical and Kindred Professions Ordinance to ascertain if the provisions of the Law are being complied with. All the pharmacies were found to be supplied with the medicinal substances required by law; no substance was found imperfect, spoilt or noxious. The registers were properly kept and the prescriptions containing dangerous drugs were found to conform with the provisions of Government Notice No. 212 of 1939.

**Vaccination:**— In terms of the Prevention of Disease Ordinance all parents are obliged to have their babies vaccinated against small-pox. Such vaccination must be carried out after the baby attains the age of two months. Though vaccination may be carried out by all medical practitioners, the Department holds two yearly sessions of public gratuitous vaccinations. The vaccine lymph is always provided free of charge by the Department and is available to all doctors who ask for it.

The number of babies vaccinated during the year totalled 2,499.

**District Medical Service:**— The staff of the District Medical Service is made of 42 medical practitioners who attend daily at the Government District Dispensaries and also pay domiciliary visits. The number of attendances at the District Dispensaries totalled 100,747; domiciliary visits totalled 15,360 during the same period.



**Training of Personnel:**— Dr. J. Pisani, one of the Resident Medical Officers at the Hospital for Mental Diseases is undergoing a postgraduate course in psychological medicine at Maudsley College. Two others Officers, Dr. V. Testaferrata Bonnici, M.D. and Mr. Joseph Agius, A.M.I.E.E., left for the United Kingdom to undergo a course in Port Health Services and in the Maintenance and Repair of X-Ray Diagnostic and Therapeutic apparatus respectively. Dr. F. T. Pullicino returned to Malta after finishing a course on blood transfusion.

The entrance examinations were held during the year at the St. Luke's Training School for Nurses. Two preliminary and two final examinations were held during the year. Ten out of sixteen candidates were successful in the preliminary examination whilst fourteen out of twenty candidates passed the final examination and were awarded state registration certificates.

**Appointments:**— The following appointments were made during the year:—

Prof. Oscar Zammit, M.D., M.Sc. (L'Pool), M.R.C.O.G., appointed Accoucheur as from the 1st January, 1954.

Dr. Pierre J. D'Amato, M.D., D.L.O. (Eng.) appointed Junior Ear, Nose and Throat Surgeon as from the 7th January, 1954.

Dr. Joseph R. Borg, M.D., B.Sc., D.G.O. (Dublin), L.M. Dublin, M.R.C.O.G. appointed Junior Accoucheur as from the 11th January, 1954.

Dr. Philip Micallef, M.D., D.C.H., appointed School Medical Officer as from the 20th September, 1954.

Dr. F. T. Pullicino M.D., appointed Blood Transfusion Officer as from the 12th November, 1954.

**Medical Stores:**— The total value of Medical Supplies issued during the Financial Year 1954-55 was £71,152 9s. 4d. as detailed hereunder:—

	Drugs	Dressings	Equipment	Total
Hospitals, District Dispensaries and other Branches of the Medical and Health Department including approved prescriptions — (Malta) ... ..	£34,715 10 11	£7,610 19 8	£20,466 12 5	£62,793 3 0
Hospitals, District Dispensaries and other Branches of the Medical and Health Department including approved prescription — (Gozo)... ..	4,307 6 2	918 14 11	1,963 6 9	7,189 7 10
Other Government Departments . . . . .	297 14 4	244 13 10	26 11 6	568 19 8
Sales from Medical Stores. St. Luke's and Central Hospitals ... ..	600 19 10	— — —	— — —	600 19 10
	£39,921 11 3	£8,774 8 5	£22,456 10 8	£71,152 9 4

**Medical Relief:**— The grants to the households of patients at St. Bartholomew's Hospital continued to be governed by the rates of the previous year.

As in former years persons suffering from certain diseases for which treatment is not available locally were remitted to hospitals in the United Kingdom. Fifty-three patients were sent to various hospitals distributed as follows:—

The Royal Marsden Hospital ... ..	30
The Middlesex Hospital ... ..	11
The National Hospital ... ..	5
Glasgow Dental Hospital and School ... ..	1

Queen Victoria Hospital, East Grinstead, Sussex	...	...	1
The Royal National Orthopœdic Hospital	...	...	1
The Hospital for Sick Children	...	...	1
Moorfields Westminster Central Eye Hospital	...	...	1
The Atkinson Morley Hospital	...	...	1
St. Thomas' Hospital, Godalming, Surrey	...	...	1

Expenditure on medical relief and kindred services during the financial year 1954-55 was as follows:—

Grant to sick persons and their dependants	...	...	£ 5,293	8	6
Grant to dependants of T.B. Patients	...	...	24,805	10	—
Subsidies for milk for babies	...	...	6,756	17	6
Infants kept at the Ursuline Creche, Sliema	...	...	2,746	8	—
Grants to households of inmates of St. Bartholomew's Hospitals	...	...	3,152	2	6
Fees to midwives for services rendered to necessitous mothers	...	...	66	16	—
Travelling expenses to persons sent to U.K. Hospitals for treatment not available locally	...	...	2,187	7	4
Cost of treatment of patients in U.K. hospitals between 1st January, 1952, and 30th September, 1954	...	...	20,766	2	9

#### Total cost of the Medical and Health Department

The expenditure during the financial year 1954-55 — structural repairs not included — was as stated hereunder. The expenditure for 1953/54 is given for comparison.

	1953-54	1954-55
General Administration and general expenses	£ 19,983	£ 20,662
Health Branch and Laboratory	48,384*	47,061
Child Health Service	9,534	9,849
Cemeteries	6,395	7,268
School Medical Service	4,701	4,951
Hospitals	824,838	840,273
School for Nurses	9,793	10,468
District Medical Service	21,782	23,640
Grant to the Malta Memorial District Nursing Association	2,000	2,000
Grant to the Ladies Hospital Visiting Committee	250	250
Grant to the Mothers and Infants Health Association	450	450
Maintenance of seven beds in the Malta War Memorial Hospital for children	630	630
Grant to the St. John Ambulance Association (Malta Centre)	122	122
Relief to families of inmates of St. Bartholomew Hospital, Malta, and Sacred Heart Hospital, Gozo	3,636	3,249
Outdoor Medical Relief, including milk subsidies for babies and Midwifery assistance	14,411	30,776§
Relief to T.B. cases and/or to their families	22,318	24,654
Expenses in connexion with the burial of paupers	1,039	1,091
Grant to the Bureau of Hygiene and Tropical Medicine	—	50
Public Cleansing Service	216,023	225,778
	<u>£1,206,289</u>	<u>£1,253,222</u>

\* Includes the amount of £2,551, formerly shown under Quarantine Stations, which now form part of the Isolation Hospital.

§ Increase due to a greater number of patients receiving treatment abroad.

**Heads and Subheads of Revenue**

		Actual Revenue	
		1953-54	1954-55
		£	£
II.	2. Quarantine Dues ... ..	—	—
III.	17. Miscellaneous Fines ... ..	17	1
VII.	A. Fees of Office :—		
	15. Permits, certificates, etc. ... ..	242	226
	16. Radiography ... ..	579	369
	17. Pathological Examinations ... ..	14	13
	18. Stamping Sausage Fees ... ..	1,566	2,009
	33. Miscellaneous ... ..	50	86
	B. Reimbursements :—		
	62. Refund of Expenses for watching corpses at the Addolorata Cemetery ... ..	146	180
	63. Sale of Produce ... ..	453	396
	64. Sale of Offal ... ..	4,512	4,056
	65. Ambulance and funeral expenses ... ..	151	78
	66. Sale of Medicines ... ..	601	895
	67. Collections from Public Conveniences ... ..	1,178	1,244
	68. Hospital Fees ... ..	12,472	7,066
	99. Miscellaneous ... ..	1,207	1,389
XIV.	1. Widows and Orphans Fund ... ..	2,445	2,797
XVII.	1. Sale of House Refuse ... ..	2,834	3,105
	2. Miscellaneous ... ..	561	1,473
	3. Weighbridge Fees ... ..	407	512
XVIII.	1. Sale of Crown Lands ... ..	12	6
		<hr/>	<hr/>
		£29,447	£25,901
		<hr/>	<hr/>



## APPENDIX HA.

Table showing diseases causing death, by month, in accordance with the International List of Causes of Death.

Causes of Death	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
<i>I. Infective and Parasitic Diseases.</i>													
1. Tuberculosis of the respiratory system ...	4	5	5	2	1	3	2	3	1	2	6	2	36
2. Tuberculosis of the meninges and central nervous system ...	...	...	...	...	...	...	...	...	...	1	...	...	1
3. Tuberculosis of intestines, peritoneum and mesenteric glands ...	...	1	...	...	1	...	...	...	...	...	...	...	1
5. Tuberculosis, all other forms ...	...	1	...	...	...	...	...	...	...	...	...	...	1
9. General paralysis of insane ...	...	...	...	...	...	...	...	...	...	...	1	...	1
10. All other syphilis ...	...	...	...	...	...	...	...	...	2	...	...	...	3
12. Typhoid fever ...	...	...	...	...	...	2	...	...	...	...	...	...	2
15. Brucellosis (undulant fever) ...	...	...	...	1	...	...	...	1	...	...	...	...	2
16a. Bacillary dysentery ...	...	...	...	...	...	...	...	1	...	...	...	...	1
16b. Amebiasis ...	...	...	...	...	...	1	...	...	...	...	...	...	1
16c. Other unspecified forms of dysentery ...	...	...	...	...	1	...	...	...	...	...	...	...	1
20. Septicæmia and pyæmia ...	...	...	...	...	1	...	...	...	1	...	...	...	2
21. Diphtheria ...	...	...	1	2	1	...	1	...	...	1	1	...	7
22. Whooping cough ...	...	...	...	...	1	...	1	...	...	...	1	...	3
23. Meningococcal infections ...	...	...	1	...	...	...	...	...	...	...	...	...	1
25. Leprosy ...	1	...	...	1	...	...	2	1	...	...	...	...	5
26. Tetanus ...	...	...	...	...	...	...	1	1	1	...	...	...	3
28a. Poliomyelitis ...	...	...	...	...	...	...	1	1	...	...	...	...	1
32. Measles ...	2	...	...	1	...	1	1	1	...	...	...	...	6
34. Infectious hepatitis ...	...	...	...	...	...	...	...	...	...	1	...	...	1
<i>II. Neoplasms.</i>													
44. Malignant neoplasm of buccal cavity and pharynx ...	...	1	...	2	...	...	3	...	1	...	1	1	9
45. Malignant neoplasm of œsophagus ...	1	2	1	3	...	1	1	1	2	2	1	2	17
46. Malignant neoplasm of stomach ...	7	5	2	6	6	4	9	4	3	4	5	10	65
47. Malignant neoplasm of intestines, except rectum ...	3	3	1	...	2	2	1	...	...	...	1	...	13
48. Malignant neoplasm of rectum ...	...	...	1	...	...	1	...	...	...	...	1	...	3
49. Malignant neoplasm of larynx ...	1	...	1	...	1	1	...	1	...	...	...	1	6
60. Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary ...	7	4	3	2	4	1	2	2	...	1	4	1	31
51. Malignant neoplasm of breast ...	4	1	...	2	1	4	3	1	...	...	1	1	18
52. Malignant neoplasm of cervix uteri ...	...	...	...	...	1	...	1	...	...	...	...	1	3
53. Malignant neoplasm of other and unspecified parts of the uterus ...	3	1	1	...	2	1	2	4	5	4	...	6	29
54. Malignant neoplasm of prostate ...	3	...	...	1	1	1	...	...	...	...	...	...	6
55. Malignant neoplasm of skin ...	...	...	...	...	...	1	...	...	...	...	1	1	3
56. Malignant neoplasm of bone and connective tissue ...	...	...	...	...	...	1	...	...	1	...	2	...	4
57. Malignant neoplasm of all other and unspecified sites ...	10	4	5	3	4	7	11	6	7	8	4	10	80
58. Leukæmia and aleukæmia ...	1	...	...	1	2	1	1	1	...	...	...	...	7
59. Lymphosarcoma and other neoplasms of lymphatic and hæmatopoietic system... ..	1	1	...	...	1	2	1	1	2	...	1	...	10
60. Benign neoplasms and neoplasms of unspecified nature ...	1	1	2	...	...	1	...	1	...	...	1	...	7
<i>III. &amp; IV. Allergic, Endocrine System, Metabolic and Nutritional Diseases and Diseases of the Blood &amp; Blood-forming Organs.</i>													
63. Diabetes mellitus ...	12	6	11	12	7	12	9	4	5	6	9	9	102
64b. Pellagra ...	...	...	...	...	...	...	...	...	...	1	1	...	2
65a. Pernicious and other hyperchromic anæmias ...	...	...	...	...	1	1	...	...	...	1	...	...	3
65c. Other specified and unspecified anæmias ...	...	...	...	...	...	...	1	...	...	...	1	...	2
66a. Asthma ...	4	1	1	4	...	2	1	1	1	1	...	1	17
66b. All other allergic disorders, endocrine, metabolic and blood diseases ...	...	...	2	...	...	1	1	1	...	...	...	...	5
<i>V. Mental, Psychoneurotic and Personality Disorders.</i>													
67. Psychosis ...	...	...	...	1	...	...	1	1	...	...	...	...	3
68. Psychoneurosis and disorders of personality ...	...	...	1	...	...	...	...	...	...	...	...	...	2
69. Mental deficiency ...	1	...	1	...	1	...	...	...	...	...	...	...	3
<i>VI. Diseases of the Nervous System and Sense Organs.</i>													
70. Vascular lesions affecting central nervous system ...	23	29	28	25	32	32	19	24	20	26	31	26	315
71. Non-meningococcal meningitis ...	...	...	...	...	...	...	1	...	...	...	...	...	1
72. Multiple sclerosis ...	...	...	...	...	...	...	1	1	...	...	...	...	2
73. Epilepsy ...	...	...	...	1	...	...	...	...	...	...	3	1	5
78b. All other diseases of the nervous system and sense organs ...	1	1	1	1	1	1	2	...	...	1	...	2	11
Carried forward ...	90	67	70	71	72	86	80	62	82	60	77	76	863

## APPENDIX HA — (Continued).

Table showing diseases causing death, by month, in accordance with the International List of Causes of Death.

Causes of Death.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Brought forward ...	90	67	70	71	72	86	80	62	52	60	77	76	863
<i>VII. Diseases of the Circulatory System.</i>													
79. Rheumatic fever ...	5	...	1	...	...	...	...	4	1	2	1	...	14
80. Chronic rheumatic heart disease ...	...	1	...	3	...	...	1	...	5	...	1	1	15
81. Arteriosclerotic and degenerative heart disease ...	91	75	80	63	64	30	50	29	36	40	56	76	690
82. Other diseases of heart ...	14	11	8	12	9	10	6	2	7	5	17	11	112
83. Hypertension with heart disease ...	2	8	9	10	9	11	4	6	3	4	9	5	80
84. Hypertension without mention of heart... ..	...	4	3	3	2	3	2	3	2	2	1	...	25
85. Diseases of arteries ...	9	6	4	6	3	3	4	5	3	2	1	4	56
86. Other diseases of circulatory system ...	2	1	...	...	1	1	1	...	1	...	2	...	9
<i>VIII. Diseases of the Respiratory System.</i>													
87. Acute upper respiratory infections ...	...	1	...	...	1	...	...	...	...	...	...	...	2
88. Influenza ...	...	1	1	...	...	...	...	...	...	...	...	...	2
89. Lobar pneumonia ...	1	1	1	2	...	2	2	2	1	...	2	3	17
90. Broncho-pneumonia ...	3	10	9	5	5	10	9	2	7	4	2	1	67
91. Primary atypical, other and unspecified pneumon ...	...	...	1	...	...	...	...	1	...	...	...	...	2
92. Acute bronchitis... ..	3	11	10	5	1	6	1	4	3	3	5	4	56
93. Bronchitis, chronic and unqualified ...	2	1	4	2	1	3	...	1	1	...	4	...	19
95. Empyema and abscess of lung ...	...	...	...	...	...	...	...	...	...	...	...	1	1
97b. All other respiratory diseases ...	6	9	12	8	5	4	2	1	3	6	4	2	62
<i>IX. Diseases of the Digestive System.</i>													
99. Ulcer of stomach ...	...	1	1	1	1	1	...	...	...	1	...	...	6
100. Ulcer of duodenum ...	2	...	2	...	...	...	1	...	...	...	...	...	5
101. Gastritis and duodenitis ...	...	...	...	...	...	...	...	...	1	...	2	1	4
102. Appendicitis ...	...	...	...	...	...	1	...	...	...	...	...	...	1
103. Intestinal obstruction and hernia ...	3	3	...	2	...	...	2	3	1	2	2	1	19
104a. Gastro-enteritis and colitis between 4 weeks and 2 years ...	1	8	3	4	7	20	35	25	14	9	15	8	149
104b. Gastro-enteritis and colitis ages 2 years and over ...	...	...	...	1	...	2	1	...	...	...	1	1	6
104c. Chronic enteritis and ulcerative colitis ...	...	...	...	1	...	...	...	...	...	...	1	...	2
105. Cirrhosis of liver ...	3	2	1	1	4	...	2	...	1	1	2	3	20
106. Cholelithiasis and cholecystitis ...	1	1	...	1	...	...	...	...	1	...	...	...	4
107. Other diseases of digestive system ...	1	1	2	4	...	1	...	...	1	3	1	...	14
<i>X. Diseases of the Genito-Urinary System.</i>													
108. Acute nephritis ...	1	...	1	1	1	...	2	...	1	1	1	3	12
109. Chronic, other and unspecified nephritis ...	1	10	8	6	5	7	6	10	7	8	8	10	86
110. Infections of kidney ...	2	...	1	1	...	3	2	...	2	...	2	...	13
111. Calculi of urinary system ...	...	...	...	...	...	...	2	...	...	1	...	...	3
112. Hyperplasia of prostate ...	3	1	1	3	1	...	...	...	1	1	...	1	12
114c. All other diseases of the genito-urinary system ...	2	...	...	2	...	1	...	...	...	...	...	...	5
<i>XI. Deliveries and Complications of Pregnancy, Childbirth and the Puerperium.</i>													
117. Hæmorrhage of pregnancy and childbirth ...	...	...	...	...	...	1	...	3	...	...	...	...	4
120a. Other complications of pregnancy, childbirth and the puerperium ...	...	2	1	...	...	...	...	...	...	...	1	...	4
<i>XII. Diseases of the Skin and Cellular Tissue</i>													
121. Infections of skin and subcutaneous tissue ...	...	...	1	...	...	...	...	...	...	...	...	...	1
<i>XIII. Diseases of the Bones and Organs of Movement.</i>													
122. Arthritis and spondylitis ...	...	...	1	...	...	...	...	...	1	...	...	...	2
126b. All other diseases of skin ...	...	...	...	...	...	1	...	...	...	...	...	...	1
126c. All other diseases of musculo-skeletal system ...	...	...	...	1	...	...	...	...	...	...	...	...	1
Carried forward ...	248	239	236	218	193	205	216	164	156	155	218	212	2,460

## APPENDIX HA — (Continued).

Table showing diseases causing death, by month, in accordance with the International List of Causes of Death.

Causes of Death	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Brought forward ...	248	239	236	218	193	205	216	164	153	155	218	212	2,460
<i>XIV. Congenital Malformations.</i>													
127. Spina bifida and meningocele ...	1	1	...	2	1	1	2	1	...	1	3	2	15
128. Congenital malformation of circulatory system ...	1	4	2	3	3	3	1	5	3	2	2	5	34
129. All other congenital malformations ...	...	4	1	1	1	2	...	2	2	...	1	2	16
<i>XV. Certain Diseases of Early Infancy.</i>													
130. Birth injuries ...	4	3	5	2	2	3	2	3	1	2	2	5	34
131. Postnatal asphyxia and atelectasis ...	10	8	9	8	5	6	11	8	8	9	5	7	94
132a. Diarrhoea of newborn (under 4 weeks) ...	...	...	2	1	...	1	3	1	...	1	...	...	9
133. Haemolytic disease of newborn ...	...	...	...	...	1	1	...	...	...	...	1	...	3
134. All other defined diseases of early infancy ...	2	3	4	1	2	2	1	2	2	2	1	1	23
135. Ill-defined diseases peculiar to early infancy, and immaturity unqualified ...	16	10	12	6	12	20	7	13	14	12	12	15	149
<i>XVI. Symptoms, Senility and Ill-defined Conditions.</i>													
136. Senility without mention of psychosis ...	18	21	21	15	9	10	8	7	10	11	19	14	163
<i>XVII. Accidents, Poisoning and Violence.</i>													
138. Motor vehicle accidents ...	...	...	1	...	2	1	...	2	...	3	...	1	10
141. Accidental falls ...	1	...	2	...	2	5	1	1	...	3	...	...	15
142. Accident caused by machinery ...	1	...	...	...	...	...	...	...	...	...	...	...	1
143. Accident caused by fire and explosion of combustible material ...	...	...	...	1	2	...	7	2	2	2	...	1	17
145. Accident caused by firearm ...	...	...	...	...	...	...	1	...	...	...	...	...	1
146. Accidental drowning and submersion ...	...	...	1	...	1	1	1	...	...	1	...	...	5
147a. Foreign body entering eye and adnexa ...	...	...	1	...	...	...	...	...	...	...	...	...	1
147b. Foreign body entering other orifice ...	...	...	...	...	...	...	...	...	...	...	1	...	1
148. All other accidental causes ...	3	1	1	1	2	3	...	...	...	3	2	3	19
149. Homicide and injury purposely inflicted by other persons (not in war) ...	...	...	...	...	...	...	...	...	...	...	...	1	1
Total ...	305	294	298	259	238	264	261	211	198	207	267	269	3,071

Table showing mortality in quinquennial and decennial age groups by sex

LOCALITY	A G E S																										TOTAL		TOTAL both sexes	
	Under 5		5 & under 10		10 & under 15		15 & under 20		20 & under 25		25 & under 35		35 & under 45		45 & under 55		55 & under 65		65 & under 75		75 & under 85		85 & under 95		95 and over		M	F		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Attard	...	2	...	...	...	...	...	...	...	...	...	1	...	1	...	2	1	2	1	3	2	...	...	...	...	7	10	17		
Balzan	...	1	1	...	1	...	...	...	...	...	...	3	...	4	...	2	1	1	3	1	1	...	...	...	...	13	6	19		
Birkirkara	...	26	19	...	2	...	1	...	1	2	2	2	3	5	4	12	9	19	18	13	15	4	4	...	...	86	75	161		
Birzebbuga	...	6	2	1	...	1	...	...	...	...	...	1	1	5	5	9	6	3	2	1	1	...	1	...	27	18	45			
Cospicua	...	9	8	...	1	...	...	...	...	3	1	...	1	6	3	6	5	14	14	11	11	1	1	...	1	51	45	96		
Dingli	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...	3	3	6		
Floriana	...	4	5	...	...	...	...	...	...	1	...	...	1	6	3	12	8	5	9	1	5	2	3	...	...	31	34	65		
Gharghur	...	3	1	...	...	...	...	...	...	...	...	...	1	1	...	2	2	3	1	2	2	2	1	...	...	13	7	20		
Ghaxaq	...	6	1	...	...	1	1	...	1	...	1	...	1	2	...	3	2	3	3	1	2	...	1	...	18	11	29			
Gudja	...	4	1	...	...	...	...	...	...	...	...	...	1	1	2	...	1	3	...	...	...	...	...	...	...	8	5	13		
Gzira	...	9	14	1	...	1	...	...	...	1	4	...	2	3	10	5	8	7	5	3	...	...	...	...	40	33	73			
Hamrun	...	20	16	1	...	1	2	...	1	2	2	...	6	11	7	21	13	31	20	27	23	4	4	...	120	92	212			
Kalkara	...	2	6	...	1	...	...	...	...	...	...	...	1	1	...	4	3	...	1	2	1	...	...	...	9	12	21			
Kirkop	...	1	1	...	...	...	...	1	1	...	...	...	1	...	...	...	1	...	1	...	...	...	...	...	...	5	2	7		
Lija	...	2	...	1	...	...	...	...	1	...	1	...	1	5	4	7	4	3	1	6	1	1	1	...	14	23	37			
Luqa	...	5	3	1	...	1	2	...	1	1	1	1	1	6	1	4	2	4	6	3	3	1	1	...	27	19	46			
Marsa	...	16	10	...	2	1	...	1	...	1	1	...	1	6	2	16	6	12	7	13	2	1	1	...	68	31	99			
Marsaskala	...	2	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2	1	1	1	1	...	...	...	6	3	9			
Marsaxlokk	...	3	2	1	...	1	...	...	...	...	...	...	2	1	...	1	1	1	2	1	1	...	...	...	10	4	14			
Mdina	...	...	...	...	...	...	...	...	...	...	2	1	...	...	1	...	1	1	2	...	...	...	...	...	1	5	4	9		
Mellieha	...	7	2	...	...	...	...	...	...	1	...	1	1	1	1	1	3	6	5	3	...	...	...	...	18	14	32			
Mgarr and Żebbieh	...	2	4	...	...	...	1	...	...	1	...	1	...	...	2	...	1	...	...	1	1	...	...	...	8	6	14			
Mosta	...	10	6	...	1	...	1	...	...	...	1	1	3	2	4	2	4	14	9	2	1	2	...	...	33	30	63			
Mqabba	...	4	5	...	...	...	...	...	...	...	1	1	...	1	1	1	1	2	2	6	...	...	...	...	9	15	24			
Msida	...	6	7	...	...	...	...	...	2	...	1	1	4	4	4	4	8	5	6	1	1	...	...	...	27	31	58			
Naxxar	...	4	1	...	...	1	...	...	...	1	1	1	1	11	1	3	2	5	3	4	...	...	...	...	13	14	27			
Paola	...	22	9	2	...	...	1	1	...	1	...	3	3	11	3	20	7	19	11	9	14	1	...	...	88	49	137			
Pietà	...	4	...	1	...	...	...	...	...	...	1	2	1	4	1	1	1	3	3	4	2	...	...	...	17	10	27			
Qormi	...	35	29	1	1	1	3	2	1	1	1	3	3	3	5	10	14	20	13	9	11	4	2	...	90	82	172			
Qrendi	...	3	2	...	...	1	...	...	...	...	...	...	1	...	1	...	3	3	2	5	2	...	...	...	10	12	22			
Rabat	...	17	14	...	2	1	1	1	1	1	...	2	3	6	7	11	14	8	16	19	15	1	10	...	61	83	144			
Safi	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	1	2	3		
St. Julian's	...	4	6	...	1	...	2	...	...	1	...	1	1	2	1	7	2	3	7	6	4	1	2	...	27	24	51			
St. Paul's Bay	...	3	4	...	...	...	...	...	...	...	...	...	...	...	2	2	4	1	2	4	1	1	...	...	12	12	24			
Sta. Venera	...	1	3	...	...	2	...	...	...	...	...	...	...	...	2	2	1	3	3	2	1	1	...	...	10	11	21			
Senglea	...	1	2	...	1	...	1	...	1	...	1	2	2	2	2	5	1	1	6	2	3	3	...	...	18	16	34			
Siggiewi	...	7	6	...	1	...	...	...	...	...	...	3	3	1	5	5	5	4	4	4	...	1	...	...	24	25	49			
Sliema	...	33	13	2	...	1	...	...	1	2	2	2	11	11	30	16	22	18	6	19	2	7	2	1	112	89	201			
Tarxien	...	8	5	...	1	...	1	...	...	...	1	1	2	...	8	2	8	12	4	4	...	...	...	...	33	24	57			
Valletta	...	17	14	...	...	...	...	3	1	2	1	3	2	9	5	18	16	26	24	16	11	3	4	...	97	81	178			
Vittoriosa	...	8	2	...	...	1	...	...	...	...	1	...	4	3	2	3	3	1	3	2	...	1	...	...	21	13	34			
Zabbar	...	9	19	1	...	3	...	2	...	2	4	2	5	5	9	11	15	8	6	14	...	1	...	...	52	64	116			
Żebbug	...	9	6	...	...	...	...	...	...	...	1	2	2	5	5	5	11	7	8	7	2	3	...	...	37	34	71			
Żejtun	...	14	9	...	1	1	...	...	...	1	1	2	2	2	9	9	20	14	10	18	4	5	...	...	61	61	122			
Zurrieq	...	14	15	1	...	...	...	...	...	1	1	...	2	2	9	4	11	10	5	7	4	6	...	...	47	46	93			
Total Malta	...	355	280	14	11	12	2	25	5	8	9	22	19	35	45	127	93	279	194	318	300	235	257	55	65	2	5	1,487	1,285	2,772



APPENDIX HB.—cont.

Table showing mortality in quinquennial and decennial age groups by Sex

LOCALITY	A G E S																												TOTAL both sexes
	Under 5		5 & under 10		10 & under 15		15 & under 20		20 & under 25		25 & under 35		35 & under 45		45 & under 55		55 & under 65		65 & under 75		75 & under 85		85 & under 95		95 and over		TOTAL		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Ghajnsielem ... ..	1	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	3	4	4	...	2	...	...	7	12	19	
Gharb ... ..	1	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	3	2	3	...	...	...	...	6	8	14		
Ghasri ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1	...	...	2	2	4		
Kerċem ... ..	4	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	2	...	1	...	...	1	...	...	9	2	11		
Munxar ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	2	1	...	5	2	7		
Nadur ... ..	2	3	...	...	...	1	...	...	...	...	...	1	...	1	...	3	4	6	10	4	6	3	2	...	24	22	46		
Qala ... ..	2	2	...	...	...	...	...	...	...	...	...	...	...	1	2	2	2	3	3	4	1	...	...	10	12	22			
San Lawrenz ... ..	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	1	...	...	4	1	5			
Sannat ... ..	1	4	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	6	4	10			
Victoria... ..	6	4	1	...	...	...	1	...	...	...	...	3	1	6	1	7	4	11	9	13	8	3	6	...	51	33	84		
Xaghra ... ..	...	1	1	...	1	...	...	...	...	...	1	1	...	2	1	...	6	1	5	4	2	4	...	17	13	30			
Xewkija ... ..	3	3	...	...	...	...	...	...	...	...	...	...	1	1	1	1	2	1	4	5	3	1	...	14	15	29			
Xlendi ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Zebbuġ ... ..	4	2	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	2	1	3	2	...	...	1	9	9	18		
Total Gozo ... ..	24	25	2	...	2	1	1	...	1	...	2	4	3	5	8	10	18	16	40	26	49	31	14	16	...	1	164	135	299
Total Both Islands...	379	305	16	11	14	3	26	5	9	9	24	23	38	50	135	103	297	210	358	326	284	288	69	81	2	6	1651	1420	3071





Deaths by Cause according to Age and Sex

CAUSES OF DEATH	Under 1 year		1 year and under 2		2 years and under 3		3 years and under 4		4 years and under 5		5 years and under 10		10 years and under 15		15 years and under 20		20 years and under 25		25 years and under 35		35 years and under 45		45 years and under 55		55 years and under 65		65 years and under 75		75 years and under 85		85 years and under 95		95 years and over		TOTAL				
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Both Sexes		
	X. Diseases of Genito-Urinary System																																						
108. Acute nephritis				1											1				2		1	1			1	3		2							9	3	12		
109. Chronic, other and unspecified nephritis															1			1		1		5	3	10	8	23	14	9	3	3	2			52	34	86			
110. Infections of kidney													1						1						4	2	1							7	6	13			
111. Calculi of urinary system																							2	1										2	1	3			
112. Hyperplasia of prostate																																		12		12			
114c. All other diseases of the genito-urinary system							1															1												3	2	5			
XI. Deliveries and Complications of Pregnancy, Childbirth and the Puerperium																																							
117. Haemorrhage of pregnancy and childbirth																																				4	4	4	
120a. Other complications of pregnancy, childbirth and the puerperium																																				4	4	4	
XII. Diseases of the Skin and Cellular Tissue																																							
121. Infections of skin and subcutaneous tissue	1																																		1		1		
XIII. Diseases of the Bones and Organs of Movement																																							
122. Arthritis and spondylitis																																				1	1	2	
126b. All other diseases of skin																																			1		1		
126c. All other diseases of musculo-skeletal system																																			1		1		
XIV. Congenital Malformations																																							
127. Spina bifida and meningocele	7	4	1	1			1						1																						10	5	15		
128. Congenital malformation of circulatory system	10	13	4		4				1	1																									19	15	34		
129. All other congenital malformations	9	5										1																						9	7	16			
XV. Certain Diseases of Early Infancy																																							
130. Birth injuries	17	17																																	17	17	34		
131. Postnatal asphyxia and atelectasis	54	40																																	54	40	94		
132a. Diarrhoea of newborn (under 4 weeks)	4	5																																	4	5	9		
133. Haemolytic disease of newborn		3																																		3	3	3	
134. All other defined diseases of early infancy	14	9																																	14	9	23		
135. Ill-defined diseases peculiar to early infancy, and immaturity unqualified	86	63																																	86	63	149		
XVI. Symptoms, Senility and Ill-defined Conditions																																							
136. Senility without mention of psychosis																											4	10	48	49	21	28		21	74	89	163		
XVII. Accidents, Poisonings and Violence																																							
138. Motor vehicle accidents	1										2		1		3				2		1													10		10			
141. Accidental falls											2				1								1	1	1			3	1	2		1	1		11	4	15		
142. Accident caused by machinery													1																							1		1	
143. Accident caused by fire and explosion of combustible material																																					9	8	17
145. Accident caused by firearm																																				1		1	
146. Accident of drowning and submersion													1																							2	3	5	
147a. Foreign body entering eye and adnexa																																				1		1	
147b. Foreign body entering other orifice																																				1		1	
148. All other accidental causes												2		2																					16	3	19		
149. Homicide and injury purposely inflicted by other persons (not in war)																																					1		1
TOTAL	331	271	29	20	10	6	5	6	4	2	16	11	14	3	26	5	9	9	24	23	38	50	135	103	297	210	358	326	284	288	69	81	2	6	1651	1420	3,071		

## APPENDIX MA.

## GENERAL HOSPITALS IN MALTA AND GOZO

## Return of diseases and deaths (in-patients) for the year 1954

Disease	Remaining in Hosp. at end of 1953	Admissions	Transfers from other Hospitals	Total cases treated	Deaths	Discharges	Transfers to other Hospitals	Remaining in Hospital at end of 1954
<i>1. Infective and Parasitic Diseases.</i>								
1. Tuberculosis of the respiratory system ...	7	45	7	59	2	29	24	4
2. Tuberculosis of the meninges and central nervous system ...	9	10	...	19	2	16	..	1
3. Tuberculosis of intestines and peritoneum and mesenteric glands ...	...	5	...	5	...	3	...	2
4. Tuberculosis of bones and joints ...	12	24	2	28	...	33	4	1
5. Tuberculosis, all other forms ...	3	7	5	15	...	5	...	10
6. Congenital syphilis ...	...	1	...	1	...	...	1	...
7. Early syphilis ...	...	...	...	...	...	...	...	...
8. Tabes Dorsalis ...	...	1	...	1	...	1	...	...
9. General paralysis of insane ...	...	...	...	...	...	...	...	...
10. All other syphilis ...	1	...	...	1	...	...	...	1
11. Gonococcal infections ...	...	10	1	11	...	10	1	...
12. Typhoid fever ...	14	93	...	107	1	103	...	3
13. Paratyphoid fever and other Salmonella infections ...	...	6	...	6	...	6	...	...
14. Cholera ...	...	...	...	...	...	...	...	...
15. Brucellosis (undulant fever) ...	15	213	...	228	2	205	...	21
16a. Bacillary dysentery ...	...	14	...	14	...	13	...	1
16b. Amebiasis ...	2	11	1	14	1	11	1	1
16c. Other unspecified forms of dysentery ...	...	...	...	...	...	...	...	...
17. Scarlet fever ...	...	...	...	...	...	...	...	...
18. Streptococcal sore throat ...	...	...	...	...	...	...	...	...
19. Erysipelas ...	...	2	...	2	...	1	1	...
20. Septicaemia and pyaemia ...	...	4	...	4	1	3	...	...
21. Diphtheria ...	...	1	...	1	...	1	...	...
22. Whooping cough ...	...	5	...	5	...	4	1	...
23. Meningococcal infections ...	...	1	...	1	1	...	...	...
24. Plague ...	...	...	...	...	...	...	...	...
25. Leprosy ...	...	2	...	2	...	2	...	...
26. Tetanus ...	3	23	...	26	3	23	...	...
27. Anthrax ...	1	...	...	1	...	1	...	...
28a. Acute poliomyelitis ...	13	51	3	67	...	60	1	6
28b. Polioencephalitis ...	...	...	...	...	...	...	...	...
29. Acute infectious encephalitis ...	...	...	...	...	...	...	...	...
30. Late effects of acute poliomyelitis and of acute infectious encephalitis ...	...	...	...	...	...	...	...	...
31. Smallpox ...	...	...	...	...	...	...	...	...
32. Measles ...	...	3	...	3	...	3	...	...
33. Yellow fever ...	...	...	...	...	...	...	...	...
34. Infectious hepatitis ...	...	26	...	26	2	24	...	...
35. Rabies ...	...	...	...	...	...	...	...	...
36a. Louse-borne epidemic typhus ...	...	...	...	...	...	...	...	...
36b. Flea-borne endemic typhus ...	...	...	...	...	...	...	...	...
36c. Tick-borne epidemic typhus ...	...	...	...	...	...	...	...	...
36d. Mite-borne typhus ...	...	...	...	...	...	...	...	...
36e. Other and unspecified typhus ...	...	7	...	7	...	7	...	...
37a. Vivax malaria (benign tertian) ...	...	...	...	...	...	...	...	...
37b. Malariae malaria (quartan) ...	...	...	...	...	...	...	...	...
37c. Falciparum malaria (malignant tertian) ...	...	...	...	...	...	...	...	...
37d. Blackwater fever ...	...	...	...	...	...	...	...	...
37e. Other and unspecified forms of malaria ...	...	...	...	...	...	...	...	...
38a. Schistosomiasis vesical (S. haematobium) ...	...	...	...	...	...	...	...	...
38b. Schistosomiasis intestinal (S. mansoni) ...	...	...	...	...	...	...	...	...
38c. Schistosomiasis pulmonary (S. japonicum) ...	...	...	...	...	...	...	...	...
38d. Other and unspecified schistosomiasis ...	...	...	...	...	...	...	...	...
39. Hydatid disease ...	...	...	...	...	...	...	...	...
40a. Onchocerciasis ...	...	...	...	...	...	...	...	...
40b. Loiasis ...	...	...	...	...	...	...	...	...
40c. Filariasis ( bancrofti) ...	...	...	...	...	...	...	...	...
40d. Other filariasis ...	...	...	...	...	...	...	...	...
41. Ankylostomiasis ...	...	...	...	...	...	...	...	...
Carried forward ...	80	565	19	664	15	564	34	51

APPENDIX MA — (Continued).  
 GENERAL HOSPITALS IN MALTA AND GOZO  
 Return of diseases and deaths (in-patients) for the year 1954

Disease	Remaining in Hosp. at end of 1953	Admis- sions	Transfers from other Hospitals	Total cases treated	Deaths	Dis- charges	Transfers to other Hospitals	Remaining in Hosp. at end of 1954
Brought forward ...	80	565	19	664	15	564	34	51
42a. Tapeworm (infestation) and other cestode infestations ...	...	...	...	...	...	...	...	...
42b. Ascariasis ...	...	...	...	...	...	...	...	...
42c. Guinea worm (dracunculosis) ...	...	...	...	...	...	...	...	...
42d. Other diseases due to helminths ...	...	1	...	1	...	1	...	...
43a. Lymphogranuloma venereum ...	...	...	...	...	...	...	...	...
43b. Granuloma inguinale, venereal ...	...	...	...	...	...	...	...	...
43c. Other and unspecified venereal diseases ...	...	...	...	...	...	...	...	...
43d. Food poisoning infection and intoxication ...	...	6	...	6	...	6	...	...
43e. Relapsing fever ...	...	...	...	...	...	...	...	...
43f. Leptospirosis icterohæmorrhagica (Weil's disease) ...	...	...	...	...	...	...	...	...
43g. Yaws ...	...	...	...	...	...	...	...	...
43h. Chickenpox ...	...	...	...	...	...	...	...	...
43i. Dengue ...	...	...	...	...	...	...	...	...
43j. Trachoma ...	...	...	...	...	...	...	...	...
43k. Sandfly fever ...	...	...	...	...	...	...	...	...
43l. Leishmaniasis ...	1	5	...	6	...	6	...	...
43m. Trypanosomiasis gambiensis	...	...	...	...	...	...	...	...
Trypanosomiasis rhodesiensis	...	...	...	...	...	...	...	...
Other and unspecified Trypanosomiasis	...	...	...	...	...	...	...	...
43n. Dermatophytosis ...	...	...	...	...	...	...	...	...
43o. Scabies ...	...	1	...	1	...	1	...	...
43p. All other diseases classified as infective and parasitic ...	...	12	...	12	...	11	...	1
<b>II. Neoplasms</b>								
44. Malignant neoplasm of buccal cavity and pharynx ...	3	8	1	12	1	9	1	1
45. Malignant neoplasm of œsophagus ...	4	11	1	16	7	9	...	...
46. Malignant neoplasm of stomach ...	2	31	5	38	12	22	3	1
47. Malignant neoplasm of intestines except rectum ...	...	15	3	18	6	6	4	2
48. Malignant neoplasm of rectum ...	2	6	1	9	2	5	1	1
49. Malignant neoplasm of larynx ...	...	5	1	6	1	4	1	...
50. Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary ...	...	10	3	13	4	7	2	...
51. Malignant neoplasm of breast ...	2	24	4	30	6	16	1	7
52. Malignant neoplasm of cervix uteri ...	...	1	...	1	...	1	...	...
53. Malignant neoplasm of other and unspecified parts of uterus ...	...	2	...	2	2	...	...	...
54. Malignant neoplasm of prostate ...	...	1	3	4	...	4	...	...
55. Malignant neoplasm of skin ...	1	4	...	5	1	3	...	1
56. Malignant neoplasm of bone and connective tissue ...	3	7	...	10	1	7	...	2
57. Malignant neoplasm of all other and unspecified sites ...	13	66	6	85	19	50	4	12
58. Leukæmia and aleukæmia ...	...	9	...	9	3	6	...	...
59. Lymphosarcoma and other neoplasm of lymphatic and hæmatopoietic system ...	2	9	...	11	...	9	...	2
60. Benign neoplasms and neoplasms of unspecified nature ...	4	242	3	249	9	201	5	34
Carried forward ...	117	1,041	50	1,208	89	948	56	115

## APPENDIX MA — (Continued).

GENERAL HOSPITALS IN MALTA AND GOZO  
Return of diseases and deaths (in-patients) for the year 1954

Disease	Remaining in Hosp. at end of 1953	Admis- sions	Transfers from other Hospitals	Total cases treated	Deaths	Dis- charges	Transfers to other Hospitals	Remaining in Hosp. at end of 1954
Brought forward ...	117	1,041	50	1,208	89	918	56	117
III. & IV. <i>Allergic, Endocrine System Metabolic and Nutritional Diseases, Diseases of the Blood and Blood-forming Organs.</i>								
61. Nontoxic goitre ... ..	...	7	...	7	...	7	...	...
62. Thyrotoxicosis with or without goitre	4	23	1	28	...	26	1	1
63. Diabetes mellitus ... ..	5	125	11	141	25	102	4	10
64a. Beriberi ... ..	...	1	...	1	...	1	...	...
64b. Pellagra ... ..	...	...	...	...	...	...	...	...
64c. Scurvy ... ..	...	...	...	...	...	...	...	...
64d. Other deficiency states ... ..	1	3	...	4	...	4	...	...
65a. Pernicious and other hyperchromic anaemias ... ..	1	21	...	22	...	20	...	2
65b. Iron deficiency anaemias (hypochromic)	1	46	3	50	...	49	...	1
65c. Other specified and unspecified anaemias	2	5	...	7	...	7	...	...
66a. Asthma ... ..	6	52	6	64	5	52	1	6
66b. All other allergic disorders, Endocrine, Metabolic and Blood Diseases ...	2	8	...	10	...	7	1	2
V. <i>Mental, Psychoneurotic and Personality Disorders.</i>								
67. Psychoses ... ..	...	39	2	41	...	38	1	2
68. Psychoneuroses and disorders of personality ... ..	3	10	...	13	...	11	...	2
69. Mental deficiency ... ..	...	1	...	1	...	1	...	...
VI. <i>Diseases of the Nervous System and Sense Organs</i>								
70. Vascular lesions affecting central ner- vous system ... ..	11	46	10	67	21	24	9	13
71. Non-meningococcal meningitis ... ..	3	33	...	36	...	32	2	2
72. Multiple sclerosis ... ..	...	...	...	...	...	...	...	...
73. Epilepsy ... ..	1	23	...	24	1	22	...	1
74. Inflammatory diseases of eye ... ..	...	7	...	7	...	5	...	2
75. Cataract ... ..	1	8	...	9	...	8	1	...
76. Glaucoma ... ..	...	3	...	3	...	3	...	...
77a. Otitis externa ... ..	...	1	...	1	...	1	...	...
77b. Otitis media and mastoiditis ... ..	1	14	...	15	...	14	1	...
77c. Other inflammatory diseases of ear ...	...	557	...	557	...	551	...	6
78a. All other diseases and conditions of eye	38	457	11	506	...	455	16	35
78b. All other Diseases of the Nervous System and Sense Organs ... ..	7	94	5	106	1	95	2	8
VII. <i>Diseases of the Circulatory System.</i>								
79. Rheumatic fever ... ..	15	96	...	111	4	91	...	16
80. Chronic rheumatic heart disease ...	4	88	2	94	4	82	4	4
81. Arteri-sclerotic and degenerative heart disease ... ..	5	144	...	149	34	108	5	2
82. Other diseases of heart ... ..	15	40	8	63	23	13	3	24
83. Hypertension with heart disease ...	2	74	...	76	17	53	4	2
84. Hypertension without mention of heart	1	5	1	7	1	4	...	2
85. Diseases of arteries ... ..	20	75	11	106	20	55	22	9
86. Other diseases of Circulatory System ...	3	153	1	157	8	139	3	7
Carried forward ... ..	269	3,300	122	3,691	253	3,028	136	274

APPENDIX MA — (Continued).  
 GENERAL HOSPITALS IN MALTA AND GOZO  
 Return of diseases and deaths (in-patients) for the year 1954

Disease	Remaining in Hosp. at end of 1953	Admissions	Transfers from other Hospitals	Total cases treated	Deaths	Discharges	Transfers to other Hospitals	Remaining in Hosp. at end of 1954
Brought forward ...	269	3,300	122	3,691	253	3,028	136	274
<i>VIII. Diseases of the Respiratory System.</i>								
87. Acute upper respiratory infections ...	1	20	...	21	1	19	...	1
88. Influenza ...	...	...	...	...	...	...	...	...
89. Lobar pneumonia ...	...	6	1	7	2	5	...	...
90. Broncho-pneumonia ...	5	143	...	148	17	119	5	7
91. Primary atypical, other and unspecified pneumonia ...	...	79	...	79	4	75	...	...
92. Acute bronchitis ...	...	57	...	57	5	47	5	...
93. Bronchitis, chronic and unqualified ...	1	73	2	76	21	41	6	8
94. Hypertrophy of tonsils and adenoids ...	2	53	...	55	...	55	...	...
95. Empyema and abscess of lung ...	2	7	...	9	...	7	...	2
96. Pleurisy ...	1	22	1	24	...	19	1	4
97a. Pneumoconiosis ...	...	10	...	10	1	9	...	...
97b. All other Respiratory Diseases ...	1	21	1	23	2	19	1	1
<i>IX. Diseases of the Digestive System.</i>								
98a. Dental Caries ...	...	21	...	21	...	21	...	...
98b. All other diseases of teeth and supporting structures ...	...	21	...	21	...	21	...	...
99. Ulcer of stomach ...	...	84	1	85	4	67	1	13
100. Ulcer of duodenum ...	8	6	...	14	...	14	...	...
101. Gastritis and duodenitis ...	1	91	3	95	1	88	4	2
102. Appendicitis ...	7	373	1	381	1	364	8	8
103. Intestinal obstruction and hernia ...	16	465	6	487	9	447	9	22
104a. Gastro-enteritis and colitis between four weeks and two years ...	7	327	...	334	32	295	1	6
104b. Gastro-enteritis and colitis, ages two years and over ...	1	4	...	5	...	5	...	...
104c. Chronic enteritis and ulcerative colitis ...	...	19	1	20	...	17	1	2
105. Cirrhosis of liver ...	3	13	3	19	9	10	...	...
106. Cholelithiasis and cholecystitis ...	7	78	1	86	1	74	4	7
107. Other Diseases of the Digestive System ...	1	79	2	82	4	71	2	5
<i>X. Diseases of the Genito-Urinary System.</i>								
108. Acute nephritis ...	7	63	...	70	2	61	...	7
109. Chronic, other and unspecified nephritis ...	4	42	3	49	12	28	...	9
110. Infections of kidney ...	5	34	...	39	2	37	...	...
111. Calculi of urinary system ...	2	64	2	68	1	63	2	2
112. Hyperplasia of prostate ...	6	14	...	20	3	16	...	1
113. Diseases of breast ...	...	23	...	23	...	23	...	...
114a. Hydrocele ...	...	84	...	84	5	79	...	...
114b. Disorders of menstruation ...	...	108	...	108	...	108	...	...
114c. All other Diseases of the Genito-Urinary System ...	...	171	...	171	...	170	1	...
<i>XI Deliveries and complications of Pregnancy, Childbirth and the Puerperium.</i>								
15. Sepsis of pregnancy, childbirth and the puerperium ...	...	...	...	...	...	...	...	...
16. Toxaemia of pregnancy and the puerperium ...	...	6	...	6	...	5	1	...
17. Haemorrhage of pregnancy and childbirth ...	...	7	...	7	2	5	...	...
18. Abortion without mention of sepsis or toxæmia ...	...	180	...	180	...	180	...	...
19. Abortion with sepsis ...	...	...	...	...	...	...	...	...
20a. Other complications of pregnancy, childbirth and the puerperium ...	...	234	...	234	4	182	...	48
20b. Delivery without complications ...	1	690	...	691	...	689	...	2
Carried forward ...	358	7,092	150	7,600	398	6,583	188	431



APPENDIX MA — (Continued).  
GENERAL HOSPITALS IN MALTA AND GOZO  
Return of diseases and deaths (in-patients) for the year 1954

Disease	Remaining in Hosp. at end of 1953	Admis- sions	Transfers from other Hospitals	Total cases treated	Deaths	Dis- charges	Transfers to other Hospitals	Remaining in Hosp. at end of 1954
Brought forward ...	358	7,092	150	7,600	398	6,583	188	431
<i>XII. Diseases of the Skin and Cellular Tissue.</i>								
121. Infections of skin and subcutaneous tissue ...	16	249	18	283	...	246	22	15
122. Arthritis and spondylitis ...	7	11	24	42	...	33	4	5
123. Muscular rheumatism and rheumatism, unspecified ...	...	7	...	7	...	6	...	1
124. Osteomyelitis and periostitis ...	8	65	...	73	...	68	1	4
125. Ankylosis and acquired musculoskeletal deformities ...	1	...	...	1	...	1	...	...
126a. Chronic Ulcer of Skin (including Tropical Ulcer) ...	2	4	7	13	...	10	2	1
126b. All other Diseases of Skin ...	15	106	4	125	3	101	6	15
<i>XIII. Diseases of the Bones and Organs of Movement.</i>								
126c. All other diseases of musculoskeletal system ...	6	69	2	77	...	71	1	5
<i>XIV. Congenital Malformations.</i>								
127. Spina bifida and meningocele ...	1	1	...	2	..	2	...	...
128. Congenital malformation of the Circulatory System ...	...	...	...	...	...	...	...	...
129. All other congenital malformations ...	5	118	4	127	6	108	1	12
<i>XV. Certain Diseases of Early Infancy.</i>								
130. Birth injuries ...	...	71	...	71	1	70	...	...
131. Postnatal asphyxia and atelectasis ...	...	9	...	9	3	6	...	...
132a. Diarrhoea of newborn (under 4 weeks) ...	...	22	...	22	...	21	1	...
132b. Ophthalmia neonatorum ...	...	...	...	...	...	...	...	...
132c. Other infections of newborn ...	...	...	...	...	...	...	...	...
133. Haemolytic disease of newborn ...	...	...	...	...	...	...	...	...
134. All other defined diseases of early infancy ...	3	33	...	36	8	26	1	1
135. Ill-defined diseases peculiar to early infancy, and immaturity unqualified ...	...	45	...	45	6	28	...	1
<i>XVI. Symptoms, Senility and Ill-Defined conditions.</i>								
136. Senility without mention of psychosis ...	5	20	1	26	6	9	7	4
137a. Pyrexia of unknown origin ...	2	79	...	81	...	80	1	...
137b. Observation, without need for further medical care ...	...	10	1	11	...	11	...	...
137c. All other ill-defined causes of morbidity ...	13	222	...	235	11	200	12	12
<i>XVII. Accidents, Poisonings and Violence.</i>								
138. Motor vehicle accidents ...	2	89	11	102	6	89	6	1
139. Other transport accidents ...	19	349	...	368	2	297	31	38
Carried forward ...	463	8,671	222	9,356	406	8,066	284	546

## APPENDIX MA — (Continued).

## GENERAL HOSPITALS IN MALTA AND GOZO

## Return of diseases and deaths (in-patients) for the year 1954

Disease	Remaining in Hosp. at end of 1953	Admis- sions	Transfers from other Hospitals	Total cases treated	Deaths	Dis- charges	Transfers to other Hospitals	Remaining in Hosp. at end of 1954
Brought forward ...	463	8,671	222	9,356	460	8,066	284	546
140. Accidental poisoning ...	1	90	...	91	...	89	...	2
141. Accidental falls ...	9	132	21	162	1	144	5	12
142. Accidents caused by machinery ...	...	21	...	21	...	21	...	...
143. Accidents caused by fire and explosion of combustible material ...	8	215	5	228	12	195	9	12
144. Accidents caused by hot substance, corrosive liquid, steam and radiation ...	2	33	1	36	2	33	1	...
145. Accidents caused by firearm ...	10	212	...	222	...	210	4	8
146. Accidental drowning and submersion ...	2	25	...	27	...	23	...	4
147a. Foreign body entering eye and adnexa ...	...	34	...	34	...	34	...	...
147b. Foreign body entering other orifice ...	...	1	...	1	...	...	1	...
147c. Accidents caused by bites and stings of venomous animals and insects ...	...	...	...	...	...	...	...	...
147d. Other accidents caused by animals ...	...	...	...	...	...	...	...	...
148. All other accidental causes ...	8	124	4	136	...	131	3	2
149. Homicide and injury purposely inflicted by other persons (not in war)...	...	...	...	...	...	...	...	...
150. Injury resulting from operations of war ...	1	34	...	35	2	32	1	...
Total ...	504	9,592	253	10,349	477	8,978	308	586