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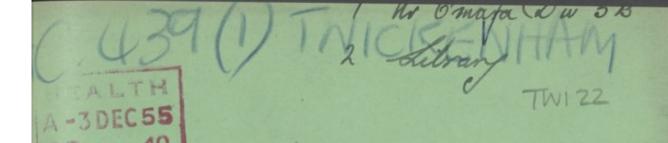
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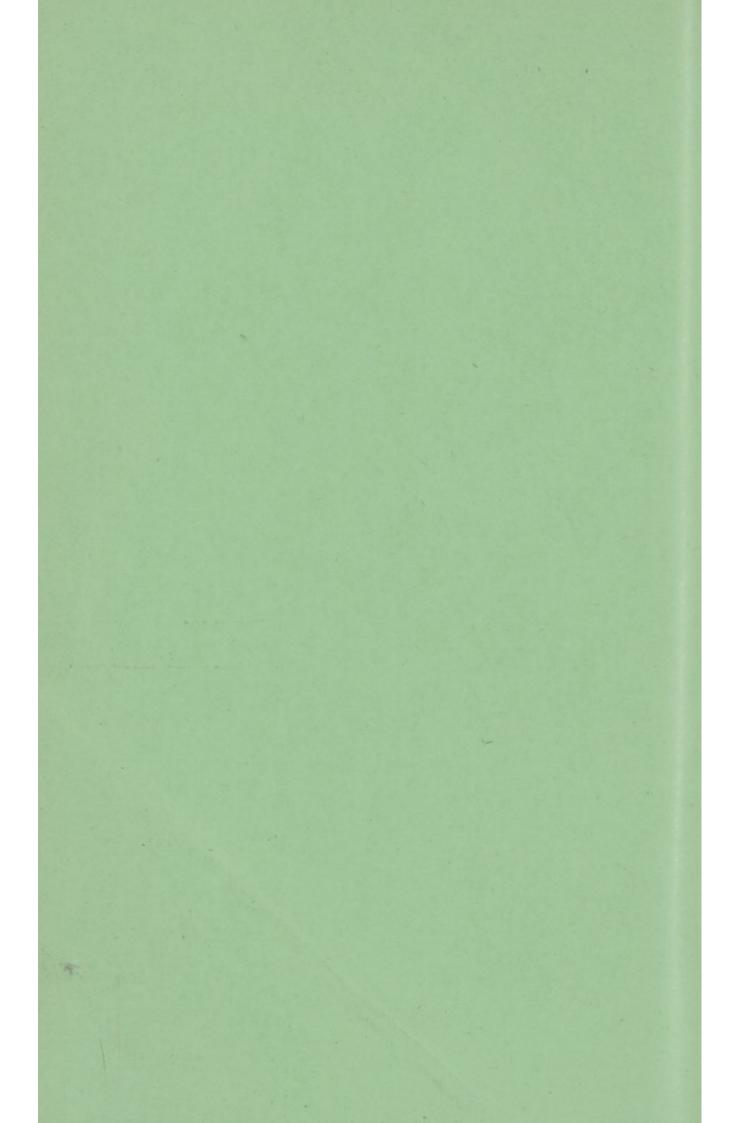
GOOD HEALTH IN TWICKENHAM





The Annual Report of the Medical Officer of Health.

JOHN MADDISON, M.D., B.S., D.P.H.



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Public Health Department,

Elmfield House,

High Street,

Teddington.

To the Mayor, Aldermen and Councillors of the Borough of Twickenham.

LADIES AND GENTLEMEN,

I have the honour to submit my Annual Report for 1955 on the health and sanitary conditions of the Borough together with the supplement containing the statistical tables for 1954 as required by the Ministry of Health.

I have drawn attention to the one remaining infectious disease of importance left to be conquered. This is tuberculosis, producing in this town year after year 100 new cases with all the attendant misery and disappointment, frustration and anxiety it brings in its trail. We ought to have a mass X-ray unit permanently stationed in the Borough so that everybody could be given a chance of being X-rayed once a year. Little good comes of having the mass X-ray unit in Twickenham for a fortnight in the winter. The apparatus is contained in a van parked in York House yard; the people come to it in cold, draughty and uncomfortable circumstances. Out of 105,000 people in the Borough, just over 6,000 attend, so the other 99,000 go unexamined. Of these, about 19,000 are children and young persons, so it still leaves 80,000 people untouched. We are only nibbling at the problem. In 1954 tuberculosis killed off 26 people; road accidents killed 10 people, but we have set up a special committee and made far more fuss over road accidents than we have over tuberculosis. If the cause were smallpox there would be a public outcry. It is curious how we become inured to evils; during the war we even got used to bombs.

On another page I call attention to the amount of disability found among elderly people. The Boer war drew attention to the poor quality of the recruits going into the army and who were needed for the fighting services in those days. This led to measures to improve the children of the country and brought into being the maternity and child welfare and school health services. The increasing number of elderly people is drawing attention to the need for conserving their working ability and the need to lessen their dependence upon the younger people. I now think we should put into effect preventive clinics for old people as we have done for babies and young children.

About a year ago the Society of Medical Officers of Health and the British Medical Association stressed the importance of co-operation amongst the three branches of the National Health Service. In this division, Dr. Anderson and I each sent out circulars reminding the general practitioners of the useful services provided in the various clinics and especially the value of using the health visitors for health education, for advice to mothers, for old people, and in many other ways. I invited the practitioners to come to the clinics, to phone or write to the health visitors, to get to know them personally and to use them in their work in the same way as they have become accustomed to with the district nurses and midwives, and conversely the health visitors were encouraged to call on the practitioners to make themselves known and to

offer their services. The response over the area has been most gratifying. More and more the practitioners are coming to realise the very important work which the health visitors are doing. One practitioner spent a whole day studying the work of the health visitors in the clinic and in the homes and wrote a very excellent account which was published in the *British Medical Journal*. But we still have a long way to go in the co-ordination of the three branches of the National Health Service. I often wish Area 10 with its 220,000 people was a county borough and had its own local authority powers.

A local authority expects its work to be done accurately and properly and so does the public. When you think of the thousands of people who are interviewed, given advice, of the thousands of inspections which are made and decisions taken and then consider the shortness of the Health Committee meetings because of the rarity of anything controversial or wrong ever appearing, you will realise what great care is taken to keep things accurate, and for this we have to thank the staff. Officers in local government get few thanks; the annual report affords me an opportunity of thanking Dr. Cormack, Mr. Easter, Mr. Smith and Mr. Pugh for their unfailing loyalty and devotion to the service, for their trustworthiness and hard work; and also the other inspectors, the clerical and the outdoor staff.

I beg to acknowledge my indebtedness to the Chairman and Members of the Public Health Committee for their helpfulness and support, which is always of the greatest encouragement. I desire also to acknowledge with thanks the friendly co-operation and help which I have always received from my colleagues in the other departments of the Corporation and the other members of the Council.

I am,

Mr. Mayor, Ladies and Gentlemen, Your obedient servant,

JOHN MADDISON,

Medical Officer of Health

MEMBERS OF THE HEALTH COMMITTEE

Ex-officio members:

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THE DEPUTY MAYOR, COUNCILLOR J. A. DENHAM

Chairman:

COUNCILLOR A. T. KREMERS

Vice-Chairman:

COUNCILLOR MRS. M. B. DAVIES

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Councillor N. T. Poulter, B.A.
Councillor G. D. Burnett
Councillor N. Sheldon, A.R.C.S., F.R.I.C.

Councillor S. J. Hastings

STAFF OF THE PUBLIC HEALTH DEPARTMENT

Councillor Mrs. K. E. Staddon

Medical Officer of Health Dr. J. Maddison, M.D., B.S., D.P.H. (Also Area Medical Officer, Twickenham, Feltham, Staines and Sunbury.) Deputy Medical Officer of Health Dr. W. Cormack, M.B., Ch.B., D.P.H. (Also Deputy Area Medical Officer, Twickenham, Feltham, Staines and Sunbury.) Chief Sanitary Inspector Mr. H. G. Easter Deputy Chief Sanitary Inspector Mr. H. D. Smith Messrs. K. E. Evans, J. W. Paine, Sanitary Inspectors A. E. G. Walker, B. E. W. Gabb All the Inspectors hold the Certificate of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board, and the Meat Inspectors' Certificate Chief Clerk Mr. H. J. Pugh (Also Area Chief Clerk, Twickenham, Feltham, Staines and Sunbury.) Senior Clerk Mr. R. N. Himson Miss K. Dopson, Miss Y. B. Erb, Clerical Staff Miss V. A. White Senior Rodent Operative Mr. H. T. Jackman ... Rodent Operatives Messrs. C. H. Deacon, J. Jago Disinfector/Drain Tester Mr. E. G. Cooper ...

FAMILIARITY BREEDS CONTEMPT

Lingering Death.

If during the summer there had been 100 cases of poliomyelitis and 24 deaths there would have been a hullabaloo; the newspapers would have been full of it; I should have been inundated with letters and telephone calls and frenzied requests for advice and protection. As you can see from Table 31 in the statistical appendix, there were 100 new cases of tuberculosis and 24 deaths during 1954 but not a ripple stirred the calm of the Borough. Here is a menace in our midst which ought to stir us to frenzied activity. It is about the same every year; in 1953 there were 119 new cases and 28 deaths and so it goes on year after year. If poliomyelitis exacts its penalties of paralysis and even death, so does tuberculosis. In the case of every young person and adult who gets tuberculosis, just think of the frustrated hopes, and lost ambitions, the changed plans, the expense and worry, the protracted months of idleness and lost earnings to say nothing of the possibility of a sentence of death. Of all the infectious diseases, tuberculosis is the greatest killer, as is easily seen from the first nine lines of Table 3.

We can eliminate tuberculosis from herds of cattle and render them disease free; can we do the same with human beings? We can indeed; and by the same principles as we use in the herds. We must find the infected persons and try to ensure that they do not infect anybody else. The main reason tuberculosis smoulders on from year to year is because there are in the population a proportion of people suffering from the disease who have never been detected; even they themselves may not know they have it. They are in addition to those who have consulted doctors or have been to the clinic and are therefore known.

Many of the unknown cases are people past middle life, especially from 50 onwards. One of my records is that of a man who in 1940 was aged 56 and had a job as a caretaker. At that time he was not very robust and frequently suffered from what he called chesty colds. Over the next five years he was off work from time to time with his chest, but with the label given to his complaint as 'bronchitis.' However, in 1945, he was notified as suffering from tuberculosis and was then aged 61. He had to give up work. In the house were his wife and one daughter in her early 20's. The man did not go to a sanatorium, I forget now whether it was because there was no place for him, or whether it was he would not himself go. However, his wife was a sensible woman who understood the need for isolation and he was persuaded to co-operate properly. He was given a separate bedroom and his appearances when the daughter was about were kept to a minimum. He lived for 10 years more until aged 71 and all that time he was probably infectious and a danger to others. Somehow at these older ages, patients seem able to cling to their disease and to life. The disease is not strong enough to kill off the patient and the patient is not healthy enough to throw off the disease. The patient lives in symbiosis with his infection, that is the organisms living on the human tissues and both surviving. I think there must be many of these cases about the town. Many never seek medical advice at all and for years and years go about spreading tuberculosis to unsuspecting victims.

It is difficult to know exactly how many unreported cases of tuberculosis there are; but we can guess at the probable number. The mass radiography unit has twice visited the Borough. The surveys have revealed one case of clinical tuberculosis per 1,000 people examined, which is much below the national average. The national average is about three or four persons per 1,000. We should therefore expect about 300 cases of clinical tuberculosis in this Borough who are unknown, of whom about 150 will be infectious to others. To these we can add the number of known cases which is about 1,100 of whom about 100 are infectious to others. This gives a total of about 1,400 cases in the Borough of whom about 250 are infectious to others. Thus, probably anything up to 250 people are about, spraying the germs of tuberculosis wherever they go, and infecting susceptible people especially young adults. Every year these infectious persons pass on the disease to an average of 100 other people, so that we get our 100 new cases per year.

In addition to all of these clinical cases nearly all of us have had tuberculosis in a non-clinical form some time in our lives. We can tell whether a person has reacted to tuberculosis infection by using a test in which a tiny amount of tuberculous material is injected into the arm. If in a few days a red area appears we know the person has been infected. The procedure is quite safe and in one form is known as the Mantoux reaction or test. A very few children under five react; about 20 per cent at age 15 and about 70 or 80 per cent of young adults from about age 20 onwards.

Most persons get tuberculosis by breathing in the germs carried in the breath of an infected person during talking, coughing and sneezing; or by breathing infected dust as from the room an infected person has occupied. A few cases originate by drinking or eating material which is infected with tuberculosis, especially milk. Now the more often anybody comes in contact with large numbers of the general public then the greater the chance he or she stands of being infected by an infected individual. The same thing applies to the length of time the person is in contact with the patient. The child in a household which contains an infected person, perhaps father or grandfather, will stand a far greater chance of being infected than another child in an infection-free house. The risk will be even greater where the persons are on top of each other as in overcrowded houses. The risk is greater in those occupations where individuals come in contact with large numbers of people as in some factories, shop assistants, cloakroom and cinema attendants, and especially doctors and nurses in contact with large numbers of sick people.

The other factor which influences the probability of contracting tuberculosis is the soundness of the diet. When people are well fed on high protein and vitamin diets their resistance to infection is greater, and they do not succumb nearly so readily as people whose diets consist mainly of starchy foods. We noticed this especially during the first world war and during the first two years of the second world war when the rates of incidence went up enormously. It is thus not surprising that we find the largest number of tuberculous people in overcrowded houses, with poverty, with bad nutrition, with industrial risks, or in smoky atmospheres and towns.

In order to find the infectious people who are spreading the disease we ought to have a mass X-ray unit permanently stationed somewhere in the Borough with reasonable ready access for everybody. The West Middlesex

Hospital has installed one which is available for anyone in its catchment area; this is a good step in the right direction. I do not think it is outrageous to suggest that we should make it compulsory for everybody over the age of say 15 to attend once a year for X-rays at times convenient for them. Some elderly people might need assistance in getting to the unit, but no doubt this could be arranged. In this way we should find our infectious spreaders and then try to put into effect the other important control measure, namely the prevention of infection by an infectious person to others.

One of the greatest disabilities we have always worked under is the shortage of places in sanatoria for infectious patients. A newly discovered patient with open tuberculosis may have to wait months and months before being admitted to a sanatorium, certainly for treatment, but more especially to prevent the spread to other persons. We need to increase the number of places available and to try our best to persuade infectious individuals to make use of them. We also need enough houses with the right accommodation in them to rehouse all those families with open cases of tuberculosis, so as to provide the infectious person with facilities for isolation, especially a separate bedroom. Twickenham Council has been very good and has been most sympathetic in its approach to this problem, but there are still many cases where children are running the risk of infection by their close proximity to an infected person.

Rehabilitation.

Many people hesitate to seek medical advice or to submit themselves for X-rays because of the fear of being branded tuberculous and running the risk of losing their jobs and running into poverty. This fear is very real. We need to make sure that a person with an arrested disease can return to employment at full trade union rates, without fear of poverty. Sufficient places in Remploy factories or posts elsewhere should be provided for all who need them.

Vaccination.

There is one further measure of protection, which has been the subject of controversy for many years. This is the vaccination of susceptible individuals by B.C.G. The letters stand for Bacillus Calmette Guérin. Calmette and Guérin were two Frenchmen who have given their names to a preparation of tuberculosis organisms which have been sub-cultured many many times and which have lost their original virulence. A live vaccine is prepared from this culture which when injected in a suitable dose can give rise to a reaction in a susceptible person in which the person goes through the primary reaction, and probably develops a certain amount of immunity to tuberculosis, as we all have done some time in our lives. The reason this course of action is proposed, especially for young adolescents entering work for the first time, is that sometimes when they have an uncontrolled primary lesion, by reason of infection from an open case, the effect may progress to a serious post-primary infection with clinical tuberculosis. However the very great doubt at present is whether those young persons who have received B.C.G. are in reality protected to any greater extent than those who have not. It is still the case at present that there is no reliable scientific evidence to enable the use of B.C.G. to be properly assessed, and it would be difficult to persuade the public to accept a scheme without proper scientific evidence to support it. The process is not without some slight danger. When we deal with such diseases as smallpox and diphtheria where vaccination and immunisation do produce immunity, we also combine with it the isolation of the patient in hospital to prevent further spread. We do not do this with tuberculosis, except to a small extent, so that we still have to rely on case finding as the basis of control.

In order to test the efficacy of B.C.G. vaccination, an investigation was started by the Medical Research Council in September, 1950. It is still going on, but by December, 1955, all the children involved will have been followed up for three years. In London, Manchester and Birmingham, 50,000 school children were chosen to take part in the test. All were volunteers for vaccination and in their last year at school. Each child in the last school term was given X-rays and skin tests to determine the suitability for acceptance in the experiment. Some children were given B.C.G. vaccine and others acted as controls. It should be possible in due course to give a categorical answer as to the value of B.C.G. This piece of research is unique; in no country or previous project have cases been so carefully selected and followed up so closely upon such a scale. Britain has been admired and praised for not rushing into B.C.G. vaccination without due caution.

I have often been asked why we have not pushed B.C.G. vaccination here in Twickenham. The reason is that we are awaiting the results of the Medical Research Council trial which we hope will tell us whether the procedure is of any use or not, and the best methods of using it.

By finding the infectious cases and keeping them away from children and young adults we can prevent the spread of infection to the most susceptible groups. We need more mass X-ray units, more sanatorium beds, more houses for tuberculous families where the patient can be isolated; guaranteed work for the stabilised non-infectious patient, and probably B.C.G. vaccination for the young adults. Standards of nutrition are rising and should be kept high. We might need extra workers in the health department to persuade everybody to attend for X-rays, but with good resources, good health education and a co-operating public, the disease can be wiped out.

THE DISABILITIES OF THE ELDERLY

In last year's report I gave a preliminary account of a research into the disabilities of the elderly which I carried out jointly with Dr. Smith of Sunderland. I am pleased to report the paper was accepted for publication in the British Journal of Preventive and Social Medicine and appears in the July, 1955, issue. I have a few reprints. Until this year no accurate account was available of the diseases and disabilities suffered by the elderly as they appeared in the day-to-day pattern of their lives. Dr. Smith was able to persuade 238 men and women age 60 and over out of 550 living in Tunstall and Silksworth, where the estimated combined population is 7,500, to submit to a thorough physical examination. The sample covered barely half of the elderly residents in those

villages, but there were sufficient of them to establish certain important points. It was found that nine-tenths of old people have something wrong with them, about half having trouble associated with heart or arteries. Respiratory disease is common, expecially among the men, possibly partly due to the occupations they followed during their working lives. In both men and women both rheumatic and genito-urinary diseases are frequently found and also hernia. In women particularly, obesity is common; many also suffer from prolapse, especially when they have never attended a post-natal clinic. Three quarters of all old people have trouble with their feet and need chiropody; about one-fifth have unsatisfactory glasses. There are many deaf, particularly men, and few have effective hearing aids. One-quarter of them all have no dentures.

In old people symptoms do not necessarily have the same significance as in young people, for instance blood pressure may not be a disability. Disability increases with age, particularly in women, who suffer more and live longer and are greatly in the majority. Men tend to be more healthy but are shorter lived.

Disability also increases as the social class and living conditions fall; among the lowest classes the effects of bad nutrition are seen; a predominantly starchy diet leads to obesity and other afflictions. About 20 per cent suffer from malnutrition and from the deficiency diseases such as scurvy and anaemia. In some instances the income is too low for the minimum standard diet to be obtained.

Mental deterioration is most marked from 80 onwards. A condition of apathy is sometimes found, often following the death of a husband or wife, which results in the old person just not bothering to look after him or herself. Employment is a great incentive and there is no doubt that many old people are happier continuing in work.

The fact that deficiency diseases are the most common in the old people indicates the need for vitamin and mineral additions to the diets for the elderly just as are given to young children when they are suffering from malnutrition. Lack of protein in the diet causes obesity and high blood pressure, and multiple disabilities result. This is particularly evident in the industrial areas where the women often deny themselves the high protein foods to let the men have them. The women feed mostly on a starchy diet; some suffer from as many as four disabilities whilst the men remain comparatively healthy. In this group of women the systolic blood pressure is often about 200-300; people with this high blood pressure are prone to heart failure or stroke.

A factor analysis was carried out on the data obtained from the survey using the relationships between the sexes, ages, blood pressure, haemoglobin, and the diseases the old people suffered from. The analysis showed that the following were the natural groupings; it is possible that a common causative influence is acting on each group.

Group A. Healthiness:

Systolic blood pressure 130-159; No disease; Haemoglobin 100-129. Group B. Rising Systolic Pressure, Anaemia, Respiratory and Circulatory Diseases:

Systolic blood pressure 160-199; Haemoglobin 30-69; Respiratory, heart, and arterial diseases.

Group C. Multiple Disabilities, Rising Diastolic Pressure, and Obesity:

Three or four diseases; Diastolic blood pressure 100-109; Obesity.

Group D. Malignant Hypertension:
Diastolic blood pressure 120-159;
Systolic blood pressure 220-299.

Groups A and B are related to systolic blood pressure; Groups C and D to diastolic blood pressure. It is possible that dietary deficiencies may be the cause of some of the disabilities in Groups B and C.

We cannot but be impressed with the need for preventive services when we see the vast amount of disability which results when nine out of 10 of these elderly people have something wrong with them. As always the first requisite is ascertainment. I believe we need clinics for the elderly just as we do for babies, where they can be medically examined, their disabilities ascertained, incipient diseases put under control and deficiencies corrected. In these clinics watch would be kept for signs of anaemia, so common with the dietary deficiencies; and for the excessive weight which some women tend to put on after middle life through disregard of well known dietary principles; the clinic would provide education in weight control. For those who could not afford private chiropody, the clinic, in co-operation with the voluntary organisations, could provide it. When the patient had some disease or disability needing treatment he would be referred to his practitioner who would deal with that aspect of it.

The great lesson of the baby clinics is the importance of education in parentcraft for mothers who, for the most part, are exceedingly ignorant of the principles of child health through not having been taught them. The same applies to the elderly, the reason most of them are disabled in one way or another is through ignorance of the principles of healthy living. The clinics would keep them on the right lines. The greatest difficulty amongst so many of them seems to be the inability to provide themselves with an adequate diet rich in protein, minerals and vitamins. We ought to determine the best diets for the elderly and then by education encourage old people to feed themselves properly. It is essential that they should know the importance of proper food and how to cook it. For those who cannot get about, the meals on wheels service should be extended.

I should not be surprised if the clinics for elderly people would be a sound economic proposition. If they kept the elderly healthy and prevented the deterioration which becomes such a burden to relatives, prevented many of them having to go to hospital and kept them fit and working, then in the long run we should have provided the country with many more useful working lives and have saved a great deal of misery and preventable nursing and the time and energy of the many relatives who have to look after them.

THE PREVENTION OF MENTAL ILL HEALTH

Last year I wrote about the theory of human conduct. If we could ensure that the theory even in a simple form was well understood by everybody, it may well be that a great deal of mental ill health could be prevented; for conduct is predictable; so departures from normal accepted codes would be better understood. Briefly the theory stated that the essential need for all animals, including the human animal, is self preservation; this is most readily safeguarded when the animal or person is in good standing with the herd or group. For rejection by the herd or loss of acceptance by the group places the animal in danger of annihilation by enemies. It is the group which is strong, the individual who is weak, and in the strength of the group lies the safety of the individual.

Now in seeking acceptability by others—be it parent, family, workmates, employer, political association or club—the individual is constantly adjusting his conduct so as to conform to the accepted codes of the desired group and to obey the wishes of the important persons. When the individual feels that the security of the group is being denied to him he will resort to one of a number of lines of conduct, all of which are well known reactions to the threat of isolation; the purpose of the chosen line of conduct is to reinstate himself, even if only in his own imagination.

Now most mental breakdowns originate from small beginnings as when an individual feels himself outcast. Unless tackled and corrected in the early stages, or happily by resolution of the difficulties themselves, the person may well go on to a major nervous breakdown or even to a severe mental derangement. There is a growing awareness of the need for professional advice to assist people in the early stages to readjust their views. This is evident in the enthusiasm which the health visitors are showing in asking for training and knowledge in the prevention of mental breakdown. Recently two of our health visitors attended a course of instruction at the Cassel Hospital at Richmond and came back full of enthusiasm for what they had learnt. This knowledge is essentially similar to that given to psychiatric social workers. Training in psychiatric social work is slowly emerging as a result of the changing attitude and conscience of the community to mental illness. But we have far too few psychiatric social workers to cover the needs of our area. We have three who are attached to the child guidance service for Area 10 and these are fully occupied with the problems of children. Only slowly over the last 30 years has the need for trained psychiatric social workers been recognised. Their function is to obtain details of the social environment, to keep in touch with the patient and relatives, and to work to try to adapt the social setting for the benefit of the patient and relatives so that the patient may have the best chance of adaptation and recovery. In many cases this needs the re-education of father and mother and perhaps a resolution of conflicting views and even a change of set ways of life. The job is exceedingly difficult and requires enormous tact and perseverance. The full training of a psychiatric social worker includes psychology, psychiatry, child development, mental deficiency, physiology, sociology, law and administration in mental health, and criminology. The training is long and expensive; so far the number of trained workers available has been exceedingly few and they are difficult to recruit. We have however on the staff of the health department health visitors who have wide knowledge of social and health conditions, and who, with an extension of their knowledge of psychiatry are well equipped to tackle the functions of mental health in the early stages. With health visitors we can then begin to cover a wider field of incipient mental ill health, beginning in the present clinics. With this aim in view we are trying to arrange for two or three health visitors to receive instruction from our psychiatrist. Some day we may see the functions of preventive mental health carried out on an area basis by the present health visiting staff, and putting forward the concept of mental health on a social basis far wider than hitherto envisaged.

We may look forward to the time when the functions of the old relieving officers—now duly authorised officers—will become a subordinate duty carried out by health visitor social workers as part of their wider social medical duties. They would then work in close partnership with the general practitioners and health departments, constituting the first stage in the preventive defence against mental breakdown, and seeing the patients far in advance of the stage of incarceration in a mental hospital, which should be the last resort of all.

THE RIDDLE OF DISEASED ARTERIES

Some Causes of Death.

The chance of you dying from arterial diseases is about three to one against; considering the multitude of diseases there are this is a very high chance indeed, so there must be about one-third of all deaths attributable to arterial disease. And that is what we find. The following figures are taken from Table 3—Causes of Death, Registrar General's Official Returns for Twickenham.

Causes of Death	Males	Females	Total
Vascular lesions of nervous			
system	57	114	171
Coronary disease, angina	116	94	210
Hypertension with heart disease	.15	18	33 173
Other heart disease	64	109	173
Other circulatory disease	31	29	60

These causes of death include a number of different pathological causes. If we try to sort them out according to cause we can re-arrange them roughly as in the following table:—

	Atheroma	Hyper- tension	Rheumatic infection
Vascular lesions of nervous			
system	171	_	_
Coronary disease, angina	210	_	_
Hypertension with heart disease	_	33	_
Other heart disease	_	85	88
Other circulatory disease	60	_	-
	441	118	88

There were 1,166 deaths from all causes in the Borough for 1954 so we may note that 441 deaths from atheroma is more than one-third of the total. So atheroma is an important disease. We should be trying our best to ascertain the cause and learning how to prevent it. Unfortunately the outlook at the moment is bleak. The real cause is unknown; but certain facts about the condition are known. The disease might be called athero-sclero-thrombosis. Parts of the wall of an artery become diseased and weak; the substance is replaced by fibrous tissue. The wall of the artery becomes thickened and distorted; then the lumen becomes narrowed and finally the roughened internal coat can start a blood clot, the consequences of which can be serious or even disastrous by cutting off the blood supply to the part served by the artery. When this is the heart muscle itself the condition is called angina, and when the blood clots it is called coronary thrombosis.

It is difficult to detect atheroma during life. It can begin in childhood and go on throughout the whole of life. When the arteries of the heart are examined at post-mortem in people who have died of coronary thrombosis, a high proportion show evidence of severe atheroma.

There circulates in the blood stream a substance called cholesterol which is thought to be an important cause of atheroma. The patches of atheroma contain cholesterol; the blood cholesterol level in humans is higher than in other animals which do not suffer from atheroma as a rule. Animals can be given atheroma by feeding with large amounts of cholesterol. High cholesterol content of the blood in man causes severe atheroma. Patients who have suffered from coronary atheroma have on the average higher cholesterol in their blood than other people of the same age and sex. The blood cholesterol level tends to rise gradually from childhood until the 50's in people who live on diets rich in fat, but does not continue to rise so late in life in those accustomed to have low fat intake. Coronary atheroma is more prevalent in men than in women. The severity of the degree of atheroma in women is about 20 years behind men of corresponding age. The highest amounts of cholesterol are found in the blood of men round about age 40, and especially in those men who suffer from coronary thrombosis. Coronary thrombosis increases in women after the menopause and the incidence becomes equal in men and women at about age 70. It thus appears that women are protected in some way during the child-bearing years. Indeed the administration of the substance oestrogen, which induces menstruation, produces a fall in blood cholesterol level in patients with atheroma. The administration of the substance androgen to men, that is the male sexual hormone, produces effects associated with atheroma and makes worse those symptoms already present.

Populations living habitually on low fats diets tend to have lower cholesterol blood levels and a lower incidence of atheroma than those living on a high fat intake. It appears that high physical activity and large energy expenditure lower the rate of atheromatous attacks. Fat people suffer from severe atheroma; thin people seem to escape. After a fatty meal the blood clots more easily and it has been suggested that this tendency to clotting might be the cause of the atheroma which could form in tiny blood clots on the walls of the arteries. However, the elimination from the diet of animal fat only reduces the cholesterol blood level about 15 per cent. Most of the cholesterol appears to be manufactured in the body itself and only a small amount is absorbed from the diet.

Drugs seem to have little effect. It is no use taking oestrogens, for in men they produce femininity. If men are tempted to take antrogen drugs to increase sex potency, they are liable to die rapidly with coronary thrombosis. We are aware of the danger of cancer of the lung from tobacco smoking. There is abundant evidence of the shortening of lives from heavy consumption of alcohol.

So we are left with little comfort. You must give up smoking and drinking; live on a diet adequate in proteins, vitamins and minerals; avoid heavy fatty meals; be sure not to over eat; and keep your figure slim. Take abundant exercise in the fresh air. And finally cast out of your mind all thoughts socially unacceptable about women. In this way you might avoid the dangers of atheroma and some of the other pitfalls of old age. However you might think the spartan regime is not worth the few years you might save; for there are still plenty of other diseases awaiting the unwary, and ready to cut short your four score years.

HAIRDRESSING ESTABLISHMENTS

The Middlesex County Council Act gives power to local authorities to make byelaws for 'the purpose of securing the cleanliness of any premises in any county district used for the purpose of carrying on the business of a hairdresser or barber and of the instruments, towels, equipment and materials used in such premises.' In 1938, Twickenham Council made byelaws. No power, however, is given to *register* any premises; on summary proceedings penalties for contravention of the byelaws can be imposed.

These byelaws are very helpful as without them the only legislation for the control of hairdressers is the nuisance section of the Public Health Act; the premises would then have to be 'in such a state as to be prejudicial to health or a nuisance' before any action other than advising could be taken. Men's hairdressing establishments are inspected periodically by the sanitary inspectors. Recently a series of tests were carried out in order to find a practicable method for cleansing the various instruments used in the trade. Under the byelaws metal instruments, shaving brushes, sponges, and shaving mugs must be cleansed for each person; hair brushes and combs must be washed at least once daily and otherwise kept clean. There is no mention of such instruments having to be sterilised, although this is desirable.

The common method of cleansing instruments seems to be dipping in an antiseptic such as Dettol. It is doubtful whether hair clippers can be subjected to this treatment because of the corrosive effect on them due to the difficulty of wiping them thoroughly dry. Swabbing with a surgical spirit is probably the more effective treatment for such instruments. The use of Dettol seems to be effective, as after immersion for one minute in a 10 per cent solution, cultures on combs were found to be sterile.

The disadvantage in using an antiseptic arises mainly from the tiresome procedure. It is difficult to envisage hairdressers carrying out the operation of dipping and wiping the cutters and scissors for each customer, or even subjecting them to a similar process a sufficient number of times during the day to keep them cleansed. The antiseptic would obviously be ineffective after a certain amount of use, and would be valueless unless renewed often enough.

The main tests, however, were applied to finding out the efficiency of 'Bacterol,' a proprietary liquid principally, if not wholly, formalin, which is used in a cabinet.

The experiments consisted of using six combs, two hair brushes, and a neck brush, all of which had been rendered sterile at the Epsom Public Health Laboratory. A certain amount of difficulty was experienced at the laboratory in ensuring that the brushes were sterile before use, and the experiments were confined mainly to the combs.

The sterile combs were numbered 1 to 6. No. 1 comb was used for one haircut, No. 2 for two, No. 3 for three, No. 4 for six, No. 5 for nine and No. 6 for 12. After use the combs were sent to the laboratory where they were swabbed at the ends and the colony counts obtained. They were returned here and then treated in the cabinet at the hairdressers.

The test with the 'Bacterol' was as follows: the 'Bacterol' liquid was placed in the bottom shelf of a reasonably air-tight, glass-fronted cabinet measuring about 2 feet high, 1 foot wide and 6 inches deep, and the combs were placed on the upper shelves. Although the liquid vaporises naturally, a 5-watt bulb was placed in the cabinet to provide a little heat to intensify the vaporising. Holes had also been bored through the shelves on which the combs were placed, so that the vapour could circulate freely. The combs were treated in the cabinet for a period of 20 minutes, and finally sent back to the laboratory for testing.

Later, the whole experiment was repeated, and on the second occasion treatment in the cabinet was reduced to 10 minutes. Ten minutes in the cabinet rendered the combs sterile.

The advantage of the use of a 'Bacterol cabinet' is that it is a simple quick, and effective means of sterilising hairdressing instruments. As the instruments can be rendered sterile in the cabinet in 10 minutes, the sterilising period coincides with the average length of time taken to complete one hair cut. It is possible, therefore, for a sterilised set of instruments to be used for each customer without interfering with the free flow of the trade, even at peak times. The only disadvantage is the corrosive effect the 'Bacterol' vapour has or scissors and clippers over a fairly long period. This, of course, is a serious matter for the hairdresser, as he certainly does not want the expense of renewing instruments more often than is really necessary.

Because of this disadvantage of corrosion of the metal instruments, it is intended to carry out further tests by using formalin tablets instead of the liquid 'Baterol.' These tests will be carried out in the near future.

PEST DESTRUCTION

The service provided by the Health Department enables residents in the Borough to obtain advice as to the identification and method of eradication of a wide variety of insect pests, as well as the normal work of the department connected with rodent destruction.

Since the introduction of D.D.T., Gammexane and other modern insecticides, the incidence of the bed bug has been greatly decreased. During the year only 35 premises were treated for this pest and in every case complete clearance was effected.

The income from pest destruction for the year was £59 11s. 7d.

KEEPING THE BOROUGH CLEAN

I am obliged to Mr. A. S. Knolles, the Borough Surveyor, for the following report about drainage, sewerage, public cleansing and refuse disposal:—

Drainage and Sewerage.

No works of major improvement have been possible because of the continued restriction of capital expenditure.

Certain difficulties at the Ejector Stations, especially that at the junction of Red Lion Corner, have been overcome by repairs and alterations to the machinery.

Public Cleansing.

In spite of increased mechanisation and consequent reduction in the necessity for manual labour, the shortage of workers has caused difficulties in operating the street sweeping and refuse collecting sections.

Refuse Disposal.

The new works at Charlton have been in operation some time and after the initial "teething troubles" the works are operating satisfactorily.

The works have proved of considerable interest and have been visited by a

number of other Authorities and Organisations.

WATER SUPPLY

I am indebted to E. Windle Taylor, Esq., M.A., M.D., D.P.H., M.R.C.S., L.R.C.P., Barrister-at-Law, Director of Water Examination, Metropolitan Water Board, for the following report:—

The source of the water is the River Thames abstracted at the Wraysbury, Walton and Laleham intakes and stored in the Thames Valley reservoirs at Staines, Littleton and Walton. After storage the water is treated at the filtration works at Hampton.

The water is filtered by means of primary or rapid filtration followed by secondary or slow sand filtration. All the water is finally chlorinated before it leaves the works. In order to provide adequate contact to ensure complete action by the chlorine a contact tank is provided at the works. The water is treated by a method of controlled superchlorination by maintaining a fixed residual of free chlorine after a given period of contact. The chlorination process is now entirely automatic both in regard to changes in quality as well as changes in quantity of the filtered water.

Samples of water are collected at all stages of the purification process at least five times each week and analysed at the laboratories of the Metropolitan Water Board.

All new and repaired mains are disinfected with chlorine before being restored to supply and samples of water from them are tested to establish that its quality is up to that normally supplied.

The supply is not plumbo-solvent.

The average results of chemical and bacteriological analysis of the water are shown in Table No. 9.

INDUSTRIAL HEALTH

Factories.

Most of the 375 factories in the Borough are engaged in light industries such as the manufacture of electrical components, piston rings, aircraft parts, nameplates, and bakery furniture. The number of persons employed in these factories ranges from 500 in the largest to one or two in the smallest. All factories are visited to see that proper sanitary accommodation is provided; those factories which do not use mechanical power are inspected for cleanliness, avoidance of overcrowding, for adequate warmth and ventilation, and proper drainage of floors. During 1954 the inspectors paid 247 visits to factories; in 22 factories the attention of the management had to be drawn to contraventions of the regulations. The inspectors also paid 31 visits to out-workers' premises.

GENERAL MATTERS

Shops.

Section 38 of the Shops Act, 1950, deals with the provisions for the health and comfort of the staff. Shops are required to be properly ventilated, adequately warmed, and sufficiently lighted; they have to have toilet and washing facilities; if the staff take meals on the premises there must be suitable arrangements. Occasionally it happens, as in the case of a small lock-up shop, it is impossible to provide a separate toilet on the premises. In these cases the occupier may make an alternative arrangement to share a nearby toilet and a certificate of exemption is granted from the requirement in the Act.

Mortuary.

The mortuary at Hampton, though small, is a good building. It provides an important public service. During any year there occurs a series of cases in which owing to either accident, sudden death, drowning in the river or other untoward happening, a post-mortem examination is required by the coroner to ascertain the cause of death. The number of bodies admitted to the mortuary for this purpose during 1954 was 479.

Swimming Baths and Pools.

Excellent facilities for swimming are provided at the Corporation's three open-air baths.

Water is supplied by the Metropolitan Water Board's main, and 12 samples for bacteriological examination were taken throughout the season, all of which were satisfactory.

Health Education.

Continued use is made of various health education methods, including propaganda by posters, leaflets and lectures illustrated by films or lantern slides.

Laboratory Work.

The usual arrangements were continued during the year and worked satisfactorily. 208 samples of ice cream were obtained, and all but 20 were satisfactory. In addition, 282 miscellaneous specimens, mainly faeces, were submitted to the laboratory in connection with food poisoning and dysentery enquiries.

Establishments for Massage, Chiropody, Electrical and Special Treatment.

Fifteen licences in respect of establishments for these purposes were issued during the year 1954. The premises are all inspected regularly and are well run.

Registration of Hawkers of Food and their Premises.

A strict watch is kept on street food traders. Both the persons and the premises where they store their food have to be registered. Registration can be refused if the conditions are unsatisfactory. During the year two persons and one premises were registered. The inspectors paid 12 visits.

Petrol Filling Stations.

During the year 1954, 340 visits were paid by the sanitary inspectors to premises where petroleum or carbide of calcium is stored, and 106 licences were issued.

Certificates of Disrepair.

The Housing Repairs and Rents Act was passed in July, 1954, and came into operation one month later.

Many requests for advice were received from tenants; they seemed to have considerable difficulty in understanding the workings of this complex piece of legislation, and much time has been spent by the staff in giving advice and making inspections on applications for certificates of disrepair.

By the end of the year 35 certificates of disrepair had been granted to tenants who had been served with notices of increases of rent by their landlords.

In three cases the items specified on the certificates were completed and revocation was granted.

Tents, Vans and Sheds.

During 1954, one renewal of consent was issued for temporary sites for caravans.

Schools.

Inspections of the sanitary arrangements and canteens at the schools within the jurisdiction of the Divisional Executive were carried out by the sanitary inspectors during the year 1954. It was not necessary to close any schools on account of infectious disease among children.

Ambulance Facilities.

The Middlesex County Council is the responsible authority for the provision of the ambulance service under the National Health Service Act, 1946.

Rag Flock and Other Filling Materials Act, 1951.

Five premises have so far been registered under the Rag Flock and Other Filling Materials Act, 1951, and two samples of rag flock were obtained and were satisfactory. There are no premises requiring to be licensed as there is no manufacture or storage of rag flock in the Borough.

National Assistance Act, 1948, Section 47.

It was not necessary, during 1954, to remove to suitable premises any persons in need of care and attention.

Complaints.

During 1954 the number of complaints received by the department was 1,795.

Smoke Abatement.

During the year 216 smoke observations were made. The Byelaws prescribe that the emission of black smoke for more than two minutes in any period of 30 minutes shall until the contrary is proved be deemed to be a statutory nuisance and a smoke nuisance. These observations were taken over 30-minute periods, but each district inspector is constantly taking spot observations of factory chimneys in his district.

It was found necessary on one occasion to report contravention of the Byelaws to the Health Committee and in this case a warning letter was sent to the offending firm by the Town Clerk. This proved effective and no further nuisance was observed.

Housing.

The Housing Repairs and Rents Act, 1954, came into operation in August 1954, and amended the Housing Act, 1936. Every local authority had to submit to the Minister their proposals for dealing with houses which appeared to be unfit for human habitation and with any other houses which ought to be included in clearance areas.

This information was required not later than August, 1955, and it meant that a survey had to be made of the whole of the Borough.

To cope with this work, Mr. K. E. Evans was promoted from District Sanitary Inspector to Specialist Housing Inspector. During the year the Chief Sanitary Inspector and Mr. Evans inspected over 580 houses, and in April, 1955, a report was submitted to the Health Committee listing 168 unfit houses. This information was than sent to the Minister and in 1955, the work of dealing with these unfit houses commenced.

TABLES FOR STATISTICAL YEAR 1954

STATISTICAL TABLES

for the Year 1954

TABLE 1.

		TUDEL I			
Summary.					
the Registr Number of ir Rateable value	oreliminary census dation—estimated ar-General) habited houses ne ted by a penny	to mid-yea	re, 1953) ur (as supp 		105,300 104,700 30,279
		Total	M.	E	
Live Births:	Legitimate	1,280	658	F. 622	
arro arrono.	Illegitimate	53	29	24	
	anogramaco			44	
	Total	1,333	687	646	
Birth rate per Adjusted birth	r 1,000 of estima h rate				12.73 12.98
CATH DI A	*	Total	M.	F.	
Still Births:	Legitimate		14	10	
	Illegitimate	1	1	-	
	Total	25	 15	10	
		_	_	10	
Still birth rate	e per 1,000 total	(live and st	ill) births		18.41
		M.	F.		
Deaths		557	609		1,166
Crude death ra Adjusted death Maternal death		estimated ci	vilian popu	lation 	11.14 10.25 Nil
Rate per 1,000	total (live and	still) births			Nil
	infants under on				1111
All infants Legitimate	s per 1,000 live to e infants per 1,00 e infants per 1,00	oirths 0 legitimate	live births	 hs	14.25 14.84 Nil

Population 1938-1954.

			Population trend	d .	Migratio	n excess
Year	Population	Total increase or decrease	Percentage proportion	Natural increase or decrease	Inward	Outward
1938	96,550	+ 2,320	+ 2.46%	+363	1,957	_
1939	97,440	+ 890	+ 0.92%	+383	507	_
1940	94,070	- 3,370	- 3.46%	— 15	_	3,355
1941	91,820	- 2,250	- 2.39%	+ 38	-	2,288
1942	92,460	+ 640	+ 0.70%	+450	190	_
1943	92,780	+ 320	+ 0.35%	+502	_	182
1944	88,660	- 4,120	- 4.44%	+507	-	4,627
1945	91,920	+ 3,260	+ 3.68%	+424	2,836	_
1946	102,850	+10,930	+11.89%	+835	10,095	_
1947	105,930	+ 3,080	+ 2.99%	+918	2,162	_
1948	106,700	+ 770	+ 0.73%	+621	149	_
1949	106,900	+ 200	+ 0.19%	+399	_	199
1950	107,600	+ 700	+ 0.65%	+246	454	-
1951	106,300	- 1,300	- 1·28%	+ 91	_	1,391
1952	106,500	+ 200	+ 0.19%	+144	56	_
1953	105,300	- 1,200	- 1.13%	+250	_	1,450
1954	104,700	- 600	- 0.57%	+167	_	767

TABLE 3.

Causes of Death. Registrar-General's Official Returns.

	Causes of Death				Males	Females	Total
	All causes				557	609	1,116
1.	Tuberculosis, respiratory				16	6	22
2.	Tuberculosis, other		***		_	1	1
3.	Syphilitic disease				3	-	3
4.	Diphtheria				_	_	_
5.	Whooping cough	***			-	-	-
6.	Meningo-coccal infections				_	-	_
7.	Acute poliomyelitis				-	-	-
8.	Measles				_	_	-
9.	Other infective and parasitic dise	ases			1	2	3
10.	Malignant neoplasm, stomach				17	12	29
11.	Malignant neoplasm, lung, bronch	hus		***	38	5	43
12.	Malignant neoplasm, breast				1	26	27
13.	Malignant neoplasm, uterus			***		10	10
14.	Other malignant and lymphatic r	reoplas	sms		60	53	113
15.	Leukaemia, aleukaemia				5	4	9
6.	Diabetes		***	***	1	5	6
7.	Vascular lesions of nervous system	m			57	114	171
18.	Coronary disease, angina				116	94	210
19.	Hypertension with heart disease	***	***	***	15	18	33
20.	Other heart disease				64	109	173
21.	Other circulatory disease				31	29	60
22.	Influenza			***	5	3	8
23.	Pneumonia				16	25	41
24.	Bronchitis				28	15	43
25.	Other diseases of respiratory syst				5	4	9
26.	Ulcer of stomach and duodenum				9	2	11
27.	Gastritis, enteritis and diarrhoea	***			3	1	4
28.	Nephritis and nephrosis		***		5	4	9
29.	Hyperplasia of prostate		***		6	-	6
30.	Pregnancy, Childbirth, abortion			***	-	-	-
31.	Congenital malformations				2	9	11
32.	Other defined and ill-defined dise	ases	***	***	28	43	71
33.	Motor vehicle accidents		***		7	3	10
34.	All other accidents				9	7	16
35.	Suicide		***	***	9	5	14
36.	Homicide and operations of war				_		_

Zymotic Diseases Mortality.

The mortality rates for this group of diseases, which includes enteric fever, smallpox, scarlet fever, diphtheria, measles, whooping cough and diarrhoea under two years of age, were:—

Disease			1	No. of Death	Death rate per	
270000			Male	Female	Total	1,000 of the population
Enteric Fever			_	_	_	_
Smallpox			_	_	_	_
Scarlet Fever			_	_	_	_
Diphtheria			_	_	_	_
Measles			-	-	_	_
Whooping Cough			_	_	_	_
Diarrhoea			_		_	

TABLE 5.

Main Causes of Death.

An analysis of the death returns reveals the following main causes of death:—

		Dis		Percentage of total deaths	Death rate pe 1,000 of the population			
Diseases of h	eart a	and circ	ulator	y syste	m		41.60	4.63
Intra-cranial	vascu	ılar lesi	ons				14.66	1.63
Bronchitis,	Pneur	monia,	and	other	respira	atory		
diseases		***		***			8.66	0.96
Cancer							19.04	2.12
Violence	***						3.43	0.38
Tuberculosis							1.97	0.22

TABLE 6.

Infantile Mortality.

(a) The following table, compiled from official registrations, gives details of the causes of death at various ages under one year of age:—

	Under 1 week	1-2 weeks	2-3 weeks	3 - 4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total deaths under 1 year
ALL CAUSES :—Certified Uncertified	16	1	_	=	17	1	1	_	_	19
Smallpox								1111111111111		
Atrophy, Debility and Marasmus Atelectasis Injury at Birth Erysipelas Syphilis Rickets Meningitis (not Tuberculous) Convulsions Gastritis Laryngitis Bronchitis Pneumonia (all forms) Suffocation (overlying) Other causes	5 - - 1 - - - 1 - - 1 - 1				5 - - 1 - - - - - - - - - - - - - - - -					5 1 4 1
Totals	16	1	-	-	17	1	1	-	-	19

(b) An analysis of the mortality reveals that neo-natal deaths were responsible for 89.47 per cent. of the total deaths, viz.:—

Under 24 hours	1 to 7 days	1 to 4 weeks	Total under 4 weeks	Percentage total infant deaths
7	9	1	17	89 - 47

Birth Rate, Death Rate and Analysis of Mortality. Provisional Figures.

	Rate pe total poj									Rate per 1,000 live births			
	Live Births	Still Births	All Causes	Typhoid and Para- typhoid fevers	Whoop- ing Cough	Diph- theria	Tuber- culosis	In- fluenza	Small-	Acute Polio- myelitis and Polio- encephalitis	Pneu- monia	Diarrhoea and Enteritis (under two years)	Total Death under 1 year
England and Wales	15.2	0.37	11.3	0.00	0.00	0.00	0.18	0.04	_	0.00	0.41	0.00	25.5
160 County Boroughs and great towns, including London 160 smaller towns, resi- dent populations	15.2	0.36	11 - 1	0.00	0.00	0.00	0.20	0.03	_	0.00	0.45	0.00	25 - 2
25,000 to 50,000 at 1951 census	14.9	0.36	11.3	0.00	0.00	0.00	0.18	0.04	_	0.00	0.41	0.00	26.6
London Admin. County	15.2	0.31	10.7	0.00	0.00	-	0.20	0.02	_	0.00	0.48	0.45	20.7
Twickenham	(a) 12·73 (b) 12·98	0.24	(a) 11·14 (b) 10·25	_	_	_	0.22	0.07	_	_	0.39	_	14 · 2

A dash (—) signifies that there were no deaths (a) crude (b) adjusted

(b) adjusted

TABLE 8.

Review of the Comparative Vital and Mortality Statistics for the Borough of Twickenham, together with those for England and Wales for years 1938-1954 inclusive.

	Birth	Rate	Death	Rate	Infa: Mortali	
Year	Twickenham	England and Wales	Twickenham	England and Wales	Twickenham	England and Wales
1938	14.4	15.1	(a) 9·91 (b) 9·81	11.6	45.8	53
1939	14.2	15.0	(a) 10·46 (b) 10·35	12.1	26.4	50
1940	14.67	14.6	(a) 14·8 (b) 14·9	14.3	45.8	55
1941	13.4	14.2	13.0	12.9	70.95	59
1942	16.49	15.8	11.6	11.6	53 · 1	49
1943	17.7	16.5	12.3	12.1	47 - 99	49
1944	18.5	17.6	12.8	11.6	37 · 1	46
1945	16.76	16.1	12.15	11 · 4	48.02	46
1946	19.01	19.1	10.89	11.5	26.09	43
1947	19.72	20.5	11.05	12-0	40.21	41
1948	15.86	17.9	10.04	10.8	20.69	34
1949	14.99	16.7	(a) 11.26 (b) 11.03	11.7	21.21	32
1950	(a) 13·34 (b) 12·54	15.8	(a) 11·05 (b) 10·72	11.6	20.10	29.8
1951	(a) 12·82 (b) 12·05	15.5	(a) 11·97 (b) 11·61	12.5	24.98	29.6
1952	(a) 12·54 (b) 11·79	15.3	(a) 11·18 (b) 10·84	11.3	20.22	27.6
1953	(a) 13·26 (b) 13·53	15.5	(a) 10·88 (b) 10·01	11-4	20.06	26.8
1954	(a) 12·73 (b) 12·98	15.2	(a) 11·14 (b) 10·25	11.3	14.25	25.5

(a) Crude (b) Adjusted Results of the Chemical and Bacteriological Examination of the Water Supply to the Borough of Twickenham for 1954.

Parts per million (unless otherwise stated).

(a) Chemical.

		1	,	1			/						-						
100	Description of the Sample	Number of Samples	Ammoniacal Nitrogen	Albuminoid Nitrogen	Oxidised Nitrogen (Nitrate)	Chlorides as C1	Oxygen abs. from Permanganate 4 hrs. at 27°c.	Turbidity, in terms of Silica	Colour, m.m. trown, 2 ft. tube, Burgess's Tintometer	Hardness (total)	Hardness (Non-carb.)	pH. Value	Phosphate as P.O. 113	Silica as SiO ₂	Conductivity	Magnesium as Sulphates M ₉	Magnesium as Sulphates SO ⁴	Fluorides	7.1
28	River Thames water filtered at Hampton Works	225	0.020	0.092	4.0	26.4	1.23	0.3	14	271	72	7.9	0.65	11.0	475	5	50	0.15	ABLE 9.

(b) Bacteriological.

		Plate count (average per milli-	Bact. coli test			
Description of the Sample	Number of Samples	litre) Colonies counted on agar after 20-24 hrs. at 37°C.	Percentage of samples negative in 100 ml.	Average number of Bact. coli per 100 ml		
River Thames water filtered at Hampton Works	963	5.6	100.0	NIL		

TABLE 9.

Table 10. Analysis of Complaints Received.

	Nature	of Cor	nplaint				Number Received
Housing defects				 			444
Choked and defective drain	S			 			174
Accumulations of offensive				 ***			14
Unsound food				 			193
Verminous premises :-							
(a) Bugs				 ***	***		28
(b) Rats and mice				 			435
(c) Other				 ***	***		89
Keeping of animals				 			3
Unsatisfactory milk supplie	S			 			3
Miscellaneous				 ***		***	412
					Total		1,795

TABLE 11.

Summary of Visits, Inspections, etc.

Dwelling-houses for housing defects under Public Health Act: (a) After complaint									
After complaint									371
(a) After complaint	Dwelling-houses for housing	defects	under	Public	Healt	h Act			Number
Display Company Comp	(a) After complaint								1.000
Dwelling-houses under Housing Act:—	(b) Subsequent visits						***		
Dwelling-houses:— Housing applications, specially investigated Total Infected dwelling-houses:— (a) After notified infectious disease (other than tuberculosis) 338 (b) Contacts 112 (c) Furnigations after infectious disease 112 (d) Pithsis enquiries and furnigations 2 (d) Pithsis enquiries and furnigations 5 (d) Pithsis enquiries 5 (d) Pithsis enquiries 5 (d) Pithsis enquiries 6 (d) Pithsis enquiries 7 (d) Pithsis enquir	Dwelling-houses under Hous	ing Act			***			***	2,810
Dwelling-houses:—	After complaint								
Housing applications, specially investigated 74	***************************************		***		***	***		***	1,352
Housing applications, specially investigated 74	Dwelling-houses:-								
Alter notified infectious disease (other than tuberculosis) 338	Housing applications, spec	ially in	vestica	ted					
(a) After notified infectious disease (other than tuberculosis) 338 (b) Contacts 1112 (c) Fumigations after infectious disease 122 (d) Phthisis enquiries and fumigations 5 School and church halls 5 School and church halls 9 Water sampling:— (a) Swimming baths (b) Dwelling-houses (c) Dwelling-houses (d) Dwelling-houses (e) Dwelling-houses (e) Dwelling-houses (f) Dwelling-houses (h) Coutes without mechanicals (h) Coutworkers' premises (h) Co	Infected dwelling-houses:-	many m	* couga	red			***		74
(c) Fumigations after infectious disease (d) Phthisis enquiries and fumigations 5 School and church halls 5 Swimming baths 5	(a) After notified infectio	us disea	se (oth	er tha	n tube	renles	loin		000
(c) Fumigations after infectious disease (d) Phthisis enquiries and fumigations 5 School and church halls 5 Swimming baths 5	(b) Contacts		ion fori					***	
(a) Phthisis enquiries and fumigations 5 School and church halls 9 Water sampling:— (a) Swimming baths (b) Dwelling-houses. Business premises Cinemas, dance halls, billiard halls Offensive trade premises Stables, piggeries, keeping of animals Houses let in lodgings Factories with mechanical power Factories without mechanical power Factories without mechanical power Factories without mechanical power Gumon lodging houses Underground rooms 42 Lairdressing premises 22 Hairdressing premises 22 Entire yuns and sheds 14 Smoke muisances 216 Fairgrounds 25 Drainage: Testing by:— (a) Smoke (b) Coloured water (c) Water (d) Breaking down 108 (e) Water (f) Breaking down (g) Every conveniences—including public-houses 25 27 Water courses and ditches (a) Smoke (b) Coloured water (c) Coskroaches in case of fire		ections	disease				***	***	
School and church halls	(d) Phthisis enquiries and	fumiga	tions						
Swimming baths 9 Water sampling:—	School and church halls			***		***		***	5
Water sampling:— (a) Swimming baths 12 12 12 12 15 15 15 15	Swimming boths						***	111	_
(a) Swimming baths 12 (b) Dwelling-houses 1 Business premises 1 Cinemas, dance halls, billiard halls 33 Offensive trade premises 33 Stables, piggeries, keeping of animals 46 Houses let in lodgings 46 Factories with mechanical power 233 Factories without mechanical power 233 Common lodging houses 14 Underground rooms - Lunderground rooms 22 Hairdressing premises 66 Tents, vans and sheds 14 Smoke muisances 216 Fairgrounds 5 Drainage: Testing by:— (a) Smoke 205 (b) Coloured water 45 45 (c) Water 13 10 (a) Breaking down 13 18 Re public sewers 108 727 Watercourses and ditches 727 727 Means of escape in case of fire 1 1 Land and tips 25		***						***	9
(a) Swimming baths 12 (b) Dwelling-houses 1 Business premises 1 Cinemas, dance halls, billiard halls 33 Offensive trade premises 33 Stables, piggeries, keeping of animals 46 Houses let in lodgings 46 Factories with mechanical power 233 Factories without mechanical power 233 Common lodging houses 14 Underground rooms - Lunderground rooms 22 Hairdressing premises 66 Tents, vans and sheds 14 Smoke muisances 216 Fairgrounds 5 Drainage: Testing by:— (a) Smoke 205 (b) Coloured water 45 45 (c) Water 13 10 (a) Breaking down 13 18 Re public sewers 108 727 Watercourses and ditches 727 727 Means of escape in case of fire 1 1 Land and tips 25	Water sampling:-								
Discription									
Business premises	(b) Dwelling-houses						***	***	12
Cinemas, dance halls, billiard halls					***		***	***	_
Offensive trade premises 35 Stables, piggeries, keeping of animals 46 Houses let in lodgings - Factories Acts, 1937 and 1948:— - Factories with mechanical power 233 Factories without mechanical power 14 Outworkers' premises 31 Common lodging houses 31 Underground rooms 22 Hairdressing premises 22 Tents, vans and sheds 14 Smoke nuisances 216 Fairgrounds 5 Drainage: Testing by:— <tabr></tabr> (a) Smoke <tabr></tabr> (b) Coloured water 45 (c) Water 45 (d) Breaking down 13 108 727 Watercourses and ditches 727 727 727 727 727 727 727 727 727 727 727 727 725 725					***	***			
Stables, piggeries, keeping of animals	Offensive trade premises				***	***		***	33
Houses let in lodgings 40	Stables piggeries keeping of	animal					***		
Factories Acts, 1937 and 1948:— Factories with mechanical power Factories without mechanical power Outworkers' premises Common lodging houses Underground rooms Hairdressing premises Gef Tents, vans and sheds Smoke nuisances Fairgrounds Drainage: Testing by:— (a) Smoke (b) Coloured water (c) Water (d) Breaking down Re public sewers Means of escape in case of fire Land and tips Septic tanks and cesspools Miscellaneous visits Miscellaneous visits Werminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits Mumber of premises where definite infestation existed (c) Cockroaches (d) Other vermin (e) Scapies (e) Scapies (233 233 233 233 234 234 234 234 234 234	Houses let in lodgings						111		46
Factories with mechanical power	and the management	***	***						_
Factories with mechanical power	Factories Acts 1937 and 194	Q							
Factories without mechanical power	Factories with mechanical	DOWNER .							
Outworkers' premises 31 Common lodging houses — Underground rooms — Hairdressing premises 66 Tents, vans and sheds 14 Smoke nuisances 216 Fairgrounds 216 Drainage: Testing by:— (a) Smoke (b) Coloured water (c) Water (d) Breaking down (e) Waterourses and ditches (f) Water courses and ditches (g) Watercourses and ditches (h) Septic tanks and cesspools (h) Subsequent visits (h) Subsequent visits (h) Subsequent visits (h) Subsequent visits (h) Bug infestations: Number of premises visited (h) Subsequent visits (h) Subsequent visits	Factories without mechanic	power				***		***	233
Common lodging houses 31 Underground rooms 22 Hairdressing premises 66 Tents, vans and sheds 114 Smoke nuisances 216 Fairgrounds 205 Drainage: Testing by:—	Outworkers' premises		er	•••	***	***	***	***	14
Underground rooms	Common lodging houses								31
Hairdressing premises 66 Tents, vans and sheds 14 Smoke nuisances 216 Fairgrounds 216 Fairgrounds 216 Fairgrounds 205 Caloured water 205 (b) Coloured water 45 (c) Water 45 (d) Breaking down 108 Re public sewers 727 Watercourses and ditches 727 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 61 Septic tanks and cesspools 25 Miscellaneous visits 930 Visits not inspections 25 Werminous premises:— (a) Rats and mice: (i) After complaint or from survey 49 (ii) Subsequent visits 141 (b) Bug infestations: Number of premises visited 83 Number of premises where definite infestation existed 35 (c) Cockroaches 6 (d) Other vermin 6 (e) Scables 219	Underground rooms								_
Tents, vans and sheds	Hairdressing premises			***		***	***	***	22
Smoke nuisances	Tents vans and shade				***			***	66
Drainage: Testing by:— (a) Smoke	Cmoko muioanana	***			***				14
Drainage: Testing by:— (a) Smoke									216
(a) Smoke 205 (b) Coloured water 45 (c) Water 13 (d) Breaking down 108 Re public sewers 727 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 61 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 2,046 Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited 83 Number of premises where definite infestation existed (c) Cockroaches (d) Other vermin (e) Scabies 35	rangrounds								5
(a) Smoke 205 (b) Coloured water 45 (c) Water 13 (d) Breaking down 108 Re public sewers 727 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 61 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 2,046 Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited 83 Number of premises where definite infestation existed (c) Cockroaches (d) Other vermin (e) Scabies 35	Drainage: Testing by								
(b) Coloured water 205 (c) Water 45 (d) Breaking down 13 Re public sewers 108 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 25 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 2,046 Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited Number of premises where definite infestation existed 83 (c) Cockroaches 6 (d) Other vermin 6 (e) Scabies 219									
(c) Water 13 (d) Breaking down 108 Re public sewers 108 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 61 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 2,046 Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited 83 Number of premises where definite infestation existed (c) Cockroaches 6 (d) Other vermin 6 (e) Scabies 219			***						205
(d) Breaking down 108 Re public sewers 108 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 61 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 2,046 Verminous premises:— (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited Number of premises where definite infestation existed (c) Cockroaches 35 (d) Other vermin 6 (e) Scabies 219	(c) Water								45
Re public sewers 727 Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 25 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 930 Verminous premises:— (ii) After complaint or from survey 49 (ii) Subsequent visits 141 (b) Bug infestations: Number of premises visited 83 Number of premises where definite infestation existed 35 (c) Cockroaches 6 (d) Other vermin 219							***		13
Watercourses and ditches 727 Means of escape in case of fire 1 Land and tips 61 Septic tanks and cesspools 25 Sanitary conveniences—including public-houses 25 Miscellaneous visits 930 Visits not inspections 2,046 Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited Number of premises where definite infestation existed (c) Cockroaches 35 (d) Other vermin 35 (e) Scabies 219	Pa public comes								108
Means of escape in case of fire Land and tips Septic tanks and cesspools Sanitary conveniences—including public-houses Miscellaneous visits Visits not inspections (i) After complaint or from survey (ii) Subsequent visits (b) Bug infestations: Number of premises visited Number of premises where definite infestation existed (c) Cockroaches (d) Other vermin (e) Scabies Means of escape in case of fire 1 61 225 330 2,046 49 49 49 49 49 61 83 83 83 84 84 85 86 66 60 60 60 60 60 60 60 60 60 60 60 60							***	***	727
Columber of premises where definite infestation existed Columber of premises where definite infestation Columber of premises Columber of pre				**					_
Septic tanks and cesspools Sanitary conveniences—including public-houses Miscellaneous visits Visits not inspections Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits Number of premises visited Number of premises where definite infestation existed (c) Cockroaches (d) Other vermin (e) Scabies	I and and tine								1
Sanitary conveniences—including public-houses 25 25 25 27 25 27 27 27	Septie tanks and						***		7.000
Visits not inspections	Sanitary occurred cesspools								_
Visits not inspections	Missellaneous -iii	ling pul	blic-ho	uses					25
Verminous premises:— (a) Rats and mice: (i) After complaint or from survey (ii) Subsequent visits	Visite not inspect:						***	***	
Verminous premises:— (a) Rats and mice: (i) After complaint or from survey	visits not inspections								2,046
(a) Rats and mice: (i) After complaint or from survey	Verminous							200,000	11000000000
(b) Bug infestations: Number of premises visited	(a) Post-								
(b) Bug infestations: Number of premises visited	(a) Rats and mice: (i) Af	ter com	plaint	or from	n surv	ey			49
(c) Cockroaches	(11) Su	bsequer	nt visit	S .					
Number of premises where definite infestation existed	(b) Bug infestations: Num	ber of p	remise	s visite	ed				7000
(c) Cockroaches	Numl	per of	premis	es whe	ere def	inite :	infestat	ion	
(c) Cockroaches	exi	sted							35
(d) Other vermin 219									
(e) Scables									
	(e) Scables								
						7.100			

TABLE 11—continued.

Inspections for supervision of food:—					
Unfit foodstuffs other than meat		***			169
Slaughterhouses					7
Butchers' shops (Public Health (Meat) Reg	gulations,	1924)			288
Food and Days Ast 1020 Castin 12					
Food and Drugs Act, 1938, Section 13:—					105
Bakehouses				***	107
Factory and school cantagns				***	785
Restaurant kitchens etc					42
Hotel and beerhouse bars and cellars:		***	***	***	379
1					00
(b) Night in a stine					88
(b) Night inspections		***		***	Nil
Food and Drugs Act, 1938, Section 14:-					
Ice-cream premises (Heat Treatment) Regi	ulations 1	947 to	1951		256
Sausage manufacturers			1001	***	4
Preserved meat preparation premises					4
Preserved fish preparation premises					37
				***	01
Milk and Dairies Regulations, 1949:-					
Milk sampling for bacteriological examinat	ion				2
Contraventions of Milk and Dairies Regula					
Dairies					14
				***	**
Shops Act, 1950, Section 38					99
Middlesex County Council Act, 1950:-					
Hawkers' vehicles					9
Hawkers' premises					3
Noise nuisances					38
Massage and/or special treatment establishme					4
Petroleum (Regulation) Acts, 1928 and 1936	; Petrole	um Spi	rit Res	rula-	
tions, 1929-1950					340
National Assistance Act, 1948, Section 47					4
Rag Flock and other Filling Materials Act, 1	951		***		2
Dealers in Old Metal and Marine Stores		***			1
Pet Animals Act, 1951					6
	1 12 7010			-	
Total numb	er of visit	s and ir	spectio	ons	14,106
					-

Table 12. Sanitary Improvements Effected.

Offensive accumulation	oc ron	horros							Numb
			econod.	ind.	***			***	4
Nuisance from keeping	or ar		remed	ied			***		-
Chimney flues repaired		***			***		***		7
Chimney stacks repaire	20	***		***	***	***	***	***	3
Roofs repaired									200
Eavesgutters repaired	***			***	***	***	***		62
Downspouts repaired		***	***	***					17
Pointing renewed								***	9
Drains repaired					***				3
Drains unstopped					***				27
Dustbins provided									20
Fireplaces repaired		***				***			14
Filthy condition of pre	mises	remed	ied	***		***		***	1
									43
		***	***	***					4
Pail closets renewed		***	***				***	***	4
Plaster to walls and ce									153
Window frames and sa	shcore	ds repa	ired			***			15
Public sewers repaired									14
Sinks provided									_
Sink waste pipes repair	ed								17
Soil pipes repaired									7
Stairs repaired		***							2
External walls repaired			***						_
W.C.s repaired									11
W.C. cisterns and fittin	gs pro	ovided							61
W.C. accommodation p	rovide	ed							1
Yard paving repaired .									2
Unpaved Yards & Pass									1
Other works carried out									377

TABLE 13.

Housing Statistics.

(2) The number of houses which on inspection were considered to be unfit for human habitation			
(2) The number of houses which on inspection were considered to be unfit for human habitation	H	ousing Acts.	
(2) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers (3) The number of representations made to the local authority with a view to (a) the serving of notices requiring the execution of works (b) the making of demolition or closing orders (c) The number of notices served requiring the execution of works (d) The number of houses which were rendered fit after service of formal notices (e) The number of demolition or closing orders made (f) The number of houses in respect of which an undertaking was accepted under Section 11 (3) of the Housing Act, 1936 (g) The number of houses demolished Nil Public Health Act. (1) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers 478 478 The number of informal notices served requiring the execution of works	(1)	The number of houses which on inspection were considered to be unfit	Number
(3) The number of representations made to the local authority with a view to (a) the serving of notices requiring the execution of works 1 (b) the making of demolition or closing orders 1 (4) The number of notices served requiring the execution of works Nil (5) The number of houses which were rendered fit after service of formal notices Nil (6) The number of demolition or closing orders made Nil (7) The number of houses in respect of which an undertaking was accepted under Section 11 (3) of the Housing Act, 1936 Nil (8) The number of houses demolished		for numan habitation	160
(3) The number of representations made to the local authority with a view to (a) the serving of notices requiring the execution of works 1 or (b) the making of demolition or closing orders 1 (4) The number of notices served requiring the execution of works Nil (5) The number of houses which were rendered fit after service of formal notices		sequence of informal action by the local authority or their officers	Nil
(b) the making of demolition or closing orders	(3)	The number of representations made to the local authority with a view to	
(4) The number of notices served requiring the execution of works Nil (5) The number of houses which were rendered fit after service of formal notices		or	1
(5) The number of houses which were rendered fit after service of formal notices	145	(b) the making of demolition or closing orders	1
(6) The number of demolition or closing orders made	(4)	The number of notices served requiring the execution of works	Nil
(6) The number of demolition or closing orders made	(5)	The number of houses which were rendered fit after service of formal	
(7) The number of houses in respect of which an undertaking was accepted under Section 11 (3) of the Housing Act, 1936 Nil (8) The number of houses demolished Nil Public Health Act. (1) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers 478 (2) The number of informal notices served requiring the execution of works 626	(G)	The state of the s	Nil
Public Health Act. (1) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers (2) The number of informal notices served requiring the execution of works	(0)	The number of demolition or closing orders made	1
(8) The number of houses demolished Nil Public Health Act. (1) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers 478 (2) The number of informal notices served requiring the execution of works 626	(7)	The number of houses in respect of which an undertaking was accepted under Section 11 (3) of the Housing Act, 1926	
Public Health Act. (1) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers (2) The number of informal notices served requiring the execution of works 626	(8)	The number of Lenges dead's 1.1.	Nil
(1) The number of houses the defects in which were remedied in consequence of informal action by the local authority or their officers (2) The number of informal notices served requiring the execution of works 626	(0)	The number of nouses demolished	Nil
(2) The number of informal notices served requiring the execution of works 626	Pu	blic Health Act.	
(2) The number of informal notices served requiring the execution of works 626	(1)	The number of houses the defects in which were remedied in con- sequence of informal action by the local authority or their officers	470
works 626	(2)	The number of informal notices served requiring the execution of	4/8
The state of the s		works	626
The number of formal notices served requiring the execution of works 40		The number of formal notices served requiring the execution of works	
(3) Number of houses which were rendered fit after service of formal	(3)	Number of houses which were rendered fit after service of formal	40
notices 44			44

TABLE 14.

Notices Served.

Administrative action was taken during the year to secure abatement of nuisances and to enforce the appropriate statutory enactments, as follows:—

Subject of Notice	Public Health Act	Food & Drugs Act, Sections 13 & 14
Number of Informal Notices served	626	128
Number of Informal Notices complied with	478	115
Number of Statutory Notices served	40	
Number of Statutory Notices complied with	44	_
Number of cautionary letters sent by Town Clerk	_	_

Table 15.

Offences under Food and Drugs Act, 1938.

Case No.	Section contravened	Offence	Action taken		
Nil	Nil	Nil	Nil		

Prevention of Damage by Pests Act, 1949 VISITS

Initial Visits following upon Complaints or Resulting from Surveys	Re-inspections for Laying Baits, Poisoning and Trapping	Total Visits
5,536	5,800	11,336

NUMBER OF INFESTATIONS

Food Premises	Non-food Premises	Private Dwellings	Factories	Rats only	Mice only	Rats and mice
34	29	420	12	397	122	13

DEGREE OF INFESTATION

	RATS				
Reservoir	Major Primary 50–100	Minor Secondary 1–50	Reservoir	Major Primary 50–100	Minor Secondary 1–50
Nil	Nil	169	Nil	Nil	97

NOTICES

N	OTICES SERV	ED	NOTI	CES OUTSTAN	DING
Preliminary Notices	Statutory Notices	Final (Default) Notices	Preliminary Notices	Statutory Notices	Final (Default Notices
47	2	1	1	Nil	Nil

RAT DESTRUCTION WORK UNDERTAKEN BY:-

CORPO	RATION	OCCUPIERS		
Rats	Mice	Rats	Mice	
373	128	30	1	

NUMBER OF PREMISES UNDER CONTRACT WITH CORPORATION TOTAL 501

12 months	3 months	6 weeeks	1 month	Others	Total Receipts
34	418	28	21	_	£650 18s. 9d.

Eradication of Insect Pests.

D.D.T. and Other Special Treatments.

Number of Infestations Treated

	Type of Premises	Beetles	Bugs	* Cock- roaches	Fleas	Flies	Moths	Wasps	Miscel- laneous	Wood Worm	Tot als
36	Dwelling-houses		35 	<u>-</u>	10 3 —	4 - 1	- - -	26 	=		76 5 - 9
	Totals	1	35	7	13	5	1	26	_	2	90

Total income for D.D.T. and other special treatments, £59 11s. 7d.

Corporation premises treated (re-housed families only): Nil.

Disinfections, etc.

				Number
Premises disinfected after infectious diseases				 23
Premises disinfected after other diseases				 _
Articles disinfected after infectious disease		***		 115
Persons (children and adults) treated for scabies	at clea	ansing s	station	 _

TABLE 19.

Housing Act, 1936. Overcrowding.

The known cases of overcrowding on the register of the department at the end of the year were as follows:—

			Number
(a)	(1)	Dwellings overcrowded at the end of the year	 191
	(2)	Families dwelling therein	 252
	(3)	Persons dwelling therein	 867
(b)	Nev	v cases of overcrowding reported during the year	 35
(c)	(1)	Cases of overcrowding relieved during the year	 22
	(2)	Persons concerned in such cases	 92

TABLE 20.

Milk and Dairies Regulations, 1949.

Milk (Special Designation) (Raw Milk) Regulations, 1949.

Milk (Special Designation) (Pasteurised and Sterilised Milk) Regulations, 1949.

The necessary registration of persons and premises, and the issue of appropriate licences, has been effected in accordance with the following table :—

Persons registered as distributors Premises registered as dairies (not	being dairy farms)	28
Special Designation	Dealers' Licences	Supplementary Licence
Milk (Special Designation) (Raw Mil Tuberculin tested Accredited	k) Regulations, 1949. 20 Nil	10 Nil
Milk (Special Designation) (Pasteuris		
Sterilised	22 34	10

Food and Drugs Act, 1938. Public Health Act, 1936, Section 89.

INSANITARY CONDITIONS IN FOOD PREMISES.

Insanitary conditions found in premises above	Number of defects	Number of defects remedied
Accumulation of refuse	15	16
Ceilings—defective or dirty	86	69
Cleanliness (personal) unsatisfactory	_	1
Dampness		_
Floors—defective or dirty	21	15
Lighting inadequate		_
Sink—absence of		
Sink-waste pipe inadequate	_	1
Storage facilities unsatisfactory		
Ventilation insufficient		
Walls—dirty or plaster defective Insufficient or absence of hot and cold	109	85
water for cleansing utensils Absence of hot water for ablution	2	5
purposes	_	
W.C. accommodation—insufficient or		
unsuitable	-	5
Other defects	74	68

Byelaws under Section 15 of the Food and Drugs Act, 1938.

Byelaws with respect to Handling, Wrapping and Delivery of Food and Sale of Food in the open air have been enforced, particularly on Fairgrounds on holiday occasions. No formal action has been necessary.

Public Abattoirs.

There is no public abattoir within the Borough.

Slaughterhouses.

Three licences were renewed during the year. There is no horse-slaughtering establishment within the Borough.

Slaughter of Animals Act, 1933.

Eight slaughter-men were on the register of the department at the end of the year.

Table 22.

Meat-Carcases Inspected and Findings at Private Slaughterhouses in the Borough.

	Cattle, excl. Cows	Cows	Calves	Sheep and Lambs	Pigs
Number known killed	_	-	_	_	_
Number inspected	_	_	_	_	_
All diseases except tuberculosis: Whole carcases condemned Carcases of which some part of organ was condemned Percentage of the number inspected affected with disease other than tuberculosis		-	-	-	
Tuberculosis only: Whole carcases condemned Carcases of which some part or organ was condemned Percentage of the number inspected	-	_	_	_	-
affected with tuberculosis	_	_	_	_	_

(a) Meat.

Diseased and unsound conditions found in meat caused the detention and surrender for destruction of:—

-					lbs.
Beef					1,378
Mutton	and lan	ıb		***	325
Pork	•••	***			1,241
Other n	neats				257
			Total		3,201

(b) Other Foodstuffs.

The following foodstuffs, other than meat, being unfit for human consumption, were voluntarily surrendered for destruction:—

					lbs.
Eggs (froz	en)				68
Fowls					11
Bacon					20
Butter					10
Cheese					142
Chocolate					3
Coffee				***	5
Egg powd	er				. 40
Fish					840
Flour and	cerea	als			4
Preserves		***			24
Other		***	***		13
					Jars
Paste	***				33
Pickles	***	***	***	***	23
Cninash					Boxes
Spinach	***	****	***		6
Ice cream					Gals.
ice cream	mixu	ure		***	100
Canned for	detu	ffe ·			Tins
Fish	Justu.	113.			143
Fruit	***		***	***	1,128
Meat	***		***		384
Milk	***		***	***	670
Vegetab		***		***	869
Other			***	***	
Other		9.8.8		***	381

Sampling.

The Middlesex County Council is the food and drugs authority for the Borough. The Chief Officer, Public Control Department, has kindly supplied the following information relating to samples taken in the Borough during the year ended 31st December, 1954:—

		Arti	cle				Total Samples procured	Unsatisfactor
Milk							7.5	
Bread					***		75 4	3
Butter					***	***	17	4
Cakes							15	
Calves' foot je	elly	***					1	
Cheese							î	
Coffee and ch	icory e	essence					2	_
Cooked meats						***	1	-
Cornflour				***			1	_
Cream		***		***			17	1
Cut peel			***	***			2	_
Dressed crab Dried fruit		***	***				1	_
Dansey		***	***	***		***	1	-
Fish	***						3	72
Flour		***		***		***	24	
Fruit drinks				***		***	2 2	
Gelatine, vege							1	1
Glace cherries					***	***	i	1
Ice cream							2	
Iced lolly			***				ī	
Jam		***			***	***	1	
Jelly							3	_
Lard		***	***				1	_
Lemons	***					***	2	_
Lemon curd	***						1	_
Liver		***		***	***		6	1
Marmalade	4.4.4				***	***	1	_
Meat paste	***	***					1	_
Minced meat Mincemeat			***	***	***	***	8	-
Non-brewed co	ndime	mt.		***			1	-
Olive oil				***	1.14	***	3	_
Oranges			***	***	***	***	11	
Porage oats		***		***		***	11 2	-
Pickles, variou			***	***		***	6	1
Prawns		***			***	***	1	
Salad cream	***	***		***			2	
Sausages							8	
Shrimps							1	
Soft drinks					***		i	1
Spinach puree							1	
Suet		***	***	***	***	***	1	_
Sweets							3	_
Tinned fruit		***		***			2 2	_
Tomato juice	***			***			2	-
		***					2	_
Victoria plums		***	***			***	13	_
Vinegar	ito	***					30	
Wines and spir	its	***		***			45	1
					То	tals	334	13

With regard to the 13 samples noted as unsatisfactory, the following brief comments may be of interest:—

Milk.

Of the three unsatisfactory samples of milk, one, procured from a retail firm of dairymen, was found to contain grease. The other two samples, both procured from the same retail firm of dairymen, contained mould. Official cautions were issued in all three cases.

Bread.

Of the four unsatisfactory samples of bread, submitted by private purchasers for examination, one sample contained a piece of string, and another sample of sliced bread was found to contain grease. In both these cases official cautions were issued. The third sample contained a lump of sugar and fat. In this case a verbal warning was given to the bakers. The fourth sample contained particles of aluminium. Proceedings were authorised and the bakers fined £10 and ordered to pay £4 18s. 0d. costs.

Soft Drinks.

This sample was found to contain mould and an official caution was issued.

Cream.

A carton of cream, submitted by a private purchaser, had a bitter taste and was more like a cream cheese. A formal sample was obtained, analysed, and found to be genuine.

Vegetarian Gelatine.

Packets of a substance marked "Agar Agar Vegetarian Gelatine" were found on retail sale. The Public Analyst certified that it was Agar-agar. The use of the word "gelatine" with this product was therefore false and likely to mislead the purchaser. A letter of warning was sent to the packers.

Liver.

A sample sold as "lamb's liver" was found to be pig's liver. Proceedings were authorised and the firm of butchers were fined £2 0s. 0d. and ordered to pay £1 1s. 0d. costs

Porage Oats.

A packet of porage oats, purchased from a retail firm of grocers, was found to contain maggots. An official caution was issued.

Wines and Spirits.

A sample of rum was found to contain added water. An official caution was issued.

Merchandise Marks Act, 1926: Imported Food Orders.

During the year 147 premises were visited and 658 displays of meat, apples, tomatoes, poultry, dried fruit, butter and eggs were examined. Two cases arose of misdescription and failing to mark imported food with the country of origin. The first case concerned Canary Island tomatoes and Tasmanian apples not marked with the countries of origin. The greengrocer was fined a total of £3 0s. 0d. and ordered to pay £2 2s. 0d. costs. The other case concerned Danish apples which the greengrocer displayed under the label "English." He was given an official caution.

Labelling of Food Order, 1953.

Forty-seven premises were visited and 302 different articles examined. No infringements of substance arose.

Special Designated Milk.

No licences are issued by my Council in respect of Dealers/Pasteurisers or Dealers/Sterilisers in your area. Four samples of special designated milk were taken from roundsmen in your Borough during the year and submitted to examination. They proved satisfactory.

TABLE 25.

Factories Acts, 1937 and 1948. Part I of the Act.

1. INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH:

	Number		Number of	
Premises	on Register	Inspections	Written Notices	Occupiers prosecuted
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities (ii) Factories not included in (i) in which Section 7 is enforced by the	42	_	-	-
which Section 7 is enforced by the Local Authority (iii) Other premises in which Section 7 is enforced by the Local Authority (excluding out-workers' premises)	320	_	12	_
Total	362	_	12	_

2. Cases in which DEFECTS were Found:

	Nu	nber of case were	es in which found	defects	Number of cases in
Particulars			Refe	rred	which prosecution
	Found	Remedied	To H.M. Inspector	By H.M. Inspector	were instituted
Want of cleanliness (S.1)	5	6	_	4	_
Overcrowding (S.2)	_	_	_	_	-
Unreasonable temperature (S.3)	-	-	_	-	_
Inadequate ventilation (S.4) Ineffective drainage of floors	3	3	-	1	_
(S.6) Sanitary Conveniences (S.7) :—			-	-	_
(a) Insufficient	2	1	-	1	-
(b) Unsuitable or defective	7	6	-	4	_
(c) Not separate for sexes Other offences against the Act (not including offences relat-	2	2	_	-	_
ing to outwork)	4	5	-	2	-
Total	23	23	-	12	-

Part VIII of the Act. Outwork.

Nature of the work	Lamp- shades	Wearing apparel	Electric Fuse Makers
Section 110:			
Number of outworkers in August list required by	9	1	72
Section 110 (1) (c) Number of cases of default in sending lists to Council	9		14
Number of prosecutions for failure to supply lists	-	_	-
Section 111:			
Number of instances of work in unwholesome premises	100	-	-
Notices served	-		-
Prosecutions	_		-

Infectious Diseases. Incidence and Mortality. DIPHTHERIA, SCARLET FEVER AND ENTERIC FEVER. 1938-1954.

Table 26.

		Diph	theria			Scarlet	Fever	r		Enterio	Feve	r
Year	No. of Cases	Case Rate per 1,000 pop.	No. of Deaths	Death Rate per 1,000 pop.	No. of Cases	Case Rate per 1,000 pop.	No. of Deaths	Death Rate per 1,000 pop.	No. of Cases	Case Rate per 1,000 pop.	No. of Deaths	Death Rate per 1,000 bob.
1938	70	0.72	5	0.05	274	2.83	1	0.01	_	•	_	_
1939	25	0.25	3	0.03	93	0.95	_	-	2	0.02	_	_
1940	18	0.19	3	0.03	38	0.41	_	_	2	0.02	_	-
1941	25	0.27	3	0.03	78	0.85	_	_	7	0.07	_	_
1942	7	0.08	1	0.01	125	1.35	_	_	_	_	1	0.0
1943	4	0.04	1	0.01	238	2.56	_	_	_	_	_	_
1944	5	0.06	3	0.03	121	1.37	_	_	_	_	_	_
1945	4	0.04	1	0.01	97	1.06	_	_	-	-	_	_
1946	4	0.04	-	_	60	0.58	_	_	_	_	_	_
1947	4	0.04	1	0.01	60	0.58	_	-		_	_	_
1948	1	0.01	_	_	99	0.93	_	_	-	-	_	_
1949	-	-	-	-	128	1.20	_	-	_	-	_	_
1950	-	_	-	-	115	1.07	_	-	_	-	_	_
1951	-	_	_	_	64	0.60	_	_	_	_	_	_
1952	_	-	_	-	135	1.28	_	-	_	-	_	_
1953	-	_	-	-	100	0.95	-	_	_		_	_
1954	_	_	_	-	64	0.61	_	_	_	_	_	_

TABLE 27.

Ophthalmia Neonatorum, years 1938-1954.

The following table shows the number of cases notified and result of treatment:—

Year	Cases	Cases :	Treated	Vision	Vision	Total	
1 cur	notified	At home	In hosp.	un- impaired	impaired	blindness	Deaths
1938	12	11	- 1	12	_	_	_
1939	7	7	-	7	-	_	_
1940	4	3	- 1	4	_	_	_
1941	5	2	3	5	-	_	-
1942	4	4	-	4	_	_	-
1943	6	6	-	6	_	_	_
1944	8	8	-	8	_	_	-
1945	2	2	-	2	-	_	-
1946	3	2	1	3	-0	_	
1947	5	5	_	5	_		-
1948	4	4	_	4	_	_	_
1949	-	-		-	_ *		-
1950	2	2	-	_	_	_	-
1951	8	6	2	8	_	_	-
1952	4	3	1	4	_	_	
1953	4	4	-	4	_	_	
1954	2	2	_	2	_	_	_

Cases of Infectious Diseases Notified during the Year 1954.

				CASE	S NO	TIFIE	D AT	VARIO	OUS A	GES (YEARS)			Total	Carre	
DISEASE	Under 1 year	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-25	25-35	35-45	45-65	Over 65	Age not known	cases	Cases admitted Hospital	
Dysentery	2	3	5	3	3	4	3	1	1	3	2	5		_	35	2	_
Encephalitis	-	1	-	_	_	1	_	-	_	_	1	-	_	_	3	3	_
Erysipelas	-	_	-	1		-	-	-	-	-	5	6	.3	-	15	1	-
Food Poisoning	1	4	1	2	4	5	1	2	2	8	6	11	5	2	54	6	_
Measles	16	25	35	59	(3	318	3	_	1	_	_	_	_	3	523	9	_
Meningococcal Infections	1	_	_	_		_	-	_	2	-	1	-	-		4	4	_
Ophthalmia Neonatorum	2	_	_	_	_		_	-	-	_	-	-	_	_	2	_	-
Acute Poliomyelitis	-	-	1	-	_	2	1	_	_	1	_	1	_	_	6	6	_
Pneumonia	2	_	1	1	2	11	2	_	_	10	10	21	20	2	82	5	41
Puerperal Pyrexia	-	-	_	_	_	-	_	_	3	1	1	-	_	_	5	_	_
Scarlet Fever	-	1	4	5	5	40	5	1	_	1	1	1	_	_	64	13	_
Typhoid & Para-Typhoid	-	_	_	-	444	-	_	-	_	1	_	_	_	-	1	1	_
Whooping Cough	11	8	3	7	7	83	3	-	-	-	-	-	-	2	74	3	-
Totals	3;	42	50	78	84	414	18	4	9	25	27	45	28	9	868	53	41

Monthly Incidence of Infectious Diseases during the Year 1954.

DISEASE					NUM	IBER OF	F CASES	5					
DISEASE	January	February	March	April	May	June	July	August	Sept.	October	Nov.	Dec.	TOTA.
Dysentery	5	12	5	_	4	5	1	_	1	1		1	35
Encephalitis	-	1	_	11	1	_	_	_	1	_	_	_	3
Erysipelas	1	2	_	1	2	2	1	2	1	1	1	1	15
Food Poisoning	-	3	11	7	6	9	9	3	5	1	_	_	54
Measles	4	75	139	79	25	20	116	60	_	1	2	2	523
Meningococcal Infections	_	-	_	1	1	_	_	1	_	_	1	_	4
Ophthalmia Neonatorum	-	-	-	-	-		_	_	1	-	_	1	2
Acute Poliomyelitis	-	-	_	-	-	1	2	2	-	_	-	1	6
Para-Typhoid	-	-	_	-	-	-	1	_	_	_	_		1
Pneumonia	20	13	7	3	5	2	_	3	3	3	10	13	82
Puerperal Pyrexia	-	-	2	-	_	-	_	_	1	1	1	_	5
Scarlet Fever	7	7	14	10	8	3	2	1	3	_	8	1	64
Whooping Cough	10	6	3	4	5	7	4	7	13	4	8	3	74
Totals	47	119	181	105	57	49	136	79	29	12	31	23	868

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Ward Distribution of Infectious Diseases Notified during the Year 1954.

Disease		Twick	enham				77	Teddington		- Hampton Wick	Heath- field	Total
Discuso	East	Central	South	South West		Hampton	Hampton- Hill	Upper	Lower			
Dysentery	15	- ,	3	12	_	_	2	_	1	1	1	35
Encephalitis	-	-	-	1		1	_	_	_	1	_	3
Erysipelas	_	_	-	_	_	5	1	2	1	4	2	15
Food Poisoning	9	-	4	5	2	16	3	1	_	13	1	54
Measles	1	3	13	50	46	171	119	18	11	71	20	523
Meningococcal Infections	-	1	_	_	_	1	_	_	_	2	_	4
Ophthalmia Neonatorum	-	-	-	_	_		_	2		_	_	2
Acute Poliomyelitis	1	2	-	-	-	1	_	_	_	1	1	6
Para-Typhoid	-	-	_	_	_	_	_	_	1	_	_	1
Pneumonia	5	3	2	11	5	7	9	15	9	12	4	82
Puerperal Pyrexia	1	-	-	_	-	3	-	1	_	_	_	5
Scarlet Fever	5	2	1	2	12	15	9	7	_	6	5	64
Whooping Cough	4	4	9	11	1	21	7	5	3	7	2	74
Totals	41	15	32	92	66	241	150	51	26	118	36	868

Tuberculosis.

The following tables have been compiled from the notifications received:

New Cases and Mortality.

Age Periods		New	Cases		Deaths						
	Pulm	ionary	Non-pu	ulmonary	Pulm	onary	Non-pulmonary				
	Male	Female	Male	Female	Male	Female	Male	Female			
Under 1	_	1	_	_	-	_					
1-4	-	1	1	_	_	_	_	-			
5-9	2	1	_	_	10 10	_	_	_			
10-14	1	1	1	1	_	_		_			
15-19	10	8	-	1	_	_	_	-			
20-24	8	4	_	-	_			-			
25-34	7	4	1	1	1	_	_	_			
35-44	6	4	_	1	1		_	_			
45-54	10	2	2	1	4	2	_	_			
55-64	6	2	_	_	6	1	_	1			
65 and over	7	3	1	1	5	2		1			
Totals	57	31	. 6	6	17	5		2			

Public Health (Prevention of Tuberculosis) Regulations, 1925.

It was not necessary to take any action under the above regulations concerning persons suffering from tuberculosis and employed in the milk trade.

Public Health Act, 1936 (Section 172).

No action was taken under this section for the compulsory removal to hospital of persons suffering from tuberculosis.

Table 32.

Primary Notifications of Tuberculosis, 1938-1954 inclusive.

	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	198
Pulmonary Non-	100	106	114	127	112	119	133	118	120	132	117	115	96	107	79	105	88
Pulmonary	30	19	12	14	18	18	18	18	19	11	17	5	15	14	20	14	12
Totals	130	125	126	141	130	137	151	136	139	143	134	120	111	121	99	119	100

TABLE 33.

Food Poisoning.

Food Poisoning I 1st Quarter 14			3rd (Quarter 17	4th Quart	er	TOTA 54	
OUTBREAKS DUE TO Number of outbr			JENIS.	Number of	cases			7
Outbreaks due to):							
Salmonella org	anisms		Nil	9			***	
Staphylococci	(including	g toxin) 1					
Outbreaks due to Number of outbr	o Undis reaks	COVERE	Nil	Number o	f cases			Nil
SINGLE CASES:								
Cases due to ide	ntified ag	ents:						
Staphylococci			6					
Salmonella org Proteus Morga	ganisms ini		2	Number of	of cases			12
Cases due to	undiscov	vered		Number	of cases			41
cause :—								_
								60

Clinics and Welfare Centres.

The following clinics are being held within the Borough: -

Clinic	Address	By w	By whom provided				
Infant Welfare Centres	York House, Twickenham; Hospital Bridge Road, Twickenham; Church Road. Teddington; 24, Station Road, Hampton; 20, Seymour Road, Hampton Wick.	Middlesex	County	Council			
Ante-Natai Clinics	York House, Twickenham; Hospital Bridge Road, Twickenham; Church Road, Teddington; 24, Station Road, Hampton; 20, Seymour Road, Hampton Wick.	Middlesex	County	Council			
School Clinics	York House, Twickenham; Hospital Bridge Road, Twickenham; Stanley Road, Teddington; 24, Station Road, Hampton; 20, Seymour Road, Hampton Wick.	Middlesex	County	Council.			
Dental Clinics	24, Station Road, Hampton; 20, Seymour Road, Hampton Wick; York House, Twickenham; Hospital Bridge Road, Twickenham; Stanley Road, Teddington; Church Road, Teddington (Orthodontic).	Middlesex	County	Council			
Ophthalmic Clinics	York House, Twickenham; Stanley Road, Teddington.	Middlesex	County	Council			
Diphtheria Immunisation	York House, Twickenham; Hospital Bridge Road, Twickenham; Church Road, Teddington; Stanley Road, Teddington; 24, Station Road, Hampton; 20, Seymour Road, Hampton Wick.	Middlesex	County	Council			
Child Guidance Clinic	58, Hampton Road, Twickenham.	Middlesex	County	Council.			
Speech Therapy Clinic	58, Hampton Road, Twickenham.	Middlesex	County	Council			
Orthopaedic Clinic	Church Road, Teddington.	Middlesex	County	Council			

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