[Report 1936] / Medical Officer of Health, Cardiff County Borough & Port.

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City and Port of Cardiff

PUBLIC HEALTH DEPARTMENT

ANNUAL REPORT
1936

J. GREENWOOD WILSON, M.D., F.R.C.P. Lond.,
Medical Officer of Health,
School Medical Officer,
Medical Officer for Mental Deficiency
and
Medical Officer for Public Assistance.

ABERGAVENNY:
SEARGEANT BROTHERS LIMITED.

1937.

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Mr. G. H. SNOOK.
Mr. F. INGLETON.
Mr. E. J. SAWYER.

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Medical Officer of Health, School Medical Officer, Medical Officer for Mental Deficiency and Medical Officer for Public Assistance:
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Deputy Medical Officer of Health:
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HILDA A. COHEN, M.R.C.S., L.R.C.P., D.P.H.
JEAN W. SMELLIE, M.B., Ch.B., D.P.H.

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Orthopaedic Surgeon: A. O. PARKER, M.D., C.M., M.C.P.S. (Man.)
Aural Surgeon: R. D. OWEN, B.Sc., F.R.C.S. (Ed.)

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W. A. SUTHERLAND, L.D.S.
H. B. WILSON, L.D.S.

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One Chief Assistant Inspector.
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One Chief Assistant Inspector.
Five Assistant Inspectors.

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Three Assistant Inspectors of Meat.

Public Analyst:

STANLEY DIXON, M.SC., F.I.C.
One Laboratory Assistant.

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Visiting Officer: Miss K. POWELL.
Occupation and Training Centre:
Supervisor: Mrs. A. DASCOMBE.
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Three male Clerks and 7 female Clerks (School Medical Service).

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One Infant Protection Visitor.
One Vaccination Officer.

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Senior Resident Surgical Officer: W. D. LOVELOCK JONES, B.SC., M.B., B.Ch., M.R.C.S., L.R.C.P.
Matron: Miss C. L. JOHN (Also Superintendent Nurse, City Lodge)
Dispenser: SELWYN DAVIES, Ph.C., M.P.S.
Almoner: Miss G. OLWEN WILLIAMS.
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Physician for Diseases of Children: A. G. WATKINS, M.D. (Lond.), M.R.C.P. (Lond.)
Pathologist: Professor J. B. DUGUID, M.D.
Bacteriologist: W. PARRY MORGAN, M.A., M.D.
Anaesthetist: J. HARDSTAFF WEST, M.R.C.S., L.R.C.P., D.A.
Dentist: W. E. HALLINAN, L.D.S.

Isolation Hospital:

Medical Superintendent: G. EMRYS HARRIES, M.B., B.S. (Lond.), M.R.C.S., L.R.C.P., D.P.H.
Matron: Miss E. P. CHUBB.
One Resident Assistant Medical Officer.

Lord Pontypridd Hospital:

Matron: Miss M. W. Fox.

Public Vaccinators (Part-time):

J. J. Buist, M.B. (Lond.)
C. C. Ralph Downing, M.D.
A. Dower, M.D.
H. C. C. Joyce, M.R.C.S., L.R.C.P.
J. F. Dover, M.B., B.S.

Public Assistance Medical Officers:

City Lodge:

Medical Officer: David G. Morgan, M.R.C.S., L.R.C.P. (Also Medical Superintendent, Llandough Hospital)

Deputy Medical Officer: John Jones, M.B., B.Ch.
Three Resident Assistant Medical Officers.

Ely Lodge (P.A. Mental Deficiency Institution):

Medical Officer and Master: J. Rowland Payne, M.R.C.S., L.R.C.P.

District Medical Officers:

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E. Mervyn Jones, M.R.C.S., L.R.C.P., D.P.H. (Whole-time)
A. Dower, M.D. (Part-time)
D. W. Girvan, M.B., C.M. (Part-time)
E. Llewellyn, M.B., Ch.B. (Part-time)
A. H. Mitchell, M.B., Ch.B., (Part-time)
J. F. Dover, M.B., B.S. (Part-time)
H. C. C. Joyce, M.R.C.S., L.R.C.P. (Part-time)
M. G. Williams, M.R.C.S., L.R.C.P. (Part-time)

PREFACE.

HOUSING AND HEALTH.

Since the War 3,328,398 new houses have been built by local authorities and by private enterprise in England and Wales.* In all other civilised countries of the world during the same period the movement to build new houses has been paralleled, but it is probably beyond dispute that Great Britain leads the world in *numbers*. Up and down the country millions of little boxes have sprung up, many of them covering not more than 760 superficial square feet. Within each of these little boxes exists a little world, not only as respects the emotions and human relationships of its inhabitants, but as regards its climate, which is, or should be, a little climate modified from the weather conditions outside. We know little enough of the effect of climatic conditions upon human beings. How much less do we know of the effect of these conditions when modified by the dwelling-houses that are supposed to protect their inhabitants from the worst extremes of climate. To what extent do these houses fulfil such protective functions? Do they insulate from excessive heat and cold? Do they keep out damp? But the question of housing and health goes a good deal deeper than that. It is not enough that a house should protect its inhabitants from the worst extremes of heat and cold. Anyone who has spent much time in rooms full of people (for example, committee rooms) must have noticed how hot those rooms become after a time, even if there is no fire or radiator. An empty room, on the other hand, does not become warm unless it is provided with some source of heat, such as a fire within or sunshine without. The increasing warmth in the room full of people derives from the heat that is transferred to the air of the room from the bodies of its occupants, each of which is like an internal combustion engine—all the time it works it generates heat. For the human as for the mechanical engine there is a range of temperatures within which maximum efficiency is achieved. If the engine is too hot or too cold it does not give of its best. What cooling systems do for the mechanical engine, good ventilation does for the human, and good ventilation in its broadest sense means not only the right adjustment of air currents, but also that the air should be clean, of a suitable temperature and free from dampness. Good ventilation in this sense promotes physical and mental fitness and the feeling of well-being. Too often the "liver" is blamed for that "out-of-sorts" feeling when it should be the ventilation. There is thus a scientific basis for the belief that housing and health are inter-related, that damp, stuffy, dirty, smoky, overcrowded dwellings promote ill-health, and that housing administration should be controlled by the Ministry of Health.

Experts are constantly striving to plan houses that are ideal for health as well as convenience, but for putting their ideas into practice we must depend ultimately upon those who carry out the practical work of building. And it is here that the doubt creeps in. Given a model specification, will the house be built to it? It is the duty of local authorities to ensure that this should be true of the houses for which they are directly responsible. But 2,000,000 of the 3,000,000 small houses built since 1919 have been built by private enterprise. For local authorities to watch in detail every house that is built by private enterprise would mean their stretching their powers, and might necessitate their so greatly increasing their building inspectorate staff as to send up the rates alarmingly. Much, therefore, must be hoped from the efforts of the National House-Builders' Registration Council, which represents masters and men in the building industry, architects, surveyors, estate agents, building societies and others, including

* Ministry of Health. "*Housing, House Production, Slum Clearance, etc., England and Wales. Position at 31st March, 1937.*" H.M. Stationery Office.

two expert observers from the Ministry of Health. The scheme of the National House-Builders' Registration Council, which has the good wishes of the Minister of Health, aims at :—

1. The setting up and maintenance of a national register of reputable house-builders who agree not to build below the standard prescribed by the model specification.
2. The preparation of a model specification prescribing the standards of materials and workmanship necessary as a minimum for sound construction.
3. The inspection at suitable stages of construction of all the houses built by builders on the register.
4. The issuing of certificates in respect of all houses built by registered builders which conform to the standard prescribed by the Council.

With the certificate to the house purchaser goes, upon request, an agreement from the registered builder that he will make good, at his own expense and within a reasonable time, all defects attributable to non-compliance with the Council's standards which occur and are reported to him during a period of two years. Disputes on this point are referable to a tribunal appointed by the Council.

GENERAL HEALTH SERVICES.

A glance at the list of contents will show the immense volume and diversity of the work carried out by the department. In this commentary it is possible to touch upon only a few aspects of it.

The statistics for the year 1936 would be hard to better. The infant mortality rate (55 per 1,000 births) is the lowest in the history of Cardiff and is four points per 1,000 lower that the average for England and Wales during the same year. The maternal mortality rate (3·87 per 1,000 live births) except for the 1931 rate (3·44) is the lowest in 10 years and is only 0·06 higher than the rate for England and Wales. The birth-rate dropped only one decimal point, and the death-rates from tuberculosis (both respiratory and all forms) were also the lowest on record. Infectious disease incidence and mortality were relatively low. The deaths from road accidents were the lowest for seven years and considerably lower than in the previous two years. The cancer death-rate has not increased and the general death-rate shows only a very slight increase above the average for the past ten years.

Infant Mortality.—On pages 12-14 Dr. Webster again submits an interesting analysis on the causes of infant deaths. Half of them occurred in babies under one month of age, and prematurity (a quarter of the cases) is the largest single cause of death. Add to that number the deaths from congenital malformation, congenital debility and injury at birth, and you account for half the total deaths in infants under one year of age. With the possible exception of birth injuries and least of all for prematurity, in the present state of our knowledge, it is well-nigh impossible to suggest means of preventing infant deaths under these four categories, which make so large a proportion of the total toll of infant mortality. For the rest, pneumonia is the largest other single cause, which, when added to whooping cough and bronchitis, makes another quarter of the total. It should be noted that 6-9 months is the age of greatest danger to the infant from pneumonia, which, according to Dr. Webster's researches, is too often a reflection upon mothercraft (" bad home conditions " or " doctor called in too late "). Of the infants that died from enteritis with diarrhoea, only about half had attended welfare centres. It is fair comment that better attendance at the welfare centres might have saved some of these lives.

Prevention of Blindness.—One of the commonest causes of adult blindness used to be inflammation of the eyes at birth, or ophthalmia neonatorum. In 1936, of this disease 35 cases were notified in Cardiff. One died, but in the remaining 34 complete cure was accomplished *without any impairment of vision.*

Infectious Diseases.—The report of Dr. Emrys Harries (pages 21-27) shows that by good management the Isolation Hospital, though at times full to capacity, just avoided overflowing to Caerau Hospital—an event always to be prevented if possible in the interests of convenience and economy. The mortality figures for the principal diseases treated at the Hospital are remarkably favourable, especially those for cerebro-spinal fever, although here the relatively small number of cases renders it unsafe to draw any sweeping conclusions. The mortality figures generally, however, do point the moral that isolation hospitals, erected originally with the object of protecting the community from the spread of infectious disease, have justified their continued existence rather as places for the expert medical and nursing care of individual sufferers from infectious disease.

Before leaving the subject of mortality figures, special attention must be drawn to the table on page 23, which brings out in a most striking manner the influence upon the diphtheria patient's chances of recovery of every hour's delay in the administration of antitoxin. Thus, in cases receiving antitoxic serum on the third day the mortality was 5·13 per cent., but in those receiving it on the fourth day the mortality was more than doubled (11·47 per cent.). These figures, if they mean anything at all, point overwhelmingly to three conclusions: (1) that it is the duty of parents *to call in the doctor early* at the least suspicion of illness in their child—and it must be remembered that the diphtheritic throat is not necessarily sore, (2) that if an illness is suspected to be diphtheria, *sufficient* antitoxic serum should at once be given, or better, the child sent to the fever hospital *without waiting for the results of the throat swab*, and (3) that without waiting till doctors or antitoxin are needed so urgently, *all babies should have protective treatment against diphtheria on their first birthday*, either from the family doctor or from the health clinic.

Llandough Hospital (see Dr. David Morgan's report on pages 30-51) has grown to a lusty "three-year-old." Indeed, it has already a thriving (one might almost say ravening) "child" of its own, and that is the Asthma Clinic at City Lodge, which has its own special report (pages 48-51) by Dr. D. A. Williams, included in the Llandough Hospital report. The work at the Asthma Clinic has attracted the interest of the Asthma Research Council, whose Chairman is Sir Arthur Hurst. That it supplies a long felt need in Cardiff is evident from its amazing growth; the wonder is when it will stop. Dr. Williams freely acknowledges the help and inspiration he has received from Professor A. M. Kennedy, the Director of the Medical Unit in the Welsh National School of Medicine.

If the Asthma Clinic be a true "child" of Llandough Hospital, the Fracture Clinic at City Lodge, though not a blood relation, is at least an adopted "child" of Llandough Hospital, forming with it a complete Accident Service. The work of this service, like that of the Asthma Clinic, is growing rapidly, but, as Dr. Morgan suggests, it cannot reach its maximum usefulness until it attracts the industrial and "police" accident to a far greater extent than at present. Probably time will settle these "teething troubles", but meanwhile there are a number of obstacles to overcome, of which, perhaps, the principal are a spirit of non-co-operation, and a spirit of narrow parochialism that attaches too much significance to artificially defined boundaries.

Visit of the Minister of Health.—Early in September, 1937, Sir Kingsley Wood visited South Wales for a tour of inspection of its health services. Among the items of special interest shown to him and of which he expressed his appreciation were Llandough Hospital and the Accident Unit. Addressing a conference of representatives of local authorities in South Wales, the Minister stressed the need for more co-operation in the sphere of hospital services. He said: "*It is essential, also, that there should be close and continuous co-operation between the various hospitals and the local authorities in this area. I am still more confident of that in so far as this area is concerned than of any other part of the country. Here in this area you have some fine hospitals with a number of empty beds, and not very far away there may be an institution with a long waiting list, and cases have to wait a long time before they can receive attention. I think it is important that the authorities in South Wales and all those engaged in voluntary hospital work should give more consideration to this matter.*"

Venereal Diseases.—Early in 1937 the Health Committee, being concerned that in this important branch of public health activities there has been by comparison with so many other branches (for example, tuberculosis) relatively little progress, despite the fact that the existing Government Regulations from which so much was hoped have been in existence for 20 years, passed a resolution which, with the approval of the City Council, was forwarded by the Town Clerk to the Association of Municipal Corporations. The resolution was as follows: "That the Town Clerk be asked to bring the question of compulsory notification and treatment of venereal diseases to the notice of the Association of Municipal Corporations, suggesting that they should consider the advisability of approaching the Minister of Health with a view to instituting a system of compulsory notification and treatment of the disease in this country, as is at present in operation in Sweden, where it has been so successful."

Later the Association of Municipal Corporations replied that as they understood that the Government had appointed a Commission of experts to inquire into the Scandinavian venereal diseases schemes, they proposed to take no action at present.

To my mind, the best argument for compulsory treatment of venereal diseases is a philosophical one, and may be summed up in two quotations from Mrs. Bramwell Booth's contribution to "The Cleansing of a City" (published in 1908): "What the law forbids is looked upon as crime—at any rate, as dangerous. What the law permits, or what the law does not actually prohibit and punish, comes to be regarded as perfectly allowable and as having really no harm in it." "History shows us at every turn that the law of the land quickly becomes, among the great mass of the people, the law of the individual conscience and the standard of individual conduct."

Maternity and Child Welfare.—The attendances at ante-natal clinics in the year 1936 reached, by approximate calculation, 50 per cent. of expectant mothers—a record for Cardiff and a big jump from the 1935 figure of 46·2 per cent. It is probably no coincidence that this record has come for the first year of the Cardiff City Council's greatly extended scheme of free milk provision for necessitous mothers and children. Under the old scheme a necessitous mother, who also needed it on medical grounds, could have free milk during the last two months before her baby was born and afterwards, provided she continued to feed it, to a maximum of four months. The baby from any time of weaning could qualify by medical and financial tests for free milk up to the age of 12 months. Under the new scheme, which came into operation on 1st January, 1936, subject to the same medical and financial tests, expectant mothers can qualify for free milk from the earliest possible moment of diagnosis of pregnancy till nine months after confinement, provided they feed their babies as long. Upon weaning, the baby can have the milk, and from then right on through infancy and pre-school childhood to the time of entering school, where milk can then be obtained free or at a cheap rate under the Education Committee's scheme. As might be expected from these greatly extended provisions, the amount of free milk distributed to mothers and children in the year 1936 was almost exactly doubled as compared with the previous year when the old scheme was operating.

The new municipal midwifery scheme was approved by the Cardiff City Council in December, 1936. Its description on pages 73-76 is worthy of study in detail. It follows the ideal, so strongly urged by the Minister of Health, of close co-operation with the local voluntary association (in Cardiff, the Cardiff Branch of the Queen's Institute of District Nursing). It came into operation on the 30th July, 1937, with remarkable facility, and the smoothness of its working during the two months that have elapsed since that date inspires the greatest optimism for its future success.

Food.—The vast amount of work carried out in the endeavour to ensure clean, wholesome, unadulterated supplies of food (including milk) and drink (including water) involves inspection, sampling, bacteriological examination and chemical analysis, and occupies in varying degrees a considerable number of Corporation officials, namely, the Veterinary Officer and his staff, sanitary inspectors (at the port and in the city), staff

of the Cardiff and County Public Health Laboratory, staff of the City Analyst's laboratory and staff of the Water Engineer's Department. Even the police may be involved. It is perhaps fair to claim as one dividend of so much activity that no cases of food poisoning were notified during the year 1936.

Housing.—During the first quarter of the year the Overcrowding Survey required by the Housing Act, 1935, was carried out with remarkable smoothness, efficiency and dispatch. It was also an economical proceeding, because although a temporary staff of one clerk and 10 enumerators had to be employed, no additional sanitary inspectors were taken on, the Chief Sanitary Inspector and his assistants managing to fit in the heavy extra work without serious dislocation of their routine duties. The provisions of the Housing Act, 1935, and the result of the Overcrowding Survey were explained by the Medical Officer of Health and the Chief Sanitary Inspector in special reports which were presented to the Housing Committee in May, 1936, and are reproduced on pages 108-117. The Overcrowding Survey was but half the battle. The other half is to provide the houses necessary to abate overcrowding even to the small degree required by the relatively unexacting standards of the Housing Act, 1935, and, unfortunately, it was not until April, 1937, that the Estates Committee, faced also with the problem of a pre-existing waiting list for Council houses of 2,300, finally adopted a four years' plan of house building. The plan is to build 500 houses every year, of which roughly half shall be devoted to rehousing decrowded families.

General Sanitation.—The pages from 118 to 125 evidence a mass of routine work the importance of which is apt to be overlooked. Its results may not always be dramatic, but it is necessary to consider what would be the state of affairs if it were not carried out with conscientious efficiency. The best way of visualising that is to read the earlier Annual Reports of Cardiff's first Medical Officer of Health, which show that in the fifties and sixties of last century houses were densely overcrowded, streets were used as main drains and polluted drinking water was drawn from wells in the same streets.

THE PORT OF CARDIFF.

Trade at the port is increasing (see table on page 131), but it is an increase with a difference. Imports are increasing while exports continue to decrease. The increase in imports is chiefly to be found in foodstuffs, which, of course, demands extra work and vigilance from the port sanitary staff. More than two-thirds of the shipping is British.

As the Public Health Department is so often accused of spending, it is important to note that the port section of it earns income, not only by a pereentage grant from the Government but also by fees for certificates issued in connection with deratisation. During 1936 these fees amounted to £785 8s. 0d. For the amount of work done and the number of certificates issued with respect to deratisation, Cardiff is among the first four ports of the British Isles—a number which includes the Port of London itself. The interesting graph on page 136 shows the success that has attended deratisation at the Port of Cardiff since the introduction of the Public Health (Deratisation of Ships) Regulations, 1929. The graph shows that in the year 1936, despite the increase in shipping already referred to, the number of dead rats found per vessel after fumigation was the lowest on record. That makes three statistical health records for Cardiff in 1936—infant mortality, tuberculosis mortality and rat mortality. The inference to be drawn from this last record is different from that which should be drawn from the other two. *They* mean more survivors, the rat figure means that there are fewer rats and, without rats to carry it, plague cannot spread.

The figures on page 139 and the diagram on page 140 show that in 1936 there was a substantial increase in the number of British vessels containing unsatisfactory living conditions for their crews, particularly as regards dirt and vermin. The origin of vermin has been the subject of much controversy. The claim that it comes from seamen's lodging houses certainly cannot be substantiated in Cardiff, at least as far as the licensed houses are concerned, but there are loopholes in the law which allow seamen ashore to lodge elsewhere, and it has to be admitted that in most cities the problem of vermin in *private* dwelling-houses, quite apart from those scheduled for demolition, is still far from solution. As to the hygiene of crew spaces, much is hoped from the new Board of Trade Instructions as to Hygiene of Master's and Crew Spaces, which incorporate most of the provisions urged for many years by the Association of Port Sanitary Authorities of the British Isles. (Cardiff was one of the founder members of this Association, which was formed in 1898). "The Lancet" for 2nd October, 1937, sums up our hopes from the new instructions in these words: "Our shipyards are capable of providing accommodation second to none. It rests with owners to insist on its provision, with masters to supervise its maintenance, and with the crew to make of it their home while at sea."

SCHOOL MEDICAL SERVICE.

Nutrition.—Consideration of the new Board of Education classification for nutrition, which has "debunked" the old and much abused term "malnutrition," prompted the inquiry: "What is the social background of children whose states of nutrition are classified as 'excellent,' 'normal,' 'slightly sub-normal,' or 'bad.'" A new inquiry card was devised and certain school nurses were selected to use it. The data so obtained have been collated and analysed by Dr. W. Powell Phillips, who, on pages 148-152, presents a most interesting and important report on this work.

Audiometer. — Experience during the year 1936 has confirmed the impression formed previously that for practical purposes of routine school medical inspection the audiometer is almost too sensitive a test.

Physical Training.—The organisation of physical training in elementary boys' schools has made great strides, and is now comparable to that in the girls' and infants' schools. Boys of all ages, unselected for special aptitude in physical exercises and working under members of the usual school teaching staff, are daily giving demonstrations that formerly were seen only at a few schools from selected scholars on special occasions. There is excellent co-operation between the organisers of physical training and members of the school medical staff with regard to children suffering from postural or other defects that may be benefited by remedial exercises.

Child Guidance Clinic.—This clinic completed at the end of 1936 its first full year's working. It is a new development of child welfare based on a comparatively new branch of science, and it has to feel its way. It needs the co-operation of all who are concerned with troubled and troublesome children, including, above all, teachers and parents. Its existence should also be remembered in the juvenile courts.

Special School for the Deaf.—The facilities for teaching at this school have been greatly augmented by the institution of the Manchester University system of electrical diagnosis and teaching—based on the work of Mrs. I. R. Ewing, M.Sc. Before the apparatus was purchased, representatives of the Special Services Committee, through the courtesy of Mr. J. Spalding, Headmaster of the Manchester Royal Residential Schools for the Deaf, were enabled to visit Manchester and receive a demonstration from Mrs. Ewing, which greatly impressed them. Mrs. Ewing and her coadjutors were also kind enough to explain their methods fully to Miss R. M. Williams, the Headmistress of the Cardiff Oral School for Deaf Children, before the new apparatus was put into use there.

PUBLICATIONS.

The following publications by members of the staff appeared in 1936 :—

" Food Poisoning " by Drs. C. W. Anderson and W. Powell Phillips (with Dr. H. R. Tighe). *Public Health*, January, 1936.

" Slum Clearance at Sea " by Dr. J. Greenwood Wilson. *The Lancet*, 12th September, 1936.

" The Public Health Act, 1936 " by Mr. W. G. Pyatt. *The Sanitarian*, October, 1936.

" Jerry-building " by Dr. J. Greenwood Wilson. *The Medical Officer*, 24th October, 1936.

"Juvenile Rheumatism : Facts and Fallacies " by Dr. C. W. Anderson. *The Medical Officer*, 12th December, 1936.

ALLEGORY

Once upon a time there was a dragon. And there came a knight to fight the dragon. The knight could not kill the dragon, he could only make captive its body. And its tail continued to cause great suffering amongst the people. And the knight said to the people : " Give me your pennies that I may buy a new blade for my sword and I will cut off this dragon's tail." But though the people gave their pennies, not once, but many times, and, though the knight tried many times, he could not cut off the dragon's tail, or so it seemed, for he came always back to the people appealing for more pennies to buy new blades for his sword.

Then came another knight, who said : " Lo ! I will make me a sword to cut off this dragon's tail, and it shall have a great big hilt, so that, if with the first blade I cannot succeed, I can make a bigger blade to fit into the same hilt, and with this bigger blade in the same hilt then surely I may succeed." Now this knight had the ear of the rulers of the people, who made a levy upon them to pay for his sword. And the people groaned because the levy took from them many pennies to build such a great big sword. It would not have been so bad if the hilt had not been so big, but the knight insisted that this must be, in case he needed later to fit to the hilt a bigger blade.

And so the second knight had his sword, but then the trouble was that the first knight was very loath to let him help cut off the dragon's tail. The second knight tried hard, but as the tail grew from the body of the dragon which was in the first knight's captivity, he could not really see exactly what was happening to the dragon's tail however hard he tried to cut it off.

And before anyone could decide what to do next about the dragon's tail, there came a third knight who, without consulting either of the other two knights, said : " Lo ! I will build me a sword of mine own, and with that *I* will cut off the dragon's tail." And he, too, succeeded in persuading the rulers to make a levy upon the people to build the third sword, only the people groaned not so loud in this case, for the third knight obtained a goodly portion of the pennies needed from a fairy godmother.

And in the fulness of time it came to pass that the dragon began to shrivel and his tail grew less and less, or perhaps it was that men could now see more clearly, and that the first knight had exaggerated the size of the dragon's tail. But however that may be, it was now evident that there was less to be feared from the dragon than from the swords, especially by reason of their continued cost, and what seemed to the people most unfortunate of all was that the third knight, by making a sword of his own, had made it certain that the second one would never need to fit a bigger blade into the fine big hilt which he had had made at so great expense especially for the purpose. And the people were very wroth.

J. GREENWOOD WILSON.

PUBLIC HEALTH DEPARTMENT,
CITY HALL, CARDIFF,
October, 1937.

OBITUARY.

On 3rd September, 1937, after an unexpected and very brief illness, Alderman John Donovan died. He had been Chairman of the Cardiff Health Committee for over nine years and had guided its deliberations upon many interesting developments in the health services of this city, but probably he himself would most desire to be remembered for his part in the appropriation (while at little more than foundation stage), completion, staffing, equipment and maintenance of Llandough Hospital. The opening ceremony on 25th October, 1933, was performed by him.

Before he took up office as Lord Mayor of Cardiff in November, 1934, he said he should take care to allow only a minimum of interference by his Lord Mayoral duties with those of his Chairmanship of the Health Committee, and he was true to his promise. This incident is quoted as typical of his deep and abiding interest in the development and maintenance of the health services of the City and Port of Cardiff.

CITY OF CARDIFF.

PUBLIC HEALTH DEPARTMENT.

Expenditure 1935-36.

Service	Total Expenditure	Income (Excluding Government Grants)	Net Cost of Service
(1) Health, etc., Services—	£	£	£
Sanitary Expenses	13,204	444	12,760
Food and Drugs (Adulteration) Act	1,226	100	1,126
Diseases of Animals Acts	462	60	402
Midwives Acts	23	—	23
Shops Acts	537	12	525
Meteorological Station	53	—	53
	15,505	616	14,889
(2) Prevention and Treatment of Tuberculosis	30,810	446	30,364
(3) Maternity and Child Welfare Service	22,134	3,346	18,788
(4) Venereal Diseases	5,670	—	5,670
(5) School Medical Service	13,896	1,369	12,527
(6) Mental Deficiency Service	14,327	468	13,859
(7) Port Sanitary Service	4,653	1,048	3,605
(8) Hospitals, etc ;—			
City Isolation Hospital	22,268	2,190	20,078
Caerau Smallpox Hospital	2,067	1	2,066
Lord Pontypridd Hospital (Dulwich House)*	1,613	1,613	—*
Llandough Hospital	76,377	13,555	62,822
Accident Unit	1,419	437	982
Totals	£210,739	£25,089	£185,650

The School Medical Service and the Port Sanitary Service rank for Government grants on a percentage basis, although the grants are not shown in the above statement.

Contributions out of Government funds in respect of certain other services on which percentage grants were made prior to April, 1930, are now merged in the block grant to the Council.

* Maintained out of proceeds of the Lord Pontypridd bequest.

GENERAL HEALTH SERVICE.

I.—SUMMARY OF GENERAL AND VITAL STATISTICS.

Area (acres) :—			
Including inland water, foreshore and Flat Holm			13,628
Excluding foreshore and Flat Holm			11,984
Excluding inland water, foreshore and Flat Holm			11,580
Population (Census, 1931)			223,589
Population (Estimated, mid-1936)			221,500
Number of persons per acre (exclusive of foreshore and Flat Holm)			18·4
Estimated number of inhabited houses			47,000
Estimated number of inhabited houses per acre (exclusive of foreshore and Flat Holm)			3·92
Estimated average number of persons per occupied house			4·7
Rateable value			£1,858,411
Estimated product of a penny rate			£7,080
Live births	3,361	Birth-rate per 1,000	15·1
Deaths	2,797	Death-rate per 1,000	12·6
Excess of births over deaths	Males, 151 ; Females, 413 ;		Total, 564
Deaths under 1 year	185	Rate per 1,000 births	55

Deaths of women in child-birth :—

	Number.	*Rate per 1,000 Live Births.*	*Rate per 1,000 Total Births.*
Puerperal sepsis	9	2·68	2·60
Other puerperal causes	4	1·19	1·15
Totals	13	3·87	3·75

Deaths from various causes :—

	Number.	*Death-rate per 1,000*
Typhoid fever	4	0·02
Measles	3	0·01
Scarlet fever	2	0·01
Whooping cough	12	0·05
Diphtheria	17	0·07
Tuberculosis of respiratory system	194	0·87
Other tuberculous diseases	39	0·18
Cancer	327	1·47

II.—AREA AND POPULATION.

The total area of Cardiff (including inland water, foreshore and Flat Holm) is 13,628 acres; excluding inland water, foreshore and Flat Holm it is 11,580 acres.

According to the Census of 1931, the population of Cardiff was 223,589 (males 107,309, females 116,280) and the Registrar-General's estimate of the population for mid-1936 was 221,500.

The area and population of Cardiff are shown in municipal wards and registration sub-districts in the following table :—

Localities	Area in Acres (Land and inland water)	Population	
		Census 1931	Estimated 1936
Adamsdown	1,320	17,209	16,000
Cathays	338	16,566	15,800
Gabalfa	1,463	18,703	19,700
Central	535	13,544	12,000
South	1,073	13,635	13,700
Central Registration Sub-District	4,729	79,657	77,200
Plasnewydd	233	15,056	14,200
Penylan	1,765	14,146	14,800
Roath	754	15,792	15,200
Splott	1,912	20,898	21,300
East Registration Sub-District	4,664	65,892	65,500
Llandaff*	2,719	27,762	31,400
Canton	247	17,273	16,100
Grangetown	949	15,403	14,600
Riverside	320	17,602	16,700
West Registration Sub-District	4,235	78,040	78,800
Whole City	13,628	223,589	221,500

*Llandaff was divided into two Wards (Ely and Llandaff) and minor alterations were made to several other Wards in November, 1936, but these are not being taken into consideration for the purposes of vital statistics until 1937.

III.—BIRTHS.

The numbers of births and still-births registered during 1936 and allocated to Cardiff, sub-divided according to sex and legitimacy, are shown in the following tables :—

Births.

	Legitimate	Illegitimate	Totals
Males	1,637	51	1,688
Females	1,619	54	1,673
Totals	3,256	105	3,361

Still-births.

	Legitimate	Illegitimate	Totals
Males	90	1	91
Females	77	4	81
Totals	167	5	172

The numbers of live births and still-births belonging to, but registered outside, Cardiff were 47 (25 males and 22 females) and one (female) respectively, whilst 409 births (219 males and 190 females) and 58 still-births (34 males and 24 females) belonging to other districts were registered in Cardiff. Allowance has been made for these corrections in the net figures shown above.

The 3,361 registered births were equivalent to a birth-rate of 15·1 per 1,000 of the population, as compared with 15·2 per 1,000 in 1935. The rates for legitimate births and illegitimate births were 14·7 and 0·4 per 1,000 respectively. The birth-rate for each of the last ten years was as follows :—

Year.	*Birth-rate per* 1,000.
1927	18·1
1928	18·0
1929	17·5
1930	16·9
1931	16·8
1932	15·7
1933	15·5
1934	15·8
1935	15·2
1936	15·1

The 172 registered still-births constituted a rate of 48 per 1,000 total (live and still) births, as compared with 50 in 1935.

The following is a comparison of the birth-rate for 1936 and the preceding ten years with the birth-rates in England and Wales and the 122 Great Towns for 1936 :—

	Birth-rate per 1,000.
CARDIFF {1936	15·1
CARDIFF {1926-1935	17·0
England and Wales, 1936	14·8
122 Great Towns, 1936	14·9

The birth-rates for 1936 in municipal wards and registration sub-districts were as follows :—

Localities.	Birth-rate per 1,000
Adamsdown	15·8
Cathays	14·7
Gabalfa	14·1
Central	13·2
South	17·2

Central Registration Sub-District	15·0
Plasnewydd	13·6
Penylan	11·1
Roath	12·0
Splott	18·9
East Registration Sub-District	14·4
Llandaff	17·4
Canton	13·2
Grangetown	15·9
Riverside	12·5
West Registration Sub-District	15·2
Whole City	15·1

IV.—DEATHS.

Deaths from All Causes.—The total number of deaths from all causes and at all ages registered during the year and allocated to Cardiff, after allowing for the necessary corrections, was 2,797 (1,537 males and 1,260 females). The death-rate per 1,000 of the population was 12·6. The total number of deaths registered in Cardiff was 2,922, but 529 of these were of non-residents, which occurred mainly in hospitals and nursing homes, and 404 deaths of residents of Cardiff occurred and were registered in other areas—including Penarth, where Llandough Hospital is situated. Allowance has been made for these outward and inward transferable deaths in arriving at the net number. Of the 2,797 deaths belonging to Cardiff, 1,222, or 43·7 per cent., occurred in public institutions or nursing homes, as compared with 41·6 per cent. in 1935 and 39·9 per cent. in 1934. The death-rate for each of the last ten years was as follows :—

Year.	*Death-rate per* 1,000.
1927	12·6
1928	11·7
1929	12·9
1930	11·4
1931	12·8
1932	12·5
1933	13·5
1934	12·3
1935	12·3
1936	12·6

As stated above, the death-rate for 1936 was 12·6 per 1,000. In comparing the death-rate with that for England and Wales and other towns, however, it is necessary to make allowance for differences in the sex and age groups of the population as compared with those for England and Wales. In the following statement, in which the death-rate for Cardiff in 1936 is compared with the death-rate for the preceding ten years and with the death-rates for England and Wales and the 122 Great Towns in 1936, the necessary allowance has been made by multiplying the death-rates by the comparability factors :—

		Death-rate per 1,000.
CARDIFF	1936	13·3
	1926-35	13·0
England and Wales, 1936		12·1
122 Great Towns, 1936		12·9

The death-rates for 1936 in municipal wards and registration sub-districts were as follows :—

Localities.	Death-rate per 1,000.
Adamsdown	15·4
Cathays	12·1
Gabalfa	10·0
Central	15·2
South	12·3
Central Registration Sub-District	12·8
Plasnewydd	15·0
Penylan	13·2
Roath	13·8
Splott	11·0
East Registration Sub-District	13·0
Llandaff	9·1
Canton	12·3
Grangetown	13·3
Riverside	14·5
West Registration Sub-District	11·7
Whole City	12·6

The following table, compiled from figures supplied by the Registrar-General, shows the causes of death at various ages during 1936 :—

Causes of Death	All Ages			Age Periods								
	M.	F.	Totals	Under 1 yr.	1–2 yrs.	2–5 yrs.	5–15 yrs.	15–25 yrs.	25–45 yrs.	45–65 yrs.	65–75 yrs.	75 years and upwards
Typhoid and Paratyphoid Fevers	2	2	4	—	—	2	—	1	1	—	—	—
Measles	1	2	3	—	2	1	—	—	—	—	—	—
Scarlet Fever	2	—	2	—	1	1	—	—	—	—	—	—
Whooping Cough	6	6	12	8	3	1	—	—	—	—	—	—
Diphtheria	10	7	17	1	—	7	8	1	—	—	—	—
Influenza	20	20	40	1	2	2	—	1	5	11	12	6
Encephalitis Lethargica	1	—	1	—	—	—	—	—	—	—	—	1
Cerebro-Spinal Fever	4	3	7	2	—	—	2	2	—	1	—	—
Tuberculosis of Respiratory System	101	93	194	—	—	1	4	52	79	51	5	2
Other Tuberculous Diseases	19	20	39	1	3	6	6	10	9	4	—	—
Syphilis	11	3	14	1	—	—	—	2	1	8	2	—
General Paralysis of the Insane, Tabes Dorsalis	12	3	15	—	—	—	—	—	5	7	2	1
Cancer, Malignant Disease	163	164	327	—	1	2	1	2	27	139	100	55
Diabetes	15	27	42	—	—	—	—	—	4	12	15	11
Cerebral Haemorrhage, etc.	31	48	79	—	—	—	—	—	3	24	27	25
Heart Disease	419	340	759	—	—	—	6	7	46	201	238	261
Aneurysm	9	1	10	—	—	—	—	—	1	4	4	1
Other Circulatory Diseases	113	85	198	—	—	—	—	—	5	52	71	70
Bronchitis	56	39	95	6	—	1	—	—	4	24	24	36
Pneumonia (All Forms)	108	64	172	34	9	6	1	4	16	50	28	24
Other Respiratory Diseases	14	10	24	—	—	—	—	2	6	8	8	—
Peptic Ulcer	22	8	30	—	—	—	—	—	8	18	4	—
Diarrhoea, etc.	15	13	28	17	2	—	1	—	1	2	2	3
Appendicitis	8	9	17	—	—	—	5	1	2	5	4	—
Cirrhosis of Liver	3	1	4	—	—	—	—	—	—	3	1	—
Other Diseases of Liver, etc.	3	5	8	—	—	—	—	—	1	3	3	1
Other Digestive Diseases	31	14	45	3	1	—	2	2	4	14	10	9
Acute and Chronic Nephritis	57	62	119	1	—	1	—	1	8	50	39	19
Puerperal Sepsis	—	9	9	—	—	—	—	1	8	—	—	—
Other Puerperal Causes	—	4	4	—	—	—	—	—	4	—	—	—
Congenital Debility, Premature Birth, Malformations, etc.	57	41	98	95	1	—	1	—	—	—	1	—
Senility	21	37	58	—	—	—	—	—	—	1	12	45
Suicide	17	11	2	—	—	—	—	1	10	12	4	1
Other Violence	54	21	75	2	1	6	5	3	15	17	9	17
Other Defined Diseases	132	88	220	13	1	3	12	8	36	61	56	30
Causes ill-defined or unknown	—	—	—	—	—	—	—	—	—	—	—	—
All Causes	1,537	1,260	2,797	185	27	40	54	101	309	782	681	618

Cancer.—The death-rate from cancer, or malignant disease, was the same as that for the previous year. The death-rates for 1936, compared with the death-rates for previous years, were as follows :—

	Death-rate per 1,000		
	Males	Females	Both Sexes
1936	1·53	1·42	1·47
1935	1·67	1·29	1·47
1926-1935	1·30	1·30	1·30

The deaths from cancer during 1936 are analysed according to age, sex and localisation of the disease in the following table :—

Cancer—Malignant Disease	Under 15 years		15-25 years		25-45 years		45-65 years		65-75 years		75 years and upwards		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Buccal Cavity and Pharynx	—	—	—	—	—	—	6	—	9	—	5	—	20	—	20
Digestive Organs and Peritoneum	—	—	—	1	5	5	42	26	33	27	18	15	98	74	172
Respiratory Organs	—	—	—	—	3	—	11	2	1	2	—	1	15	5	20
Uterus	—	—	—	—	—	7	—	9	—	6	—	2	—	24	24
Other Female Genital Organs	—	—	—	—	—	—	—	9	—	4	—	1	—	14	14
Breast	—	—	—	—	—	1	—	23	—	6	—	3	—	33	33
Male Genito-urinary Organs	1	—	—	—	1	—	5	—	11	—	3	—	21	—	21
Skin	—	—	—	—	—	1	—	1	—	—	3	3	3	5	8
Other or Unspecified Organs	—	3	1	—	1	3	2	3	1	—	1	—	6	9	15
Totals	1	3	1	1	10	17	66	73	55	45	30	25	163	164	327

Patients suffering from cancer are admitted to Llandough Hospital (the Cardiff Municipal General Hospital) and the Cardiff Royal Infirmary, preference being given to cancer patients in arranging the admission of patients, in order that treatment may be undertaken as early as possible after diagnosis. Cases that are amenable to surgical treatment other than radiotherapy only are treated at Llandough Hospital, those requiring radium treatment being transferred from that hospital, by arrangement, to the Cardiff Royal Infirmary, which is a national radium centre, for such treatment. There are at present no facilities in Cardiff for the treatment of cases in need of deep X-ray therapy.

Arrangements were made for a detailed investigation into the results of treatment of all cases of cancer admitted to the Cardiff Royal Infirmary and belonging to Cardiff during 1931 on the lines suggested by the Ministry of Health in Circular 1136. A summary of the results of the investigation was given in the report for that year.

Large numbers of copies of printed announcements regarding the importance of early treatment for cancer have been circulated through the maternity and child welfare centres and in other ways in Cardiff from time to time. The following are extracts from one of the announcements that have been issued :—

"The number of deaths attributed to cancer in Cardiff, as elsewhere, is unfortunately increasing."

"Possible explanations of part of the increase are : (1) that owing to improved knowledge there is now more accurate diagnosis and (2) that, because cancer mostly affects persons over 40 years of age and people are living longer, there is an increasing proportion of the population liable to suffer from the disease. Lack of knowledge and indifference, however, are responsible for many deaths from cancer."

"It has been definitely proved that many deaths from cancer could have been avoided if early medical advice had been sought and if the treatment recommended had been carried out when the disease was first discovered. In its early stages cancer is often painless and sometimes it is painless throughout its whole course. The painlessness of cancer in its early stages is one of its most insidious dangers, because it leads to delay in seeking medical advice."

" Broadly speaking, cancer occurs amongst all classes, though some sections of the community are more liable to suffer from the disease than others. The symptoms of cancer are recognisable, and a patient stands a far better chance of being cured if treatment is undertaken on their first appearance."

" It is only by careful medical examination that cancer can be detected. Even if, after examination, cancer is not found, those who have sought medical advice have taken a wise course and one which accords with the growing appreciation of the value of prevention in medicine."

" Where cancer is concerned it is unwise to be unduly alarmed, but it should be borne in mind that every day is important, and that no time should be lost in seeking and following medical advice."

Deaths from Road Accidents.—The number of deaths from violence (excluding suicide) and the number and proportion of these due to road accidents in each year since 1923 are shown in the following table :—

Year	Total Deaths from Violence (excluding Suicide)	Deaths from Road Accidents	
		Number	Percentage
1923	100	14	*14·0*
1924	97	21	*21·6*
1925	91	23	*25·3*
1926	107	17	*15·9*
1927	103	20	*19·4*
1928	103	26	*25·2*
1929	98	16	*16·3*
1930	98	29	*29·6*
1931	93	30	*32·3*
1932	110	31	*28·2*
1933	88	26	*29·5*
1934	90	35	*38·9*
1935	89	34	*38·2*
1936	75	19	*25·3*

The deaths from road accidents in 1936 are analysed in the following table to show the type of vehicle and the class of person involved :—

Vehicles	Fatal Accidents	Persons Killed					
		Motor Cyclists	Passengers	Pedal Cyclists	Drivers	Pedestrians	Totals
Heavy motor vehicles	4	—	—	—	—	4	4
Light motor cars	9	—	2	—	1	6	9
Motor cycle	1	—	—	—	—	1	1
Pedal cycle	1	—	—	1	—	—	1
Heavy motor vehicle and pedal cycle	1	—	—	1	—	—	1
Light motor car and motor cycle	1	—	1*	—	—	—	1
Light motor cars and pedal cycles	1	—	—	1	—	—	1
Light motor car and motor van	1	—	1	—	—	—	1
Totals	19	—	4	3	1	11	19

* Pillion rider.

Maternal Mortality.—The number of deaths due to puerperal sepsis was 9 and the number due to other puerperal causes 4, a total of 13, corresponding to death-rates of 3·87 per 1,000 live births and 3·75 per 1,000 total live and still-births respectively. The maternal death-rate has varied during the ten years 1927-1936 as follows :—

Year	Death-rate per 1,000 Live Births		
	Puerperal Sepsis	Other Puerperal Causes	Total
1927	1·71	2·20	3·91
1928	2·44	3·42	5·86
1929	0·76	2·80	3·56
1930	2·64	2·64	5·28
1931	1·85	1·59	3·44
1932	1·14	4·28	5·42
1933	1·45	3·49	4·94
1934	3·42	4·28	7·70
1935	2·96	1·77	4·73
1936	2·68	1·19	3·87

In the following table the maternal death-rate for 1936 is compared with the death-rate for the preceding ten years and with the death-rates for 1936 in England and Wales and in the 122 Great Towns :—

	Maternal Death-rate per 1,000 Live Births		
	Puerperal Sepsis	Other Puerperal Causes	Total
CARDIFF 1936....	2·68	1·19	3·87
CARDIFF 1926-1935	1·94	3·00	4·94
England and Wales, 1936	1·40	2·41	3·81
122 Great Towns, 1936	1·28	2·10	3·38

The following table shows the causes of the 13 deaths which occurred in 1936 in age periods :—

Causes of Death	Age Periods			Totals
	15-25 years	25-35 years	35-45 years	
Post-abortive sepsis	—	1	2	3
Puerperal haemorrhage	—	—	2	2
Puerperal sepsis not returned as post-abortion	1	2	3	6
Puerperal albuminuria and convulsions	—	1	—	1
Other accidents of childbirth	—	1	—	1
Totals	1	5	7	13

Infant Mortality.—The number of deaths under one year of age was 185. Of these, 175 were deaths of legitimate infants and 10 were of illegitimate infants. The infant mortality rate was 55 per 1,000 live births (legitimate 53 and illegitimate 95), which is the lowest rate ever recorded in Cardiff. The rate for each of the past ten years was as follows :—

Year.	*Deaths under 1 year per 1,000 Births.*
1927	80
1928	77
1929	84
1930	72
1931	77
1932	76
1933	77
1934	74
1935	59
1936	55

The infant mortality rate for 1936, compared with the rate for the preceding ten years and with the rates in England and Wales and the 122 Great Towns for 1936, was as follows :—

	Deaths under 1 year per 1,000 Births.
CARDIFF 1936	55
CARDIFF 1926-1935	73
England and Wales, 1936	59
122 Great Towns, 1936	63

The infant mortality rates for 1936 in municipal wards and registration sub-districts were as follows :—

Localities.	Deaths under 1 year per 1,000 Births.
Adamsdown	59
Cathays	51
Gabalfa	61
Central	63
South	67
Central Registration Sub-District	60
Plasnewydd	51
Penylan	54
Roath	54
Splott	52

East Registration Sub-District	53
Llandaff	47
Canton	51
Grangetown	60
Riverside	57
West Registration Sub-District	52
Whole City	55

The deaths from various causes under one year of age in several age periods during 1936, compiled from figures supplied by the Registrar-General, are shown in the following table :—

Causes of Death	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks —3 months	3—6 months	6—9 months	9—12 months	Totals
Measles	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	2	1	2	3	8
Diphtheria	—	—	—	—	—	—	1	—	—	1
Influenza	—	—	—	—	—	—	—	—	1	1
Tuberculosis of Nervous System	—	—	—	—	—	—	—	—	1	1
Tuberculosis of Intestines and Peritoneum	—	—	—	—	—	—	—	—	—	—
Other Tuberculosis	—	—	—	—	—	—	—	—	—	—
Syphilis	—	—	—	—	—	—	—	—	1	1
Meningitis	—	—	—	—	—	—	1	—	—	1
Convulsions	3	—	—	—	3	—	—	1	1	5
Bronchitis	1	—	—	—	1	3	—	1	1	6
Pneumonia	1	2	—	—	3	6	7	11	7	34
Other Respiratory Diseases	—	—	—	—	—	—	—	—	—	—
Inflammation of Stomach	—	—	—	—	—	—	—	—	—	—
Diarrhoea and Enteritis	—	1	1	1	3	5	7	1	1	17
Hernia, Intestinal Obstruction	—	—	—	—	—	—	1	2	—	3
Congenital Malformation	10	3	1	—	14	4	3	1	1	23
Congenital Debility	1	—	—	—	1	1	1	1	—	4
Premature Birth	42	4	4	3	53	2	—	—	—	55
Injury at Birth	9	1	—	—	10	—	—	—	—	10
Atelectasis	—	—	—	—	—	—	—	—	—	—
Icterus	1	—	—	—	1	—	—	—	—	1
Diseases of Umbilicus	—	—	—	—	—	—	—	—	—	—
Other Diseases of Early Infancy	2	—	—	—	2	—	—	—	—	2
Suffocation in Bed	—	—	—	—	—	1	—	—	—	1
Inattention at Birth	—	—	—	—	—	—	—	—	—	—
Other forms of Violence	—	—	—	—	—	—	—	—	1	1
Other Causes	—	—	—	1	1	2	3	3	1	10
All Causes	70	11	6	5	92	26	25	23	19	185
Percentage of Total Deaths under 1 year	*37·8*	*5·9*	*3·2*	*2·7*	*49·7*	*14·1*	*13·5*	*12·4*	*10·3*	—

It will be seen that the proportion of infant deaths under four weeks of age was 49·7 per cent. This proportion of the total number of deaths under one year has varied during the ten years 1927-1936 as follows :—

Year.	*Deaths under 4 Weeks per cent. of total Deaths under 1 Year.*
1927	*47·7*
1928	*41·1*
1929	*43·9*
1930	*50·4*
1931	*45·2*
1932	*50·9*
1933	*45·3*
1934	*60·5*
1935	*60·3*
1936	*49·7*

The special investigation regarding deaths of infants under one year, which was commenced in 1935, was continued during 1936, and a report by Dr. Webster on the work is given below.

Report by Helena J. Webster, B.Sc., M.B., B.Ch., D.P.H., on Infant Mortality.

Of the 185 deaths of infants registered during 1936, 180 cases were visited. In 14 of these no special information other than that already contained in the records of the department was obtainable, some of the parents having left the district.

The following table shows the age at death and whether premature or full-time of the 180 cases visited :—

Age at Death	Premature	Full-time	Totals
Under 1 week	44	26	70
1 week—4 weeks	13	9	22
1 month—3 months	2	24	26
3 months—6 months	7	16	23
6 ,, —9 ,,	2	20	22
9 ,, —12 ,,	2	15	17
Totals	70	110	180

As such a large proportion (38·8 per cent.) of the cases died under one week, they have been analysed further, as follows :—

Age at Death	Premature	Full-time	Totals
Under 1 hour	5	2	7
1 hour—24 hours	20	8	28
1 day—7 days	19	16	35
Totals	44	26	70

In the following table the causes of death in the various age groups (as modified and amended consequent upon the further inquiries) are given :—

Causes of Death	Under 1 hour		1-24 hours		1 day-7 days		1 week to 4 weeks	1 month to 3 months	3 months to 6 months	6 months to 9 months	9 months to 12 months	Totals
	Premature	Full-time	Premature	Full-time	Premature	Full-time						
1	2	3	4	5	6	7	8	9	10	11	12	13
Prolonged and/or Difficult Labour	1	2	—	3	—	4	1	—	—	—	—	11
Debility due to :—												
Maternal Toxaemia	—	—	1	1	2	2	—	—	—	—	—	6
,, Ante-partum Haemorrhage	—	—	7	—	2	—	1	—	—	—	—	10
,, Shock or Injury	—	—	4	—	2	—	—	—	—	—	—	6
,, Malnutrition and ,, Debility	—	—	3	—	6	—	1	—	—	—	—	10
Prematurity (No obvious cause)	4	—	4	—	4	—	4	1	—	—	—	17
Deformities	—	—	—	1	1	3	4	1	—	—	—	10
Heart Disease	—	—	—	1	1	3	—	1	2	1	—	9
Jaundice	—	—	—	—	—	—	2	—	1	—	—	3
Asphyxia Neonatorum	—	—	—	2	—	—	—	—	—	—	—	2
Convulsions	—	—	—	—	—	2	2	1	—	1	—	6
Gastro-enteritis	—	—	—	—	—	—	3	7	7	1	2	20
Bronchitis and Broncho-pneumonia	—	—	—	—	1	2	2	9	7	11	9	41
Whooping Cough	—	—	—	—	—	—	—	2	1	2	3	8
Meningitis	—	—	—	—	—	—	—	1	1	1	2	5
Purpura Neonatorum	—	—	—	—	—	—	2	—	—	—	—	2
Pyloric Stenosis	—	—	—	—	—	—	—	2	—	—	—	2
Erysipelas	—	—	—	—	—	—	—	—	1	—	—	1
Diphtheria	—	—	—	—	—	—	—	—	1	—	—	1
Streptococcal Infection	—	—	—	—	—	—	—	—	1	—	—	1
Acute Intussusception	—	—	—	—	—	—	—	—	1	2	—	3
Hydrocephalus	—	—	—	—	—	—	—	—	—	1	—	1
Renal Abscess	—	—	—	—	—	—	—	—	—	1	—	1
Acute Nephritis	—	—	—	—	—	—	—	—	—	1	—	1
Accidental Death	—	—	—	—	—	—	—	1	—	—	1	2
Inattention and Exposure	—	—	1	—	—	—	—	—	—	—	—	1
Totals	5	2	20	8	19	16	22	26	23	22	17	180

It is again seen that a large proportion of infants (70 out of a total of 180) died within the first week of life and that of these, 44, or approximately 63 per cent., were premature births. Maternal toxaemia, ante-partum haemorrhage and shock seem to have been the causative factors in most of the cases. There were 11 cases where labour was recorded as difficult or prolonged, eight were instrumental deliveries, and six occurred in maternity hospitals. Three had attended ante-natal clinics and no difficulty was anticipated.

No definite cause could be ascertained for any of the 10 cases of ante-partum haemorrhage. Two only were attending ante-natal clinics and in another two only was the general health of the mother recorded as poor.

Of the six toxaemias, four were ante-natal clinic cases in which the condition was under observation and treatment, and two of the four were confined in hospital.

There were 17 cases where death was certified as due to prematurity. Unlike the cases in this group investigated last year, no evidence of any maternal condition likely to be a causal factor was discovered. Four had attended clinics, one was admitted to a hospital with an acute throat condition, and one child was a weakly twin.

Again, in considering the number of deaths of infants over one week of age, the two largest groups are those of gastro-enteritis with convulsions and the respiratory diseases. Bronchitis, broncho-pneumonia and whooping cough accounted for 46—a far larger proportion than that for 1935 and easily the largest single group recorded. The condition appeared to start usually as a " cold " or chesty cough, the infant being treated by the mother for a few days and the doctor called in only when the child was seriously ill. Home conditions in some cases do not seem to have been too good, and a large number of these infants were immediately sent into hospital when first seen by doctors. It was definitely recorded in eight instances that " mothering " was poor and the home dirty and uncared for.

In going through the cases of gastro-enteritis and convulsions, six of the infants appear to have been breast fed, the condition coming on without any warning and the child only being ill for two or three days. Others had been artificially fed, difficulty being experienced in finding a suitable food. Nine were attending infant welfare centres.

Of the meningitis cases, two were certified as meningococcal, one as staphylococcal, one as pneumococcal and one as tuberculous.

There were four instances where it was admitted that the child was not wanted, and in two cases repeated attempts to bring about a miscarriage had been made.

Eighty cases out of the 180 were found to have attended either the ante-natal clinics or child welfare centres or both.

V.—NOTIFIABLE DISEASES

(Other than Tuberculosis).

The incidence of notifiable diseases (other than tuberculosis) is shown in the following table, which also shows the number of cases admitted to hospital and the number of deaths :—

Disease according to Notification	Cases Notified	Notified Cases admitted to Isolation Hospital	Deaths
Smallpox	—	—	—
Scarlet Fever	361	279	2
Diphtheria	343	334	17
Enteric Fever	10	9	4
Pneumonia*	196	—	172
Cerebro-Spinal Fever	13	12	7
Acute Poliomyelitis	—	—	—
Acute Polioencephalitis	1	—	—
Encephalitis Lethargica	—	—	1
Dysentery	5	4	—
Ophthalmia Neonatorum	35	—	—
Erysipelas	78	42	5
Puerperal Fever	63†	19	9
Puerperal Pyrexia	37‡	6	—
Malaria	2	—	—
Food Poisoning	—	—	—

*Only such cases of pneumonia as fall into the categories " acute primary " and " influenzal " are notifiable. Deaths from all forms of pneumonia are included in the last column.

†Including 22 cases among non-residents that occurred in institutions.

‡ " 8 " " " " " " " "

The incidence of scarlet fever and diphtheria in municipal wards and registration sub-districts was as follows :—

Localities	Scarlet Fever		Diphtheria	
	Cases Notified	Case-rate per 1,000	Cases Notified	Case-rate per 1,000
Adamsdown	9	0·56	25	1·56
Cathays	16	1·01	23	1·45
Gabalfa	45	2·28	24	1·22
Central	20	1·66	18	1·50
South	15	1·09	81	5·91
Central Registration Sub-District	105	1·36	171	2·21
Plasnewydd	9	0·63	17	1·20
Penylan	16	1·08	10	0·67
Roath	14	0·92	12	0·79
Splott	58	2·72	21	0·98
East Registration Sub-District	97	1·48	60	0·91
Llandaff	73	2·32	21	0·67
Canton	23	1·43	7	0·43
Grangetown	26	1·78	47	3·22
Riverside	16	0·95	7	0·42
West Registration Sub-District	138	1·75	82	1·04
Institutions	21	—	30	—
Whole City	361	1·63	343	1·55

The notified cases of infectious disease are analysed according to age and sex in the following table :—

Disease	Under 1 year		1-2 years		2-3 years		3-4 years		4-5 years		5-10 years		10-15 years		15-20 years		20-35 years		35-45 years		45-65 years		65 yrs. & upwards		All Ages		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals
Scarlet Fever	1	—	14	2	10	13	11	9	23	21	81	84	12	39	8	6	7	13	1	4	—	2	—	—	168	193	361
Diphtheria	2	1	2	3	9	7	9	14	17	12	91	69	30	22	7	10	4	21	4	5	1	3	—	—	176	167	343
Enteric Fever	—	—	—	—	—	1	—	1	—	—	1	—	—	—	—	1	3	—	1	2	—	—	—	—	5	5	10
Pneumonia	1	5	11	2	1	4	2	2	6	6	16	9	—	2	8	2	21	14	21	8	19	19	10	7	116	80	196
Cerebro-Spinal Fever	2	—	—	—	—	—	—	1	1	—	—	2	1	—	1	1	1	1	1	1	—	—	—	—	7	6	13
Acute Polioencephalitis....	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Dysentery	2	—	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	1	5
Ophthalmia Neonatorum	17	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	18	35
Erysipelas	—	—	—	1	—	—	—	2	—	2	1	—	—	—	1	—	3	9	5	11	19	13	6	5	35	43	78
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	49	—	9	—	3	—	—	—	63	63
Puerperal Pyrexia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	21	—	11	—	1	—	—	—	37	37
Malaria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	2	—	2

Smallpox.—No cases of smallpox have been notified since 1932.

Vaccination.—The following statement shows the results of the work in connection with the vaccination of infants whose births were registered during 1935 :—

Births registered during 1935	3,693
Successfully vaccinated	1,275
Insusceptible	7
Exempted	1,881
Died unvaccinated	209
Postponed	42
Removed	68
Not found	166
Remaining to be dealt with	45

The proportions of children not returned as vaccinated and of certificates of exemption from vaccination each year since 1922 are shown in the following table :—

Year	Successfully Vaccinated	Certificates of Exemption	Percentage not returned as Vaccinated	Percentage of Certificates of Exemption
1922	2,671	1,900	*47·7*	*37·2*
1923	4,223	1,538	*35·5*	*23·5*
1924	2,801	1,533	*44·2*	*30·5*
1925	2,541	1,533	*48·1*	*31·3*
1926	2,132	1,585	*54·2*	*34·0*
1927	2,027	1,255	*52·2*	*29·5*
1928	2,215	1,413	*47·8*	*33·2*
1929	1,797	1,520	*56·7*	*36·6*
1930	2,009	1,487	*50·1*	*36·9*
1931	1,905	1,507	*52·5*	*37·6*
1932	1,758	1,639	*54·0*	*42·9*
1933	1,501	1,791	*59·6*	*48·1*
1934	1,519	1,904	*60·4*	*49·6*
1935	1,399	1,856	*62·1*	*50·3*
1936	1,275	1,881	*65·4*	*50·9*

Scarlet Fever.—It will be seen from the figures given below that there was a slight decline in the number of cases of scarlet fever notified as compared with the number in 1935, and that, as the disease caused only two deaths, it continued to be of a mild type.

Year.	*Cases.*	*Deaths.*
1927	227	—
1928	263	2
1929	642	2
1930	537	—
1931	632	5
1932	726	3
1933	1,308	4
1934	905	5
1935	378	2
1936	361	2

Diphtheria.—The number of cases of diphtheria notified corresponded closely to the number of cases for 1935, but there was a slight reduction in the number and proportion of deaths. The numbers of cases and deaths and the case mortality during each of the ten years 1927-36 have been as follows :—

Year.	*Cases.*	*Deaths.*	*Case Mortality per cent.*
1927	344	15	*4·4*
1928	487	16	*3·3*
1929	735	30	*4·1*
1930	731	29	*3·9*
1931	589	24	*4·1*
1932	493	10	*2·0*
1933	476	19	*4·0*
1934	520	21	*4·0*
1935	349	19	*5·4*
1936	343	17	*4·9*

Active Immunization against Diphtheria.—A full description of the scheme for the immunization of children against diphtheria was given in the report for 1935. Details of the work carried out during 1936 are set out in the two following tables: —

Persons	Subjected to Anterior Schick Test			Inoculated* but not subjected to Anterior Schick Test	Total Number Inoculated*	Failed to attend for Completion of Inoculation
	Number	Positive	Inoculated*			
Under 5 years	417	240	211	488	699	34
5 years and upwards	1,195	671	637	316	953	38
Totals	1,612	911	848	804	1,652	72

*Complete course of injections.

Persons	Subjected to Posterior Schick Test			
	Negative	Positive and again Inoculated (one injection)	Totals	Percentage positive
Under 5 years	373	35	408	*8·5*
5 years and upwards	581	87	668	*13·0*
Totals	954	122	1,076	*11·3*

Enteric Fever.—Ten cases of enteric fever were notified, and four deaths were registered as being due to the disease. The numbers of cases and deaths during the years 1927-1936 have been as follows :—

Year.	*Cases.*	*Deaths.*
1927	6	4
1928	2	2
1929	18	4
1930	11	—
1931	8	1
1932	8	2
1933	4	1
1934	3	1
1935	8	1
1936	10	4

Ophthalmia Neonatorum.—Thirty-five cases of ophthalmia neonatorum were notified, 18 of which were notified from institutions. Of the remaining 17 cases, five were treated by private medical practitioners, seven were treated by nurses of the Queen's Institute of District Nursing and five were admitted to the City Lodge Hospital. One of the infants suffering from the disease died ; in the remaining cases the vision was unimpaired.

VI.—NON-NOTIFIABLE INFECTIOUS DISEASES.

Measles.—The number of deaths due to measles was three, corresponding to a death-rate of 0·01 per 1,000 of the population, compared with 28 deaths and a death-rate of 0·12 in 1935. The number of deaths and the death-rate from measles during the ten years 1927-1936 were as follows :—

Year.	*Deaths.*	*Death-rate per* 1,000.
1927	31	0·14
1928	21	0·09
1929	113	0·50
1930	8	0·03
1931	50	0·22
1932	10	0·04
1933	32	0·14
1934	8	0·03
1935	28	0·12
1936	3	0·01

Whooping Cough.—Twelve deaths were registered during 1936 as being due to whooping cough, corresponding to a death-rate of 0·05 per 1,000. The following is a comparison of the number of deaths and the death-rate from this disease during the ten years 1927-1936 :—

Year.	*Deaths.*	*Death-rate per* 1,000.
1927	7	0·03
1928	28	0·12
1929	24	0·11
1930	22	0·10
1931	6	0·03
1932	24	0·11
1933	14	0·06
1934	14	0·06
1935	11	0·05
1936	12	0·05

Diarrhoea.—The number of deaths at all ages from diarrhoea, etc., during the year was 28, being equivalent to a death-rate of 0·12 per 1,000 of the population. Of these 28 deaths, 19 occurred amongst children under 2 years of age, corresponding to a death-rate of 5·6 per 1,000 births. During the ten years 1927-1936 the number of deaths from diarrhoea, etc., under 2 years and the death-rate per 1,000 births were as follows :—

Year.	*Deaths under 2 years.*	*Death-rate per 1,000 births.*
1927	34	8·3
1928	46	11·2
1929	44	11·2
1930	30	7·9
1931	29	7·7
1932	30	8·6
1933	30	8·7
1934	34	9·7
1935	22	6·5
1936	19	5·6

Influenza.—There were 40 deaths due to influenza during the year, being equivalent to a death-rate of 0·18 per 1,000 of the population, as compared with 32 deaths and a death-rate of 0·14 per 1,000 in 1935. The following table shows the numbers of deaths registered as being caused by influenza and respiratory diseases and the proportion of such deaths to the total number of deaths from all causes during the ten years 1927-1936 :—

Year	Number of Deaths from			Proportion per cent. of Deaths from All Causes
	Influenza	Respiratory Diseases	Influenza and Respiratory Diseases	
1927	107	532	639	*22·4*
1928	42	389	431	*16·2*
1929	89	425	514	*17·6*
1930	23	292	315	*12·4*
1931	60	379	439	*15·3*
1932	57	287	344	*12·3*
1933	141	354	495	*16·4*
1934	16	245	261	*9·6*
1935	32	222	254	*9·3*
1936	40	291	331	*11·8*

Home Nursing of Pneumonia.—The following is a summary of the work done during 1936 by nurses of the Queen's Institute of District Nursing in connection with the arrangement whereby the Institute undertakes the home nursing of cases of pneumonia :—

Cases referred for nursing during the year	94
Visits made during the year	1,138

VII.—CITY ISOLATION HOSPITAL.

Cases of the following diseases are admitted to the hospital :—Enteric fever, scarlet fever, diphtheria, cerebro-spinal fever, epidemic encephalitis, acute poliomyelitis, bacillary dysentery, erysipelas, food poisoning, puerperal fever and puerperal pyrexia. Cases of measles and whooping cough are also admitted on a selective basis, and cases of these diseases and other minor infectious diseases are admitted from public institutions.

The number of patients admitted to hospital, the average daily number of patients under treatment, the number of patient-days and the average duration of residence of the patients admitted are shown in the following table :—

Disease according to Diagnosis after Admission	Patients Admitted	Average Daily Number of Patients	Patient-days	Average Duration of Residence in days
Scarlet Fever	279	28	10,520	38
Diphtheria	312	52	18,763	60
Other Diseases	468	34	15,300	33
All Diseases	1,059	114	44,583	42

Report for 1936 *of G. Emrys Harries, M.B., B.S. (Lond.), D.P.H., Resident Medical Superintendent of the City Isolation Hospital.*

All the permanent buildings of the Isolation Hospital were in occupation throughout the year, with the exception of Pavilion 6, which was closed for two months in the summer for alterations in the heating system.

It was not found absolutely necessary to re-open Caerau Hospital for scarlet fever cases and diphtheria carriers, although at times the accommodation at the Isolation Hospital was taxed to its maximum.

Owing to the occupation of the pavilion side-wards from time to time with puerperal cases, they were frequently not available for the isolation of cases of cross infection which occurred in the wards or for the nursing of patients who were dangerously ill. The provision of a small cubicle block for the isolation and treatment of puerperal cases is a matter of extreme urgency.

The health of the nursing and domestic staffs was generally satisfactory. Two nurses contracted diphtheria and one scarlet fever. Twenty-three nurses developed other conditions—mainly influenza and tonsillitis. One maid developed diphtheria and 10 others suffered from various mild illnesses.

Forty-four members of the staff were Schick tested, and eight who were ascertained to be susceptible were inoculated against diphtheria, while 27 were Dick tested and found to be negative. Thirty-six nurses who were in contact with cases of enteric infection received prophylactic courses of T.A.B. vaccine.

The usual lectures and tutorials were given to the nursing staff during the year. The results at the State Examination were again very satisfactory, twelve nurses passing the Final Examination.

In the course of the year, 1,059 patients were admitted to the wards.

Scarlet Fever.—Two hundred and ninety-six cases were admitted, of whom 279 were true cases of scarlet fever. Eight of these were originally notified as cases of diphtheria.

Seventeen of the others suffered from a variety of adventitious rashes, including two fatal cases suffering respectively from (1) erythema and morbus cordis and (2) cellulitis of leg and pyaemia.

The type of scarlet fever prevailing was again of a mild character. Of the 279 cases, 269 were finally classified as simple, nine as septic or sub-septic (two being surgical scarlet fever) and one as toxic or sub-toxic.

Eighty-four cases received doses (10 c.c. or more) of scarlatinal anti-toxin. Owing to the occurrence of measles in the scarlet fever wards, three children who where susceptible were given prophylactic doses of adult measles serum. One of these, however, suffered

from a modified attack of measles. As a result of routine investigation on admission, one case of concurrent nasal diphtheria was discovered. Towards the end of the year a few of the septic scarlet fever cases were treated orally with Prontosil, with apparently beneficial effect.

Seven of the true cases of scarlet fever suffered concurrently from other diseases, mainly measles, chickenpox and diphtheria.

The principal complications met with were as follows :—

Complication.	*Cases.*	*Percentage.*
Arthritis	2	*0·72*
Adenitis	66	*23·65*
Otorrhoea	21	*7·53*
Rhinitis	33	*11·83*
Tonsillitis	9	*3·22*
Nephritis	2	*0·72*
Albuminuria	30	*10·75*
Diphtheria	1	*0·36*
Otalgia	7	*2·51*
Herpes	9	*3·22*
Mastoid	1*	*0·36*
Sub-mental abscess	2	*0·72*
Quinsy	2	*0·72*
Conjunctivitis	1	*0·36*
Epistaxis	1	*0·36*
Jaundice (Catarrhal)	1	*0·36*
Tachycardia	5	*1·79*
Cardiac irregularity	1	*0·36*
Oliguria	1	*0·36*

* Mastoidectomy performed.

There were three deaths, being due respectively to (*a*) nephritis and convulsions (child aged 4 years), (b) surgical scarlet fever and septicaemia (child aged 4 years) and (c) broncho-pneumonia (child aged 1 year). Classifying these three deaths to scarlet fever, the hospital mortality was 1·07 per cent.

Diphtheria.—Four hundred cases were admitted to the wards, of whom 312 were true cases of diphtheria and 33 were carriers, while the remaining 55 suffered from various non-diphtheritic conditions. Of the latter group, 42 suffered from tonsillitis or quinsy, eight from laryngitis, one laryngitis and concurrent chickenpox, one septic throat, one gummatous ulceration of throat, one laryngismus stridulous, and in one case no disease was detected.

There were 15 deaths amongst the 312 true cases of diphtheria. Death in these 15 cases was attributable to heart failure, and in six instances the patients were moribund on admission and died within 24 hours, whilst a further four deaths occurred within five days of admission.

Table showing Type of Diphtheria and Mortality :—

Type	Number	Died	Mortality per cent.
Faucial	233	5	*2·14*
Faucial and nasal	48	6	*12·50*
Faucial and laryngeal	3	1	*33·33*
Laryngeal only	3	1	*33·33*
Nasal only	22	—	—
Laryngeal, faucial and nasal	1	1	*100·00*
Nasal and aural	2	1	*50·00*
Totals	312	15	*4·81*

It will be seen from the above table that the diphtheria mortality rate for the year was 4 ·81 per cent., as compared with 6 ·69 per cent. in 1935, and 4 ·47 per cent. in 1934.

The severe oedematous type of diphtheria was not so frequently encountered as during the preceding two years, but in 26 cases it was found necessary to administer serum intravenously.

It was again observed that comparatively few immunized children suffered from diphtheria, and when an immunized child developed the disease it was generally of a mild type.

The seven cases of laryngeal obstruction referred to in the previous table were treated with steam, and in two instances tracheotomy was also performed. One of the latter cases died, as also two of the other laryngeal cases. The hospital mortality among the laryngeal diphtheria cases was therefore 42 ·86 per cent.

Types of Post-diphtheritic Paralysis :—

Type.	*Number.*
Palatal paresis	17
Pharyngeal paralysis	4
Ciliary paresis	5
Facial paralysis	3
Posterior cervical paralysis	3
Oculomotor paralysis	2
Total	34

Eighteen patients suffered from paralysis. The paralysis rate was therefore 5 ·7 per cent., as compared with 4 ·8 per cent. in 1935 and 8 ·9 per cent. in 1934.

Table showing Diphtheria Death-rate according to the Day of Disease on which Serum was given :—

Day of Disease on which Serum given	Number of Patients	Number of Deaths	Number of Deaths per cent.
1st	15	—	—
2nd	79	1	*1 ·26*
3rd	78	4	*5 ·13*
4th	61	7	*11 ·47*
5th	21	1	*4 ·76*
Later than 5th	50	2	*4 ·00*
No Serum given	8	—	—
Totals	312	15	*4 ·81*

Of the patients who died, eight were under five years and seven were in the 5-10 years group.

During the year a careful record was kept regarding the incidence of diphtheria in children who had had their tonsils removed, and it was ascertained that 309 of the 312 cases occurred amongst the children who had not had them removed.

Measles.—Forty-six true cases of measles were admitted to the wards, including two who were erroneously notified to the hospital as cases of whooping cough.

Amongst the 46 cases there were two deaths—(a) a child of one year with concurrent broncho-pneumonia and (b) a child of two years with concurrent broncho-pneumonia and laryngeal diphtheria. This latter case was intubated, with immediate relief, but the child died on the following day from heart failure.

The hospital mortality was therefore 4 ·35 per cent.

The principal complications met with were :—

Broncho-pneumonia	4
Otorrhoea....	7
Adentitis	2
Rhinitis	4
Albuminuria	2
Diphtheria	2
Whooping cough	1
Chickenpox	1

Of the two cases of measles also suffering from diphtheria, one was the death referred to above, the other being a case with laryngeal, faucial and nasal lesions in a child of one year, which responded to serum therapy and steam.

As in previous years, apart from patients admitted with measles from other institutions, the cases were chosen for admission on a selective basis of overcrowding and poverty or the presence of complications.

Enteric Fever.—Twenty-eight patients were admitted as likely to be suffering from enteric infection—15 from Cardiff and 13 from outside the Cardiff urban area, of whom seven were seamen.

One case proved to be bacillary dysentery (Flexner W) and is referred to in the section of the report dealing with that disease.

Of the remaining 27, one was a case of para-typhoid A, six were para-typhoid B, and 14 were typhoid fever (*B. Typhosus*).

There were also one typhoid carrier (*B. Typhosus*), one pulmonary tuberculosis, one encephalitis lethargica, one influenza, one with no disease detected, and one fatal case (a coloured man of 65 years) with pulmonary, intestinal and peritoneal tuberculosis.

There were three deaths amongst the true cases, infection in each case being *B. Typhosus*. One patient, a girl of 16 years (who contracted infection at a seaside resort whilst convalescing after an attack of chorea) with severe toxaemia, survived for only two days after an operation for intestinal perforation. The other two cases, a child of three years and a man of 34 years, were complicated on admission by lobar pneumonia. The adult patient was transferred from another institution and he died four days after admission.

There was no appreciable effect observed after the administration of Felix anti-typhoid serum.

The death-rate amongst the cases of enteric infection was 14 ·28 per cent.

Bacillary Dysentery.—Twenty patients were admitted as likely to be suffering from this disease, all of whom proved to be true cases of the disease, the causative organism in each case being the *Sonne Bacillus*. In addition, one case admitted as observation typhoid fever also proved to be bacillary dysentery of the Flexner W type, thus making 21 cases in all.

The illness in each instance was generally of a mild type. All of the patients made satisfactory recoveries and were considered to be free from infection on discharge.

Erysipelas.—Forty-two patients were admitted as suffering from this disease, all proving to be true cases. Only one death occurred amongst the cases—a woman of 80 years, whose death was due mainly to senility.

The death-rate was therefore 2·38 per cent.

Towards the end of the year serum therapy was entirely discarded in favour of Prontosil tablets, and one was greatly impressed with the immediate amelioration in the general condition of the patients and the improvement of the lesions within 18 hours of administration. Prontosil appears to be a great therapeutic advance in conditions due to haemolytic streptococci.

Cerebro-Spinal Fever.—Twenty-one patients were admitted as possible cases of this disease, and they were finally classified as follows :—

	Number.	*Deaths.*
Tuberculous meningitis	2	2
Cerebro-spinal fever	15	5
Serous meningitis	1	—
Meningism and influenza	2	—
Meningitis (*B. Coli Communis*)	1	1
	—	—
Totals	21	8
	—	—

Thus, of the 15 true cases of cerebro-spinal fever, five died, making a case mortality of 33·33 per cent., as compared with 60·00 per cent. in 1935.

Cerebro-spinal fever is a disease with an exceptionally high fatality rate, and it is some consolation to know that the fatality rate at the hospital for 1936 was relatively low, and compares very favourably with the approximate fatality rate for England and Wales of 70 per cent.

Mumps.—Six patients were admitted suffering from this disease, each of whom made a complete recovery. One case was complicated by nephritis. In addition, a case of lymphatic leukaemia was admitted as mumps, the patient being transferred to Llandough Hospital the following day.

Whooping Cough.—Ninety-six patients were admitted suffering from this disease. Twenty cases were complicated with broncho-pneumonia, five with measles, one with measles and broncho-pneumonia and two with chicken-pox. Nine of the patients died, death in seven instances being due to broncho-pneumonia, one to tuberculous broncho-pneumonia and the remaining case to convulsions.

The death-rate amongst the whooping cough patients was therefore 9·37 per cent.

The following table shows the age distribution of the cases of whooping cough :—

Age.	Recovered.	Died.	Totals.
Under 1 year	15	3	18
1 year	26	5	31
2 years	10	—	10
3 ,, ...	18	—	18
4 ,, ...	7	—	7
5 ,, ...	2	1	3
6 ,, ...	1	—	1
7 ,, ...	2	—	2
8 ,, ...	3	—	3
9 ,, ...	3	—	3
Totals	87	9	96

Chickenpox.—Fifteen cases were admitted during the year, including one case which had been notified as observation smallpox. On admission one case was complicated with erysipelas and one with impetigo. All the cases made satisfactory recoveries.

Rubella.—The only case admitted during the year, which made an uneventful recovery, was notified to the hospital as a case of measles.

Puerperal Fever and Pyrexia.—Thirty-three cases were admitted and were finally classified as follows :—

	Number.	*Deaths.*
Septicaemia	10	4
Septicaemia and peritonitis	3	2
Sapraemia	14	—
Sapraemia and pyelitis	1	—
Pyrexia	1	—
Pyaemia	1	1
Mastitis	2	—
Phlegmasia alba dolens	1	—
Totals	33	7

From the above it will be seen that seven deaths occurred, making the fatality rate 21 ·21 per cent., as compared with 17 ·14 per cent. in 1935.

Towards the end of the year puerperal fever cases were treated with Prontosil, and the results from the administration of this drug in such cases appear to be very promising.

Other Diseases.—In addition to the aforementioned diseases, there were admitted to the wards 54 patients suffering from various diseases, all of whom made satisfactory recoveries, as follows :—

	Number.
Broncho-pneumonia	1
Conjunctivitis	1
Septic rash	1
Scald of buttock	1
Debility	1
Appendicitis	1
Peritoneal fluid	1
Rheumatism (Sciatica)	1
Septic throat	2
Influenza	14
Dermatitis	1
Albuminuria	1
Lymphangitis	1
Allergic erythema	1
Diarrhoea	2

Impetigo	2
Dyschezia	1
Apical pneumonia	3
Pleurisy	3
Tonsillitis	7
Axillary adenitis	1
Bronchitis	4
Rhinitis	1
Enteritis	2
Total	54

Of these 54 patients, 30 were members of the nursing or domestic staff of the hospital.

Schick and Dick Tests.—The following table shows the number of scarlet fever patients who were Schick tested and the number of diphtheria patients who were Dick tested during the year :—

	Number Positive	Number Negative	Totals	Percentage Positive
Schick Test	122	111	233	*52·36*
Dick Test	51	201	252	*20·24*

Active Immunization.—As in previous years, active immunization against diphtheria in all cases admitted to the hospital for conditions other than diphtheria was again carried out when the signed consent of a parent could be obtained. The number of true cases of scarlet fever Schick tested was 233, and of these, 122 were found to be positive. Of these 122 cases, 108 were completely immunized* while in hospital, and two were partially immunized, arrangements being made for the completion of the course of injections, including subsequent Schick testing, at the public health clinics after discharge of the patients from hospital.

In addition, 123 patients suffering from other conditions were Schick tested, of whom 42 were found to be positive ; 23 of these were completely immunized* whilst in hospital.

Laboratory Work.—During the year nearly 3,000 bacteriological examinations of various kinds were conducted in the hospital laboratory, as compared with over 3,000 in 1935, 2,754 in 1934 and 1,492 in 1933. The specimens examined were again mainly diphtheria swabs, but included also cerebro-spinal fluids, urines, blood cultures, pus, etc.

As in former years, apart from the foregoing, special examinations, such as virulence tests, were kindly carried out by Dr. W. Parry Morgan at the Cardiff and County Public Health Laboratory.

I would again like to express my appreciation to the hospital staff for their loyalty and devotion to duty, and to the Medical Officer of Health and the staff of the Public Health Department for their ready co-operation and assistance at all times.

*Completed full course of prophylactic injections and subsequently reacted negatively to the Schick skin test for susceptibility to diphtheria.

VIII.—LORD PONTYPRIDD HOSPITAL (DULWICH HOUSE) AND THE RHEUMATISM SUPERVISORY SCHEME.

Report for 1936 *of Cecil W. Anderson, M.B., Ch.B., D.P.H., Medical Superintendent of Lord Pontypridd Hospital.*

Twenty-one patients were in hospital on 31st December, 1935 and 120 were admitted during 1936. The number of patients discharged was 119, leaving 22 in hospital on 31st December, 1936. No deaths occurred at the hospital during the year. Nine cases were not treated to a conclusion for the following reasons :—

Removed by parents against medical advice	4
Removed to Isolation Hospital—	
Diphtheria	1
Diphtheria carrier	1
Observation diphtheria	1
Chickenpox	1
Removed to Llandough Hospital for other disease	1
Total	9

Of the 120 patients admitted, 49 were boys and 71 were girls, their ages varying from 5 years to 14 years.

The number of cases admitted each year since 1929, according to sex, is shown in the following table :—

Year	Boys	Girls	Totals
1929.... ...	35	37	72
1930.... ...	57	58	115
1931.... ...	51	103	154
1932.... ...	40	103	143
1933.... ...	42	66	108
1934	52	76	128
1935.... ...	45	78	123
1936....	49	71	120
Totals ...	371	592	963

The reasons for the admission of the 120 cases during 1936 were as follows :—

Chorea alone	8
Chorea and early carditis	24
Rheumatic pains alone	11
Rheumatic pains and early carditis	41
Early carditis alone	2
Chorea and valvular disease of the heart	6
Rheumatic pains and valvular disease of the heart	16
Chorea, rheumatic pains and early carditis	3
Chorea, rheumatic pains and valvular disease of the heart	2
Arthritis alone	1

Arthritis and early carditis	1
Arthritis and valvular disease of the heart	1
Rheumatic pains and congenital abnormality of heart	2
Pericarditis and congenital abnormalities of heart	1
Erythema nodosum	1
Total	120

The condition of the heart on admission and discharge of the cases admitted and treated to a conclusion during 1936 is set out in the following table :—

Condition of Heart	On Admission	On Discharge
Normal	20	53
Minor cardiac manifestations	66	45
Major cardiac manifestations	25	13
Totals	111	111

The average period spent in hospital by the 111 patients who were treated to a conclusion was 73·8 days.

The following table gives the condition of the heart on admission and discharge of all cases treated to a conclusion since the opening of the hospital in April, 1929 :—

Years 1929-36	Condition of Heart			Total
	Normal	Minor Cardiac Manifestations	Major Cardiac Manifestations	
On admission	87	692	131	910
On discharge	549	263	98	

The sedimentation tests carried out in the hospital during 1936 numbered 312.

Seventy patients were Schick tested in hospital, 34 of whom were positive. Fourteen of these positive reactors were inoculated with diphtheria prophylactic in hospital, the remaining 20 being referred to the special immunization clinic on discharge for completion of the inoculations.

The following is a record of the supervisory work carried out during the year :—

Cases remaining under supervision at beginning of year	1,673
New cases attending	446

Cases discharged from supervision on attaining 14 years of age	261	
Other cases who ceased to be supervised :—		
Left Cardiff	13	
Died	7	
Discharged (not suffering from rheumatism)	156	
Ceased to attend	89	
		526
Cases remaining under supervision at end of year		1,593
Total attendances :—		
At routine Rheumatism Clinics		3,654
At Out-patient Department of Lord Pontypridd Hospital		105
Routine clinic sessions held		194
Out-patient clinic sessions held		40
Average attendance at routine clinic sessions		18·8
Average number of new cases at routine clinic sessions		2·3
Average attendance at Out-patient Department		2·6

The following table shows the condition of the heart in the 261 cases that ceased to remain under supervision because of attaining the age of 14 years :—

	On Ascertainment	On Discharge
Normal	88	150
Minor heart manifestations	147	76
Major heart manifestations	26	35
Totals	261	261

The types of heart disease present in the 35 cases having major heart manifestations on discharge were as follows :—

Mitral regurgitation	26
Mitral stenosis	7
Aortic regurgitation	2
Total	35

IX.—LLANDOUGH HOSPITAL.

Report for 1936 *of David G. Morgan, M.R.C.S., L.R.C.P., Medical Superintendent of Llandough Hospital.*

This report deals with the third year in the existence of Llandough Hospital. At the end of the report there is a comparative statistical table showing the activities of the hospital year by year since it has been opened, and it is pleasing to learn from the table that there is a marked increase in the work as the years go by.

During 1936 there were 265 more cases treated than in 1935, and the average daily number of patients admitted and the average number per occupied bed show some increase. The decrease from 27·7 to 25·9 in the average length of stay per patient in days is also welcomed. This is explained partly by the increased expedition in the treatment of cases and by the fact that there has been a slight decrease in the number of medical cases, this being the type of case that generally occupies a bed for a longer period. The average daily percentage of occupied beds remains at 85. This figure in other hospitals working to a greater capacity is generally around 90 per cent., and it is rarely that a hospital can keep the average number of occupied beds at a higher figure. At Llandough Hospital we have not as yet a uniform flow of patients, and, indeed, a fairly substantial waiting list is necessary to keep beds occupied at all times.

During 1936 there were 147 more operations performed and 364 more X-ray plates taken than during 1935. The activities of the operating theatres and the X-ray department are a fair indication of the general activities of the hospital, and the increases in both instances are therefore satisfactory.

The reports on the Asthma Clinic and the Accident Unit are also included.

Dr. D. A. Williams gives interesting statistical figures of his work, and it is pleasing to note that full advantage of the Asthma Clinic is being taken by children suffering from asthma. The prospects of cure in this distressing complaint are better the earlier in life the person comes under treatment. Other figures given in the report are of great medical interest.

The Accident Service at the City Lodge, with the help of Llandough Hospital, is also proving of great value to the community. However, it is felt that full advantage is not yet being taken of this service, although it is gratifying that private medical practitioners in Cardiff are making good use of it. It is impossible to compare the work with 1935, as the Unit had only been in existence for the last three months of that year.

The successes gained by the nurses in the Hospital and State Examinations are very satisfactory.

During the year the Health Committee decided to rent Llandough House, where approximately 19 extra nurses can be accommodated. The Committee have always been alive to the necessity for extra nurses at the hospital and it is very gratifying the way the matter was expedited.

During the year the Almoner's receipts show an increase of £701. In May arrangements were arrived at with the Cardiff Royal Infirmary authorities whereby they undertook to pay at the rate of 27/6d. per week (for a maximum of four weeks) for *bona fide* contributors admitted to Llandough Hospital, provided that in the first instance they had failed to gain admission to the Royal Infirmary. As time went on there was evidence of a greater number of people taking advantage of this arrangement. It is likely that, in future, admissions from the Royal Infirmary waiting list will increase considerably. The Almoner is also responsible for the collection of income at the Accident Unit.

Dr. Gordon Greaves, who had served the City Council for 13 years as Anaesthetist at the City Lodge and later at Llandough Hospital, died in tragic circumstances. His death is very much regretted. Dr. J. Hardstaff West was appointed by a Joint Committee representing several hospitals in Cardiff and the Welsh National School of Medicine to fill the vacancy.

The hospital is still being visited by many people. Hardly a week passes without someone asking to be taken around.

The Library Service is very much appreciated by the patients, and our thanks are due to the Libraries Committee, the Red Cross Society and the Order of St. John for undertaking all of the arrangements. This service is very quietly and efficiently rendered.

Nurses' Training School.

The hospital has been approved by the General Nursing Council as a Training School for Nurses since it was opened in October, 1933.

On completion of three years' training, nurses are required to sit the Hospital Examination and for the final State Examination for admission to the general part of the State Register of Nurses. To the nurse who most distinguishes herself in the Hospital Examination each year, the Esther Roffey gold medal is awarded, and to all nurses who satisfy the Examiners certificates of training and Training School badges are granted. Based on the results of the Hospital Examination, nurses who so desire are accepted for training at City Lodge Hospital for the certificate in midwifery granted by the Central Midwives Board.

Examination results during 1936 :—

	Passed.	*Failed.*
Hospital Final Examination	28	—
State Examination—Final	23	3
Certificate of Central Midwives Board	3	—

Social Service Department.

The Social Service Department is in the charge of the Almoner. The duties chiefly undertaken by the department are as follows :—

To interview all patients admitted and discharged, and the relatives of all patients who die in the hospital.

To collect payments for treatment and maintenance as far as possible.

To prepare accounts for treatment and maintenance of Glamorgan County and other cases.

To arrange for the admission of patients whose names are on the waiting list.

To arrange for the transfer to the Cardiff Royal Infirmary of patients who need radium treatment.

To arrange for the admission of County patients through the Relieving Officers or on payment of the full maintenance rate.

Number of interviews :—

Patients admitted	4,126
Patients discharged	3,785
Relatives of patients who died	338
Total	8,149

Number of patients who were unable to make any payment for treatment 1,146.

Income.—The income collected during the year 1936 was £4,517 0s. 0d., as compared with £3,815 13s. 2d., in 1935, showing an increase of £701 6s. 10d. The money was derived in the following manner :—

	£	s.	d.
Collected in Hospital	4,459	16	6
Received from Cardiff Royal Infirmary	57	3	6
	£4,517	0	0

Accident Unit.—The Almoner attends the Accident Unit at the City Lodge two mornings per week to collect fees and to investigate the financial position of all patients treated. This service commenced in March, 1936.

As the time is limited for the collection of fees, it was arranged that the Unit Clerk should collect the fees when the Almoner is not in attendance. This arrangement has proved financially beneficial.

The income collected by the Almoner from March to December, 1936, was £68 13s. 6d., which does not include the money collected at the City Lodge in respect of routine treatment (massage, etc.).

A gift of £2 6s. 0d. was received by the Almoner to commence a fund for necessitous patients attending the Unit, and several cases have been assisted.

Cardiff Royal Infirmary Contributory Scheme.—The work of the department has increased through the scheme which came into force in May, 1936, whereby patients are accepted at the hospital if they are members of the Cardiff Royal Infirmary contributory scheme. During the year, 118 contributors benefited by this arrangement.

Radium Treatment.—Fourteen patients were transferred to the Cardiff Royal Infirmary during 1936 for radium treatment.

Samaritan Fund.—During the year the Samaritan Fund was used to assist 228 necessitous patients and their dependents, and was able to carry forward a balance of £27 5s. 11½d., at the end of the year. The details are as follows :—

	£	s.	d.
Cash in hand 1st January, 1936	15	11	5
Donations	32	15	3
Income from collecting boxes in Hospital	10	18	4½
	59	5	0½
Expenditure	31	19	1
Balance in hand 31st December, 1936	£27	5	11½

The assistance given was as follows :—

Payments made for bus fares	210
Grants made for food	10
Families assisted with a grant for rent	7
Set of artificial teeth supplied to patient	1
Total	228

The Matron and the nursing staff made a very generous gift of £15 0s. 0d. to the fund from the proceeds of a Sale of Work held by the Nurses' League. This gift has placed the fund on a very sound basis.

Hospital Library Service.

During 1936—the first complete year of the Hospital Library Service—the work has been carried on steadily with the help of the Red Cross Society and the Order of St. John. An entirely new stock of books of various kinds, numbering 380, was received from the Cardiff Central Library. At the request of several patients a selection of special books was requisitioned and supplied from the stock of the Central Library. During the year under review, 8,836 books were issued to patients, giving a weekly average of approximately 170. Books are issued to the patients twice a week, and this arrangement seems to work well. It is gratifying to report that many books and magazines have been presented to the Library Service of the hospital.

Time-Table of Consultants' Attendances.

Monday	Morning	Mr. D. J. Harries, Surgeon. Dr. W. Parry Morgan, Bacteriologist. Dr. T. Garfield Evans, Radiologist.
	Afternoon	Mr. A. O. Parker, Orthopaedic Surgeon.
Tuesday	Morning	Dr. A. A. Prichard, Aural Surgeon. Dr. A. G. Watkins, Physician for Diseases of Children. Dr. T. Garfield Evans, Radiologist.
	Afternoon	Professor A. M. Kennedy, Physician. Mr. D. J. Harries, Surgeon. Dr. J. Hardstaff West, Anaesthetist.
Wednesday	Morning	Professor A. M. Kennedy, Physician.
	Afternoon	Professor G. I. Strachan, Gynaecologist.
Thursday	Morning	Mr. D. J. Harries, Surgeon. Dr. T. Garfield Evans, Radiologist.
	Afternoon	Mr. R. D. Owen, Aural Surgeon. Dr. J. Hardstaff West, Anaesthetist.
Friday	Morning	Professor A. M. Kennedy, Physician.
	Afternoon	Dr. A. G. Watkins, Physician for Diseases of Children. Mr. D. J. Harries, Surgeon. Mr. W. E. Hallinan, Dentist.
Saturday	Morning	Professor G. I. Strachan, Gynaecologist. Dr. J. Hardstaff West, Anaesthetist.

In addition to the regular attendances of the Professor of Medicine, frequent visits are made by his assistants from the Welsh National School of Medicine.

The Professor of Pathology or his assistants attend when required.

Time-Table of Admission Clinics.

Monday	Afternoon	Admission department open for medical cases and Asthma Clinic (Dr. D. A. Williams).
Tuesday	Afternoon	Admission department open for surgical cases (Dr. W D. Lovelock-Jones).
Thursday	Afternoon	Admission department open for medical cases and Asthma Clinic (Dr. D. A. Williams).
Friday	Afternoon	Admission department open for surgical cases (Dr. W. D. Lovelock-Jones).

STATISTICS.

Beds Provided.

Male	Medical	68		
	Surgical	54		
			122	
Female	Medical	68		
	Surgical	42		
	Gynaecological	34		
			144	
Children	General	70		
	Ear, Nose and Throat	9		
			79	
	Total		345	

Beds—

Average daily complement	345
Average daily number available	342
Average daily number occupied	292
Average daily percentage occupied	*85*
Average length of stay of patients—days	25·9
Average number of patients per occupied bed	14·1
Average number of admissions daily	11·3
Maximum number occupied	327 on 17th December
Minimum number occupied	232 on 2nd January and 28th December.

Nursing Staff—

Average strength daily	107
Average number of occupied beds per nurse	2·7

Patients.

Patients in hospital on 1st January, 1936	240	
Admitted	4,126	
		4,366
Discharged	3,785	
Died	338	
		4,123
Patients in Hospital on 31st December, 1936		243
Patients admitted from City of Cardiff		3,595
Patients admitted from Administrative County of Glamorgan and other areas		531
Patients discharged in the normal manner		3,673
Patients discharged against medical advice		112

Patients discharged to :—		
Their own or relatives' homes	3,470	
Cardiff Public Assistance Institution	251	
Other institutions or hospitals	64	
	——	3,785
Deaths		338
Total		4,123

Classification of Patients treated to a Conclusion.

Male patients :—		
Under 2 years	125	
Over 2 and under 16 years	588	
Over 16 years	1,170	
	——	1,883
Female patients :—		
Under 2 years	79	
Over 2 and under 16 years	518	
Over 16 years	1,643	
	——	2,240
Total		4,123

Results of Treatment or the Termination.

	Number.	*Percentage.*
Cured	2,501	*60·7*
Improved	869	*21·1*
No change	406	*9·8*
Worse	9	*0·2*
Died	338	*8·2*

Analysis of Deaths.

Age at Death—Years	Males	Females	Totals	Percentage
Under 1	18	15	33	*9·8*
1 — 2	4	3	7	*2·1*
2 — 5	1	2	3	*0·9*
5 — 15	10	11	21	*6·2*
15 — 25	5	8	13	*3·8*
25 — 35	12	11	23	*6·8*
35 — 45	21	20	41	*12·1*
45 — 55	44	21	65	*19·2*
55 — 65	27	28	55	*16·3*
65 — 75	42	16	58	*17·2*
Over 75	11	8	19	*5·6*
Totals	195	143	338	*100·0*

	Treated	Percentage	Died	Case Mortality per cent.
Medical Cases	1,456	*35·0*	211	*14·5*
Surgical and Gynaecological Cases	2,667	*65·0*	127	*4·8*

	Number.	*Percentage.*
Deaths within 24 hours of admission	51	*15·1*
Deaths 24 to 48 hours after admission	31	*9·2*
Deaths 48 to 72 hours after admission	14	*4·1*
All other deaths	242	*71·6*
Total	338	*100·0*

Number of inquests	20
Number of inquests per 100 deaths	*5·9*
Number of autopsies per 100 deaths.	*17·2*

Classification of the Diseases and Conditions for which the 4,123 *discharged patients were primarily treated.*

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases due to Infection :—					
Influenza	4	—	9	1	14
Pneumococcal infection—Lungs	38	19	27	5	89
Miscellaneous	—	1	1	—	2
Rheumatic Fever—Acute with carditis	11	1	4	2	18
Acute without carditis	8	—	4	—	12
Sub-acute with carditis	7	—	16	—	23
Sub-acute without carditis	7	—	11	—	18
Chorea with carditis	3	—	9	—	12
Chorea without carditis	7	—	7	—	14
Syphilis (congenital, primary, secondary)	3	—	1	—	4
Tuberculosis—Lungs	17	6	11	—	34
Brain and meninges	—	6	—	9	15
Intestines and peritoneum	1	—	3	3	7
Genito-urinary	1	—	1	—	2
Bones and joints	2	—	1	—	3
Glands	6	—	2	—	8
Miscellaneous	1	3	—	—	4
Miscellaneous	20	1	13	3	37
Diseases of the Nervous System :—					
Peripheral neuritis, sciatica, neuralgia	11	—	9	—	20
Tabes dorsalis	13	—	2	—	15
Disseminated sclerosis	3	—	1	—	4
Other diseases of the spinal cord	—	—	2	—	2
Inflammation of cerebral meninges	3	2	—	1	6
General paralysis of the insane and syphilis of the meninges	2	—	2	—	4
Paralysis agitans	2	—	—	—	2
Haemorrhage, embolism and thrombosis of cerebral meninges	5	5	4	9	23
Injuries of brain	16	1	6	—	23
Epilepsy	7	—	6	—	13
Mental deficiency	2	—	—	—	2
Psycho-neuroses	23	—	55	—	78
Other diseases of the nervous system	3	—	4	—	7
Diseases of the Eye	—	—	1	—	1
Diseases of the Ear :—					
Diseases of the middle ear, including antrum	2	—	3	—	5
Diseases of the mastoid process	12	3	6	—	21
Otitis media	4	—	10	—	14
Other diseases of the ear	4	—	2	—	6
Diseases of the Nose :—					
Inflammation of mucous membrane	1	—	—	—	1
Diseases of the septum nasi	10	—	3	—	13
Diseases of the accessory sinuses	5	—	4	—	9
Other conditions	15	—	14	—	29
Diseases of the Circulatory System :—					
Diseases of the endocardium	5	1	2	1	9
Mitral stenosis and mitral regurgitation	8	—	10	4	22
Aortic stenosis and aortic regurgitation	13	4	8	1	26
Diseases of the myocardium	7	3	8	2	20
Auricular fibrillation	5	1	13	5	24

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases of the Circulatory System—*cont.*					
Other diseases of the heart	1	—	3	—	4
Arterio-sclerosis	22	16	8	5	51
Aneurysm and aortitis (syphilitic)	3	4	—	—	7
Thrombosis and embolism	1	—	4	—	5
Vasomotor disorders	2	—	—	—	2
Essential hypertension	4	1	7	1	13
Diseases of the veins	5	—	4	—	9
Diseases of Blood, Blood-forming Organs and Lymphatic System :—					
Purpura	1	—	—	1	2
Pernicious anaemia	3	—	8	1	12
Achlorhydric anaemia	—	—	1	—	1
Secondary anaemia	3	—	12	—	15
Leukaemia	—	1	1	2	4
Diseases of the lymphatic system	21	1	10	1	33
Diseases of the Endocrine Glands :—					
Exophthalmic goitre	1	1	6	—	8
Toxic adenoma	2	—	28	2	32
Goitre	—	—	2	—	2
Other conditions	1	—	5	—	6
Diseases of the Breast	—	—	3	—	3
Diseases of the Respiratory System :—					
Diseases of the larynx and pharynx	2	—	3	—	5
Bronchitis—Acute	7	1	18	—	26
Chronic	12	—	6	—	18
Bronchiectasis	8	1	3	—	12
Asthma—secondary	—	—	3	—	3
Broncho-pneumonia	9	9	8	13	39
Fibrosis of lung	3	—	1	—	4
Emphysema	—	1	—	—	1
Pleurisy and other diseases of the pleura	11	—	7	1	19
Empyema	6	1	2	—	9
Other diseases of the respiratory system	1	4	—	—	5
Diseases of the Digestive System :—					
Diseases of the lips, mouth, jaws and palate	1	1	4	—	6
Tonsillitis and quinsy	11	—	32	—	43
Enlarged tonsils and/or adenoids	274	—	347	—	621
Gastritis	16	—	7	—	23
Enteritis and gastro-enteritis	13	2	19	3	37
Gastric ulcer	37	—	11	—	48
Gastric ulcer—perforated	3	2	—	2	7
Duodenal ulcer	26	—	3	—	29
Duodenal ulcer—perforated	1	—	—	—	1
Appendicitis—Acute	35	2	38	4	79
Sub-acute and chronic	29	—	45	—	74
Colitis	4	—	9	1	14
Hernia—Inguinal	67	1	8	—	76
Femoral	1	—	4	—	5
Umbilical and ventral	2	—	11	—	13
Miscellaneous	5	—	1	—	6
Strangulated	5	3	3	2	13
Intussusception	1	1	—	—	2
Volvulus	1	—	—	—	1
Visceroptosis	—	—	5	—	5
Diverticula of colon	1	1	2	—	4
Intestinal obstruction	1	1	—	—	2
Constipation	12	—	13	—	25
Ischio rectal abscess	9	—	9	—	18
Fistulae, including fissures of the anus	4	—	7	—	11
Haemorrhoids	36	—	14	—	50
Prolapse of rectum	6	—	2	1	9
Pancreatitis	1	—	—	—	1
Infective jaundice	—	—	1	—	1

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases of the Digestive System—*cont.*					
Cholecystitis	4	—	7	1	12
Calculi of gall bladder	4	—	14	—	18
Adhesions following operation	9	—	5	—	14
Pyloric stenosis	3	1	3	1	8
Other conditions	20	2	7	1	30
Diseases due to Disorders of Nutrition or Metabolism :—					
Diabetes mellitus	17	3	21	3	44
Marasmus	10	2	4	2	18
Feeding difficulties	3	—	—	—	3
Asthma—allergic	36	—	51	1	88
Other allergic conditions	11	—	16	—	27
Rickets	2	—	—	—	2
Other metabolic diseases	1	—	—	—	1
Diseases of the Generative System :—					
Senile enlargement of the prostate	28	10	—	—	38
Other diseases of the male generative organs	72	4	—	—	76
Diseases of the ovary	—	—	2	—	2
Salpingitis	—	—	20	—	20
Diseases of the uterine ligaments and adjacent peritoneum	—	—	5	—	5
Metritis	—	—	11	—	11
Endometritis	—	—	30	—	30
Chronic inflammation of the cervix	—	—	133	—	133
Displacement of uterus	—	—	27	—	27
Diseases of vagina	—	—	18	—	18
Diseases of the vulva, clitoris and urethra	—	—	7	—	7
Amenorrhoea	—	—	1	—	1
Dysmenorrhoea	—	—	12	—	12
Menorrhagia and metrorrhagia	—	—	4	—	4
Abortion	—	—	144	5	149
Ectopic gestation	—	—	6	—	6
Sterility	—	—	12	—	12
Toxaemias of pregnancy	—	—	38	—	38
Dispareunia	—	—	2	—	2
Diseases of the Bones, Joints, Muscles and Fasciae :—					
Osteitis	—	—	1	—	1
Osteomyelitis—Acute and chronic	11	2	3	1	17
Arthritis—Acute	2	—	1	—	3
Chronic	9	—	8	—	17
Rheumatoid arthritis	1	—	8	—	9
Diseases of the tendons and sheaths of tendons	—	—	1	—	1
Diseases of the bursae	3	—	7	—	10
Displaced internal semilunar cartilage	8	—	1	—	9
Other diseases	22	—	18	—	40
Diseases of the Areolar Tissue and Skin :—					
Cellulitis	16	2	4	1	23
Boils, carbuncles or abscesses	42	1	34	1	78
Dermatitis, eczema or impetigo	7	—	7	—	14
Erythema nodosum	1	—	2	—	3
Other diseases of the skin	3	—	7	—	10
Diseases of the nails	1	—	—	—	1
Diseases of the Urinary Organs :—					
Glomerulo-tubular nephritis—Acute and sub-acute	2	1	6	1	10
Chronic	4	11	9	8	32
Pyelonephritis and pyonephrosis	—	—	1	—	1
Pyelitis	11	—	32	—	43
Perinephritis and perinephric abscess	1	—	—	—	1
Renal calculus	13	1	6	—	20

	Males		Females		Totals
	Discharged	Died	Discharged	Died	
Diseases of the Urinary Organs—*cont.*					
Cystitis	8	1	3	—	12
Vesical calculus	5	—	1	—	6
Urinary disorders	5	1	4	—	10
Injuries :—					
Burns and scalds	12	1	12	3	28
Wounds and bruises	10	—	7	—	17
Multiple and miscellaneous injuries	20	—	10	—	30
Fractures—Skull	4	3	2	—	9
Bones of face and jaw	3	—	—	—	3
Clavicle	3	—	1	—	4
Humerus	5	—	4	—	9
Ulna	—	—	1	—	1
Radius	3	—	1	—	4
Ulna and radius	2	—	—	—	2
Small bones of hand and wrist	2	—	2	—	4
Ribs	2	—	—	—	2
Spine	1	—	1	—	2
Pelvis	4	—	2	—	6
Femur	14	—	13	2	29
Tibia	5	—	1	—	6
Fibula	3	—	1	—	4
Tibia and fibula	4	1	6	—	11
Patella	3	—	2	—	5
Small bones of foot	4	—	3	—	7
Miscellaneous	—	—	1	—	1
Dislocations	3	—	3	—	6
Tumours—Benign :—					
Nervous system	3	—	—	—	3
Thyroid glands	—	—	1	—	1
Bones	1	—	1	—	2
Lips, mouth, tongue and fauces	—	—	1	—	1
Male generative organs	1	—	—	—	1
Ovary and uterus	—	—	17	1	18
Cervix	—	—	8	—	8
Bladder	2	—	—	—	2
Miscellaneous regions	1	—	—	—	1
Tumours—Malignant :—					
Nervous system	—	—	—	1	1
Breast	—	—	8	1	9
Respiratory system	2	8	1	—	11
Thyroid gland	—	—	1	1	2
Bones	—	—	2	—	2
Lips, mouth, tongue and fauces	3	—	—	1	4
Pharynx, larynx and oesophagus	5	3	1	—	9
Stomach	2	4	4	5	15
Intestines	3	2	2	2	9
Rectum and anus	6	4	—	1	11
Pancreas, liver and gall bladder	2	2	2	5	11
Ovary and uterus	—	—	8	3	11
Cervix	—	—	10	—	10
Skin and muscle	—	—	1	—	1
Bladder	3	2	—	1	6
Prostate	—	4	—	—	4
Miscellaneous regions	6	1	5	1	13
Cysts	6	—	15	—	21
Lipoma	2	—	5	—	7
Malformations	10	2	10	2	24
Miscellaneous :—					
Other diseases	26	4	37	1	68
No abnormality detected	54	—	77	—	131
Totals	1,688	195	2,097	143	4,123

Summary of Diseases and Conditions in Order of Frequency.

Diseases of the eye, ear, nose and throat	763
Diseases of the digestive system	642
Diseases of the generative organs	591
Diseases due to infection	316
Diseases of the circulatory system	259
Diseases of the nervous system	199
Tumours	194
Injuries	190
Diseases of the respiratory system	141
Diseases of the urinary system	135
Diseases of the areolar tissue and skin	129
Diseases of the bones, joints, muscles, etc.	107
Other diseases	457

Work of Departments.

Pathological	Investigations	7,015
Surgical	Major operations	762
	Minor operations	1,365
Dental	Patients	89
	Attendances for treatment	113
Radiological	Patients investigated	1,555
	Number of investigations	2,646
Massage	Patients	45
	Treatments	752
Ultra-Violet Light	Patients	22
	Treatments	121
Admission	Patients seen	2,294
Nurses' Sick Room	Number of admissions	78

Pathological Department.

Analysis of Investigations.

Pus—Stained smears for organisms	85
Cultures for organisms	11
Smears—Stained for gonococci	25
Blood—Counts (full)	863
Leucocyte counts	1,445
Platelet and/reticulocyte counts	61
Coagulation bleeding time	2
Grouping	12
Chemical investigations	412
Cultures for organisms	11
Cerebro-spinal fluid—Various investigations	228
Pleural fluid—Various investigations	45
Urine—Microscopy of centrifugal deposit	1,443
Bacteriological investigations	56
Chemical investigations	1,197
Fractional test meals	164
Sputum—Stained smears for tubercle bacilli	333
Faeces—Bacteriological investigations	54
For occult blood	15
Chemical investigations	14
Miscellaneous investigations	88
Pathological sections reported	370
Post-mortem examinations	58
Clinical photographs	23
Total	7,015

In addition to the above-mentioned investigations, which were conducted at the Hospital Laboratory, many ear, nose and throat swabs and specimens of blood for the Wassermann reaction were examined at the Cardiff and County Public Health Laboratory.

ANALYSIS OF OPERATIONS PERFORMED.

	Major	Minor	Totals
On skin and superficial structures	10	169	179
On arteries, veins and lymphatics	5	4	9
On bones and joints	58	53	111
On muscles, tendons, bursae and fasciae	—	3	3
Amputations	10	5	15
On skull, brain and spine	7	7	14
On mouth, pharynx and oesophagus	6	4	10
On thyroid and accessory glands	21	1	22
On breast	5	11	16
On thorax and contents	24	4	28
On abdominal wall and cavity	319	11	330
On stomach and duodenum	19	—	19
On intestines, rectum and anus	25	115	140
On liver, gall bladder, pancreas and spleen	22	—	22
On kidney and urinary tract	45	40	85
On male generative organs	33	61	94
On female generative organs	106	272	378
On ear, nose and throat	47	604	651
Unclassified	—	1	1
Totals	762	1,365	2,127

Operations performed by Consultant Staff	1,122
Operations performed by Resident Medical Staff	1,005

DENTAL DEPARTMENT.

Number of patients treated	89
Attendances for treatment	113

Analysis of Attendances.

For extractions under general anaesthetic	96
For extractions with local anaesthetic	16
For examinations without extractions	1
Total	113
Total number of teeth extracted	482

Radiological Department.

Analysis of Investigations.

Skull for injury	126
Skull and contents for disease or deformity	94
Lungs, mediastinum and pleural conditions	447
Heart and aorta	41
Oesophagus, stomach and intestines	752
Biliary passages	88
Urinary system	318
Generative system	5
Bones and joints for injury	415
Bones and joints for disease or deformity	330
Miscellaneous—for foreign bodies, etc.	15
Dental	15
Total	2,646

Special Methods of Investigation :—	
Barium meals	586
Barium enemata	101
Cholecystograms	56
Lipiodol injections	22
Urograms—intravenous	127
Total	892
Number of patients investigated	1,555
Average number of investigations per patient	1·7
Average number of investigations per discharged patient	0·64
Percentage of appearances abnormal	*64·8*

Massage and Light Department.

	Massage	Ultra-violet Light
Patients treated	45	22
Remaining under treatment on 31st December, 1936	1	1
Patients discharged from department	44	21
Number of treatments	752	121

	Number.	*Percentage*
Medical massage cases	665	*89*
Surgical massage cases	87	*11*
Total	752	*100*

Nurses' Sick-Room.

Complement of nursing staff on 31st December, 1936	100
Average daily complement of nursing staff	107
Average daily complement of nurses available for duty	101
Nurses off duty sick during the year	64*
Nursing days lost (sick leave included)	1,225
Average number of nursing days lost per annum :—	
Per sick nurse	19·1
Per nurse of the average daily complement	10·4

*Seven nurses off duty twice, two off duty three times and one off duty four times, making 78 admissions to the Nurses' Sick-room.

Disabilities.	*Number.*
Rheumatism	5
Ear, nose and throat conditions	23*
General debility	9
Gastric disturbance	8
Injuries	5
Parotitis	1
Bronchitis	2
Septic conditions of skin	7†
Influenza	3
Pulmonary tuberculosis	1
Synovitis	1
Appendicitis	1‡
Catarrhal jaundice	1
Neuralgia	1
Measles	1§
Dysentery	7§
Scarlet fever	1§
Diphtheria	1§
Total	78

* Including 3 minor operations. † Including 4 minor operations.
‡ Major operation. § Transferred to Isolation Hospital.

COMPARATIVE TABLE.

	1934	1935	1936
Beds—			
Average daily complement	345	345	345
Average daily number available	343	343	342
Average daily number occupied	292	293	292
Average daily percentage of available beds occupied	85	86	85
Average number of patients per occupied bed	12·8	13·2	14·1
Average daily complement of nursing staff available	102	107	101
Average daily number of admissions	10·2	10·5	11·3
Patient days	106,590	106,859	106,733
Average length of stay per patient in days	28·5	27·7	25·9
Medical cases	1,404	1,498	1,456
Surgical cases	2,336	2,360	2,667
Total cases treated to a conclusion	3,740	3,858	4,123
Percentage of patients—			
Cured or recovered from acute attack	*58·6*	*57·4*	*60·7*
Improved	*27·0*	*24·4*	*21·1*
No change	*6·5*	*9·6*	*9·8*
Worse	*0·2*	*0·2*	*0·2*
Died	*7·7*	*8·4*	*8·2*
Pathological investigations	5,263	6,148	7,015
Autopsies per 100 deaths	*16·6*	*18·4*	*17·2*
Operations—			
Major	991	1,266	762
Minor	928	714	1,365
Dental—			
Patients treated	115	109	89
Treatments	180	143	113
Radiological—			
Patients investigated	1,222	1,371	1,555
Investigations	2,193	2,282	2,646
Massage—			
Patients treated	64	45	45
Treatments	974	826	752
Ultra-violet Light—			
Patients treated	64	89	22
Treatments	581	802	121
Patients seen at Admission Department	1,222	2,986	2,294
Admissions to Nurses' Sick-room	47	58	78
Sum received at Hospital for treatment and maintenance	£1,947 3s. 7d.*	£3,815 13s. 2d.	£4,517 0s. 0d.

*February to December.

ACCIDENT SERVICE.

The Municipal Accident Service was fully described in the report for 1935.

The number of new cases per month has recently been fairly constant—approximately 120. It is felt that if the service is to expand, any increase will have to be provided by the industrial type of accident, which at present provides the smallest number of the three types of accident dealt with. This is borne out further by the classification of the cases according to age, which reveals that the number of cases falling into the "wage-earner" group, viz., 20—60 years, only slightly exceeds the total of those under 20 years and over 60 years.

The large number of cases referred to the Accident Unit by private practitioners is worthy of note. This number continues to increase every month. The relatively small number of cases referred by the police is surprising, but this number is also increasing each month.

During the year 1936 a total of 958 new patients were referred to the Unit.

Sex of patients :—	
Males	574
Females	384
Total	958
Sources from which new cases were derived :—	
Private practitioners	540
Police	106
Other sources	312
Total	958
Method of dealing with cases :—	
As In-Patients at :—	
(a) City Lodge (Accident Unit beds)	119
(b) ,, ,, (Other beds)	29
(c) Llandough Hospital	84
As Out-Patients at the Unit	726
Total	958

The total number of attendances of the 726 out-patients was 4,415, and the following conditions were treated :—

Fractures—		
Skull—Vault		2
Base		4
Bones of Face and Jaw		7
Clavicle		35
Humerus	a. Head and neck	16
	b. Shaft	7
	c. Condylor and supra-condylor	12

Radius	a. Head	8
	b. Shaft	40
	c. Colles	81
Ulna	a. Olecranon	4
	b. Shaft	37
	c. Styloid	21
Small bones of hand and wrist	a. Scaphoid	9
	b. Rest of Carpus	3
	c. Metacarpals	15
	d. Phalanges	11
Ribs		16
Sternum		1
Scapula	a. Body	5
	b. Glenoid and neck	—
Pelvis		9
Spine	a. Cervical	1
	b. Dorsal	—
	c. Lumbar	3
	d. Transverse processes and spinous processes	2
	e. Coccyx	1
Femur	a. Upper end	20
	b. Shaft	15
	c. Lower end	2
Tibia	a. Upper end	6
	b. Shaft	40
	c. Lower end	24
Fibula	a. Upper end	7
	b. Shaft	25
	c. Lower end	37
Patella		7
Small bones of Foot	a. Astragalus	1
	b. Oscalcis	5
	c. Midtarsals	2
	d. Metatarsals	9
	e. Phalanges	12

Dislocations.—

A. Simple.

Upper Limb	Shoulder including acromio clavicular	13
	Elbow	8
	Wrist and hands	7
Lower Limb	Hip	—
	Knee	1
	Ankle	—
	Subastragaloid	1
	Foot	—
Sterno-clavicular joint		—
Spine		—

B. Fracture dislocations.—

Upper Limb	Shoulder including acromio clavicular	2
	Elbow	—
	Wrist and hands	3
Lower Limb	Hip	—
	Knee	—
	Ankle	1
	Subastragaloid	1
	Foot	3
Sterno-clavicular joint		—
Spine		—
Ligamentous injuries		73
Synovitis		55
Miscellaneous		312
Old fractures		20

Classification of type of accident.—

Industrial accidents	164	
Road accidents	191	
Other accidents (e.g. domestic, sport, etc.)	603	
Total		958

Classification of patients in age-groups.—

0—20 years	343	
20—60 years	493	
Over 60 years	122	
Total		958

Operations performed by the Accident Unit Staff at Llandough Hospital.—

Fractures and traumatic surgery	53	
Orthopaedic operations	13	
Total		66

ASTHMA CLINIC.

Report by D. A. Williams, B.Sc., M.B., B.Ch.

The work at the Asthma Clinic has continued to increase. During 1936, 294 new patients came to the clinic and there were 3,564 attendances. Thus, in its second year, the number of new patients seen at the clinic has more than doubled and the number of attendances has more than quadrupled. Such an increase has meant a good deal of reorganisation. Extra accommodation and nurses have had to be obtained and the medical staff now consists of three medical officers on Monday and Thursday afternoons. We were fortunate in obtaining the services of Dr. C. W. Anderson, a member of the public health staff, to assist at the clinic.

Sources of new cases.—

General medical practitioners	217
Public Health Clinics	58
Llandough Hospital	19
Total	294

Cases resident in Cardiff	254 (86·4%)
Cases resident outside Cardiff	40 (13·6%)

How dealt with.—

Treatment carried on at the Clinic	250
Referred back to medical practitioners	22
Referred to hospital	16
No asthma	6
Total	294

The above figures show the sources from which the patients were obtained and the way they were dealt with. It is gratifying to see that such a large proportion was sent by private practitioners. The demands which have been made on the clinic prove its necessity.

Number of patients investigated at Llandough Hospital.—

Males.	*Females.*	*Total.*
36	55	91

This also is a considerable increase on the number investigated in hospital during the previous year.

Breathing exercises.—

Number of patients treated	143
Total number of attendances	786

The establishment of this department at the end of 1935 has considerably enhanced the efficiency of the clinic, and some patients have no further treatment other than breathing exercises.

Mr. J. Ingham, A.I.C., Biochemist to the Medical Unit of the Welsh National School of Medicine, has continued to make "autogenous" house-dust and various skin tests for the clinic. Recently he has commenced preparing vaccines for the use at the clinic, and his help has been invaluable.

It was felt at the end of 1936 that the time had come for a review of the types of asthma in the patients who were being referred to the clinic. Accordingly a survey of 300 cases has been carried out.

Age at onset of asthma.—

0— 4 years	90 = 30%	} 54%
5— 9 ,, ...	72 = 24%	
10—19 ,, ...	49 = 16·3%	
20—29 ,, ...	36 = 12·0%	
30—39 ,, ...	25 = 8·3%	
40—49 ,, ...	18 = 6·0%	
Over 50 ,, ...	10 = 3·3%	
	300	

The age of onset of asthma is important, as the earlier the onset the more likely is it to be of the allergic type. Although in some cases of asthma the age of onset can readily be determined, as, for example, when it follows whooping cough or measles, in many cases the onset is preceded by recurrent attacks of bronchitis. In children these recurrent attacks are in all probability allergic in nature—a preparoxysmal stage of

asthma—and may precede the typical paroxysmal stage for months or even years. The transition from the one to the other may be quite gradual. The onset of asthma in such cases has been taken as the onset of the preparoxysmal stage. This may account for the higher percentage (54) of cases where asthma commenced under the age of 10 years, as compared with Bray[1] (33·7 per cent.), Coke[2] (41 per cent.), and Adam[3] (30 per cent.). This figure will of course to a certain extent depend upon the average age of attendance at the clinic.

Age at first attendance at the clinic.—

0— 4 years	25	8·3%
5— 9 ,,	75	25·0%
10—19 ,,	72	24·0%
20—29 ,,	45	15·0%
30—39 ,,	33	11·0%
40—49 ,,	27	9·0%
Over 50 ,,	23	7·7%
Total	300	

From these tables it will be seen that 33·3 per cent. of the patients are under the age of 10 years and 57·3 per cent. under the age of 20 years. It is this group of children and young adults that it is particularly desirable should attend the clinic, and it is pleasing that the proportion is so high.

Mode of onset.—

Spontaneous	167	55·66%
After respiratory infection	92	30·66%
With eczema	17	5·66%
After hay fever	11	3·66%
Various	13	4·33%
Total	300	

Seasonal variation.—

Worse in summer	101
Worse in winter	113
Same all the year	86
Total	300

These figures are based on the histories of the patients, and it will be seen that the number is approximately equal in the three groups.

Associated conditions.—

Infantile eczema	36	
Eczema	38	74 = 23·66%
Urticaria	44	= 14·66%
Bowel upsets	43	= 14·33%
Joint pains	47	= 15·66%
Enuresis	37	= 12·33%
Migraine	95	= 31·66%
Prurigo	28	= 9·33%
Hay fever	46	= 15·33%
Nasal catarrh	127	= 42·33%

Nasal catarrh appears to be the commonest associated condition and many of the "colds" which these patients have are really attacks of allergic rhinorrhoea. The treatment of the two conditions is essentially the same. A history of migraine is also present in one-third of the cases.

Family history of allergy.—

Family history of allergy	207	= 69%
No family history of allergy	93	= 31%

The percentage with a family history of allergy is somewhat similar to that obtained by other observers—Bray[1] (68·5 per cent.), Van Leuwen[4] (63·6 per cent.) and Unger[5] (64·4 per cent.), but is higher than that obtained by most other workers on the subject.

I should like to record my indebtedness to Professor A. M. Kennedy, M.D., F.R.C.P., Director of the Medical Unit, Welsh National School of Medicine, who has directed the work of the clinic.

References.—

1. Bray. *Recent Advances in Allergy.*
2. Coke. *British Medical Journal*, 1/955, 1927.
3. Adam. *Asthma and its Medical Treatment*, 1917.
4. Van Leuwen. *Allergic Diseases*, 1925.
5. Unger. *Journal of Allergy*, 7/364, 1936.

X.—POOR LAW MEDICAL SERVICE.

A summary of the work of the district medical officers during 1936 is given in the following table :—

Name of District	Whether Whole or Part-time D.M.O.	Attendances of Patients at Surgery	Attendances of Patients at Surgery for Medicine only	Visits to Homes of Patients	Individual Persons dealt with during the Year.
Roath	Whole-time	13,178	5,309	7,787	4,430
Central	do.	12,088	8,347	2,285	3,377
Canton	Part-time	3,610	45	1,362	2,061
South	do.	1,445	899	499	546
Splott	do.	2,360	768	1,182	739
Adamsdown	do.	6,486	2,795	1,113	1,295
Gabalfa	do.	968	343	784	431
Llanishen	do.	72	—	75	22
Totals	—	40,207	18,506	15,087	12,901

The following tabular statements show the hospital provision and the work undertaken during 1936 in connection with the institutional treatment of the sick at the City Lodge and Ely Lodge Poor Law Institutions.

City Lodge.

(1) Classification of the accommodation for the sick and the number of beds occupied on 31st December, 1936 :—

Classification of Wards	Number of Wards	Beds							
		Men		Women		Children (under 16 years)		Totals	
		Provided	Occupied	Provided	Occupied	Provided	Occupied	Provided	Occupied
Medical Surgical	6	28	25	34	30	—	—	62	55
Chronic Sick	32	250	246	128	127	—	—	378	373
Children	1	—	—	—	—	54	31	54	31
Venereal Disease	2	10	5	14	11	—	—	24	16
Tuberculosis	2	15	11	15	2	2	2	32	15
Maternity	4	—	—	32	24	—	—	32	24
Mental Disease	2	4	1	4	1	—	—	8	2
Other	4	10	1	11	6	—	—	21	7
Totals	53	317	289	238	201	56	33	611*	523

*The approved number is 604.

(2) In-patients :—

1.	Total number of admissions (including infants born in hospital)	3,159
2.	Number of women confined in hospital	392
3.	Number of live births	367*
4.	Number of still-births	34
5.	Number of deaths among the newly born	16
6.	Total number of deaths among children under one year	18
7.	Number of maternal deaths among women admitted to hospital for confinement	2
8.	Total number of deaths	478
9.	Total number of discharges (including infants born in hospital)	2,688
10.	Duration of stay of patients included in 8 and 9 above :—	
	(*a*) Under four weeks	2,110
	(*b*) Four weeks and under thirteen weeks	659
	(*c*) Thirteen weeks or more	397
11.	Number of beds occupied :—	
	(*a*) Average during the year	553
	(*b*) Highest	615
	(*c*) Lowest	456
12.	Number of surgical operations under general anaesthetic (excluding dental operations)	—
13.	Number of abdominal sections	—

*Twins in nine cases.

(3) Out-Patients :—

1. Cases after discharge from this hospital and Llandough Hospital attend for continuation treatment. Casualties after treatment are referred to private practitioners or, if urgent, admitted to this hospital or Llandough Hospital.
2. Total number of persons seen in the out-patient department 2,294
3. Number of these persons who were subsequently admitted for in-patient treatment in the institution 228
4. Number of these persons who had received in-patient treatment in the institution 44
5. Total number of attendances in the out-patient department 6,996

(4) Classification of in-patients who were discharged from or who died in the institution during the year :—

Disease Groups	Children (under 16 years)		Men and Women	
	Dis-charged	Died	Dis-charged	Died
Acute infectious disease	51	—	6	—
Influenza	—	—	3	—
Tuberculosis :—				
Pulmonary	12	2	127	49
Non-pulmonary	13	—	21	5
Malignant disease	—	—	45	62
Rheumatism :—				
Acute rheumatism (rheumatic fever) together with sub-acute rheumatism and chorea	5	—	10	—
Non-articular manifestations of so-called "rheumatism" (muscular rheumatism, fibrositis, lumbago and sciatica)	—	—	17	—
Chronic arthritis	1	—	17	—
Venereal disease	7	—	55	1
Puerperal pyrexia	—	—	5	—
Puerperal fever :—				
Women confined in the hospital	—	—	4	—
Other cases	—	—	—	—
Other diseases and accidents connected with pregnancy and child-birth	—	—	32	2
Mental diseases :—				
Senile dementia	—	—	72	—
Other	4	—	191	—
Senile decay	—	—	45	89
Accidental injury and violence	64	—	222	15
Diseases of the :—				
Nervous system and sense organs	14	—	132	9
Respiratory system	30	3	100	31
Circulatory system	1	1	180	168
Digestive system	21	1	52	2
Genito-urinary system	4	—	43	14
Skin	64	—	96	—
Other diseases	26	15	130	9
Mothers and infants discharged from maternity wards (not included above) :—				
Mothers	—	—	422	—
Infants	344	—	—	—
Persons not falling under any of the above headings	—	—	—	—
Totals	661	22	2,027	456

Ely Lodge.

(1) Classification of the accommodation and the number of beds occupied on 31st December, 1936 :—

Classification of Wards	Number of Wards	Beds							
		Men		Women		Children (under 16 years)		Totals	
		Provided	Occupied	Provided	Occupied	Provided	Occupied	Provided	Occupied
Mental Disease	14	144	137	198	175	4	4	346	316
Mental Defectives		51	51	38	38	59	36	148	125
Other	4	28	23	15	14	—	—	43	37
Totals ...	18	223	211	251	227	63	40	537	478

(2) In-patients :—

Total number of admissions	106
Total number of deaths	74
Total number of discharges	35
Duration of stay of patients :—	
(*a*) Under four weeks	14
(*b*) Four weeks and under thirteen weeks	15
(*c*) Thirteen weeks or more	80
Number of beds occupied :—	
(*a*) Average during the year	485
(*b*) Highest	498
(*c*) Lowest	472

(3) Classification of in-patients who were discharged from or who died in the institution during the year :—

Disease Groups	Children (under 16 years)		Men and Women	
	Discharged	Died	Discharged	Died
Influenza	—	1	—	—
Tuberculosis :—				
Pulmonary....	—	2	—	2
Non-pulmonary	—	—	—	1
Venereal disease	—	1	—	—
Mental diseases :—				
Senile dementia	—	—	21	67
Other	—	—	—	—
Other diseases	—	—	14	—
Totals	—	4	35	70

XI.—HOSPITAL ACCOMMODATION.

The following tabular statement shows the amount of hospital accommodation for the sick and others in need of special care provided by the City Council and other bodies, classified according to the type of function each subserves :—

Institution	Total available Beds		Approximate Number available for Cardiff
Llandough Hospital		345	311
Isolation Hospital		149*	149*
Caerau Smallpox Hospital		31†	31†
Lord Pontypridd Hospital (Dulwich House)		25	25
City Lodge Poor Law Institution‡ :—			
Acute Diseases	133		
Maternity	32		
Tuberculosis	32		
Mental Cases	8		
Chronic and Aged Infirm	378		
Other	21		
		604	520
Ely Poor Law Institution‡ :—			
Mental Cases (including Mental Defectives)	494		
Chronic and Aged Infirm	43		
		537	452
Mental Hospital		790	690
Total Rate-provided		2,481	2,178
Cardiff Royal Infirmary :—			
General	380		
Maternity	31		
Convalescent Home	54		
		465	260
Prince of Wales' Hospital :—			
General	64		
Country Branch	68		
		132	12
Royal Hamadryad Seamen's Hospital		74‖	74‖
Total Voluntary		671	346
Grand Total		3,152	2,524
Sanatoria and Hospitals of the Welsh National Memorial Association		—	200

*Total adult accommodation on the basis of 144 sq. ft. per adult bed. This represents about 230 available beds and cots when allowance is made for children under 10 years.

†On the basis of 154 sq. ft. per adult bed, representing about 48 available beds when allowance is made for children under 10 years.

‡The accommodation for chronic and aged infirm in the City Lodge and Ely Institutions and for patients suffering from mental diseases, disorders or defects at Ely Institution fluctuates slightly with requirements. Many of the beds set apart for chronic cases at the City Lodge are really occupied by patients requiring continuous medical or surgical and nursing care. The figures for Ely Institution also include accommodation approved by the Board of Control for mental defectives who are chargeable to the Mental Deficiency Committees of the Authorities responsible for their maintenance.

‖For seamen only.

XII.—TUBERCULOSIS.

New Cases of Tuberculosis.—The following tables show the age distribution and localisation of the disease among new cases of tuberculosis coming to the knowledge of the department during 1936.

Cases of Tuberculosis by Age and Sex :—

Age Periods—Years	New Cases					
	Tuberculosis of the Respiratory System			Other Forms of Tuberculosis		
	Males	Females	Totals	Males	Females	Totals
0— 1	1	—	1	3	—	3
1— 5	4	2	6	8	7	15
5—10	3	2	5	3	7	10
10—15	3	7	10	7	6	13
15—20	15	23	38	7	10	17
20—25	33	36	69	8	6	14
25—35	41	38	79	3	9	12
35—45	28	17	45	7	3	10
45—55	34	8	42	2	5	7
55—65	22	3	25	—	2	2
65 and upwards	11	2	13	—	—	—
Totals	195	138	333	48	55	103

Cases of Tuberculosis by Localisation of Disease and Sex :—

Form of Tuberculosis	New Cases		
	Males	Females	Totals
Respiratory System	195	138	333
Nervous System	4	11	15
Intestines and Peritoneum	6	8	14
Vertebral Column	8	5	13
Bones and Joints	4	10	14
Disseminated Tuberculosis	2	—	2
Other Forms	24	21	45
Totals	243	193	436

Sources of Ascertainment.—The new cases of tuberculosis were ascertained as follows :—

Source	Tuberculosis of Respiratory System	Other Forms of Tuberculosis	Totals
General Medical Practitioners	80	14	94
Welsh National Memorial Association	162	48	210
Medical Officers of Institutions	73	37	110
Other Medical Officers	4	1	5
Otherwise ascertained	14	3	17
Totals	333	103	436

Home Conditions of New Cases.—A detailed anaylsis is given below showing the living and sleeping conditions within their own tenements of 279 new cases of tuberculosis of the respiratory system at the time of their coming to the knowledge of the department during 1936.

Living accommodation of 279 Patients in Private Houses :—

Rooms in Tenement (*i.e.*, house or part of house occupied by one family)	Patients			Total Number of Persons in Household			
	Males	Females	Totals	Over 10 years	Under 10 years	Lodgers	Totals
1 room	7	—	7	10	—	—	10
2 rooms	20	11	31	62	19	—	81
3 rooms	17	20	37	98	24	—	122
4 rooms and over	113	91	204	857	128	4	989
Totals	157	122	279	1,027	171	4	1,202

In addition to the foregoing 279 cases, there were 14 cases (10 males and 4 females) in institutions and 7 males in lodging houses at the time of notification. Information as to the living accommodation of the remaining 33 cases (21 males and 12 females) could not be ascertained for various reasons.

Sleeping accommodation of 279 Patients suffering from Tuberculosis of the Respiratory System and living in Private Houses :—

Rooms in Tenement (*i.e.*, house or part of house occupied by one family)	Patients				Contacts		
	With Room to Self	With Bed but not Room to Self	With neither Bed nor Room to Self	Totals	Sleeping in same bed as Patient	Sleeping in separate Bed but in same room as Patient	Totals
1 room	4	1	2	7	2	1	3
2 rooms	7	3	21	31	24	19	43
3 rooms	15	3	19	37	20	14	34
4 rooms and over	98	16	90	204	97	45	142
Totals	124	23	132*	279	143	79	222

* Including 87 married persons.

It will be seen that 124, or 44·4 per cent., of the new cases had sleeping rooms to themselves, and that the number of persons exposed to infection by sleeping in the same bedrooms as patients was 222.

Known Cases of Tuberculosis.—The numbers of cases of tuberculosis remaining on the register of notifications at the end of 1936 were as follows :—

Tuberculosis of the Respiratory System :—

Males	649	
Females	465	
Total		1,114

Other Forms of Tuberculosis :—

Males	233	
Females	225	
Total		458
Grand Total		1,572

The total number of known cases was exactly the same as the number at the end of 1935.

During 1936 the tuberculosis nurses made 447 first visits and 2,522 revisits to the homes of patients.

Deaths.—The numbers of deaths from tuberculosis of the respiratory system and from other forms of tuberculosis during 1936 were 194 and 39, the death-rates per 1,000 being 0·87 and 0·18, respectively. The tuberculosis death-rates per 1,000 in each of the ten years 1927-1936 were as follows :—

Year	Tuberculosis of the Respiratory System	Other Forms of Tuberculosis	All Forms of Tuberculosis
1927	1·26	0·28	1·54
1928	1·01	0·20	1·21
1929	1·14	0·20	1·34
1930	0·94	0·21	1·15
1931	1·06	0·23	1·29
1932	1·05	0·21	1·26
1933	1·05	0·21	1·26
1934	0·93	0·22	1·15
1935	0·97	0·22	1·19
1936	0·87	0·18	1·05

The death-rates from tuberculosis of the respiratory system and from other forms of tuberculosis in 1936 were the lowest on record.

In the following table the numbers of deaths and death-rates from tuberculosis for each municipal ward and registration sub-district are given :—

Localities	Tuberculosis of the Respiratory System		Other Forms of Tuberculosis		All Forms of Tuberculosis		Average death-rate per 1,000 from All Forms of Tuber-culosis, 1926-1935
	Deaths	Death-rate per 1,000	Deaths	Death-rate per 1,000	Deaths	Death-rate per 1,000	
Adamsdown	25	1·56	6	0·37	31	1·93	3·21
Cathays	12	0·76	3	0·19	15	0·95	1·17
Gabalfa	7	0·35	1	0·05	8	0·40	0·91
Central	17	1·41	2	0·17	19	1·58	1·58
South	11	0·80	2	0·14	13	0·94	1·56
Central Registration Sub-District	72	0·93	14	0·18	86	1·11	1·69
Plasnewydd	17	1·20	4	0·28	21	1·47	0·97
Penylan	7	0·47	1	0·07	8	0·54	0·85
Roath	11	0·72	—	—	11	0·72	1·07
Splott	24	1·12	5	0·23	29	1·35	1·28
East Registration Sub-District	59	0·90	10	0·15	69	1·05	1·04
Llandaff	30	0·95	6	0·19	36	1·14	0·96
Canton	6	0·37	—	—	6	0·37	1·05
Grangetown	6	0·41	4	0·27	10	0·68	1·39
Riverside	18	1·08	5	0·30	23	1·38	1·31
West Registration Sub-District	60	0·76	15	0·19	75	0·95	1·18
Institutions (Place of residence unknown)	3	—	—	—	3	—	—
Whole City	194	0·87	39	0·18	233	1·05	1·27

It will be noticed that, as usual, the highest death-rates occurred in Adamsdown where the majority of the foreign and maritime population reside.

The two following tables show the age distribution and localisation of the disease among the deaths from tuberculosis during 1936.

Deaths from Tuberculosis by Age and Sex :—

Age Periods—Years	Deaths					
	Tuberculosis of the Respiratory System			Other Forms of Tuberculosis		
	Males	Females	Totals	Males	Females	Totals
0— 1	—	—	—	1	—	1
1— 5	—	1	1	5	4	9
5—10	—	—	—	2	—	2
10—15	—	4	4	1	3	4
15—20	8	7	15	2	3	5
20—25	15	22	37	3	2	5
25—35	18	26	44	—	4	4
35—45	20	15	35	4	1	5
45—55	19	11	30	1	1	2
55—65	15	6	21	—	2	2
65 and upwards	6	1	7	—	—	—
Totals	101	93	194	19	20	39

Deaths from Tuberculosis by Sex and Localisation of Disease :—

Form of Tuberculosis	Deaths		
	Males	Females	Totals
Respiratory System	101	93	194
Central Nervous System	8	11	19
Intestines and Peritoneum	1	3	4
Vertebral Column	3	2	5
Other Bones and Joints	1	—	1
Disseminated Tuberculosis	5	3	8
Other Forms	1	1	2
Totals	120	113	233

The number and proportion of cases that died in 1936 that were previously unknown to the department will be seen from the following figures :—

	Total Number of Deaths	Deaths of Cases previously unknown	
		Number	Percentage
Tuberculosis of the Respiratory System	194	22	*11·3*
Other Forms of Tuberculosis	39	13	*33·3*
Totals	233	35	*15·0*

Treatment.—The following tables give particulars of the examination and treatment of Cardiff cases under the scheme of the Welsh National Memorial Association during 1936.

1.—Work of the Dispensary.

	Tuberculosis of the Respiratory System				Other Forms of Tuberculosis				Totals				Grand Totals
	Adults		Children		Adults		Children		Adults		Children		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A.—New cases examined during the year (excluding contacts) :—													
(*a*) Definitely tuberculous	136	100	3	5	19	21	9	10	155	121	12	15	303
(*b*) Diagnosis not completed*	—	—	—	—	—	—	—	—	21	23	14	23	81
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	205	199	88	58	550
B.—Contacts examined during the year :—													
(*a*) Definitely tuberculous	—	1	1	1	—	—	—	—	—	1	1	1	3
(*b*) Diagnosis not completed*	—	—	—	—	—	—	—	—	3	4	6	3	16
(*c*) Non-tuberculous	—	—	—	—	—	—	—	—	43	62	59	77	241
C.—Cases written off the Dispensary Register as :—													
(*a*) Recovered	15	10	4	—	6	6	13	7	21	16	17	7	61
(*b*) Non-tuberculous (including cases previously diagnosed and entered on the Dispensary Register as tuberculous)	—	—	—	—	—	—	—	—	257	267	152	144	820
D.—Number of cases on Dispensary Register on December 31st:—													
(*a*) Definitely tuberculous	401	260	21	35	66	76	73	74	467	336	94	109	1,006
(*b*) Diagnosis not completed	—	—	—	—	—	—	—	—	24	22	25	35	106

*i.e., remaining undiagnosed on 31st December.

1.	Number of cases on Dispensary Register on January 1st	1,073
2.	Number of cases transferred from other areas and cases returned after discharge under head 3 in previous years	32
3.	Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases " lost sight of "	142
4.	Cases written off during the year as dead (all causes)	164
5.	Number of attendances at the Dispensary (including contacts)	7,792
6.	Number of Insured Persons under Domiciliary Treatment on December 31st	7
7.	Number of consultations with medical practitioners :—	
	(*a*) Personal	249
	(*b*) Other	1,850
8.	Number of visits by Tuberculosis Officers to homes (including personal consultations)	237
9.	Number of visits by Nurses or Health Visitors to homes for Dispensary purposes	2,186
10.	Number of :—	
	(*a*) Specimens of sputum examined in connection with Dispensary work	561
	(*b*) X-ray examinations made in connection with Dispensary work	2,277
11.	Number of " Recovered " cases restored to Dispensary Register and included in A (*a*) and A (*b*) above	6
12.	Number of " T.B. plus " cases on Dispensary Register on December 31st	500

2.—Residential Treatment.

		In Institutions on Jan. 1st	Admitted during the year	Discharged during the year	Died in Institutions	In Institutions on Dec. 31st
Number of doubtfully tuberculous cases admitted for observation	Adult males	—	8	6	—	2
	Adult females	—	13	11	1	1
	Children	3	9	11	—	1
	Totals	3	30	28	1	4
Number of patients suffering from Tuberculosis of the Respiratory System	Adult males	72	135	79	40	88
	Adult females	43	136	85	27	67
	Children	5	13	8	—	10
	Totals	120	284	172	67	165
Number of patients suffering from Other Forms of Tuberculosis	Adult males	6	10	4	1	11
	Adult females	4	20	15	2	7
	Children	21	19	18	2	20
	Totals	31	49	37	5	38
Grand Totals		154	363	237	73	207

3.—Results of Observation of Doubtfully Tuberculous Cases Discharged from Residential Institutions.

Diagnosis on Discharge from Observation.	Pulmonary Cases												Non-Pulmonary Cases.						Totals		
	Sanatorium						Hospital														
	Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks					
	M	F.	Ch.	M	F	Ch	M	F	Ch.	M	F.	Ch.	M.	F	Ch.	M	F.	Ch	M.	F	Ch.
Tuberculous	2	1	—	—	3	2	—	—	1	2	1	—	—	1	—	—	—	—	4	6	3
Non-Tuberculous	—	—	—	—	—	—	1	—	1	—	1	2	—	—	—	—	2	1	1	3	4
Doubtful	—	—	—	—	—	—	—	—	—	1	2	2	—	1	—	—	—	2	1	3	4
Totals	2	1	—	—	3	2	1	—	2	3	4	4	—	2	—	—	2	3	6	12	11

4.—Immediate Results of Treatment of Definitely Tuberculous Patients Discharged from Residential Institutions.

(*a*) Sanatorium (Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals
	Under 3 months*			3-6 months			6-12 months			More than 12 months			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent	—	—	—	—	11	1	—	3	2	—	—	—	17
Not Quiescent	3	1	—	10	12	1	10	6	1	14	—	—	58
Died	—	—	—	1	—	—	—	—	—	1	—	—	2
Totals	3	1	—	11	23	2	10	9	3	15	—	—	77

(*b*) Hospital (Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals
	Under 3 months*			3-6 months			6-12 months			More than 12 months			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent	—	—	—	—	—	—	—	—	—	—	—	–	—
Not Quiescent	14	17	—	18	19	1	4	8	1	3	2	—	87
Died	14	10	—	8	1	—	3	6	—	2	3	—	47
Totals	28	27	—	26	20	1	7	14	1	5	5	—	134

*Patients whose stay in residential institutions has not exceeded 28 days are no longer included in these tables.

(*c*) Hospital (Non-Pulmonary Cases).

Condition at time of Discharge	Duration of Residential Treatment												Totals
	Under 3 months*			3-6 months			6-12 months			More than 12 months			
	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Quiescent	—	—	1	—	2	2	—	—	1	1	—	3	10
Not Quiescent	—	9	4	1	3	2	1	—	1	—	—	2	23
Died	—	—	—	—	—	—	—	—	—	1	1	1	3
Totals ...	—	9	5	1	5	4	1	—	2	2	1	6	36

*Patients whose stay in residential institutions has not exceeded 28 days are no longer included in these tables.

XIII.—VENEREAL DISEASES.

The following is a summary of the returns for 1936 from treatment centres established under the Public Health (Venereal Diseases) Regulations, 1916 :—

	Cardiff Royal Infirmary	Royal Hamadryad Seamen's Hospital*	Auxiliary Centre for Mothers and Children	Institutions outside Cardiff	Totals
A. Number of *persons residing in Cardiff* dealt with during the year for the first time and found to be suffering from :—					
Syphilis	99	85	32	—	216
Soft Chancre	3	73	—	—	76
Gonorrhoea	272	284	98	2	656
Conditions other than Venereal	126	20	75	3	224
Totals	500	462	205	5	1,172
B. Number of attendances of all patients residing in Cardiff	14,831	9,455	3,028	11	27,325
C. Aggregate number of "in-patient days" of all patients residing in Cardiff	—	2,312	—	—	2,312

Examination during 1936 of pathological material from *patients residing in Cardiff* and patients at institutions in or belonging to Cardiff :—

	Microscopical		Serum Tests		
	Spirochetes	Gonococci	Wassermann	Others for Syphilis	For Gonorrhoea
Specimens examined at Treatment Centres :—					
Cardiff Royal Infirmary	—	336	470	—	—
Royal Hamadryad Seamen's Hospital*	21	74	203	—	—
Specimens examined at the Cardiff and County Public Health Laboratory from :—					
Treatment Centres :—					
Royal Hamadryad Seamen's Hospital*	—	—	204	—	—
Auxiliary Centre for Mothers and Children	2	225	67	—	1
Public Health Department	—	3	1,197	—	—
Other sources	5	176	1,361	—	31
	7	404	2,829	—	32
Totals	28	814	3,502	—	32

During the year, 831 doses of arsenobenzene compounds were supplied in 54 instances to 21 individual private medical practitioners.

*The figures relate to seamen only, whether residents of Cardiff or not.

The following table shows the numbers of *all persons* dealt with for the first time at the Cardiff treatment centres during each of the years 1927-1936* :—

Year	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than Venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
1927	446	153	95	3	659	138	275	97	1,475	391	1,866
1928	397	162	89	4	728	178	247	142	1,461	486	1,947
1929	407	130	102	4	697	178	212	163	1,418	475	1,893
1930	388	118	108	—	730	161	187	153	1,413	432	1,845
1931	360	136	91	—	510	157	179	141	1,140	434	1,574
1932	327	114	104	—	585	146	163	135	1,179	395	1,574
1933	378	88	92	—	577	140	175	125	1,222	343	1,565
1934	291	94	93	—	656	131	154	115	1,194	340	1,534
1935	323	88	87	—	609	136	136	96	1,155	320	1,475
1936	291	97	104	—	669	167	165	80	1,229	344	1,573

The following table gives the results of treatment and other particulars regarding *all persons* dealt with at the Cardiff treatment centres during 1936 :—

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than Venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Both Sexes
Number of cases under treatment or observation on 1st January	206	306	10	—	215	141	8	19	439	466	905
Number of cases dealt with for the first time*	291	97	104	—	669	167	165	80	1,229	344	1,573
Number of cases discharged after completion of treatment and final tests of cure	57	11	69	—	178	66	159	92	463	169	632
Number of cases which ceased to attend before completion of treatment	122	45	12	—	241	44	—	—	375	89	464
Number of cases which ceased to attend after completion of treatment but before final test of cure	61	5	9	—	108	—	—	—	178	5	183
Number of cases transferred to other centres or to institutions, or to care of private practitioners	73	12	16	—	114	21	—	1	203	34	237
Number of cases remaining under treatment or observation on 31st December	184	330	8	—	243	177	14	6	449	513	962

* Including cases that returned after being removed from the registers and cases transferred from other centres.

XIV.—MATERNITY AND CHILD WELFARE.

Notification of Births and Still-births.—The following statement shows the number of births and still-births notified as having occurred in Cardiff during 1936 :—

	Births.	*Still-births.*
By Medical Practitioners	15	3
By Midwives	2,395	84
By Queen's Institute of District Nursing	524	24
By Parents	12	—
From Maternity Hospital (Cardiff Royal Infirmary)	455	80
From City Lodge Hospital	371	35
Totals	3,772*	226†

* Including 374 not belonging to Cardiff.
† ,, 56 ,, ,, ,, ,,

Child Welfare Centres.—The following is a record of the attendances at the 10 child welfare centres :—

Number of Sessions	Attendances				Total	Average Attendance at each Session
	Children under 1 year		Children 1 year to 5 years			
	First	Subsequent	First	Subsequent		
727	2,307	25,547	380	12,362	40,596	56

The total number of children who attended at the centres during the year was as follows :—

Children under 1 year at the end of the year	2,455
Children between 1 year and 5 years at the end of the year	2,997
Total	5,452

The following tabular statement shows the conditions found by medical officers in 2,155 infants under one year and 371 children between one and five years who were examined for the first time during 1936 and also the diseases or defects discovered subsequent to first examination :—

	Examined for first time		Diseases or Defects found in Children subsequent to their first examination	
	Under 1 year	1 to 5 years	Under 1 year	1 to 5 years
Number examined :—				
Normal	1,386	96	—	—
Individual cases found with Diseases or Defects	769	275	—	—
Diseases or Defects found :—				
Injury at Birth	6	—	1	—
Congenital Malformation or Defect	86	4	11	—
Prematurity	49	—	1	—
Congenital Debility	33	—	16	—
Malnutrition (cause not specified) or Debility (not congenital)	51	22	107	122
Anaemia (cause not specified)	15	8	58	64
Diseases or Defects of :—				
Skin (Non-syphilitic) :				
Systemic	54	6	253	169
Contagious	16	17	110	198
Irritative	56	9	273	153
Eye : Ophthalmia Neonatorum	31	—	8	4
Squint	2	15	13	37
Other	24	7	98	58
Ear : Otorrhoea	8	10	76	78
Other	3	2	30	33
Nose and Throat :				
Enlarged Tonsils and/or Adenoids	1	13	11	117
Other	27	13	87	85
Heart and Circulation : Congenital	2	—	1	1
Rheumatic	—	—	—	7
Other	2	—	11	10
Respiratory System (non-tuberculous)	43	18	638	328
Digestive System : Hernia—Umbilical	109	2	67	11
Other	13	—	44	6
Other Diseases	171	27	935	376
Nervous System : Chorea	—	2	3	3
Other	5	6	17	39
Genito-urinary System : Phimosis	70	3	35	22
Other	9	8	38	44
Tuberculosis : Pulmonary—				
Definite	1	—	—	2
Suspected	—	—	—	4
Non-Pulmonary	1	3	2	3
Defective Teeth	4	72	10	306
Rickets	4	15	14	70
Other Deformities	11	14	21	69
Rheumatism (not Cardiac or Nervous)	—	—	—	11
Syphilis	1	1	1	—
Other Diseases or Defects	31	13	52	143

Ante-natal and Post-natal Clinics.—The record of attendances at the six ante-natal clinics is given in the following statement :—

Number of Sessions	Attendances					Average Attendance at each Session
	Expectant Mothers		Post-natal Cases		Total	
	First	Subsequent	First	Subsequent		
408	1,794	5,718	69	13	7,594	19

In the following table the number of notified births (live and still) belonging to Cardiff and the number of expectant mothers who attended the ante-natal clinics for the first time during each of the years 1932 to 1936 are given :—

	1932	1933	1934	1935	1936
(*a*) Total number of notified births (live and still)	3,754	3,576	3,632	3,519	3,568
(*b*) Number of expectant mothers who attended the ante-natal clinics	1,466	1,418	1,669	1,627	1,794
(*c*) Percentage of notified births represented by (b)	*39·0*	*39·6*	*45·9*	*46·2*	*50·2*

An analysis regarding 1,640 expectant mothers who attended the ante-natal clinics for the first time during 1936 and who were confined during 1936 is given below.

Miscarriages occurred in 23 instances and still-births in 28. One of the women died from a puerperal cause. Twin births occurred in 23 instances.

Type of case :—

Primipara	581
Multipara	1,059
Total	1,640

Of these 1,640 women, 777 were found to be suffering from 1,079 diseases, abnormalities or defects, as follows :—

Abnormalities of the thyroid gland	7
Albuminuria	136
Anaemia	59
Conditions requiring caesarean section	4
,, ,, version	37
,, ,, induction	2
Contracted pelvis	35
Debility	6
Dental defects requiring treatment	363
Foetal abnormality	1
Haemorrhage	42
Haemorrhoids	6
Heart conditions	19
Hydrometra	11
Malnutrition	6
Oedema	72
Phlebitis	1
Pyelitis	8
Respiratory diseases	20
Skin diseases	12
Vaginal discharge	127
Varicose veins	76
Vomiting	22
Other diseases	7
Total	1,079

Place of confinement :—

Private dwelling-houses	823
Maternity Hospital (Cardiff Royal Infirmary)	352
City Lodge Hospital	309
Private Maternity Homes	33
Outside Cardiff	86
Not traced	37
Total	1,640

Since June, 1925, pregnant women attending the ante-natal clinics have been subjected to a blood test for syphilis, namely, the Wassermann reaction. During 1936 the number of tests made was 1,181, of which 24, or 2·0 per cent., were found to be positive. From June, 1925, to the end of 1935 the number of tests made was 9,188, of which 199, or 2·2 per cent. were positive. During the first three-and-a-half years, i.e., from June, 1925, to the end of 1928, the percentage found positive was 3·1. There has therefore been a satisfactory decline in the number of expectant mothers found to be suffering from syphilis. Expectant mothers found to be suffering from syphilis are referred for treatment to the special treatment centre for mothers and children, which is conducted in close co-operation with the maternity and child welfare section of the department.

The following is a record of attendances at the special post-natal clinic :—

Number of Sessions	Attendances			Average Attendance at each Session
	First	Subsequent	Total	
44	240	27	267	6

An analysis of 307 post-natal cases dealt with (including cases dealt with at ante-natal clinics) is given below.

Type of case :—

Primipara	173
Multipara	134
Total	307

Pregnancy :—

Normal	243
Abnormal	64
Total	307

Labour :—

Normal	226
Abnormal	40
Forceps delivery	41
Total	307

Of these 307 cases, 136 were found to be suffering from 156 diseases, abnormalities or defects, as follows :—

Albuminuria	10
Anaemia or malnutrition	19
Constipation—severe	2
Laceration of cervix or perineum	8
Oedema	1
Phlebitis	1
Prolapse	21
Retroversion	33
Sub-involution	2
Vaginal discharge and erosion	55
Other diseases	4
Total	156

Maternity Hospitals.—The number of expectant mothers admitted to the Maternity Hospital (Cardiff Royal Infirmary) was as follows :—

Complicated cases sent by General Practitioners	48
Cases admitted through Ante-natal Clinics	313
Total	361

Since 1st January, 1934, expectant mothers have also been admitted through ante-natal clinics to the City Lodge Hospital for confinement, the Health Committee being responsible for the net cost of their maintenance. The number of cases admitted to the institution under this arrangment during the year was 224.

Maternity and Nursing Homes.—At 31st December, 1936, there were 17 registered nursing homes, 9 providing for maternity cases only, 4 providing for surgical and/or medical cases only and 4 providing for both maternity and other cases. The total number of beds in these nursing homes was 145, of which 75 were available for maternity cases. The number of visits of inspection paid by a medical officer of the department to the homes during the year was 26.

Extra-Domiciliary Confinement.—The number and proportion of births and still-births belonging to Cardiff and registered in Cardiff as having occurred away from private dwelling-houses during 1936 are given below :—

Place of Birth	Number	Number per 1,000 Total Births
Maternity Hospital (Cardiff Royal Infirmary)	335	95
City Lodge Hospital	362	102
Private Nursing and/or Maternity Homes ...	320	90
Totals	1,017	287

Dental Clinics.—The following is a record of the work carried out at the dental clinics in connection with maternity and child welfare :—

	Mothers	Children	Totals
Inspected	317	298	615
Treated	299	289	588
Attendances :—			
For inspection	326	298	624
For treatment	1,419	345	1,764
Teeth extracted	3,311	1,005	4,316
Teeth filled	18	9	27
Dressings	16	5	21
Scalings	26	—	26
Anaesthetics administered :—			
General	499	339	838
Local	42	—	42
Supplied with dentures	185	—	185
Dentures supplied :—			
Full upper	173	—	173
Partial upper	8	—	8
Full lower	135	—	135
Partial lower	27	—	27

Domiciliary Visits by Health Visitors.—The following is a summary of the visits made by the health visitors :—

Births—First visits		3,046
Births and infant deaths—Combined visits		17
Infant death investigations		23
Still-birth investigations		130
Subsequent visits	Infants under one year	6,507
	Children over one year	9,829
Ante-natal cases	First visits	97
	Re-visits	56
Infectious Diseases :—		
Opthalmia neonatorum	First visits	25
	Re-visits	77
Puerperal fever	First visits	14
	Re-visits	—
Measles	First visits	59
	Re-visits	3
Whooping cough	First visits	357
	Re-visits	6
Mumps	First visits	1,316
	Re-visits	4
Financial inquiries		888
Other visits		5,401
	Total	27,855

Milk for Mothers and Infants.—Milk was supplied free of charge in necessitous cases and on medical certificates to the following extent :—

	Tuberculin Tested Milk			Dried Milk		
	Persons supplied with Milk	Applications for a month's supply	Pints granted	Persons suppled with Milk	Applications for a month's supply	Pounds granted
Expectant Mothers ...	218	520	15,904	243	378	2,268
Nursing Mothers ...	585	2,057	62,527	1	1	6
Children under 1 year	265	1,376	41,606	410	1,551	9,306
Children 1 yr to 5 yrs	302	2,135	70,007	10	70	420
Totals	1,370	6,088	190,044	664	2,000	12,000

Midwives.—The number of midwives who gave notice of intention to practise in Cardiff during the year was 112. They are classified as follows :—

According to qualifications :—	
Bona fide	4
Certificate of Central Midwives Board	108
Total	112
According to type of practice :—	
Attached to public institutions	23
Attached to private nursing or maternity homes	16
Dealing with less than five cases per annum	21
Monthly nurses	5
Others	47
Total	112

Officers of the department made 93 visits of inspection of midwives, and midwives' appliances, etc., were disinfected in 6 instances.

The following is a record of the practice of midwives in Cardiff during the year in relation to the births which were the subject of visits by the health visitors :—

Attendances at births by midwives* as ascertained by health visitors :—	
(*a*) Alone	1,472
(*b*) With a medical practitioner :—	
(*i*) Medical practitioner engaged	527
(*ii*) Medical practitioner called in emergency	629
Attendances at still-births by midwives* :—	
(*a*) Alone	25
(*b*) With a medical practitioner :—	
(*i*) Medical practitioner engaged	19
(*ii*) Medical practitioner called in emergency	41

*Other than those engaged in midwifery at the Cardiff Royal Infirmary and the City Lodge Hospital.

Midwives Act, 1936.—The Midwives Act, 1936, came into operation on 31st July, 1936, and the schemes of local supervising authorities for giving effect thereto had to be put into operation not later than 30th July, 1937, unless the Minister of Health allowed longer periods in particular cases.

As stated in Circular 1569 (Wales) of the Welsh Board of Health :—

"The principal object of the Act is to secure the organisation throughout the country of a domiciliary service of salaried midwives under the control of local supervising authorities as an important step in the improvement of the maternity services and in the campaign for reducing maternal mortality. At the same time, the whole status of the midwifery profession will be raised by providing adequate salaries and secure prospects for those midwives who enter the new service, and by compensating those who retire within a specified period and so reducing the present overcrowding in the ranks of the profession.

"The Act provides for the establishment by local supervising authorities of a salaried midwives' service ; the payment by those authorities of compensation to midwives who voluntarily retire from practice and to those who are required to retire owing to old age or infirmity ; the payment by the Exchequer of grants towards the cost of the new service and towards the amounts expended in compensation ; the prohibition of maternity nursing by unqualified persons in any area by order of the Minister as soon as he is satisfied that the new service in that area is adequate ; and the periodical attendance at post-certificate courses of all practising midwives."

The proposals of the Cardiff City Council for the establishment of a domiciliary service of salaried midwives in accordance with the provisions of the Act, which were made in December, 1936, are as follows :—

1. The number of whole-time salaried midwives to be appointed and employed directly by the City Council in the first instance will be 18 ; this number to be increased to 24 as and when required.

2. The scale of salary of the municipal midwives will be £180 per annum, rising by annual increments of £10 to £220 per annum. In addition, each midwife will be paid a uniform allowance of £10 per annum and a travelling allowance of £3 per annum. They will be allowed 28 days' holiday per annum and an off-duty period of 48 hours every two weeks. A telephone will be installed at the residence of each municipal midwife. The equipment required will be provided and its upkeep will be maintained by the Council. The appointments will be subject to the superannuation scheme of the Council.

3. The midwives will be officers of the Public Health Department, and will be under the control of the Medical Officer of Health and the Inspectors of Midwives.

4. The midwives appointed will have to reside where required, in order that the whole area of Cardiff will be served, but expectant mothers will have free choice of midwife.

5. The fees to be charged will be 35/- for first confinements, 30/- for subsequent confinements, and 20/- for abortions. Provision will be made for the remission or modification of these fees in necessitous cases, according to an approved scale of family income, as follows :—

Size of Family (including Parents)	*Total Family Income (less rent) for four weeks, plus Maternity Benefit.* £ s. d.
2	5 0 0
3	7 4 0
4	9 4 0
5	11 0 0
6	12 12 0
7	14 0 0

Size of Family (including Parents)	*Total Family Income (less rent) for four weeks, plus Maternity Benefit.*
	£ s. d.
8	15 4 0
9	16 4 0
10	17 0 0
11	17 12 0
12	18 0 0

Income above the scale will be regarded as being available towards the cost of the services of a midwife. In cases where the income is not above the scale the services of midwives will be provided free of charge.

6. Each midwife will be required to undertake not more than 80 cases per annum.

7. The City Council will co-operate with the Maternity Department of the Queen's Institute of District Nursing in providing a midwifery service ; each will act separately, but with a degree of co-operation.

8. The City Council have agreed that the following arrangements shall be made with the Committee of the Cardiff Branch of the Queen's Institute of District Nursing :—

(*a*) That the Institute appoint two midwives (in addition to four already employed), each at a salary of £100 per annum, with emoluments, i.e., board and lodging, valued at £80 per annum, such salaries and value of emoluments to be repaid to the Institute by the City Council.

(*b*) That the salary (£85 per annum) of the present four midwives employed by the Institute be increased to £100 per annum, and that their emoluments, i.e., board and lodging, be valued at £80 per annum instead of £60 per annum, the increases of salary only to be repaid by the City Council.

(*c*) That the City Council pay the sum of £50 per annum to the Institute to cover the increased contributions to their superannuation funds in respect of the midwives employed by them.

(*d*) That an area office be established at the Maternity Department of the Institute at 12, St. Andrew's Crescent, Cardiff ; that the Institute be responsible therefor (the arrangements to be subject to the approval of the City Council) ; and that the City Council pay the sum of £200 per annum to the Institute for such services.

(*e*) That the Institute increase their fees for the services of a midwife to correspond to those charged for the services of municipal midwives.

(*f*) That the City Council appoint three representatives on the local General Committee of the Institute, and that the Maternity Sub-Committee of the General Committee consist of an equal number of representatives of the Institute and of the City Council.

(*g*) That the arrangements be subject to review at the end of each year from the commencement of the scheme.

9. The area office (referred to under 8 (d) above) will be prepared to receive telephone messages at any time of the day or night. Each midwife will be instructed to keep the area office informed by telephone as to her movements, and a record of the off-duty hours arranged for individual midwives will be kept. In this way the prompt attendance of a midwife may be secured at any time and, even if the " booked " midwife be engaged when summoned, a substitute would speedily be sent from the list of available midwives. The Inspectors of Midwives, who are members of the staff of the Public Health Department, will keep in close touch with the area office.

A memorandum on the service and duties of municipal midwives in Cardiff has been prepared. It contains, among some of the matters already referred to above, the following conditions and duties :—

1. Midwives will be required to devote their whole time to the service of the City Council and will not be permitted to engage in any other remunerative work without the consent of the Council.

2. Instruments, drugs, dressings, etc., will be provided by the City Council, and supplies may be obtained from the Public Health Department by written application on order forms provided for the purpose.

3. Midwives will be required to wear uniform clothing when on duty and overalls when actually in attendance on patients. They will also be required to wear masks at deliveries.

4. They will be required to attend approximately 80 cases per annum and must therefore not book more than eight cases to be dealt with in any month.

5. If a midwife is unable to " book " a case through being fully engaged she should refer the patient to another municipal midwife in the district in which the patient resides and report the fact by telephone to the area office.

6. Midwives must not " book " patients who reside outside the area of the City of Cardiff, but, *if called upon in emergency*, they may attend a case of confinement near the City boundary. Such a case, however, must be handed over to the care of a County Council midwife as soon as possible, and the facts must be reported in writing to the Medical Officer of Health immediately, in order that a fee may be recovered from the County Council concerned.

7. They must leave at their houses the addresses to which they are going when called to confinements.

8. Midwives must undertake the routine examination of patients every month from the date of " booking " until the 28th week, from then every two weeks until the 36th week, and thence weekly until they are confined. Expectant mothers who are not being attended by private medical practitioners should be advised to attend an ante-natal clinic as soon as possible after " booking " and again at the 34-36th week.

9. Midwives will be required to work in co-operation with the ante-natal clinic serving their area and to attend the clinic when their engagements allow.

10. In addition to the records and notices prescribed in the Rules of the Central Midwives Board, midwives will be required to make weekly returns to the Medical Officer of Health on forms provided for the purpose, and to keep such records and make such reports as may be required from time to time. The weekly returns must be posted so as to reach the Medical Officer of Health not later than Monday morning each week.

11. The weekly returns referred to in the preceding paragraph will be transmitted by the Medical Officer of Health to the area office, in order that the work undertaken by midwives will be known to that office, and midwives will be required to keep the area office informed by telephone of any difficulties that may occur in their practice, such as inability to attend a patient or absence from home, so that prompt attendance of a substitute may be arranged if necessary.

12. All fees in respect of confinements undertaken by midwives as from the day of commencement of duty will be payable to the City Council.

13. Midwives will be responsible for collecting the fees for their services, in respect of which receipts will be given, and to pay all monies collected to the City Treasurer and Controller within one week from the end of each month.

14. If, in the opinion of a midwife, a patient or the person liable for payment is unable to pay the fee chargeable, she will be required to hand the patient or the person liable for payment an application form, which must be completed and sent to the Medical Officer of Health before the confinement is expected to take place. The patient or the person liable and the midwife will then be informed by letter whether the whole or a part only of the fee is payable or whether no charge is to be made.

15. Cases in which the fee is not paid within four weeks from the day of confinement should be reported in writing to the Medical Officer of Health, in order that steps may be taken to recover the money. In reporting such a case, the name and address

of the husband or other person liable, the name of the patient and the date of confinement must be stated. After such a report has been sent, the midwife must make an appropriate entry in her register of cases, and must not herself accept payment, as the fee will be collected by a Collector of the City Council.

Medical Practitioners called in by Midwives in Emergency.—During the year the number of instances in which medical practitioners were called in by midwives in emergency was 1,194, and claims for emergency fees were made by practitioners in 946 cases. The fees claimed totalled £1,444 3s. 6d., and in 220 instances fees amounting to £269 12s. 5d., were reclaimed from the responsible persons. The sum actually recovered during the year was £210 9s. 9d.

The following statement gives the reasons for medical help being summoned by midwives :—

(1) MOTHER :—		
(*a*) *Pregnancy*—		
Miscarriage (including abortion)	117	
Haemorrhage	22	
Albuminuria and oedema and other toxic causes	64	
Other causes	46	
		249
(*b*) *Labour*—		
Abnormal presentation	62	
Premature labour	44	
Obstructed and delayed labour	371	
Placenta praevia, ante-partum haemorrhage and eclampsia, and other toxic causes	55	
Post-partum haemorrhage and retained and adherent placenta	43	
Ruptured perineum	122	
Other causes	28	
		725
(*c*) *Lying-in*—		
Pyrexia, secondary post-partum haemorrhage and phlegmasia and other septic causes	48	
Other causes	53	
		101
(2) INFANT—		
Debility	25	
Inflammation of or discharge from eyes	33	
Other causes	61	
		119
Total		1,194

Puerperal Fever and Puerperal Pyrexia.—Statistics regarding cases of puerperal fever and puerperal pyrexia notified during the year are given in the section dealing with notifiable diseases (page 14), but as the work involved comes within the province of maternity and child welfare it is referred to here. Sixty-three cases of puerperal fever and 37 cases of puerperal pyrexia were notified. General practitioners sought the assistance of the department in several cases, and two specialist consultations took place.

Home Nursing.—The following is a record of the work done by the Queen's Institute of District Nursing for the maternity and child welfare section of the department :—

Disease or Defect	Cases carried over from 1935		Cases referred for Treatment during 1936		Totals	
	Cases	Visits	Cases	Visits	Cases	Visits
Skin :—Impetigo	1	8	61	794	62	802
Other Skin Diseases	3	55	22	408	25	463
Eye :—Ophthalmia and Ophthalmia Neonatorum	1	47	46	1,113	47	1,160
Other Eye Defects	3	15	60	993	63	1,008
Minor Ear Defects	1	45	28	498	29	543
Miscellaneous	8	80	112	1,293	120	1,373
Totals	17	250	329	5,099	346	5,349

Maternity Bags.—Maternity bags were lent by the department in 24 necessitous cases.

Home Helps.—Home helps were provided by the department in 201 instances in which mothers confined at home were without adequate domestic help and without means of obtaining it. The scheme for the provision of home helps was described in the report for 1935.

Crippling Defects and Orthopaedics.—The following is a summary of the work carried out at the orthopaedic clinic during 1936 :—

	Children under School Age.
Consultation Clinic :—	
Examined for first time	179
Recommended for treatment and/or appliances for first time	131
Recommended for further treatment and/or appliances	89
Recommendations for :—	
Treatment in Hospital	18
Treatment at Clinic (Special and Routine)	101
Application of plaster at Fracture Unit	30
Appliances	36
Alterations to appliances	1
Alterations to boots	55
Other forms of treatment	3
Treated at Clinic for first time	33
Attendances at Clinic	495
Routine Treatment (massage, electricity, exercises, etc.) :—	
Treated at Clinic for first time	88
Attendances for routine treatment	1,789

The following statement relates to treatment at and provision of appliances, etc., through the Prince of Wales' Hospital, Cardiff, during 1936 :—

Hospital Treatment—	*Children under School Age.*
Admitted to Prince of Wales' Hospital :—	
(*a*) Day cases	—
(*b*) Other cases	9
Under treatment at Prince of Wales' Hospital at end of 1936	2
On Prince of Wales' Hospital waiting list at end of 1936 :—	
(*a*) Day cases	1
(*b*) Other cases	2
Other treatment or provision (including appliances, etc., provided following hospital treatment) :—	
Appliances provided	34
Appliances altered	9
Special boots provided	1
Alterations to boots	49
Application of plaster	38
Other forms of treatment provided	16

The diseases or defects found in children examined for the first time during the year have been classified as follows :—

Diseases or Defects.	*Number.*
Defective posture	1
Flat feet	18
Bow legs	33
Talipes	28
Paliomyelitis	2
Rickets	9
Spastic paralysis	2
Birth palsy	1
Congenital malformation or deformity	2
Congenital dislocation of hip	2
Torticollis	13
Perthes' disease	2
Knock knee	23
Metatarsus varus and intoeing	17
Claw feet	1
Trauma	1
Other defects	24
Total	179

The following is a classification of the cases discharged during the year :—

Reason.	*Number.*
Cured	106
Improved	13
Unlikely to benefit further	3
Left the district	2
Failed to attend for treatment	34
Other reasons (including trivial defects)	15
Total	173

Nose and Throat Defects.—The following is a summary of the work done in connection with the treatment of children under school age suffering from enlarged tonsils and/or adenoids :—

Examined at Clinic for first time	137
Received operative treatment at Llandough Hospital	24
Received other forms of treatment at Clinic	42
Total attendances at Clinic	269

Visual Defects.—The following statement summarises the work done in connection with the examination of visual defects in children under school age :—

Attended Clinic for first time	85
Examined for errors of refraction	47
For whom spectacles were prescribed	45
For whom spectacles were provided :—	
(*a*) By parents	23
(*b*) By Council free of charge	19
Treatment for other eye defects prescribed and provided	19
Total attendances at Clinic	213

Measles.—The hospital treatment of cases of measles under five years of age is undertaken as part of the maternity and child welfare scheme of the Council. Particulars as to the cases admitted to hospital during 1936 are contained in the report on the Isolation Hospital (page 20).

Venereal Diseases.—Tabular statements relating to the work of the special treatment centre for mothers and children are included in the section dealing with venereal diseases (page 64).

Radiography.—The number of individual cases referred from the maternity and child welfare centres for radiography was 108, the total number of radiograms taken being 118. The parts of the body that required X-ray examination were as follows :—

Teeth	1
Wrist	86
Shoulder	1
Hip	13
Knee	1
Leg	2
Foot	3
Spine	1
Total	108

Artificial Sunlight Treatment.—The number of children under five years of age treated by artificial sunlight for the first time and their ailments are shown in the following table :—

Diseases.	*Children.*
Debility	9
Nervous debility and/or malnutrition	4
Bronchial catarrh	4
Rickets	33
Mental Subnormality	2
Total	52

The total number of attendances of children for treatment was 589. Twenty-nine expectant mothers also received treatment for the first time, the total number of attendances being 175.

Infant Life Protection.—The following statement gives particulars of the numbers of persons and children registered at the end of 1936 and visits by the visitor specially engaged in this work during the year :—

Persons on the register who were receiving children for reward at the end of the year	74
Children on the register :—	
(*a*) At the end of the year	80
(*b*) Who died during the year	—
First visits	14
Routine visits	672
Special visits	110

Adoption of Children Act, 1926.—The visitor specially engaged in duties in connection with infant life protection dealt with 21 cases during the year in which the Council acted as guardian *ad litem.*

XV.—LABORATORY WORK.

Cardiff and County Public Health Laboratory.—The numbers of specimens and samples examined for Cardiff during 1936 were as follows :—

Bacteriological Examinations :—	
Water Supplies	302
Milks for Tubercle Bacilli	406
Milks for General Examination	1,141
Ice Creams for General Examination	86
Sputa for Tubercle Bacilli	939
Urines for Tubercle Bacilli	19
Other specimens for Tubercle Bacilli	50
Rodents for Plague	383
Specimens for :—	
Diphtheria	2,209
Enteric Fever (Serum)	108
Enteric Fever (Other Specimens)	205
Dysentery	350
Food Poisoning Organisms	38
Gonorrhoea	436
Syphilis (Wassermann Reaction)	2,829
Syphilis (Spirochaeta Pallida)	7
Ringworm	3
Cerebro-Spinal Fluids	21
Other Examinations	89
Chemical Examinations :—	
Water Supplies	207
Milks and Milk Products	102
Ice Creams	81
In connection with Atmospheric Pollution	41
In connection with Ultra-Violet Radiation	386
Other Examinations	10
Total	10,448

The numbers of specimens examined for suspected disease in patients resident in Cardiff, together with the results, are shown below :—

Suspected Disease	Positive Results	Negative Results	Totals	Percentage of Positive Results
Diphtheria	249	1,960	2,209	*11·3*
Enteric Fever	61	252	313	*19·5*
Tuberculosis	229	779	1,008	*22·7*
Gonorrhoea	96	340	436	*22·0*
Syphilis—				
Wassermann Reaction	415	2,414	2,829	*14·6*
Spirochaeta Pallida	1	6	7	*14·3*

XVI.—FOOD INSPECTION.

Meat Inspection at Municipal Abattoirs.—The following tables set out in detail the work done in connection with meat inspection during the year.

Animals slaughtered and whole carcases found diseased which were surrendered and destroyed or otherwise dealt with by arrangement with the owners :—

	Roath Abattoir		Canton Abattoir		Totals	
	Slaughtered	Diseased or unsound and destroyed	Slaughtered	Diseased or unsound and destroyed	Slaughtered	Diseased or unsound and destroyed
Bulls	70	2	29	—	99	2
Cows	421	27	678	30	1,099	57
Heifers	2,849	15	910	4	3,759	19
Steers	1,737	5	595	5	2,332	10
Calves	6,747	10	1,180	11	7,927	21
Sheep and lambs	30,917	13	14,997	64	45,914	77
Pigs	22,924	89	8,371	81	31,295	170
Totals	65,665	161	26,760	195	92,425	356

Instances in which tuberculosis was found :—

	Roath Abattoir		Canton Abattoir		Totals	
	Number	Percentage	Number	Percentage	Number	Percentage
Cattle:—						
Bulls	31	*44·3*	8	*27·6*	39	*39·4*
Cows	240	*57·0*	327	*48·2*	567	*51·6*
Heifers	199	*6·9*	99	*10·9*	298	*7·9*
Steers	58	*3·3*	69	*11·6*	127	*5·4*
Calves	11	*0·1*	11	*0·9*	22	*0·3*
All Cattle	539	*4·5*	514	*15·1*	1,053	*6·9*
Pigs	474	*2·0*	384	*4·6*	858	*2·7*

Causes of destruction of carcases :—

Cause	Beef	Veal	Mutton and Lamb	Pork	Totals
Tuberculosis	76	6	—	115	197
Dropsy	—	1	5	6	11
Emaciation	3	—	4	3	10
Dropsy and emaciation	—	—	56	3	59
Johne's disease	1	—	—	—	1
Moribund	—	—	—	1	1
Decomposition	1	—	—	1	2
Other causes	7	14	11	42	74
Totals	88	21	76	171	356

Approximate weight of diseased or unsound meat surrendered and destroyed or otherwise dealt with by arrangement with the owners :—

	Tons	cwt.	lb.
Carcases of—			
Beef	23	6	48
Veal	—	11	76
Mutton and lamb	1	5	81
Pork	7	10	106
Part carcases of—			
Beef	4	16	93
Veal	—	—	5
Mutton and lamb	—	1	70
Pork	1	15	106
Offal of—			
Beasts	24	11	104
Calves	—	4	45
Sheep and lambs	2	13	48
Pigs	5	1	1
Total	71	19	111

Meat Inspection at Private Slaughter-houses.—The numbers of animals slaughtered were as follows :—

Sheep and lambs	271
Pigs	4,634
Total	4,905

Tuberculosis was found in carcases of pork in 523 instances, the proportion being 11·3 per cent. Thirty-three unsound carcases of pork were destroyed, the cause in 31 instances being tuberculosis ; in the other two instances the causes were fever and dropsy and emaciation respectively.

The total weight of unsound meat surrendered at private slaughter-houses and destroyed by arrangement with the owners was 4 tons 7 cwt. 54 lb.

Unsound Food Exposed or Intended for Sale.—The following is a record of the work done by the sanitary inspectors in connection with inspection of food exposed or intended for sale during the year :—

	Number of Inspections.
Butchers' shops	2,650
Provision shops	449
Markets	197
Wholesale stores	587
Fish and fruit shops	378
Butter factories	81
Margarine stores (wholesale)	52
Ice cream premises and barrows	530
Fried fish shops	379
Food vehicles	307
Food stalls	837
Railway stations	6
Restaurants	183
Other premises	157
Total	6,793

One hundred and five notices were served for the remedy of insanitary conditions in food premises, of which 92 were complied with.

Approximate weight of diseased or unsound food found in shops and stores and destroyed or disposed of by the owners otherwise than as food for human consumption :—

	Tons	cwt.	lb.
Beef	—	7	88
Veal	—	1	74
Mutton and lamb	—	6	46
Pork	—	4	76
Offal	—	12	78
Fish	—	11	48
Poultry	—	1	38
Rabbits	1	0	20
Ham and bacon	—	8	20
Other provisions	4	16	41
Fruit	—	—	36
Vegetables	—	12	05
Eggs	—	—	24
Total	9	14	12

Meat Hawkers.—Twelve certificates for one year were granted under section 108 of the Cardiff Corporation Act, 1930, to persons not keeping butchers' shops in the city, who desire to sell meat or meat products from vehicles, baskets or barrows, after the approval of the storage accommodation provided.

Cooked or Preserved Meat and Other Food.—All made-up food premises have to be registered under the provisions of the Cardiff Corporation Act, 1934. The number of premises on the register is 291, including 126 fried fish shops. In one instance premises were removed from the register because of their unsatisfactory condition.

Food Supplies to Institutions.—During the year arrangements were made for the Assistant Meat and Food Inspector to pay periodical visits to all the Corporation institutions for the purpose of examining the foods supplied, to ascertain that they were in a wholesome condition and in accordance with the contracts. Samples of food were also taken and submitted to the Public Analyst. In one instance a meat contractor was found to be supplying imported meat instead of English meat, and as a result he lost the contract and legal proceedings were instituted against him under the Merchandise Marks Act, 1926. Fifty summonses were taken out, 48 being withdrawn ; a fine of £10 was made in respect of one case and £5 5s. 0d. costs in respect of the other.

Inspection of Meat from Outside Districts.—Under the Cardiff Corporation Act, 1934, powers were obtained to make bye-laws regarding the inspection of meat brought into the city from outside areas. Draft bye-laws were submitted to the Ministry of

Health, making it compulsory for such meat to be deposited for inspection at either of the two public abattoirs, and it was felt that if the scheme was to be of any value a system of meat marking for the identification of meat which had been inspected and passed was essential. The Ministry of Health raised objections to the abattoirs being established as centres of inspection, and other difficulties arose with the Ministry regarding the marking of meat brought into the city from outside areas for consumption in the city. It was felt that the restrictions the Ministry desired to impose would make the bye-laws useless, and therefore the Health Committee decided to allow the matter to remain in abeyance and to endeavour to obtain satisfactory powers for these purposes when the next Corporation Bill is promoted.

Disposal of Condemned Food.—All condemned food is handed over to a private contractor who has a plant for the manufacture of fertilisers and feeding stuffs, but the question of the City Council providing their own plant at one of the public abattoirs has been suggested and is now receiving serious consideration.

Milk Inspection.—For many years the Health Committee have adopted the policy of refusing to register shops for the sale of loose milk unless proper storage and cleansing facilities for the milk and utensils are provided in conjunction with the shop.

The name of one dairyman was removed from the register of retail purveyors of milk owing to the unsuitability of his premises. In another case a dairyman appeared before the Committee, and he eventually obtained suitable premises elsewhere.

The following is a statement showing the method of milk distribution in Cardiff in June, 1936 :—

Character of Business	Number of Vendors		Totals
	Selling over 6 gallons per day	Selling under 6 gallons per day	
From dairy premises	181	9	190
From shops—loose and bottled milk	34	39	73
From shops—bottled milk only	—	378	378
Direct from farms in the City	15	—	15
Direct from farms or dairy premises outside the City	96	11	107
Totals	326	437	763

The approximate number of gallons of milk sold per day by all vendors in June, 1936, was 10,924, an increase of 79 gallons compared with the quantity sold per day in June, 1935. Included in the total quantity sold per day in June, 1936, were 550 gallons of Tuberculin Tested milk, 74½ gallons of Accredited milk and 1,166 gallons of Pasteurised milk.

Practically all the milk consumed in Cardiff is produced beyond the boundaries of the city. The numbers of cowkeepers and cows in Cardiff are 25 and 407 respectively. One cowkeeper was licensed to produce Tuberculin Tested milk and seven were licensed to produce Accredited milk. All the cattle are regularly examined by the Veterinary Officer and the cowsheds are regularly inspected by sanitary inspectors.

The following is a record of the examination of cows by the Veterinary Officer :—

Month	Cowkeepers whose Premises were visited	Visits	Cows in Milk		Cows excluded from Dairy Herds	Cows not in Milk	
			Examined	Found diseased		Examined	Found diseased
January	27	32	390	9	6	64	—
February	27	35	394	7	5	55	—
March	27	36	395	6	4	71	1
April	27	33	381	5	4	54	—
May	25	33	370	8	7	50	1
June	24	29	367	5	—	51	—
July	25	30	371	4	2	52	—
August	14	15	201	3	1	27	—
September	25	29	352	7	4	55	—
October	25	30	358	6	2	49	—
November	24	28	341	6	3	45	—
December	22	26	314	5	2	42	—

Eleven cows affected with tuberculosis were slaughtered during 1936 in terms of the Tuberculosis Order, 1925.

The Veterinary Officer usually accompanies the officers of other local authorities when examining cows at farms situated outside Cardiff from which milk sold in Cardiff is found to contain tubercle bacilli. During 1936 he made 10 such visits and examined 191 cows in milk and 9 cows not in milk. Of the 191 cows in milk examined, 24 were found to be diseased, and six were excluded from dairy herds as the result of clinical examination.

Tubercle Bacilli in Milk.—The number of routine samples of milk examined for the presence of tubercle bacilli was 313, of which 10, or 3·2 per cent., were found to be positive. The percentage of samples in which tubercle bacilli were found during the ten years 1926-1935 was 4·5. The milk was produced outside Cardiff in eight of the cases in which tubercle bacilli were found during 1936 and the action prescribed by section 4 of the Milk and Dairies (Consolidation) Act, 1915, was taken in each case.

Routine Bacteriological Examination of Milk.—The following is a record of the bacteriological examination of ordinary commercial milk carried out during 1936, the results being shown in such a way as to reveal the proportion which attained the standard prescribed for graded milks :—

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 m.l.	Number with *B. Coli* absent in 1/100 m.l.	Number attaining Graded Milk standard by both tests	Percentage attaining the standard for Graded Milk
January—May	131	113	118	107	*82*
June—August	71	47	54	42	*59*
September—December	125	103	98	91	*73*
Totals	327	263	270	240	*73*

Graded Milks.—The following is a statement of the numbers of licences for the various grades of milk and the number of individual dealers under the Milk (Special Designations) Order, 1936, as at 31st December, 1936 :—

Description	Number
(1) Producers' licences to use the designation " Accredited "	7
(2) Dealers' licences to use the designation " Tuberculin Tested "—	
(*a*) Bottling establishments	28
(*b*) Shops	31
(*c*) Supplementary	9
(3) Dealers' licences to use the designation " Accredited "—	
(*a*) Bottling establishments	5
(*b*) Shops	1
(*c*) Supplementary	1
(4) Dealers' licences to use the designation " Pasteurised "—	
(*a*) Pasteurising establishments	5
(*b*) Shops	17
(5) Individual dealers—	
(*a*) Licensed to use the designation " Tuberculin Tested "—	68
(*b*) Licensed to use the designation " Accredited "	7
(*c*) Licensed to use the designation " Pasteurised "	22

The following table shows the proportion of samples of Tuberculin Tested and Accredited milk which conformed to the standard laid down by the Order. In every instance of a sample being below standard steps were taken to ascertain the cause and to effect an improvement :—

Period	Number of Samples examined	Number containing not more than 200,000 bacteria in 1 m.l.	Number with *B. Coli* absent in 1/100 m.l.	Number attaining Graded Milk standard by both tests	Percentage attaining the standard for Graded Milk
January —May	260	257	256	253	*97*
June—August	213	187	192	176	*83*
September—December	213	204	199	197	*92*
Totals	686	648	647	626	*91*

In addition, 24 samples of Certified milk and 99 samples of Pasteurised milk were examined, nine of the latter being reported to be below the prescribed standard.

When the Milk (Special Designations) Order, 1936, was made it was felt that the condition relating to the separation of graded milk from ungraded milk would lead to difficulty and might restrict the sale of the former. It has not been practicable to insist upon the provision of separate compartments for graded milk, but licensees have been asked to bottle their graded and ungraded milks at different times. It is difficult to ascertain whether this condition is being observed, but in any case it is felt that the restriction would do little to safeguard the public against an unscrupulous dairyman. Reliance on the maintenance of the standard for graded milks is still placed on regular sampling, together with periodical biological testing to ensure that the milk is free from tubercle bacilli.

The phosphatase test for the detection of under-pasteurised milk or the mixing of raw milk with pasteurised milk is regularly undertaken and has proved of great

value. One dairyman whose milk was consistently showing evidence of under-pasteurisation was brought before the Health Committee, who considered the question of the revocation of his pasteurising licence. He was warned that unless better results were obtained in subsequent samples he would lose his licence, and it is interesting to record that since his appearance before the Committee every sample taken from his supply has been satisfactory.

Milk from another pasteurising establishment was frequently found to contain excessive numbers of bacteria, and for the purpose of ascertaining where the trouble arose arrangements were made for the taking of samples of the milk at each stage of the process. The following table explains how this was done and shows how effectively it was proved that the source of contamination was between the positive holder and the cooler. The pipe line and milk pump were dissembled, these parts and the cooler being thoroughly cleansed under the supervision of an officer of the department, and no trouble of the same nature has since been experienced.

Stage of the Process.	*Bacteria per m.l.*	*Bacillus Coli.*
Receiving Vat	156,000	Present in 1/100 m.l.
After Filtering	240,000	Present in 1/100 m.l.
After Heating	142,000	Absent in 1 m.l.
After Holding	2,500	Absent in 1 m.l.
After Cooling	270,000	Present in 1 m.l.
After Bottling	210,000	Present in 1 m.l.
Clean Empty Bottle	20	Absent in 10 m.l.

The Health Committee considered the question of the fees to be charged for licences, and it was decided to reduce the fees from two guineas to one guinea in respect of (a) farms where milk is produced and bottled and (b) bottling establishments not on farms. The other fees remain as laid down in the Order.

Ice Cream.—The manufacture and sale of ice cream is subject to similar provisions to those governing the preparation of cooked and preserved food. The number of such premises on the register is 462, and since powers of control were obtained considerable improvement has been effected in the methods employed in the making of this product. Manufacturers are now asked to set apart a separate building for the purpose and to have a satisfactory water supply and washing facilities available. The introduction of electric refrigerating machines and the use of cold mixtures also tend to reduce contamination. One application for registration for the sale of ice cream was refused during the year.

The number of samples of ice cream submitted for bacteriological and chemical examination was 80, the results of which were as follows :—

	Number of Samples.
Number of bacteria per c.c. :—	
Under 100,000	48
100,000—200,000	3
200,000—500,000	12
500,000—1,000,000	14
Over 1,000,000	3
Presence of *Bacillus Coli* :—	
Absent in 1 c.c.	13
Present in 1 c.c.	20
,, ,, 1/10 c.c.	19
,, ,, 1/100 c.c.	8
,, ,, 1/1,000 c.c.	9
,, ,, 1/10,000 c.c.	11

Forty-eight of the samples contained starch and 23 contained gelatine.

Legal Proceedings.—The following is a summary of legal proceedings taken during the year in connection with food, etc., inspection. :—

Acts, etc., under which Proceedings were taken	Number	Fined	Cautioned	To pay costs only	Dismissed	With-drawn	Amount of Fines and Costs
							£ s. d.
Food and Drugs (Adulteration) Act, 1928	35	16	3	—	2	14	86 2 5
Milk and Dairies Acts and Orders	15	7	1	2	—	5	6 18 0
Merchandise Marks Act, 1926	50	2	—	—	—	48	15 5 0
Totals	100	25	4	2	2	67	£108 5 5

Report for 1936 *of Mr. S. Dixon, M.Sc., F.I.C., Public Analyst.*

The work carried out in the City Analyst's Laboratory during 1936 is summarised in the following table, which shows the total number of samples examined and reported upon and the sources from which they were derived :—

Under the Food and Drugs (Adulteration) Act	1,408
Imported Food for Port Sanitary Authority	51
Under the Fertilisers and Feeding Stuffs Act	22
Under the Pharmacy and Poisons Act	4
Under the Rag Flock Acts	12
For the Public Health Department	25
For the Public Works Committee	23
For the Central Contracts Committee	8
For the Visiting (Mental Hospital) Committee	68
For the City Coroner and City Police	30
For the South Wales Flock Company	13
Total	1,664

These numbers are compared in the table below with those for previous years.

Total Number of Samples Examined, 1929-1936.

Year	Food and Drugs Act	Imported Food	Fertilisers and Feeding Stuffs Act	Rag Flock Acts	South Wales Flock Co	Miscel-laneous	Totals
1929	1,006	11	12	3	—	5	1,037
1930	1,004	69	20	3	—	33	1,129
1931	1,141	56	20	9	—	47	1,273
1932	1,302	24	17	12	14	325	1,694
1933	1,486	32	19	11	21	56	1,625
1934	1,450	51	16	8	22	63	1,610
1935	1,449	32	20	5	24	88	1,618
1936	1,408	51	22	12	13	158	1,664

It will be seen that the majority of the samples dealt with are taken under the Food and Drugs (Adulteration) Act, 1928, and the other Acts mentioned, but a very considerable amount of time is also involved in the analysis of miscellaneous articles received from the various departments of the Corporation. Some of the latter are submitted in order to ascertain whether articles supplied conform with specifications laid down in contracts, others are related to health matters, while those examined for the City Coroner and the Police have consisted of viscera and other articles taken in connection with the death of certain persons, suspected poisoning, safe-breaking, etc.

Food and Drugs (Adulteration) Act, 1928.—The total number of samples of food and drugs submitted for analysis under the Food and Drugs (Adulteration) Act, 1928, by the Sampling Officers of the Urban Sanitary Authority during the year was 1,408. This represents 6·3 samples taken for each 1,000 of the population of Cardiff as given in the census return for 1931. Eighty-five, or 6·0 per cent. were returned as adulterated. This percentage is slightly higher than that for the whole of England and Wales in 1935, the last year for which the figures are available, as will be seen in the following table, in which comparison is also made with previous years.

Percentage of Adulteration.

Year	Cardiff			England and Wales		
	Number Examined	Number Adulterated	Percentage Adulterated	Number Examined	Number Adulterated	Percentage Adulterated
1929	1,006	20	*2·0*	133,584	7,200	*5·4*
1930	1,004	33	*3·3*	136,515	6,496	*4·8*
1931	1,141	46	*4·0*	136,169	6,324	*4·6*
1932	1,302	67	*5·1*	137,981	7,019	*5·1*
1933	1,486	60	*4·0*	138,171	7,601	*5·5*
1934	1,450	87	*6·0*	140,583	7,451	*5·3*
1935	1,449	76	*5·2*	143,831	7,972	*5·5*
1936	1,408	85	*6·0*	Return	not yet	available

The number and nature of the articles examined and the number of each variety classed as adulterated are shown below :—

Description of Sample	Number Examined	Number Adulterated
Almonds, Ground	4	—
Apricots, Dried	4	—
Arrowroot	2	—
Barley, Pearl	4	—
Boric ointment	4	—
Brandy	1	—
Butter	36	—
Camphorated oil	7	—
Candied peel	2	—
Cherries, Glacé	2	—
Cider	4	1
Cinnamon, Ground	2	—
Cocoa	5	—
Coffee	8	—
Cream	16	—
Custard powder	2	—
Epsom salts	2	—
Flour	2	—
Flour, Self-raising	4	—
Fruit juices and cordials	5	—
Gin	5	—
Ginger, Ground	4	—
Ice Cream	2	—
Iodine paint	1	—
Iodine, Tincture of	6	—
Jam	4	—
Lard	4	—
Lysol	1	1
Margarine	20	—
Milk	1,148	76
Milk, Condensed	4	—
Milk, Skimmed	4	—
Peas, Canned	2	—
Pepper	6	—
Pepper, Cayenne	2	—
Raisins	13	1
Rice	8	—
Rice, Ground	4	—
Rum	4	—
Sardines, Canned	2	—
Sausages	2	—
Sultanas	6	—
Tea	8	—
Vinegar	16	6
Whiskey	14	—
Zinc ointment	2	—
Totals	1,408	85

Milk.—There has been no alteration in the legislation governing the chemical composition of milk and the present legal position in regard to this, and the steps that are taken in Cardiff to differentiate between milk which is naturally poor in quality and milk which is poor by reason of adulteration or careless handling has been summarised in previous reports (Annual Reports of the Medical Officer of Health for Cardiff, 1932, pages 66 and 67, and 1934, page 88). Except where there are special reasons, no prosecution is undertaken unless these investigations have been carried out.

The year under review has been marked by an extension of the regular sampling of milk. In the past this has been confined largely to retail vendors in the highways and shops and to supplies delivered to various public institutions. Following a complaint made to the Public Health Department towards the end of 1935, it was found that a farmer was supplying to a large dairy milk containing 34 per cent. of added water. In view of this, it was decided that samples should also be taken regularly from milk supplied to dairies in the city, advantage being taken of section 8 of the Milk and Dairies (Consolidation) Act, 1915, whereby these may be procured at any time before the milk is delivered to the consumer. This action resulted in the discovery of a number of cases of extensive adulteration with water. During the year, 87 samples were taken from 73 different sources of supply immediately upon their arrival at dairies, and 20 samples from eight producers were adulterated, legal proceedings being taken against six of these producers. Brief particulars of these and other cases are given later.

This extension of the work has resulted in an increase in not only the number of milks examined and the number returned as adulterated, but also in the proportion of adulterated samples. Of the 1,148 samples of milk examined, 76, or 6·6 per cent., were returned as adulterated, and in the following table these figures are compared with those for previous years.

Percentage of Adulteration of Milk Samples, 1929-1936.

Year	Number of Samples	Number Adulterated	Percentage Adulterated
1929	487	9	*1·8*
1930	519	15	*2·9*
1931	600	25	*4·2*
1932	797	50	*6·3*
1933	987	48	*4·9*
1934	1,083	60	*5·5*
1935	1,097	67	*6·1*
1936	1,148	76	*6·6*

Particulars of the 76 samples classified as adulterated are given in the next table, the deficiencies in fat and non-fatty solids being based upon the presumptive limits prescribed by the Sale of Milk Regulations, 1901, viz., fat 3·0 per cent., non-fatty solids 8·5 per cent., while the percentages of added water are minimum amounts based upon a minimum freezing-point depression (Hortvet) for genuine milk of 0·530°C. and calculated from the formula—

$$\text{Minimum percentage of added water by weight} = \frac{0{\cdot}530 - T}{0{\cdot}530} \times (100 - \text{T.S.})$$

in which T is the freezing-point depression (Hortvet) of the sample and T.S. is the percentage of total solids in it.

Adulterated Milk, 1936.

Number	Deficiency in fat per cent.	Defficiency in non-fatty solids per cent.	Freezing-point Depression (Hortvet) °C.	Minimum per centage of Added Water	Designation
89	*9*	*33*	0·361	*29*	
96	*9*	*28*	0·392	*24*	
118	—	*3*	0·513	*3*	
137	*11*	*3½*	0·499	*5*	
181	—	*27*	0·381	*26*	
182	*7*	*29*	0·366	*29*	
189	—	*30*	0·361	*29*	
190	*15*	*31*	0·356	*30*	
201	—	*20*	0·414	*20*	
202	*15*	*27*	0·375	*27*	
209	—	*5*	0·522	*1*	

Number	Deficiency in fat per cent.	Deficiency in non-fatty solids per cent.	Freezing-point Depression (Hortvet) °C.	Minimum percentage of Added Water	Designation
216	—	11	0·466	11	
218	—	8	0·485	7	
235	5	—	—	—	Grade A (T.T.)
313	—	7	0·500	5	Grade A (T.T.)
315	19	—	—	—	
328	3	—	—	—	Grade A (T.T.)
337	1	13	0·441	15	
338	—	3½	0·498	5	
339	—	8	0·474	9	
349	—	10	0·468	10	
404	—	1½	0·514	2½	
414	7	—	—	—	
427	7	—	—	—	Certified
440	5	—	—	—	Grade A (T.T.)
444	—	3½	0·511	3	
456	7	10	0·471	10	
461	—	5	0·503	4½	
495	5	—	—	—	Grade A (T.T.)
508	32	—	—	—	Grade A
509	9	—	—	—	Grade A (T.T.)
515	29	—	—	—	
516	10	—	—	—	
517	5	—	—	—	
525	4	—	—	—	
529	7	—	—	—	Grade A (T.T.)
539	3	—	—	—	
540	8	—	—	—	
564	12	—	—	—	Grade A (T.T.)
567	6	—	—	—	Grade A (T.T.)
572	5	—	—	—	T.T.
573	12	—	—	—	T.T.
637	5	—	—	—	
647	7	—	—	—	Accredited
650	30	—	—	—	T.T.
663	13	—	—	—	T.T.
672	22	—	—	—	Accredited
693	12	—	—	—	Accredited
696	19	—	—	—	T.T.
712	4	—	—	—	
714	8	—	—	—	
743	6	3½	0·505	4	
764	23	22	0·391	23	
765	4	28	0·367	27	
766	32	26	0·371	27	
767	6	34	0·337	33	
768	—	12	0·452	13	
796	9	—	—	—	T.T.
883	11	—	—	—	T.T.
884	11	—	—	—	T.T.
890	15	—	—	—	T.T.
904	11	—	—	—	T.T.
1,037	8	—	—	—	T.T.
1,089	—	14	0·445	14	
1,191	—	8	0·469	10	
1,192	—	12	0·445	14	
1,218	16	43	0·278	44	
1,219	—	1½	0·513	2½	
1,220	—	6	0·481	8	
1,221	20	47	0·252	48	
1,229	—	12	0·441	14	
1,230	—	7	0·469	10	
1,234	29	53	0·223	54	
1,265	16	—	—	—	T.T.
1,298	—	10	0·460	11	T.T.
1,340	8	—	—	—	

The extent of the adulteration with water was very much greater than in previous years. Thus—

26	samples contained not less than	10	per cent.	of added	water.
15	,, ,, ,,	20	,,	,,	,,
5	,, ,, ,,	30	,,	,,	,,
3	,, ,, ,,	40	,,	,,	,,
1	sample ,, ,,	50	,,	,,	,,

On 1st June, 1936, the Milk (Special Designations) Order, 1936, came into operation, and the special designations prescribed in the 1923 Order were altered as indicated below, there being now three instead of four grades.

1923 *Order.*	1936 *Order.*
(1) Certified (2) Grade A (T.T.)	(1) Tuberculin Tested
(3) Grade A	(2) Accredited
(4) Pasteurised	(3) Pasteurised

The following are details of investigations made in respect of certain samples.

No. 89 was obtained at the premises of a wholesaler. The results of analysis indicated that it contained at least 29 per cent. of added water. This adulteration undoubtedly took place at the farm, for No. 96, taken two days later from the producer at the time of delivery of the milk to the dairy company's carrier, contained approximately 25 per cent. of added water. An appeal-to-cow sample, No. 121, obtained on the following day for comparison purposes proved to be milk of good quality and confirmed the deductions made from the composition and freezing points (Hortvet) of the earlier samples. The following figures show the vast differences in composition between the adulterated samples and the appeal-to-cow sample, while the percentages of added water shown are based upon the freezing-point depression of the latter, which was appreciably greater than usual, and they are more in accordance, therefore, with the actual amounts present than when calculated on a depression of 0·530°C.

No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Remarks
89	Taken from wholesaler	*2·73*	*5·63*	*8·36*	*0·50*	—0·361	Contained 32% of added water.
96	Taken at farm in course of delivery to wholesaler	*2·72*	*6·08*	*8·80*	*0·53*	—0·392	Contained 27% of added water.
121	Appeal-to-cow sample	*4·04*	*8·58*	*12·62*	*0·75*	—0·558	Of normal composition.

The producer, who was prosecuted, pleaded guilty, and a fine of £10 and 8/6d. costs was imposed.

Twenty samples were examined at length in connection with another case against a farmer. Samples 181 and 182, taken at a dairy, contained 26 and 29 per cent. of added water respectively. Two further samples, 189 and 190, taken again at the dairy on the following (Sunday) morning immediately upon arrival of the milk from the same source of supply, contained 29 and 30 per cent. of added water respectively, and on the next day Nos. 201 and 202 were taken at the farm of the producer in course of delivery to the carrier. These were evening and morning milk respectively, and they also proved to be adulterated, containing 20 and 27 per cent. of added water, there being more than three gallons of extraneous water in the milk in the two churns. Samples were then procured at the farm after supervision of the next evening and morning milkings. The morning milk, No. 210, was genuine, but the analytical data obtained

in respect of the previous evening's milk, No. 209, were such as to suggest that this was not as produced by the cows. A further sample of the evening's milk, No. 218, was then procured, and again the results indicated that this was not milk as produced by the cows, for it was deficient of 8 per cent. of non-fatty solids and had a freezing point (Hortvet) of —0·485°C. The Inspector acting on our behalf was interviewed, and it was evident that the presence of another observer was necessary in order to prevent the possibility of any interference with the milk. At a third visit to the farm, our own Sampling Officer accompanied the Inspector and assisted in the supervision of the milking, after which samples were taken of the milk of the nine cows comprising the herd. The results of analysis of these and the calculated composition of the mixed milk confirmed the conclusion that the two previous samples, 209 and 218, contained extraneous water. The data obtained in respect of all these samples are given below :—

EVENING MILK.

Date.	No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Observations
b. 15	181	Obtained at dairy	*3·54*	*6·20*	*9·74*	*0·54*	—0·381	Contained 26% of added water.
,, 16	189	Taken immediately after arrival at dairy	*3·15*	*5·95*	*9·10*	*0·51*	—0·361	Contained 29% of added water.
,, 17	201	Taken at farm, in course of delivery	*3·62*	*6·78*	*10·40*	*0·58*	—0·414	Contained 20% of added water.
,, 17	209	First supervised milking	*4·70*	*8·05*	*12·75*	*0·74*	—0·522	Of doubtful purity.
,, 21	218	Second supervised milking	*3·84*	*7·74*	*11·58*	*0·69*	—0·485	Contained 7½% of added water.
,, 25	—	Calculated composition of bulked milk taken under conditions which precluded the possibility of the presence of extraneous water.	*4·48*	*8·60*	*13·08*	*0·77*	—0·535	Of normal composition.

MORNING MILK.

b. 15	182	Obtained at dairy	*2·77*	*6·03*	*8·80*	*0·52*	—0·366	Contained 29% of added water.
, 16	190	Taken immediately after arrival at dairy	*2·54*	*5·84*	*8·38*	*0·50*	—0·256	Contained 30% of added water.
, 17	202	Taken at farm, in course of delivery	*2·55*	*6·17*	*8·72*	*0·53*	—0·375	Contained 27% of added water.
,, 18	210	Appeal-to-cows	*3·96*	*8·61*	*12·57*	*0·76*	—0·539	Of normal composition.

COMPOSITION OF THE EVENING MILK OF THE INDIVIDUAL COWS.

No.	Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Observations
224	*4·21*	*8·15*	*12·36*	*0·70*	—0·533	Low in non-fatty solids.
225	*3·73*	*9·51*	*13·24*	*0·81*	—0·534	
226	*6·28*	*7·47*	*13·75*	*0·90*	—0·543	Low in non-fatty solids.
227	*5·60*	*8·73*	*14·33*	*0·78*	—0·535	
228	*7·33*	*9·67*	*17·00*	*0·88*	—0·541	
229	*5·44*	*8·68*	*14·12*	*0·74*	—0·542	
230	*5·91*	*8·55*	*14·46*	*0·75*	—0·536	
231	*3·96*	*7·83*	*11·79*	*0·73*	—0·531	Low in non-fatty solids.
232	*3·81*	*8·38*	*12·19*	*0·70*	—0·539	Low in non-fatty solids.

Although four of these samples contained less than 8·5 per cent. of non-fatty solids, the freezing points (Hortvet) indicated the absence of extraneous water and were in marked contrast with the freezing point of No. 218, viz., —0·485°C.

Legal proceedings were instituted against the farmer in respect of the sale of the evening and morning milk from which samples 201 and 202 were taken. Although he pleaded not guilty, he admitted the presence of extraneous water and suggested that the milk had been tampered with by some relative of his first wife who objected to his marrying again. It was pointed out, however, that when the cows were milked under supervision, they could not produce the quantity of milk that had been supplied to the dairy for a long time and the only person, therefore, to derive any benefit from the increase in the bulk of the milk would be the farmer himself. He was fined £10 and £1 1s. 0d. costs.

No. 313 was an informal sample of Grade A (T.T.) milk taken for bacteriological examination. It contained at least 5 per cent. of extraneous water, but five samples obtained subsequently from this source proved to be genuine.

Milk No. 315 was deficient of 19 per cent. of fat. The vendor attributed the deficiency to failure to mix the milk properly owing to receiving the supply in a churn into which his plunger would not fit. In view of the previously satisfactory record of this vendor, he was cautioned by the Chief Sanitary Inspector.

Samples numbered 337, 338 and 339, obtained upon arrival at a dairy, contained 15, 5 and 9 per cent. of added water respectively. These were followed by sample No. 349, taken at the farm of the producer in course of delivery to the dairy's collecting lorry. This contained 10 per cent. of added water, while a corresponding appeal-to-cow sample, No. 350, was of normal composition and had a normal freezing point. The composition of these last two samples was as follows :—

No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Observations
349	Evening milk, in course of delivery to dairy	*3·08*	*7·65*	*10·73*	*0·63*	—0·468	Contained 10% of added water.
350	Evening milk as produced by the cows	*3·88*	*8·58*	*12·46*	*0·70*	—0·533	Of normal composition.

Legal proceedings were taken in respect of No. 349, and the farmer was fined £5 and 1/3d. costs.

Four samples, Nos. 404, 444, 456 and 461, were all from the same source. The first three, obtained upon delivery at a dairy, were found to contain 2½, 3 and 10 per cent. of added water respectively, while No. 461, which was taken in course of delivery to the dairy, contained approximately 5 per cent. of added water. The producer was summoned and he was fined £1 10s. 0d. and 1/- costs.

An informal sample of Grade A milk, No. 508, contained only 2·03 per cent. of fat, and it was therefore deficient of 32 per cent. of the minimum fat content of 3·0 per cent. laid down by the Sale of Milk Regulations. Two days later, four formal samples, Nos. 515-518, were taken from this producer-retailer, and three of these were deficient in fat to the extent of 29, 10 and 5 per cent. respectively, while the fourth contained 3·35 per cent. of fat. Two appeal-to-cow samples of the morning milk, Nos. 527 and 528, were obtained, and one proved to be low in fat, though not to the extent of the earlier samples.

At an interview with the Chief Sanitary Inspector, the vendor attributed the deficiencies to the milk in the individual churns and bottles being the product of a few of the cows only, and he therefore suspected that some of the animals must be giving milk of very poor fat content. This proved to be the case, for of 17 samples taken from the milk of the individual cows in the herd after supervision of the milking, six were low in fat, two containing only 1·24 and 1·60 per cent. respectively. The fat content of the mixed milk of the whole herd, however, was 3·05 per cent. These results were discussed with the vendor. He offered to eliminate the two poorest cows from the herd and to bulk the milk of more cows before retailing it, and subsequent samples from this source have given no cause for complaint.

The opportunity was taken to determine the freezing points (Hortvet) of the appeal-to-cow samples, including those from the individual cows. All proved to be normal, ranging from —0·543 to —0·562°C., the latter being associated with the lowest non-fatty solid content in the series, viz., 7·71 per cent. The results of the individual samples are tabulated in the appendix (Nos. 576-592).

No. 764 was an informal sample of milk taken on 11th July at a dairy. This was stated to be morning milk and it was found to contain 25 per cent. of added water. On the same evening and the following morning, formal samples were procured from the milk of this producer immediately upon arrival of the lorry at the dairy. No. 765 was evening milk and No. 766 morning milk, and they contained added water to the extent of 29 per cent. and 28 per cent. respectively. It was therefore evident that the milk was adulterated before its arrival at the dairy. On 13th and 14th July samples were procured on our behalf by the Glamorgan County Council in course of delivery from the producer to the lorry driver who was the agent of the dairy company. The evening milk, No. 767, contained 34 per cent. of added water and the morning milk, No. 768, contained 14 per cent. of added water. The milk was therefore being adulterated at the farm, and for comparison purposes, samples Nos. 771 and 772 were taken at the farm after supervision of the evening and morning milkings. These proved of normal composition, with normal freezing points, the results being in marked contrast with the previous samples, as is shown below :—

MORNING MILK.

No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Observations.
764	Informal from dairy	*2·30*	*6·57*	*8·87*	*0·57*	—0·391	Contained 25% of added water.
766	Formal from dairy	*2·03*	*6·27*	*8·30*	*0·55*	—0·371	Contained 28% of added water.
768	From producer in course of delivery to dairy	*2·98*	*7·45*	*10·43*	*0·64*	—0·452	Contained 14% of added water.
772	As produced by the cows	*2·96*	*8·65*	*11·61*	*0·76*	—0·539	Of normal composition.

EVENING MILK.

765	From dairy	*2·88*	*6·12*	*9·00*	*0·54*	—0·367	Contained 29% of added water.
767	From producer in course of delivery to dairy	*2·82*	*5·60*	*8·42*	*0·48*	—0·337	Contained 34% of added water.
771	As produced by the cows	*4·30*	*8·56*	*12·86*	*0·76*	—0·544	Of normal composition.

When the producer was informed that he would be summoned for selling milk to which water had been added, he asked " Can you prove that water has been added ? " At the hearing of the cases, however, he admitted the presence of extraneous water, but said he did not know how it came to be there. It is of interest to note that the Milk Marketing Board's Invoice of Contract Sales for the month of July showed that from 1st July to 13th July the average quantity of milk delivered to the dairy by this producer was $18\frac{1}{4}$ gallons (range $17\frac{1}{8}$—$19\frac{1}{4}$ gallons), but from 15th July to 31st July, the average was only $11\frac{1}{4}$ gallons (range $9\frac{3}{4}$—$12\frac{1}{2}$ gallons). Obviously the cows could not produce the quantity of milk that was being delivered before the samples were taken, and it was evident that adulteration had been taking place for some time. The farmer was fined £15 and 14/6d. costs.

Nos. 1,088 and 1,089 were obtained from a retailer. The former was from a pail and proved to be genuine, but the latter, which was from a bottle selected haphazardly from the vendor's cart, contained at least 14 per cent. of extraneous water. From a comparison of the results of analysis of these two samples, it appeared that No. 1,089 was the same milk as No. 1,088 with the addition of 16·9 per cent. of water, and upon inquiry it was found that this retailer's supply of milk is always delivered in one receptacle and that it was evening milk. On the same evening, sample No. 1,100 was taken from the producer at the time of delivery to the retailer. This consisted of genuine milk, the non-fatty solids and freezing point being almost identical with those of No. 1,088. It appeared, therefore, that the adulteration of the bottled milk had taken place after the milk had passed into the hands of the retailer and proceedings were instituted against the vendor. The presence of added water was admitted by the defendant, and he suggested that some water must have been left in this particular bottle by the person who washed the bottles for him. In all, 200 bottles were filled that day, and the vendor was fined £10 and 10d. costs.

Milks 1,191 and 1,192 were taken from another retailer and they contained 10 per cent. and 14 per cent. respectively of added water. On the following morning sample No. 1,196 was taken from the producer, in course of delivery to the retailer, and this consisted of genuine milk. The retailer visited the Chief Sanitary Inspector and stated that he personally had not interfered with the milk, and that by arrangement it was left by the producer in a dairy and bottled ready for him by the owner of that dairy. Since the retailer's portions of the samples had been left in the dairy, the owner was aware of the samples having been taken, and in order to test the vendor's statement it was decided to take further samples later and unknown to the owner of the dairy. After an interval of a fortnight, Nos. 1,219 and 1,220, taken from this retailer, contained $2\frac{1}{2}$ per cent. and 8 per cent. respectively of added water. On the same evening arrangements were made to intercept the lorry delivering the milk before it reached the dairy, and this sample, No. 1,228, proved to be genuine. On the next morning, however, samples Nos. 1,229 and 1,230, taken from a pail and a bottle in the dairy before the retailer took possession of the milk, were found to contain 16 per cent. and 12 per cent. respectively of added water. It was therefore evident that the owner of the dairy and not the retailer had interfered with the milk. These facts were brought to the notice of the Bench, and the retailer was fined £1 in respect of samples 1,191 and 1,192, while the owner of the dairy was fined £4 and 17/6d. costs for aiding and abetting, regard being paid to the fact that the latter was unemployed.

No. 1,218 was an informal sample of milk obtained immediately after delivery at a dairy. It contained 44 per cent. of added water. No. 1,221 was a formal sample obtained at this dairy on the following morning from the same source of supply, and this contained 48 per cent. of added water. No. 1,234 was taken on our behalf by the Monmouthshire County Council from the producer in course of delivery to the dairy, and this contained no less than 54 per cent. of added water. Appeal-to-cow samples, Nos. 1,235 and 1,236, taken at the next evening and morning milkings, proved to be milk of excellent quality with normal freezing points, and the composition of these is compared with the earlier samples in the following table :—

No.		Fat per cent.	Non-fatty solids per cent.	Total solids per cent.	Ash per cent.	F.P.(H) °C.	Observations.
1,218	Taken at dairy	2·50	4·82	7·32	0·47	—0·278	Contained 44% of added water.
1,221	Taken at dairy	2·39	4·44	6·83	0·40	—0·252	Contained 48% of added water.
1,234	From producer in course of delivery to dairy	2·13	3·99	6·12	0·39	—0·223	Contained 54% of added water.
1,235	Evening milk as produced by the cows	5·85	9·46	15·31	0·88	—0·561	Of excellent quality
1,236	Morning milk as produced by the cows	4·59	9·42	14·01	0·85	—0·560	Of excellent quality

The farmer and his daughter, who milked the cows, were summoned. The former was fined £10 and 30/- costs and the latter was fined £10 for aiding and abetting.

Sample No. 1,340 was deficient in fat to the extent of 8 per cent. It was ascertained that this was bulked milk obtained from a wholesale dealer and that the vendor regularly purchased a considerable quantity of skimmed milk but did not retail any as such. He was summoned and fined £1.

In consequence of a complaint received by a farmer that his milk was low in non-fatty solids, investigations were made of the milk from the 20 cows in his herd. Ten of the cows were found to be giving milk low in non-fatty solids, the lowest figure being 8·07 per cent., but the freezing points of the whole of the samples were normal (range —0·543°C. to —0·563°C.) and these results again illustrate the great value of the Hortvet cryoscopic test for differentiating between milk which is low in non-fatty solids naturally and milk which has a low non-fatty solid content by reason of the addition of water. The figures obtained are given in the appendix, the numbers of the samples being 291 to 310 inclusive.

The two following tables show the average composition of all the milk samples, both genuine and adulterated, examined during 1936 and for the years 1929-1936.

Average Composition of all Milk Samples for each Month.

Month	1936				1929-1936			
	Number of Samples	Fat per cent.	Solids Not-fat per cent.	Total Solids per cent.	Number of Samples	Fat per cent.	Solids Not-fat per cent.	Total Solids per cent.
Jan.	75	3·81	8·79	12·60	463	3·77	8·80	12·57
Feb.	136	3·89	8·60	12·49	579	3·77	8·74	12·51
March	105	3·60	8·66	12·26	513	3·70	8·74	12·44
April	92	3·64	8·77	12·41	528	3·61	8·77	12·38
May	83	3·50	8·80	12·30	561	3·56	8·83	12·39
June	103	3·55	8·84	12·39	561	3·57	8·85	12·42
July	86	3·59	8·62	12·21	622	3·69	8·73	12·42
Aug.	101	3·72	8·85	12·57	540	3·72	8·80	12·52
Sept.	93	3·96	8·87	12·83	629	3·81	8·85	12·66
Oct.	123	3·91	8·83	12·74	670	3·97	8·89	12·86
Nov.	65	4·05	8·54	12·59	530	4·00	8·84	12·84
Dec.	86	3·98	8·73	12·71	522	3·87	8·79	12·66
Whole Period	1,148	3·77	8·74	12·51	6,718	3·76	8·80	12·56

The average non-fatty solid content of the 530 samples of milk taken in Cardiff in November during the years 1929-1936 is 8·84 per cent., and the low figure of 8·54 for that month during 1936 is due to the gross adulteration of several of the samples and not to any general diminution in the proportion of non-fatty solids.

It will be observed from the monthly averages of more than 6,000 samples that milk usually has its lowest fat content in the months of May and June, and that it then gradually increases until November, after which there is a progressive fall until the minimum is reached. The non-fatty solid content is fairly constant throughout the year.

Average Composition of All Milk Samples, 1929-1936.

Year	Number of Samples	Fat per cent.	Solids-not-fat per cent.	Total Solids per cent.
1929	487	*3·71*	*8·87*	*12·58*
1930	519	*3·69*	*8·90*	*12·59*
1931	600	*3·79*	*8·78*	*12·57*
1932	797	*3·72*	*8·81*	*12·53*
1933	987	*3·72*	*8·78*	*12·50*
1934	1,083	*3·78*	*8·80*	*12·58*
1935	1,097	*3·81*	*8·83*	*12·64*
1936	1,148	*3·77*	*8·74*	*12·51*
1929-1936	6,718	*3·76*	*8·80*	*12·56*

During these eight years, the fat has varied from 3·69 per cent. in 1930 to 3·81 per cent. in 1935, while the non-fatty solids have ranged between 8·78 per cent. in 1931 and 1933 and 8·90 per cent. in 1930.

Articles other than Milk.—During the year, 260 samples other than milk were examined. The number and nature of the various articles are set out on page 91. Nine, or 3·4 per cent., were returned as adulterated, and particulars of these are tabulated below.

Articles other than Milk—Adulterated Samples.

No.	Article	Nature of Adulteration or Irregularity
148	Vinegar	Deficient of 20 per cent. of acetic acid.
355	Cider	Contained 1/14 grain of lead per gallon.
497	Vinegar	Deficient of 32·5 per cent. of acetic acid.
665	Vinegar	Deficient of 50·5 per cent. of acetic acid.
666	Vinegar	Deficient of 49·5 per cent. of acetic acid.
773	Lysol	Deficient of 94·6 per cent. of the minimum amount of cresol prescribed by the British Pharmacopoeia.
1,001	Vinegar	Deficient of 19 per cent. of acetic acid.
1,003	Vinegar	Deficient of 16 per cent. of acetic acid.
1,152	Raisins	Contained an excess of 400 parts of sulphur dioxide per million.

Cider No. 355 contained an undesirable proportion of lead and the contamination was traced to the pipes connecting the barrel with a pump. The licensee of the hotel concerned was interviewed and arrangements were made for the practice of drawing the cider through pipes to be discontinued and for it to be supplied directly from the barrels.

The six samples of vinegar consisted of artificial vinegar, and the deficiencies in acetic acid doubtless were due to excessive dilution with water.

Public Health (Preservatives, etc., in Food) Regulations.—No preservatives were found in any of the samples of milk, cream, butter or margarine. In the following table the various articles in which preservatives were detected and the amounts present are shown :—

Article	Number Examined	Number containing Preservative	Sulphur Dioxide in parts per million	
			Amounts found	Maximum permitted
Apricots, Dried	4	4	800, 870, 875, 1,580	2,000
Candied Peel	2	1	25	100
Cherries, Glace	2	2	25, 50	100
Cider	4	4	95,120,130,140	200
Fruit Juices and Cordials	5	5	150, 160, 215, 225, 250	350
Jam	4	3	15, 25, 35	40
Raisins	13	10	75, 130, 280, 340, 415, 440, 465, 490, 595, *1,150*	750
Sausages	2	2	30, 330	450
Sultanas	6	4	230, 275, 400, 590	750

Raisins No. 1,152 contained 400 parts of sulphur dioxide per million in excess of the maximum permitted.

Summary of Legal Proceedings.—The results of prosecutions undertaken in respect of samples obtained during the year are summarised in the following table :—

No. of Sample	Article	Result of Analysis	Result of Prosecution
773	Lysol	Deficient of 94 ·6 per cent. of the minimum amount of cresol.	Fined £1 and £3 7s. 9d. costs.
96	Milk	Contained 27 per cent. of added water.	Fined £10 and 8/6d. costs
201	Milk	Contained 20 per cent. of added water.	
202	Milk	Contained 27 per cent. of added water.	Fined £10 and £1 1s. 0d. costs.
349	Milk	Contained 10 per cent of added water.	Fined £5 and 1/3d. costs.
461	Milk	Contained 5 per cent of added water.	Fined £1 10s. 0d. and 1/- costs.
767	Milk	Contained 34 per cent. of added water.	
768	Milk	Contained 14 per cent. of added water.	Fined £15 and 14/6d. costs.
1,089	Milk	Contained 16 per cent. of added water.	Fined £10 and 10d. costs
1,191	Milk	Contained 10 per cent. of added water.	Fined £5 and 17/6d.costs
1,192	Milk	Contained 14 per cent. of added water.	Fined £20 and £1 10s. 0d costs.
1,234	Milk	Contained 54 per cent. of added water.	
1,340	Milk	Deficient of 8 per cent. of fat.	Fined £1
1,152	Raisins	Contained an excess of 400 parts of sulphur dioxide per million.	Dismissed on warranty.
148	Vinegar	Deficient of 20 per cent. of acetic acid.	Paid 4/- costs.
497	Vinegar	Deficient of 32 ·5 per cent. of acetic acid.	Fined 10/-
665	Vinegar	Deficient of 50 ·5 per cent. of acetic acid.	Fined £4.
666	Vinegar	Deficient of 49 ·5 per cent. of acetic acid.	

The total of the fines and costs in respect of samples examined during the year amounted to £91 6s. 4d. Comparison with previous years is made below :—

Year	Prosecutions	Convictions	Dismissed	Fines	Costs	Total
				£ s. d.	£ s. d.	£ s. d.
1929	5	1	4	6 0 0	—	6 0 0
1930	16	12	4	18 0 0	3 9 6	21 9 6
1931	14	14	—	24 15 0	6 6 7	31 1 7
1932	17	13	4	23 10 0	11 6	24 1 6
1933	7	6	1	29 0 0	1 18 6	30 18 6
1934	19	16	3	38 10 0	22 6 0	60 16 0
1935	11	11	—	33 0 0	8 14 0	41 14 0
1936	18	17	1	83 0 0	8 6 4	91 6 4
1929-1936	107	90	17	£255 15 0	£51 12 5	£307 7 5

Imported Food.—In addition to the samples of food and drugs analysed for the Urban Sanitary Authority, 51 samples of imported food were examined for the Port Sanitary Authority. They comprised the following articles :—

Apples, Dried	1	Mint, Dried	1
Asparagus tips, Canned	1	Raisins	37
Coffee, Ground	1	Salmon, Canned	1
Figs, Dried	1	Sultanas	3
Fish paste	1	Tomato paste	1
Ginger, Ground	1	Thyme, Dried	1
Lemon peel	1		

Two samples of South African and one of Californian raisins were free from sulphur dioxide, but of the 34 samples or raisins from Spain 21 contained sulphur dioxide in amounts not exceeding the permitted maximum of 750 parts per million, one was free from sulphur dioxide, while 12 contained this preservative in excessive quantities, the amounts varying from 850 to 1,160 parts per million.

The samples of sultanas contained sulphur dioxide within the prescribed limit.

The lemon peel was preserved in brine and the following articles were free from preservatives :—Dried apples, dried figs, fish paste, ground ginger and tomato paste.

The asparagus tips and salmon contained 1·7 and 0·7 grains of tin per lb. respectively, which amounts are below the usually accepted limit of 2 grains per lb. The tomato paste contained 8·5 parts of copper per million.

Fertilisers and Feeding Stuffs Act, 1926.—During the year, seven samples of fertilisers and 15 of feeding stuffs were submitted under this Act. Particulars of these are as follows :—

Article	Number Examined	Number Unsatisfactory	
		In Composition	In Declaration
Fertilisers—			
Lawn Fertiliser	2	2	2
Organic Fertiliser	1	—	1
Rose Fertiliser	1	—	1
Sulphate of Ammonia	3	1	—
Feeding Stuffs—			
Barley Meal	4	—	—
Bean Meal	1	—	—
Bran	1	—	1
Indian Meal	1	—	—
Oats, Sussex ground	4	—	—
Sharps	4	—	2
Totals	22	3	7

Details of the three samples of fertiliser which were unsatisfactory in composition are given in the following table :—

No.	Article	Nature of Irregularity		
131	Lawn Fertiliser (Informal)	Very deficient in nitrogen and containing an excess of phosphoric acid		
			Guaranteed	Found
		Nitrogen	11·15%	5·00%
		Phosphoric acid (P_2O_5)	2·50%	3·44%
135	Sulphate of Ammonia (Informal)	Contained an excess of free acid		
			Guaranteed	Found
		Acidity as H_2SO_4	0·025%	0·130%
138	Lawn Fertiliser (Official Sample)	Very deficient in nitrogen and containing an excess of phosphoric acid		
			Guaranteed	Found
		Nitrogen	11·15%	4·50%
		Phosphoric acid (P_2O_5)	2·50%	5·20%

The particulars given on the statutory statements supplied with the two samples of lawn fertiliser were also not in accordance with the requirements of the Act, in so far as it was not stated that the phosphoric acid was insoluble. The results of analysis of the official sample were communicated to the Ministry of Agriculture and Fisheries with a view to the institution of legal proceedings against the vendors. The Ministry directed the reserve portion of the sample to be sent to the Government Analyst, and the extent of the deficiency in nitrogen and of the excess in phosphoric acid were confirmed, but after consideration of information obtained by them from the vendors they concluded that "it was doubtful whether there was any fraudulent intent on the part of the company or whether they had reason to suspect either the accuracy or the sufficiency of the analysis furnished by their suppliers." In these circumstances the Ministry recommended the issue of a warning to the vendors on the point of compliance with the requirements of the Act.

In other cases where the samples were unsatisfactory in composition or in the declaration of the required particulars the attention of the vendors was drawn to the matter.

Rag Flock Acts, 1911 and 1928.—Twelve samples of rag flock obtained from upholsterers conformed with the standard of cleanliness required by the Rag Flock Regulations, 1912. The maximum amount of water-soluble chlorine permitted is 30 parts per 100,000 of flock ; the quantities present in these samples varied from 3 to 23 parts per 100,000.

Thirteen samples of flock from the South Wales Flock Company contained from 8·5 to 22 parts of water-soluble chlorine per 100,000.

Pharmacy and Poisons Act, 1933.—Four disinfectants were submitted in order to ascertain whether they contained such substances as would require the vendors to be registered by the Council. For the sale of two of these this was necessary, since they were liquid preparations, and the results of analysis indicated that they contained a proportion of phenols as defined by the Poisons Rules. In the other two cases registration was unnecessary.

Public Health Department.—Twenty-five articles of a miscellaneous character were examined and reported upon. They consisted of foodstuffs (21), medicine (2), lysol and lime-sand mortar. The sample of lime-sand mortar was submitted by the Medical Officer of Health, and proved to be most unsatisfactory in composition. It contained only 2·5 per cent. of lime and the sand used, instead of being clean, contained 6·5 per cent. of earthy matter. The sample was in a very friable condition and it could never set or possess any binding properties whatever.

Public Works Committee.—Of 23 samples of mortar submitted by the City Engineer, four were low in lime, containing from 7·7 to 8 per cent. of CaO, calculated on the dry mortar, whereas when made in accordance with the specification, water-free mortar contains from 11 to 12 per cent. of lime.

Central Contracts Committee.—Eight samples, consisting of pale yellow soap (2), white Windsor soap, carbolic soap (3) and soap powder (2), were examined in order to ascertain whether they complied with the specifications of the Committee. The following were unsatisfactory :—

Carbolic Soap,	No. 2.—Tar acids	= 2·0%;	minimum specified	7·6%
,, ,,	No. 3.— ,, ,,	= 2·0%;	,, ,,	7·6%
Soap Powder,	No. 1.—Anhydrous soap	= 36·9%;	,, ,,	45·2%
,, ,,	No. 2.— ,, ,,	= 35·1%;	,, ,,	45·25%

Visiting (Mental Hospital) Committee.—Determination of the amount of arsenic in 64 specimens of cerebro-spinal fluid, taken from patients after treatment with certain arsenical drugs, were made for the Director of Research at the Biochemical Laboratories of the Hospital.

City Coroner and the City Police.—Thirty samples, consisting of viscera, urine and other articles, were submitted in connection with the death of two persons. No poisonous substances were found in the organs of a child, but in the other case, where from the post-mortem examination it was concluded that death was due to some narcotic, luminal, which is a barbituric acid derivative, was found in all the organs and in the urine.

Appendix.

Composition and Freezing-point Depression (Hortvet) of Appeal-to-cow Samples, 1936.

(a) Herds.

No.	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.	Ash per cent.	Freezing-point Depression	
121	*4·04*	*8·58*	*12·62*	*0·75*	0·558	Evening milk
210	*3·96*	*8·61*	*12·57*	*0·76*	0·539	Morning milk (9 cows)
350	*3·88*	*8·58*	*12·46*	*0·70*	0·533	Evening milk (8 cows)
462	*2·80*	*8·51*	*11·31*	*0·73*	0·533	Morning milk (8 cows)
527	*3·30*	*8·95*	*12·25*	—	0·548	Morning milk (5 cows)
528	*2·82*	*9·00*	*11·82*	—	0·545	Morning milk (12 cows)
771	*4·30*	*8·56*	*12·86*	*0·76*	0·544	Evening milk } (8 cows)
772	*2·96*	*8·65*	*11·61*	*0·76*	0·539	Morning milk }
1,235	*5·85*	*9·46*	*15·31*	*0·88*	0·561	Evening milk } (3 cows)
1,236	*4·59*	*9·42*	*14·01*	*0·85*	0·560	Morning milk }

(b) Individual Cows.

No.	Fat per cent.	Non-fatty Solids per cent.	Total Solids per cent.	Ash per cent.	Freezing-point Depression	
224	*4·21*	*8·15*	*12·36*	*0·70*	0·533	Evening milk
225	*3·73*	*9·51*	*13·24*	*0·81*	0·534	,, ,,
226	*6·28*	*7·47*	*13·75*	*0·90*	0·543	,, ,,
227	*5·60*	*8·73*	*14·33*	*0·78*	0·535	,, ,,
228	*7·33*	*9·67*	*17·00*	*0·88*	0·541	,, ,,
229	5·44	*8·68*	*14·12*	*0·74*	0·542	,, ,,
230	*5·91*	*8·55*	*14·46*	*0·75*	0·536	,, ,,
231	*3·96*	*7·83*	*11·79*	*0·73*	0·531	,, ,,
232	*3·81*	*8·38*	*12·19*	*0·70*	0·539	,, ,,
291	*3·08*	*8·78*	*11·86*	*0·76*	0·562	Morning milk
292	*3·82*	*8·73*	*12·55*	*0·78*	0·551	,, ,,
293	*2·70*	*8·21*	*10·91*	*0·74*	0·548	,, ,,
294	*3·81*	*8·20*	*12·01*	*0·82*	0·546	,, ,,
295	*3·78*	*8·82*	*12·60*	*0·87*	0·558	,, ,,
296	*4·10*	*9·18*	*13·28*	*0·79*	0·550	,, ,,
297	*5·40*	*9·07*	*14·47*	*0·82*	0·562	,, ,,
298	*3·58*	*8·07*	*11·65*	*0·74*	0·560	,, ,,
299	*2·93*	*8·21*	*11·14*	*0·74*	0·543	,, ,,
300	*3·44*	*8·36*	*11·80*	*0·78*	0·551	,, ,,
301	*4·58*	*8·33*	*12·91*	*0·79*	0·564	,, ,,
302	*3·47*	*8·28*	*11·75*	*0·73*	0·543	,, ,,
303	*2·83*	*8·39*	*11·22*	*0·74*	0·557	,, ,,
304	*2·61*	*8·38*	*10·99*	*0·78*	0·575	,, ,,
305	*3·43*	*8·36*	*11·79*	*0·77*	0·546	,, ,,
306	*3·26*	*8·72*	*11·98*	*0·76*	0·554	,, ,,
307	*3·01*	*8·55*	*11·56*	*0·72*	0·553	,, ,,
308	*6·23*	*8·72*	*14·95*	*0·76*	0·566	,, ,,
309	*3·19*	*8·74*	*11·93*	*0·78*	0·563	,, ,,
310	*2·80*	*8·68*	*11·48*	*0·78*	0·557	,, ,,
576	*2·82*	*8·75*	*11·57*	—	0·551	,, ,,
577	*3·19*	*8·57*	*11·76*	—	0·552	,, ,,
578	*1·60*	*8·42*	*10·02*	—	0·550	,, ,,
579	*2·74*	*8·68*	*11·42*	—	0·543	,, ,,
580	*3·05*	*9·08*	*12·13*	—	0·546	,, ,,
581	*3·52*	*9·20*	*12·72*	—	0·549	,, ,,
582	*1·24*	*9·16*	*10·40*	—	0·544	,, ,,
583	*2·50*	*8·81*	*11·31*	—	0·546	,, ,,
584	*3·71*	*8·89*	*12·60*	—	0·551	,, ,,
585	*3·09*	*8·67*	*11·76*	—	0·544	,, ,,
586	*4·03*	*8·64*	*12·67*	—	0·549	,, ,,
587	*3·72*	*9·08*	*12·80*	—	0·549	,, ,,
588	*3·90*	*9·42*	*13·32*	—	0·553	,, ,,
589	*3·47*	*9·00*	*12·47*	—	0·548	,, ,,
590	*4·29*	*7·71*	*12·00*	—	0·562	,, ,,
591	*2·82*	*8·82*	*11·64*	—	0·542	,, ,,
592	*3·01*	*8·90*	*11·91*	—	0·535	,, ,,

XVII.—HOUSING.

The following is a statement in the form required by the Ministry of Health in relation to housing :—

1. *Inspection of Dwelling-houses during the Year* :—

(1)	(*a*) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	12,135
	(*b*) Number of inspections made for the purpose	24,810
(2)	(*a*) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	283
	(*b*) Number of inspections made for the purpose	674
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	—
(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	2,793

2. *Remedy of Defects during the Year without Service of Formal Notices* :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	2,128

3. *Action under Statutory Powers during the Year* :—

(*a*)—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :

(1)	Number of dwelling-houses in respect of which notices were served requiring repairs	70
(2)	Number of dwelling-houses which were rendered fit after service of formal notices :—	
	(*a*) By owners	66
	(*b*) By Local Authority in default of owners	4

(*b*)—Proceedings under Public Health Acts :—

(1)	Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	266
(2)	Number of dwelling-houses in which defects were remedied after service of formal notices :—	
	(*a*) By owners	250
	(*b*) By Local Authority in default of owners	—

(*c*)—Proceedings under Sections 19 and 21 of the Housing Act, 1930 :

(1)	Number of dwelling-houses in respect of which Demolition Orders were made	—
(2)	Number of dwelling-houses demolished in pursuance of Demolition Orders	—

(*d*)—Proceedings under Section 20 of the Housing Act, 1930 :

(1)	Number of separate tenements or underground rooms in respect of which Closing Orders were made	—
(2)	Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	—

4. *Housing Act*, 1935.—*Overcrowding* :—

(*a*)—	(i) Number of dwellings overcrowded at the end of the year	1,118
	(ii) Number of families dwelling therein	2,130
	(iii) Number of persons dwelling therein	10,028
(*b*)—	Number of new cases of overcrowding reported during the year	92
(*c*)—	(i) Number of cases of overcrowding relieved during the year	64
	(ii) Number of persons concerned in such cases	348
(*d*)—	Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	—

Multiple Tenancy.—Notwithstanding the number of new houses provided in recent years, there has been virtually no reduction in the proportion of houses found on routine inspection to be occupied by more than one family. The number and percentage of houses found to be occupied by more than one family each year since 1928 are as follows :

Year.	*Number of Houses Inspected.*	*Percentage occupied by more than One Family.*
1928	846	*43·8*
1929	1,163	*40·8*
1930	904	*36·9*
1931	1,873	*30·1*
1932	1,299	*26·3*
1933	1,164	*31·2*
1934	829	*33·8*
1935	526	*35·3*
1936	283	*35·6*

Council Housing Estates.—The duties in connection with the supervision of Council houses are still increasing, particularly in regard to the transfer of overcrowded families to larger houses. It is pleasing to report that the families that have been rehoused from condemned houses have, with very few exceptions, maintained their new dwellings in a satisfactory condition. The number of vacant houses found to be verminous is still high, but shows a reduction on previous years. It is hoped that this result is due to the activities of the department in its effort to impress upon the families the desirability of living under clean and wholesome conditions.

The following table gives particulars of work carried out by the department in connection with the inspection of vacant houses on the Council housing estates each year since 1930 :—

Year	Vacant Houses inspected	Vacant Houses found to be verminous	Percentage found to be verminous
1930	321	98	*30·5*
1931	347	93	*26·8*
1932	419	91	*21·7*
1933	435	89	*20·5*
1934	452	110	*24·3*
1935	445	110	*24·7*
1936	539	105	*19·5*

Houses-let-in-lodgings.—The number of houses on the register is 27. Many other houses come within this category and will have to be dealt with when the pressure of work brought about by housing and overcrowding is reduced. Some of the houses now occupied by several families are structurally unsuitable for the purpose, and it is hoped that many of them will cease to be so used when alternative accommodation is provided for the overcrowded families.

Housing Acts.—The 17 clearance areas and 53 individual houses dealt with under the Housing Act, 1930, particulars of which were given in the report for 1935, have now been dealt with, with the exception of individual unfit houses occupied by 12 coloured families. The Council decided to construct flats for these families, but the cost was found to be prohibitive, and alternative methods of rehousing are now under consideration.

One application for compensation for loss of business caused by the demolition of houses in clearance areas was received, and a payment of £20 was made to the shopkeeper.

In only one instance has an owner made application under section 51 of the Housing Act, 1936, for a certificate stating that the houses would, after the execution of certain work, with reasonable care and maintenance, remain fit for a period of at least five years. This application related to 11 houses and the certificate was issued for the minimum period.

In connection with the clearance of the houses in the Wood Street area, the removal of the families and the disinfestation of their effects has made a considerable amount of extra work, as every house demolished in this area was found to be verminous.

The number of houses repaired under section 17 of the Housing Act, 1930, was 929, of which 859 were dealt with by informal notices and 70 by formal notices. In four instances the repairs were executed by the Council in default of the owners.

HOUSING ACT, 1935.

The Overcrowding Survey.

Report of the Medical Officer of Health (May, 1936).

Overcrowding Standards.—There are two principal tests of overcrowding, both of which must be complied with.

By the first test, which may be called the "number-of-persons test," definite proportions of persons to rooms (whether bedrooms or living-rooms) are fixed. Such proportions may not be exceeded if overcrowding is be to avoided. In addition, there is a "sex standard" requirement that no two persons being over 10 years of age and of opposite sexes may sleep in the same room unless they are living as husband and wife.

The second test is the "floor-area" test, which relates units of persons to floor area.

Two scales are provided for the purposes of these tests; the first relating units of persons to number of rooms, the second relating units of persons to floor area of rooms measured in square feet. The maximum permitted number of unit person will be the lower as given by either. The scales are set out below, and in considering them attention is particularly drawn to the following points:—

(1) The expression "room" does not include any room of less than 50 square feet or of a type not normally used in the locality as a living-room or bedroom.

(2) In the case of a house, part of which is sub-let, the rooms occupied by the sub-tenant constitute a separate house.

(3) In calculating the "permitted number of persons," children under 10 years of age count as half a person and those under one year are ignored.

(4) A *room* is defined as not including any room of a type not normally used in the locality either as a living room or as a bedroom, and a room with a floor area of less than 50 sq. ft. does not count as a room.

(5) Subject to the above-mentioned provisos, the standard is a *persons-to-room* standard and not a *persons-to-bedroom* standard.

Scale I.

No. of Rooms	Permitted No. of Persons
1	2
2	3
3	5
4	$7\frac{1}{2}$
5	10
and two persons extra for each additional room. No room under 50 sq. ft. should be counted.	

Scale II.

Size of Rooms	Permitted No. of Persons
110 sq. ft. or over	2
90 sq. ft. or over but under 110 sq. ft.	$1\frac{1}{2}$
70 sq. ft. or over but under 90 sq. ft.	1
50 sq. ft. or over but under 70 sq. ft.	$\frac{1}{2}$
Under 50 sq. ft.	Nil

It should be emphasised that the standards of overcrowding in the Act are comparatively low, and particularly the standard for sex overcrowding which only applies to one-room tenements, few of which are found in Cardiff. The weakness of the provisions as to sex overcrowding is inherent in the fact that the overcrowding standards relate *persons to rooms instead of persons to bedrooms*. On the other hand, when a local authority is rehousing persons in Council houses it must apply the *persons-to-bedroom standard* laid down in the Housing Act, 1930 (section 37), which provides that houses containing 2, 3 and 4 bedrooms can give accommodation to 4, 5 and 7 persons.

Appointed Days.—The Minister has decided to fix certain appointed days on which the provisions of the Act are to come into force. For present purposes there are two such appointed days that concern the Housing Committee. The first is the date after which overcrowding may constitute an offence. The second is a date six months earlier, and by this earlier date a certain notice must be inserted in every rent book. After the appointed days for overcrowding either the occupier or the landlord may be prosecuted by the local authority for offences in relation to overcrowding. That is the reason why notices have to appear in the rent books as soon as possible before this day. The notices to be inserted in the rent books should explain in simple language the provisions of the Act relating to overcrowding and give for each house a statement showing the number of persons allowed to live in that house. It should be pointed out that a part of a house that is sub-let may be regarded as a separate dwelling-house within the meaning of the Act, and for rooms occupied by sub-tenants, as for a structurally separate dwelling-house, there would have to be a separate notice in a separate rent book. The idea of putting this information in the rent books six months before the date when the local authority may prosecute for overcrowding offences is to give both landlord and occupier plenty of warning.

The Minister of Health is anxious that as many local authorities as possible shall agree to fix the appointed day for overcrowding on 1st January, 1937, which means that the corresponding appointed day for inserting notices in the rent books would be 1st July, 1936; and the Minister proposes to fix these dates nationally for all local authorities whose overcrowding is represented by a figure of less than 2 per cent. of the total number of working-class houses in their district.

The Chief Sanitary Inspector (Mr. Pyatt) calculates the overcrowding in Cardiff at 2·97 per cent. The County of London has an average figure of 9·1 per cent., some of its Metropolitan Boroughs reaching percentages as high as 17·8 (Bermondsey), 21·7 (Bethnal Green), 20·5 (Finsbury) and 23·6 (Shoreditch). Local authorities whose overcrowding figure is higher than 2 per cent. may either apply to the Minister for postponement of the appointed day for overcrowding in their case or they may ask to join with those local authorities whose overcrowding is less than 2 per cent., and whose appointed day in the absence of special representation will be fixed automatically at 1st January, 1937. London, despite its high average figure, has applied to have its appointed day on that date, but London is exceptionally well advanced in building programmes. It is doubtful whether Cardiff is so favourably placed in that respect, and it may be argued that it is useless to fix an appointed day for overcrowding offences until there is sufficient alternative accommodation available to offer the overcrowded families. This is not necessarily true. As will be shown later, families already overcrowded on the appointed day are not guilty of offence until they have refused suitable alternative accommodation; and families becoming overcrowded after the appointed day (e.g., by growth of family in age or numbers), for whom no alternative accommodation exists, must be granted a temporary licence by the local authority. A family that is overcrowded on the appointed day and, in the absence of suitable alternative accommodation, is obliged to move to another house where it still continues under overcrowded conditions must also have a licence from the local authority, which thus keeps in touch with families moving about and does not lose the general outline of the overcrowding "picture" obtained by the original survey. The need to keep in touch with the movements of the overcrowded families is a strong argument in favour of asking the Minister to fix the appointed day for overcrowding offences in Cardiff at 1st January, 1937, notwithstanding that the overcrowding figure is 2·97 per cent.

This means making the "rent book" appointed day 1st July, 1936, and the difficulty here is that immediately afterwards application may be made by landlords or occupiers of dwelling-houses to the local authority seeking information in writing as to the number of persons allowed by the Act to live in their respective dwelling-houses. In order that the local authority may give this information, it will be necessary to measure the rooms in the houses concerned. It may be anticipated that a great many applications for information, affecting in Cardiff some 27,000 houses, will be made immediately after the appointed day. It is desirable, therefore, that detailed measurement of all these houses should be carried out systematically, beginning as soon as possible before the appointed day for rent books is fixed and finishing as soon as possible after that day. For this purpose it is suggested that the staff of 10 enumerators and one clerk taken on temporarily for the preliminary survey should be re-employed for as long as may be necessary to obtain all the additional information that will be required before notices can be fixed in the rent books of all the 27,000 working-class dwellings that have still to be examined in detail.

It will be seen from Mr. Pyatt's report that during the preliminary survey 32,557 houses were visited. The preliminary survey was little more than a house-to-house "canvass" to obtain information for working out the "persons-to-room" scale. More than 5,000 houses which failed by this standard were then measured up to work out the "persons-to-floor area" scale. Only then could the final figure for overcrowding be worked out. But before the notices can be inserted in the rent books every one of the 27,000 houses eliminated by the preliminary application of the "persons-to-room" scale will have to be measured. With this additional information it will be possible to calculate the maximum number of persons "permitted" to reside in each "dwelling-

house," and here it must be remembered that within each structurally separate dwelling-house there may be one or more additional " dwelling-houses " made up of rooms let off to sub-tenants. Hence the need for temporary extra staff to carry out what is likely to prove much heavier labour than that of the overcrowding survey itself.

Propaganda.—Although it is true that after the appointed day fixed for overcrowding the local authority may prosecute for offences against the statutory standard, the Minister considers it desirable to make these prosecutions unnecessary as far as possible, and to that end considers that no effort should be spared to make it as widely known as possible what would be considered as overcrowding offences according to the new standard. The insertion of notices in the rent books constitutes one method of spreading the requisite information, but it will be necessary to supplement that by the issue of pamphlets and circulars, the insertion of notices in the press and the exhibition in the usual places of printed notices which draw attention to the fixing of the appointed days and stating that further information may be obtained from the offices of the local authority.

Rehousing Proposals.—The urgency of rehousing proposals lies in the fact that legal enforcement of the overcrowding provisions cannot be made unless " *suitable alternative accommodation* " is available to, and refused by, the family concerned in the overcrowding offence. The phrase " *suitable alternative accommodation* " embraces some very important requisites, namely :—

(1) It can be occupied by the family concerned without their offending anew against the overcrowding standards of the Act.

(2) It has been certified by the local authority as being suitable for the family concerned as respects—

(a) Security of tenure.
(b) Proximity to place of work.
(c) A rent that the family can reasonably afford.

If the " suitable alternative accommodation " is provided by the local authority in a " Council house " it must accord with the standard specified in the Housing Act, 1930 (section 37), which provides that houses containing 2, 3 and 4 bedrooms can accommodate 4, 5 and 7 persons respectively

Mr. Pyatt estimates that we need 1,223 houses for this purpose. Rehousing proposals must be submitted to the Minister by 1st August, 1936. It is understood that the Ministry favours the letting of houses for rehousing decrowded families at rents adapted to what they can afford, and thinks that the 1930 Act subsidy should be used for this purpose. The City Treasurer and Controller has submitted a scheme on these lines for rehousing slum dwellers, and possibly it could be adapted to the needs of the decrowded families. The standards of rehousing are those of the 1930 Act, and are much higher than the " persons-to-room " standard of overcrowding in the 1935 Act. The Minister stresses the need to make adequate provision for large families and aged persons.

Summary :—

1. An introduction is given to Mr. Pyatt's report on the overcrowding survey just completed for Cardiff.
2. Some important features of the Housing Act, 1935, are explained.
3. The Committee is advised to recommend the Council to apply to the Minister of Health to fix 1st January, 1937, for the appointed day after which overcrowding constitutes an offence. For reasons stated, this advice is proffered despite the fact that Cardiff's overcrowding figure exceeds by nearly 1 per cent. the 2 per cent. limit or excess over which the Minister considers it a possible reason to apply for postponement.

4. If 1st January, 1937, be fixed for the appointed day after which overcrowding constitutes an offence, the appointed day for inserting notices in rent books must be 1st July, 1936. This means that as soon as possible after that date detailed information must be obtained concerning at least 27,000 houses, so that in respect of each one the maximum number of persons " permitted " to reside therein may be calculated. To meet this difficulty of much labour in a short time the Committee is asked to sanction the immediate temporary re-appointment of the 10 enumerators and one clerk employed for the preliminary survey.

5. Brief reference is made to rehousing proposals which must be submitted to the Minister of Health by 1st August, 1936. They are discussed more fully in Mr. Pyatt's report.

6. *In connection with rehousing proposals the need for a differential renting scheme is urged.*

Report of the Chief Sanitary Inspector (May, 1936).

The survey, to ascertain the extent of overcrowding, was commenced on 1st January, 1936, and was completed on 4th April, 1936. Before the commencement of the survey a considerable amount of preliminary work was necessary. In the first place, the houses which were to be excluded on account of their not coming within the category " suitable for occupation by the working classes " had to be ascertained, and the remainder were then tabulated in street order. The register of electors, together with other information in the possession of the department, was used for the purpose of making out the cards for the preliminary survey. Before the enumeration started every house to be visited had been recorded on a separate survey sheet, so that the temporary enumerators engaged on the work had a comparatively straightforward task. It was decided to appoint a temporary clerk and ten temporary enumerators and to divide the houses to be visited into ten equal groups ; each enumerator was then handed his allotted sheets, each one of which was in street order, with the full address of the house already filled in.

The total number of dwelling-houses in the city is 46,100, and it was ascertained that approximately 32,500 houses would have to be visited. Care was taken to include streets which, although not strictly within the category of the Act, contained large, old-fashioned houses which were known to be let to several families, and for this reason would possibly be overcrowded.

The following table summarises the results of the preliminary survey carried out by the temporary enumerators. It will be seen that particulars of the number of families per house have been tabulated, as it was felt that this information would be of value in giving the Council details of dual tenancies, which have always been a problem in the city. Furthermore, this indicates the shortage of houses more accurately than the overcrowding standard.

Preliminary Survey.

Number of houses visited	32,557
Number of houses occupied by one family	22,801
Number of houses occupied by two families	8,407
Number of houses occupied by three families	804
Number of houses occupied by four families	114
Number of houses occupied by five families	31
Number of houses occupied by more than five families	17
Number of houses vacant at the time of the survey	361
Number of aged persons occupying rooms as sub-tenants	1,039

Examination of this table will reveal the interesting fact that 9,373 houses out of a total of 32,557 houses are occupied by more than one family. This figure represents 28·8 per cent., which supports the statements that have been made from time to time by successive Medical Officers of Health whenever the problem of dual tenancy has been discussed.

The number of vacant houses is a surprising figure and represents 1·1 per cent. of the houses inspected. The Ministry of Health suggest that these should be taken into account when computing the number of houses that will be required to abate overcrowding, but as there can be no guarantee that any of these houses will be let to families who are now living under overcrowded conditions, probably the safer plan would be to ignore them altogether. At one time it was thought that the building of Council houses and rehousing tenants from various parts of the city would lead to a "filtering up" of tenants from the slums and tend to improve the living conditions of the worst-housed families. This theory has been proved a fallacy and serves as an argument against reckoning vacant working-class houses as a part solution of the overcrowding problem. Another point in favour of disregarding vacant houses is the reluctance on the part of most owners to let their houses to large families, and also the large percentage of houses now occupied by more than one family points to the need for considerably more accommodation than that shown to be necessary on the basis of the overcrowding standards laid down in the 1935 Act.

The number of aged persons occupying rooms as sub-tenants was obtained for the purpose of giving information to the Housing Committee regarding the need for smaller houses for aged persons.

The Detailed Enumeration.

Overcrowding.—All families which were shown by the preliminary survey to be possibly overcrowded were referred to the Sanitary Inspectors. It was their duty to visit each of the houses where these families were living and obtain detailed particulars of the sexes and ages of the occupants and the measurements of the rooms. Of the total of 32,557 houses visited under the preliminary survey, 5,317, or 16·3 per cent., required fuller investigation in this manner. Where a house contained more than one family, the overcrowding standards were applied to each separate family in relation to the rooms in their occupation.

The survey disclosed 1,211 houses overcrowded, and these contained 1,272 overcrowded families. The number of families inspected was 42,775, and therefore the extent of overcrowding is 2·97 per cent., which compares favourably with the average throughout the country.

Several interesting facts have been disclosed during the survey. Most of the overcrowding is shown to be in houses occupied by two families and is usually caused by the tenant taking in a sub-tenant. The amount of overcrowding brought about by owners letting their houses direct to several tenants is comparatively small. A large number of Council houses have been found overcrowded and this is due largely, not, as one would expect, to the taking in of sub-tenants, but rather to the smaller type of house being occupied by the largest families. Probably the economic factor has some bearing on this.

Of the total of 1,211 overcrowded houses, 371 were occupied by one family only, and the Ministry suggest that these should be taken into account, in a similar manner to vacant houses, when decrowding proposals are under consideration. The same argument can be applied to this proposal as that applied to the vacant houses. Actually, if decrowded houses and vacant houses are subtracted from the total number of houses required to abate overcrowding, we find that it would only be necessary to build 511 houses. It is obvious how impossible it will be to deal with the problem on this basis.

It should be noted that all houses condemned under the slum clearance schemes have been excluded from this survey.

Overcrowding in Council Houses.—These figures are interesting and reveal that of the 5,731 families in Council houses, 267, or 4·66 per cent., are overcrowded.

Almost certainly a re-allocation of tenants is possible in many of these cases, and if carried out would tend to reduce the number of new houses required for rehousing.

The following table shows the details of Council houses overcrowded and occupied by one family only :—

N.P.2.	*N.P.3.*	*P.3.*	*Total.*
86	110	19	215

Distribution of Overcrowding.—The following table shows the extent of overcrowding in each ward :—

Ward.	*Number of Families Overcrowded.*
Splott	203
Adamsdown	161
Llandaff	155
Grangetown	135
South	114
Gabalfa	112
Central	81
Roath	75
Riverside	73
Canton	64
Cathays	49
Plasnewydd	38
Penylan	12

Decrowding Proposals.—It is estimated that 1,223 houses are required immediately. The discrepancy between this figure and the total of 1,272 overcrowded families is due to those houses which contained two overcrowded families and where the removal of one family would automatically decrowd both families ; also 20 overcrowded families have been rehoused by the Council since the commencement of the survey.

Rehousing standards are those laid down in section 37 of the Housing Act, 1930, namely :—

Two bedrooms	Four persons.
Three bedrooms	Five persons.
Four bedrooms	Seven persons.

On this basis the number of new houses required will be as follows :—

Two bedrooms	394
Three bedrooms	360
Four bedrooms	247
Nine persons per family	72
Ten persons per family	55
Eleven persons per family	37
Twelve persons per family	25
Thirteen persons per family	4
Fourteen persons per family	1
Sixteen persons per family	1
Single persons occupying portions of a house as sub-tenants and causing overcrowding in the tenant's family	27
Total	1,223

The families containing nine or more persons will require special consideration, and the Ministry suggest in Circular 1539, dated 7th May, 1936, that for nine persons appropriate accommodation might be provided " in a four bedroom house on condition that the bedrooms are made large enough, e.g., 150 sq. ft., 130 sq. ft., 120 sq. ft., and 100 sq. ft. In the case of many large families five or even six bedroom houses may be necessary." The Ministry also suggest that " where this has to be done the authority should, as far as possible, associate with each large house a small dwelling in such a way that at some future date the combined dwelling might be structurally altered into two separate family houses." An alternative suggestion is that existing houses might be acquired and converted into suitable accommodation for large families. Many such houses are to be found in Bute Street and district, but the cost of conversion may be prohibitive.

Owner-Occupiers.—The position of the owner-occupier with a large family and therefore overcrowded is a difficult one. This occurs in several instances and if removal to a larger house is insisted on it will be a definite hardship on a person who has been thrifty.

Removals of Overcrowded Families since the Survey commenced.—One of the problems met with in slum clearance work was the rapidity and frequency with which houses of this type changed hands. To control this tendency all overcrowded families were given addressed postcards and asked to forward them to the Public Health Department if and when they changed their addresses. Up to date only four of these postcards have been received, and it is inconceivable that this represents the extent of removals among these families during the past four months.

Families due for Review in 1937.—As a guide to the Committee, it should be mentioned that 431 families are due for review in 1937. These are borderline cases of overcrowding and it can safely be said that the majority will have to be rehoused at some time during the review year. Some, of course, may have obtained other accommodation in the meantime and others may have been subject to changed domestic conditions which will obviate overcrowding.

Form C., which is the completed summary of the survey, is attached to this report. This has been taken out for the whole of the working-class houses in the city and also for Council houses only. This is in accordance with the Ministry's instructions.

In conclusion, it should be mentioned that the survey has been carried out without friction or difficulty of any kind. In only three instances was entry refused and a warning letter was sufficient to rectify this immediately. Tribute must be paid to the temporary enumerators for the excellent way in which their work was done ; also the work of Mr. Harris (temporary clerk), Mr. Male (Clerk) and the assistant sanitary inspectors is deserving of praise and involved a considerable amount of overtime to complete the survey in the period laid down by the Minister.

Summary of the Survey.

Number of houses overcrowded	1,211
Number of families overcrowded	1,272
Percentage of overcrowding	*2·97*
Number of tenants in sole occupation of a house and overcrowded	371
Number of vacant houses	361
Number of families to be rehoused to abate overcrowding	1,223

Size of houses required by these families :—

Single Persons.	*Two Bedrooms.*	*Three Bedrooms.*	*Four Bedrooms.*	*Houses larger than the normal Four Bedroom Type.*
27	397	368	253	198

Number of families for review in 1937 431

OVERCROWDING SURVEY—WHOLE AREA.

Number of "Persons" in Family.	Number of Families containing the Number of Persons in the First Column occupying Dwellings with the Permitted Number shown at the Head of this Column.																							Families.		
	½*	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12 & over	Over-crowded (a)	Un-crowded (b)	Total (c)
1	4	18	1,266	283	931	190	3	290	15	60	4	314	4	10	46	167	2	3	115	13	—	27	—	17	4	3,778	3,782
1½	—	—	2	12	59	19	—	14	—	1	—	8	—	—	1	4	—	—	1	—	—	11	—	—	—	132	132
2	1	6	19	194	1,878	892	5	1,098	43	220	4	1,656	32	47	258	1,352	10	7	1,168	41	5	188	—	89	26	9,187	9,213
2½	—	1	8	49	22	486	4	654	26	87	3	639	5	20	72	464	4	2	202	6	—	40	—	11	58	2,747	2,805
3	—	—	1	28	19	667	8	1,465	40	270	13	1,890	26	62	302	1,910	17	12	1,517	29	2	302	5	119	48	8,656	8,704
3½	—	—	—	6	1	229	3	481	17	133	2	576	14	26	72	586	8	6	267	30	3	66	2	19	236	2,311	2,547
4	—	—	—	3	6	118	5	20	66	437	10	1,239	24	37	199	1,567	12	17	1,359	36	—	349	1	98	132	5,471	5,603
4½	—	—	—	3	1	39	3	9	24	184	5	353	1	9	54	458	9	4	318	10	2	73	—	16	55	1,520	1,575
5	—	—	—	3	—	21	1	5	34	165	7	579	12	25	102	961	11	12	917	37	3	242	2	96	64	3,171	3,235
5½	—	—	—	—	—	22	2	5	10	111	4	228	16	19	36	323	5	7	298	9	1	54	3	13	150	1,016	1,166
6	—	—	—	—	1	9	—	1	13	69	17	13	48	48	104	504	6	6	493	21	2	170	3	57	110	1,475	1,585
6½	—	—	—	—	—	3	—	1	4	32	10	14	14	30	46	224	8	2	152	2	2	48	2	8	64	538	602
7	—	—	—	—	—	1	—	1	1	23	6	7	39	29	47	245	9	17	241	13	1	75	—	40	78	717	795
7½	—	—	—	—	—	1	—	—	1	1	2	2	14	19	20	99	7	4	90	6	1	15	2	9	40	253	293
8	—	—	—	—	—	2	—	—	—	4	3	3	11	12	35	7	9	15	141	11	2	56	—	20	70	261	331
8½	—	—	—	—	—	—	2	—	1	2	1	2	7	1	16	6	5	7	56	12	—	19	—	6	38	105	143
9	—	—	—	—	—	—	—	—	—	2	1	1	3	2	10	3	11	4	49	7	1	18	2	6	33	87	120
9½	—	—	—	—	—	—	1	—	1	—	—	—	1	2	5	2	8	12	3	3	—	11	2	9	32	28	60
10	—	—	—	—	—	1	—	—	—	—	—	1	1	1	3	—	2	6	3	—	1	11	6	5	18	23	41
10½	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	1	3	—	3	1	2	2	5	10	10	20
11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	1	2	5	2	8	10
11½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	1	1	7	3	8	11
12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	1
12½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	1
Dwellings— (a) Uncrowded	—	18	1,268	489	2,890	2,254	23	4,022	231	1,557	52	7,495	196	362	1,359	8,871	122	125	7,387	286	27	1,778	35	656	—	41,503	—
(b) Overcrowded	5	7	28	92	28	446	14	22	65	244	40	30	77	37	72	14	23	21	3	3	—	1	—	—	1,272	—	—
(c) Total ...	5	25	1,296	581	2,918	2,700	37	4,044	296	1,801	92	7,525	273	399	1,431	8,885	145	146	7,390	289	27	1,779	35	656	—	—	42,775

OVERCROWDING SURVEY—COUNCIL HOUSES.

Number of "Persons" in Family	Number of Families containing the Number of Persons in the First Column occupying Dwellings with the Permitted Number shown at Head of this Column.																							Families.		
	½*	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12 & over	Over-crowded (a)	Un-crowded (b)	Total (c)
-	—	2	26	11	10	9	—	14	—	—	—	4	—	—	—	2	—	—	1	—	—	—	—	—	—	79	79
1½	—	—	—	—	1	1	—	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	9
2	—	3	3	7	79	68	—	233	3	17	—	123	—	—	—	130	—	—	8	—	—	—	—	—	6	668	674
2½	—	—	—	2	1	48	22	253	1	10	—	153	—	—	1	134	—	1	1	—	—	—	—	—	2	625	627
3	—	—	—	1	2	35	—	501	5	45	—	312	—	—	2	264	—	—	11	—	—	—	—	—	3	1,175	1,178
3½	—	—	—	—	—	6	—	207	—	35	1	151	—	—	1	166	—	—	2	—	—	1	—	—	6	564	570
4	—	—	—	—	—	2	—	1	14	203	1	241	—	—	1	305	—	—	8	1	—	—	—	—	2	775	777
4½	—	—	—	—	—	—	—	—	4	94	—	130	—	—	1	139	1	1	4	—	—	—	—	—	—	374	374
5	—	—	—	1	—	1	—	—	5	73	1	178	1	1	—	221	1	2	13	1	—	—	—	—	7	492	499
5½	—	—	—	—	—	—	—	—	1	57	—	91	7	—	1	113	—	—	1	—	—	—	—	—	58	213	271
6	—	—	—	—	—	—	—	—	1	33	11	6	24	19	6	135	1	—	1	2	—	—	—	—	45	194	239
6½	—	—	—	—	—	—	—	—	—	10	6	3	10	17	2	90	1	—	2	—	—	—	—	—	19	122	141
7	—	—	—	—	—	—	—	—	—	7	—	3	31	14	3	66	—	1	2	—	—	—	—	—	41	86	127
7½	—	—	—	—	—	—	—	—	—	—	2	1	8	13	—	39	2	2	2	—	—	—	—	—	24	45	69
8	—	—	—	—	—	—	—	—	—	1	2	1	5	6	3	—	2	1	14	5	—	—	—	—	18	22	40
8½	—	—	—	—	—	—	—	—	—	1	—	—	4	1	3	—	1	4	1	5	—	—	—	—	9	11	20
9	—	—	—	—	—	—	—	—	—	—	1	1	3	1	2	1	4	1	1	6	—	—	—	—	13	8	21
9½	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1	4	—	2	—	—	—	—	7	2	9
10	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	2	—	—	—	—	—	4	—	4
10½	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	2	—	—	—	—	3	—	3
11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dwellings— (a) Uncrowded	—	2	26	18	91	161	22	1,216	27	477	3	1,389	42	51	18	1,804	9	13	72	22	—	1	—	—	—	5,464	—
(b) Overcrowded	—	3	3	4	2	9	—	—	7	109	22	9	53	23	8	1	5	5	2	2	—	—	—	—	267	—	—
(c) Total ...	—	5	29	22	93	170	22	1,216	34	586	25	1,398	95	74	26	1,805	14	18	74	24	—	1	—	—	—	—	5,731

* A dwelling of one room between 50 and 70 sq. ftt.

XVIII.—GENERAL SANITATION.

Statements as to the nature and extent of the work done during 1936 in connection with general sanitary inspection are given below. A summary of legal proceedings and particulars with regard to disinfection, baths at the Cleansing Station and bodies taken to the Public Mortuary are also included.

General Sanitary Inspection.

Complaints of nuisances received 2,610

	Inspections or Visits	Intimation Notices		Statutory Notices	
		Served	Complied with	Served	Complied with
House inspections for nuisances	3,866	2,689	2,050	266	250
,, ,, in connection with infectious diseases	2,210	—	—	—	—
,, ,, for vermin	333	104	78	—	—
,, ,, for other conditions	5,726	—	—	—	—
Houses inspected and recorded	283	—	—	—	—
Re-inspections of houses	12,675	—	—	—	—
Owners and contractors interviewed	1,669	—	—	—	—
Knackers' yards	38	—	—	—	—
Slaughter-houses	833	—	—	—	—
Milkshops, etc.	1,471	4	3	—	—
Cowsheds	214	6	4	—	—
Offensive trades	72	7	6	—	—
Workshops—					—
Bakehouses	217	11	7	—	—
Bootmakers	59	2	1	—	—
Dressmakers and milliners	25	3	—	—	—
Laundries	9	2	1	—	—
Tailors	48	4	—	—	—
Miscellaneous	229	13	8	—	—
Factories—					
Bakehouses	182	11	7	—	—
Bootmakers	21	—	—	—	—
Laundries	9	—	—	—	—
Tailors	8	—	1	—	—
Dressmakers and milliners	1	—	—	—	—
Miscellaneous	584	14	5	—	—
Workplaces	146	8	3	—	—
Miscellaneous outworkers	3	—	—	—	—
Seamen's lodging houses (day)	725	111	103	—	—
,, ,, ,, (night)	73	—	—	—	—
Common lodging houses (day)	48	5	3	—	—
,, ,, ,, (night)	1	—	—	—	—
Houses-let-in-lodgings	49	1	2	—	—
Tents, vans, sheds and similar structures	77	—	—	—	—
Amusement places	138	15	10	—	—
Public houses	60	2	—	—	—
Schools	75	1	—	—	—
Swimming baths	61	—	—	—	—
Water supplies	1	—	—	—	—
Water courses	35	3	3	—	—
Refuse tips	69	—	—	—	—
Accumulations	374	7	6	—	—
Sewers	49	1	1	—	—
Drains	3,447	53	49		—
Public urinals	217	—	—	—	—
Cesspools	15	1	1	—	—
Back lanes	186	3	3	—	—
Rat infestation	933	19	14	—	—
Premises where swine or other animals are kept	173	17	12	—	—
Marine store hawkers	64	4	2	—	—
Smoke and grit observations	134	1	—	—	—
Visits not classified	4,567	—	—	—	—

Nuisances Abated, Repairs Executed, etc.

Houses :—	
Walls repaired	351
Outside plastering repaired	432
Inside plastering repaired	620
Damp-proof courses inserted	27
Floors renewed or repaired	495
Floors ventilated	50
Roofs renewed or repaired	661
Shutes, downpipes or gutters renewed or repaired	569
Chimneys repaired	219
Ceilings repaired	276
Doors and frames repaired	278
Lighting and ventilation of rooms improved	112
Window sashes or frames renewed or repaired	504
Window cords renewed	397
Staircases repaired	91
Grates or ovens repaired or renewed	257
Boilers provided or repaired	104
Food stores provided or improved	40
Washhouses provided or improved	63
Out-buildings repaired	23
Obstructive out-buildings demolished	17
Walls or ceilings cleansed or redecorated	100
Bedding cleansed or destroyed	83
Rooms treated for vermin	288
Overcrowding abated	20
Yard paving relaid or repaired	385
Nuisances from animals abated	21
Accumulations removed	54
Ash-bins provided	1
Water supply provided	3
Water taps or pipes repaired	30
Water samples taken for analysis	10
Miscellaneous repairs and nuisances abated	241
Drainage :—	
Drains tested (smoke)	155
,, ,, (chemical)	356
New drains constructed	57
Drains reconstructed	173
Drains repaired	374
Drains under houses abolished	18
Drains cleansed	240
Drains cleansed or repaired by Corporation in default of owners	9
Inspection or intercepting chambers provided or repaired	50
Intercepting traps fixed	4
Soilpipes or ventilating shafts fixed or repaired	38
Rain-water pipes disconnected	3
Gullies fixed	172
Troughs provided	702
Troughs trapped or waste pipes repaired	211
Bath waste pipes trapped or repaired	10
Lavatory basins trapped or waste pipes repaired	6
Additional w.c.'s provided	47
W.c.'s reconstructed	153
Drain inlet inside house abolished	6

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(cont.)

Lighting and ventilation of w.c.s improved	34
New pans and traps fixed	1,931
W.c. pans cleansed	23
Flushing apparatus provided	2,004
Flushing apparatus repaired	77
Miscellaneous repairs	289
Cesspools :—	
Constructed	1
Abolished and house connected to sewer	2
Emptied	4
Seamen's Lodging Houses :—	
Limewashing or cleansing carried out	102
Bedding removed	6
Verminous rooms treated	57
Bedsteads cleansed or repaired	142
Accumulations removed	6
Washing accommodation provided	2
Other repairs	14
W.c.'s repaired	7
Additional w.c. accommodation provided	1
Common Lodging Houses :—	
Limewashing or cleansing carried out	4
Urinals :—	
Reconstructed	1
Additional urinals provided	2
Walls repaired or made impervious	1
Flusing apparatus fixed or repaired	2
Floors repaired	2
Other repairs	2
Tents, Vans or Sheds :—	
Removed	3
Amusement Places :—	
W.c.'s repaired	2
Additional w.c. accommodation provided	—
Ventilation improved	—
Cleanliness improved	2
Other repairs	2
Dairies, Cowsheds and Milkshops :—	
New dairies constructed	4
Existing dairies improved	1
Existing cowsheds improved	2
Paving repaired	3
Lighting or ventilation improved	2
Limewashing or cleansing carried out	26
Sterilisers fixed	1
Accumulations of manure removed	3
Drainage improved	2
Water supply provided	1
Other repairs	2

NUISANCES ABATED, REPAIRS EXECUTED, ETC.—(cont.)

Ice Cream Premises :—	
Limewashing or cleansing carried out	7
Accumulations removed	2
Premises improved	3
Use of unsuitable premises discontinued	1
Food Shops, Kitchens, etc. :—	
Storage arrangements improved	1
Accumulations removed	5
Cleanliness improved	11
Ash-bins provided	7
Washing-up sinks fixed	4
Lighting or ventilation improved	4
Water supply provided	1
Communicating w.c. abolished	1
Inside drain inlets abolished	2
Other repairs	7
Fried Fish Shops :—	
New ranges fitted	7
Ash-bins provided	3
Cleansing carried out	9
Storage accommodation provided or improved	5
Drainage improved	1
Accumulations removed	4
Unsuitable premises discontinued	1
Lighting and ventilation improved	4
Other repairs	7
Offensive Trades :—	
Accumulations removed	1
Floors or walls repaired	2
Cleanliness improved	2
Drainage improved	1
Other repairs	1
Stables :—	
Accumulations of manure removed	23
Paving repaired or renewed	4
Manure receptacles provided or repaired	8
Limewashing carried out	9
Drains provided	1
Back Lanes :—	
Accumulations removed	7
Surfaces repaired	2
Miscellaneous repairs or nuisances abated	3

Common Lodging Houses.—There are six registered Common Lodging Houses, two of them being large houses and the remainder of a small type.

Seamen's Lodging Houses.—In past years it has been the practice to consider new applications for and renewals of licences at half-yearly periods. The number of these houses has decreased considerably, and the Health Committee therefore decided that in future applications would only be considered once yearly. There are now only 66 licensed seamen's lodging houses.

Offensive Trades.—The following is a list of established offensive trades :—

Artificial Manure Manufacturers	2
Fat Melters	2
Tripe Boilers	22
Rag and Bone Dealers	20
Gut Scrapers	2

The premises are kept under regular observation. Fortunately, most of those which are liable to cause effluvium nuisances are situated in a remote part of the city, some distance from dwelling-houses.

During the year three applications for consent to establish the business of rag and bone dealer were refused on the grounds that the localities in which it was proposed to establish them were not suitable. One application to establish a tripe-boiling business was also refused.

Choked and Defective Drains.—During the year action was taken under section 98 of the Cardiff Corporation Act, 1930, in nine cases in which the owners or occupiers failed to carry out the work, and no difficulty was experienced in recovering the costs incurred.

Flushing Cisterns.—During the year, 2,004 flushing cisterns were installed to hand flushed closets, making a total of 11,973 since the work was commenced in February 1931.

Conservancy System Closets.—The numbers of closets remaining on the conservancy system at the end of the year were as follows :—

Earth closets	6
Privies	80
Total	86

Cesspools.—There are 45 cesspools receiving drainage from dwelling-houses and three cesspools in connection with factories.

Swimming Baths.—There is one covered swimming bath, which is equipped with a modern continuous filtration plant. Open-air bathing is obtainable at two swimming baths and also at Roath Park Lake. The two open-air swimming baths are equipped with continuous filtration plants.

Rat Destruction.—The following is a summary of the work of the department in connection with the destruction of rats :—

Amount of poison sold (tins)	102
Number of baits laid in public sewers	8,154
Number of baits eaten	7,214
Number of baits laid elsewhere	35,430
Number of baits eaten	26,096
Total number of baits laid	43,673
Total number of baits eaten	36,983

During the year, 605 live rats and 837 dead rats from premises in the city were submitted to the Department of Zoology, National Museum of Wales, for identification and for examination of their parasitic fleas, for comparison with those submitted from ships and the docks.

Maindy Pool.—The tipping operations in this pool have now been completed. Owing to the amount of water that was present, complaints of smells, flies and rats were numerous during the years that the tipping proceeded, and it is satisfactory to be able to record that this source of nuisance is now removed.

Fouling of Footways by Dogs.—The question of making bye-laws relating to this matter was considered by the Health Committee during the year. As such bye-laws would only be applicable to dogs on leads, the Committee decided that it would be of very little advantage and therefore took no action.

Factories, Workshops and Workplaces.—Details of the sanitary inspection of factories, workshops and workplaces under the Factory and Workshop Act, 1901, are given in the following tables :—

1.—Inspection of Factories, Workshops and Workplaces.

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)	805	25	—
Workshops (including Workshop Laundries)	587	35	—
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	146	8	—
Totals	1,538	68	—

2.—Defects Found in Factories, Workshops and Workplaces.

Particulars	Number of Defects	
	Found	Remedied
Nuisances under the Public Health Acts :—		
Want of Cleanliness	69	61
Want of Ventilation	2	—
Overcrowding	—	—
Other Nuisances	16	10
Sanitary accommodation .... insufficient	1	—
Sanitary accommodation .... unsuitable or defective	2	4
Sanitary accommodation .... not separate for sexes	1	—
Breach of special sanitary requirements for bakehouses (Sec. 97 to 100)	—	—
Totals	91	75

3.—Home Work.

Nature of Work	Outworkers' Lists, Section 107							Outwork in Unwholesome Premises, Section 108		Outwork in Infected Premises, Sections 109, 110	
	Lists received from Employers						Notices served on Occupiers as to keeping or sending lists				
	Sending twice in the year			Sending once in the year							
	Lists	Outworkers		Lists	Outworkers			Instances	Notices served	Instances	Orders made (S. 110)
		Contractors	Workmen		Contractors	Workmen					
Wearing Apparel—											
(1) Making, etc.	21	—	110	5	—	34	41	—	—	—	—
(2) Cleaning and washing	—	—	—	—	—	—	—	—	—	—	—

4.—Registered Workshops.

Workshops on the Register (S. 131) at the end of the Year	Number
Bakers	112
Bootmakers	148
Dressmakers and milliners	60
Laundries	16
Tailors	131
Miscellaneous	339
Total Number of Workshops on Register	806

5.—Other Matters.

Class	Number
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (Sec. 133)	—
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act :—	
Notified by H.M. Inspector	5
Reports (of action taken) sent to H.M. Inspector	6
Other (Notices of Occupation of Workshops received from H.M. Inspector)	7
Underground Bakehouses in use at the end of the year	—

Shops.—The following is a summary of the work done under the Shops Acts and in connection with the sanitary inspection of shops :—

Closing Orders in operation	15
Observations of shops under Closing Orders	1,617
Observations of shops as to weekly half-holidays	2,918
Inspections of shops	1,708
Infringements of Shops Acts	84
Notices requiring sanitary defects to be remedied :—	
Served	80
Complied with	65

An application was received for the making of a weekly half-holiday order relating to fish fryers. The order is now operative and makes it obligatory for fish fryers to close at 1.30 o'clock on Tuesday afternoons. A similar order is now in course of preparation in connection with the fruit and fish trades.

Pharmacy and Poisons Act, 1933.—This Act became operative on 1st May, 1936, and has brought additional work to the department. The number of licences issued was 120. It was decided that the work involved should be done by the sanitary inspectors instead of paying fees to inspectors appointed by the Pharmaceutical Society. Apart from the time involved in following up applicants, samples have been taken to ascertain whether the substances sold come within the terms of the Act, and this has thrown additional work upon the Public Analyst.

Legal Proceedings.—The following is a summary of legal proceedings taken during the year in connection with general sanitary administration :—

Acts, etc., under which proceedings were taken	Number	Fined	Cautioned	To pay cost only	Dismissed	With-drawn	Amount of Fines and Costs
							£ s. d.
Shops Acts	84	53	10	17	1	3	16 6 0
Public Health Act, 1875 (Sec. 94)	1	—	—	1	—	—	4 0
Housing Act, 1930	19	3	—	14	—	2	4 8 0
Cardiff Corporation Act, 1930 (Sec. 101)	5	—	—	5	—	—	12 6
Merchant Shipping Act, 1894 (Sec. 214, Sub-sec. 5)	8	7	—	1	—	—	5 19 0
Totals	117	63	10	38	1	5	£27 9 6

Disinfection.—Disinfection was carried out at 344 houses during the year, and 9,873 articles of bedding, clothing, etc., were removed to and disinfected at the Disinfection Station ; 345 infected articles were destroyed by arrangement with or at the request of the owners.

Cleansing Station.—The total number of baths for scabies, pediculosis, etc., undertaken at the Cleansing Station was 478.

Public Mortuary.—One hundred and one bodies (77 males, 24 females) were taken to the Public Mortuary and 59 post-mortem examinations were performed there.

XIX.—ATMOSPHERIC POLLUTION.

This section of the report is compiled from data supplied by Mr. J. H. Sugden, M.Sc., F.I.C., of the Cardiff and County Public Health Laboratory, under whose direction the analyses and measurements are undertaken.

Deposit Gauge.—Atmospheric pollution observations made with a deposit gauge in Cardiff during 1936 are given in the following table :—

Month	Rainfall (mm)	Grammes per Square Dekametre (Metric Tons per Hundred Square Kilometres)								
		Insoluble Matter			Soluble Matter		Total Solids	Included in Soluble Matter		
		Tar	Carbonaceous other than Tar	Ash	Loss on Ignition	Ash		Sulphates (SO_3)	Chlorine (Cl.)	Ammonia (NH_3)
January	113	5	100	157	133	373	748	108	102	1
February	40	7	108	207	48	132	502	47	27	1
March	93	7	166	293	69	177	712	77	24	1
April	92	7	151	160	90	160	568	58	29	1
May	47	4	89	128	53	86	360	39	7	4
June	110	5	113	179	108	154	559	64	17	3
July	210	4	80	102	88	297	571	97	72	1
August	27	4	42	96	47	98	287	48	7	1
September	72	4	72	116	76	167	435	48	43	1
October	45	4	102	160	81	234	581	62	78	4
November	104	4	108	137	165	456	870	93	176	1
December	93	4	98	169	92	263	626	65	86	1
Totals	1,046	59	1,229	1,904	1,030	2,597	6,819	806	668	20
Mean	87	5	102	159	86	216	568	67	56	2

Sulphur Pollution.—Since January, 1935, the amount of atmospheric sulphur dioxide has been measured by the lead peroxide method in Splott—a municipal ward in which iron and steel works are situated—as well as at the City Hall. The results, together with the calculated approximate volumes per million of air, for 1936, are tabulated in the following table :—

Month	Main direction of Wind	Milligrams SO_3 per 100 sq. cm. per day			Calculated volume SO_3 per million of air		
		Splott	City Hall	Difference	Splott	City Hall	Difference
January	From works	2·29	1·68	0·51	0·064	0·047	0·017
February	To works	2·57	1·81	0·76	0·071	0·050	0·021
March	—	*	1·45	—	—	0·040	—
April	To works	1·98	1·09	0·89	0·055	0·030	0·025
May	From works	1·70	0·87	0·83	0·047	0·024	0·023
June	To works	1·96	0·70	1·26	0·054	0·019	0·035
July	To works	1·62	0·56	1·06	0·045	0·015	0·030
August	To works	2·96	0·66	2·30	0·082	0·018	0·064
September	To works	2·67	0·84	1·83	0·074	0·023	0·051
October	From works	3·45	1·24	2·21	0·096	0·034	0·062
November	From works	3·59	1·51	2·08	0·100	0·042	0·058
December	—	3·73	1·65	2·08	0·104	0·046	0·058

* Apparatus out of order.

Ultra-violet Radiation.—The mean daily units of ultra-violet radiation, as measured by the acetone methylene blue method, in Cardiff during 1936 were as follows :—

Month	Mean Daily Radiation Units	
	Penylan (Suburban)	City Hall (Central)
January	0·26	0·26
February	0·30	0·30
March	0·34	0·34
April	0·60	0·58
May	1·08	1·03
June	1·37	1·32
July	1·35	1·34
August	1·58	1·55
September	0·80	0·80
October	0·30	0·30
November	0·23	0·25
December	0·21	0·19

XX.—METEOROLOGICAL OBSERVATIONS.

The Climatological Station, which is situated at Penylan, Cardiff, is under the control of the Medical Officer of Health. The geographical position of the Station is Latitude 51° 30′N., Longitude 3° 10′W., and the height of the Station above mean sea level is 203 feet. Observations are made daily at 9.0 a.m. and 9.0 p.m. (G.M.T.) Summaries of the observations made during 1936 are given in the following tables :–

Barometric Pressure and Relative Humidity.

Month	Attached Thermometer (Mean)	Mean Barometric Pressure*		Hygrometer*		
		Uncorrected	Reduced to Mean Sea Level and Temp. 32° F.	Dry Bulb (Mean)	Wet Bulb (Mean)	Mean Relative Humidity
	°F.	Inches.	Inches.	°F.	°F.	%
January	51	29·346	29·665	39·7	39·3	*97*
February	50	29·353	29·556	36·7	35·6	*91*
March	55	29·625	29·808	44·0	42·4	*81*
April	56	29·815	29·976	43·5	40·7	*79*
May	65	29·690	29·844	52·4	48·8	*76*
June	69	29·898	30·040	58·6	55·4	*81*
July	69	29·698	29·831	58·6	55·9	*84*
August	72	29·680	29·813	60·6	57·8	*83*
September	61	29·872	30·037	57·5	55·5	*88*
October	51	29·924	30·119	49·8	47·4	*83*
November	45	29·726	29·913	43·5	42·8	*95*
December	44	29·842	30·017	42·8	41·4	*88*
	57	29·704	29·884	48·9	46·9	*86*

* From observations at 9 a.m. and 9 p.m. (G.M.T.)

Temperature.

Month	Absolute Maximum	Absolute Minimum	Mean of Maximum	Mean of Minimum	Mean Temperature	Difference from Average (47 years)
	°F.	°F.	°F.	°F.	°F.	°F.
January	56	27	44·8	36·6	40·7	+ 0·6
February	52	26	43·0	33·3	38·1	— 2·2
March	59	29	50·5	40·1	45·3	+ 2·8
April	60	30	50·2	37·6	43·9	— 2·6
May	76	38	61·5	45·7	53·6	+ 0·9
June	82	39	65·6	51·8	58·7	+ 1·3
July	69	46	64·7	53·5	59·1	— 1·6
August	80	48	68·9	54·1	61·5	+ 1·1
September	72	40	64·7	52·3	58·5	+ 2·0
October	64	35	56·8	43·9	50·3	0·0
November	56	32	48·6	39·2	43·9	— 0·4
December	56	29	48·0	38·1	43·1	+ 2·0
	82	26	55·6	44·0	49·7	+ 0·3

Terrestrial Radiation, Underground Temperature and Sunshine.

Month	Temperature			Bright Sunshine	
	Grass Minimum (Mean)	Underground (Mean)		Total Duration	Difference from Average (28 years)
		1 ft.	4 ft.		
	°F.	°F.	°F.	Hours	Hours
January	32·5	40·3	43·9	41·2	— 12·6
February	30·2	38·5	42·5	73·3	— 2·9
March	36·1	42·9	43·2	73·5	— 46·3
April	33·5	45·6	46·0	132·5	— 34·5
May	42·2	54·2	50·2	180·3	— 22·0
June	48·0	59·1	53·9	138·8	— 82·6
July	51·6	62·1	58·4	127·4	— 83·5
August	51·5	65·9	59·3	198·3	+ 12·2
September	49·8	60·7	59·9	118·2	— 29·1
October	39·9	51·6	55·4	99·8	— 6·4
November	37·0	46·4	50·9	50·1	— 16·3
December	38·1	43·2	40·8	54·4	+ 5·4
	40·8	50·9	50·4	1,287·8*	—318·6

* =29 % of possible duration and a daily average of 3·51 hours.

Rainfall.

Month	Total	Difference from Average (47 years)	Greatest Fall in 24 hours*		Number of Rain-days (0·01 inch or more)	Duration
			Amount	Day		
	Inches	Inches	Inches			Hours
January	4·86	+ 0·92	0·76	31st	23	78·25
February	1·52	— 1·44	0·37	17th and 22nd	12	32·00
March	3·46	+ 0·50	0·58	31st	16	65·25
April	3·43	+ 0·75	0·74	21st	12	70·75
May	1·61	— 1·00	0·43	24th	9	18·00
June	4·50	+ 1·91	1·27	29th	14	29·00
July	8·41	+ 5·55	1·37	8th	24	95·25
August	1·36	— 2·72	0·40	19th	10	24·00
September	3·06	— 0·14	0·50	3rd	16	50·25
October	1·74	— 3·14	0·40	30th	11	39·75
November	4·57	+ 0·84	1·43	8th	18	80·75
December	4·46	— 0·21	0·73	17th	19	76·75
	42·98	+ 1·82	1·43	8th Nov.	184	660·00

* 24 hours ended 9 a.m. (G.M.T.) next day.

PORT SANITARY SERVICE.

I.—SHIPPING ENTERING THE PORT.

The following table (compiled from information kindly supplied by H.M. Collector of Customs) shows the annual number of arrivals and tonnage of vessels since 1927 :—

Year	Number of Arrivals			Tonnage		
	From Foreign	Coastwise*	Totals	From Foreign	Coastwise*	Totals
1927	3,451	5,847	9,298	3,593,633	3,013,405	6,607,038
1928	3,205	4,530	7,735	3,389,525	1,695,890	5,085,415
1929	3,531	4,601	8,132	3,652,185	1,891,215	5,543,400
1930	3,210	4,368	7,578	3,182,124	1,820,183	5,002,307
1931	2,433	4,271	6,704	2,467,542	1,689,505	4,157,047
1932	2,089	4,401	6,490	2,337,218	1,702,412	4,039,630
1933	1,903	4,388	6,291	2,017,207	1,778,635	3,795,842
1934	1,791	4,567	6,358	1,891,385	1,858,569	3,749,954
1935	1,804	4,137	5,941	1,935,007	1,939,521	3,874,528
1936	1,729	4,244	5,973	1,752,174	2,007,477	3,759,651

The number and tonnage of vessels entering the port (which includes Penarth) inspected by officers of the Port Sanitary Authority during 1936 are set out below :—

Ministry of Health Table A.

		Number	Tonnage	Number Inspected by		Number reported defective	Number of Vessels on which defects were remedied	Number of Vessels reported as having or having had during the voyage infectious disease on board
				Medical Officer	Sanitary Inspector			
From Foreign	Steamers	1,359	1,610,458	99	857	199	195	8
	Motor	228	124,304	9	127	7	7	—
	Sailing	131	12,477	4	79	2	2	—
	Fishing	11	4,935	—	1	—	—	—
Total Foreign		1,729	1,752,174	112	1,064	208	204	8
Coastwise	Steamers	1,534	1,638,290	9	855	206	206	5
	Motor	191	108,464	—	82	3	3	—
	Sailing	52	7,166	—	6	—	—	—
	Fishing	378	43,716	—	10	1	1	1
Total Coastwise		2,155	1,797,636	9	953	210	210	6
Total Foreign and C'stwise		3,884	3,549,810	121	2,017	418	414	14

* Including tugboats, sand barges, pleasure steamers, etc.

The following table shows the number of vessels entering the port which were dealt with by the department each month during 1936:—

Month	From Foreign	Coastwise	Totals
January	148	229	377
February	135	159	294
March	150	226	376
April	139	161	300
May	136	167	303
June	140	180	320
July	150	168	318
August	145	160	305
September	131	166	297
October	155	172	327
November	145	190	335
December	155	177	332
Totals	1,729	2,155	3,884

The nationalities of the several types of vessels entering the port which were dealt with by the department during 1936 are shown in the following table :—

Nationality	Steam	Motor	Sailing	Totals
American	6	—	—	6
Argentine	1	—	—	1
Belgian	16	—	—	16
British	2,423	212	51	2,686
Chinese	1	—	—	1
Cyprian	1	—	—	1
Danish	62	4	—	66
Dantzigian	1	—	—	1
Dutch	8	54	—	62
Egyptian	2	—	—	2
Esthonian	62	1	—	63
Finnish	25	1	—	26
French	121	96	130	347
German	33	2	—	35
Greek	83	1	—	84
Hungarian	2	—	—	2
Irish Free State	33	21	2	56
Italian	2	—	—	2
Latvian	22	—	—	22
Norwegian	144	4	—	148
Panama	2	—	—	2
Portuguese	12	—	—	12
Russian	6	2	—	8
Spanish	83	—	—	83
Swedish	115	21	—	136
Yugo-Slavian	16	—	—	16
Totals	3,282	419	183	3,884

II.—CHARACTER OF TRADE.

Passenger Traffic.—The passenger traffic at the port is relatively small and casual and cannot be classified in the form prescribed by the Ministry of Health (*Table B*). The numbers of inward and outward passengers, all of whom travelled by cargo vessels, were 703 and 523 respectively.

Cargo Traffic.—The principal imports are iron ore, pitwood, fruit, vegetables, grain and provisions. The principal exports are coal, coke, patent fuel and flour. Amongst the countries and places with which the port trades principally may be mentioned Spain, France, Portugal, Italy, Norway, the Baltic Ports, United States of America, Argentina, Brazil, Canada and North Africa.

The following figures regarding imports and exports during 1927-36 have kindly been supplied by the Chief Docks Manager :—

Year	Imports (tons)	Exports (tons)
1927	2,073,680	10,188,499
1928	1,730,940	8,970,143
1929	1,981,165	10,144,026
1930	1,711,970	8,963,328
1931	1,451,436	7,543,488
1932	1,185,010	6,944,230
1933	1,179,451	6,482,230
1934	1,250,725	6,584,936
1935	1,274,694	6,631,882
1936	1,560,034	5,530,620

III.—WATER SUPPLY.

The water supply for the port and shipping is derived entirely from the Cardiff Corporation supply by means of hydrants installed at convenient points.

Section 75 of the Cardiff Corporation Act, 1894, provides that " where the Medical Officer of Health of the Cardiff Port Sanitary Authority is satisfied that the water in any tank, cistern, cask or other fixed receptacle in any ship, vessel or boat within the district of that authority, used or likely to be used by man for drinking or domestic purposes, is so polluted as to be injurious to health, the Medical Officer of Health of such authority may cause to be emptied and cleansed any such tank, cistern, cask or other fixed receptacle." This simplifies the procedure, because under section 70 of the Public Health Act, 1875, an order of a court of summary jurisdiction would first have to be obtained.

During the year, 130 samples of drinking water from ships were submitted to the Cardiff and County Public Health Laboratory for bacteriological examination, the results being as follows :—

Satisfactory	108
Moderate purity	13
Doubtful purity....	4
Contaminated	5
Total	130

Notices were served on the masters of the vessels having contaminated water or water of doubtful purity on board, and in each instance the tanks were emptied, cleansed and refilled at this port.

IV.—PORT SANITARY REGULATIONS, 1933.

The arrangements made for the operation of the Port Sanitary Regulations, 1933, at the port were fully described in the annual report for 1933.

Wireless Installations.—The results of inquiries made during the year regarding the number of vessels carrying wireless installations (excluding vessels under 500 net registered tons) are shown in the following table :—

	Vessels arriving		Totals
	From Foreign	Coastwise	
With Wireless	709	576	1,285
Without Wireless	234	132	366
Totals	943	708	1,651

These inquiries have been undertaken since 1926, and it will be seen from the following table that virtually there has been no increase in the proportion of vessels with wireless installations arriving at this port :—

Year	Percentage of Vessels with Wireless Installations		
	From Foreign	Coastwise	All Arrivals
1926	*67·3*	*52·1*	*63·9*
1927	*75·6*	*74·8*	*75·4*
1928	*78·6*	*67·0*	*75·4*
1929	*74·8*	*68·8*	*73·2*
1930	*69·9*	*72·0*	*70·5*
1931	*71·1*	*77·2*	*72·9*
1932	*67·1*	*69·2*	*67·8*
1933	*67·9*	*77·5*	*71·4*
1934	*69·7*	*77·8*	*72·8*
1935	*68·4*	*78·8*	*72·4*
1936	*75·2*	*81·3*	*77·8*

Cases of Infectious Disease landed from Vessels.—The following table shows the nature of 15 cases of notifiable infectious disease landed from vessels during the year :—

Ministry of Health Table C.

Disease	Number of Cases during 1936		Number of Vessels concerned	Average Number of Cases for previous 5 years
	Passengers	Crew		
Diphtheria	—	1	1	0·4
Enteric Fever ...	—	4	1	1·2
Dysentery	—	2	2	1·0
Malaria	—	7	4	8·0
Tuberculosis	—	1	1	4·0

These cases were dealt with as follows :—

Disease	Admitted to Cardiff Isolation Hospital	Admitted to Royal Hamadryad Seamen's Hospital	Admitted to City Lodge Hospital	Treated aboard Ship	Totals
Diphtheria	1	—	—	—	1
Enteric Fever	4	—	—	—	4
Dysentery	1	1	—	—	2
Malaria	—	7	—	—	7
Tuberculosis	—	—	1	—	1
Totals	6	8	1	—	15

Other Cases of Infectious Disease.—Five cases of tuberculosis, two cases of malaria and one case of pneumonia that were dealt with by the port sanitary staff were ascertained to fall properly within the province of urban administration and were therefore referred to the urban section of the department.

Cases of Infectious Disease occurring on Vessels during the Voyage but disposed of prior to Arrival.—Six cases of infectious disease were reported to have occurred on five vessels during the voyage and were disposed of prior to arrival.

Ministry of Health Table D.

Disease	Number of Cases during 1936		Number of Vessels concerned	Average Number of Cases for previous 5 years
	Passengers	Crew		
Malaria	—	4	3	9·2
Tuberculosis	—	2	2	2·0

Cleansing and Disinfection.—Thirty-eight seamen discovered to be suffering from scabies were treated at the Cleansing Station belonging to the Cardiff City Council, their clothing being disinfected at the Disinfecting Station, which is situated adjacently. One-hundred and fifty-six vessels were reported to be infested with bugs, and, after inspection, notices were served requiring the masters to take all necessary steps to eradicate them. Verminous or infected beds to the number of 1,767 were destroyed.

Venereal Diseases.—The following tabular statement shows the number of cases of venereal diseases dealt with at the special treatment centre for seamen at the Royal Hamadryad Seamen's Hospital each year since 1927 :—

Year	Persons attending at the Centre for the First Time*					Total Attendances	Aggregate Number of In-patient Days
	Syphilis	Soft Chancre	Gonorrhoea	Conditions other than Venereal	Totals		
1927	261	86	277	16	640	13,995	2,426
1928	205	83	344	14	646	15,347	3,195
1929	239	96	348	21	704	15,027	2,093
1930	235	112	367	17	731	12,670	1,639
1931	176	84	209	18	487	9,853	1,372
1932	198	95	297	19	609	10,004	1,707
1933	194	86	255	14	549	9,918	2,220
1934	190	90	285	25	590	9,717	2,185
1935	186	80	295	28	589	9,674	2,261
1936	164	93	324	20	601	9,455	2,312

* Including cases known to have received treatment for the same infection at other Centres.

The treatment centre forms part of the scheme of the Cardiff City Council for the diagnosis and treatment of venereal diseases, and further details of the work undertaken during 1936 are contained in the report on the general health service of the city.

Seventeen cases of venereal disease came to the knowledge of officers of the Authority during the year and were recommended for treatment at the centre.

Psittacosis.—The number of parrots dealt with under the Parrots (Prohibition of Import) Regulations, 1930, with the object of preventing the introduction of psittacosis, was 49.

V.—MEASURES AGAINST RODENTS.

It is a routine duty of inspectors to examine all vessels carefully for evidence of rat infestation. Deratisation of vessels is carried out by sulphur dioxide or hydrocyanic acid gas, the work being undertaken by private contractors under the supervision of officers of the department. During the year, 1,517 rats were destroyed by this method, and, of these, 278 were submitted to the Cardiff and County Public Health Laboratory for examination for the detection of plague.

During 1936 the number of deratisation certificates issued was 126 and the number of deratisation exemption certificates issued was 295, making a total of 421. The fees received by the Port Sanitary Authority in respect of certificates during the year amounted to £785 8s. 0d.

On all vessels from plague-infected ports and on all grain-laden vessels arriving at the port a rat-catcher is employed. By this means 388 rats were caught, 64 of which were examined for plague.

In order to prevent the passage of rats from ships to the shore, the use of rat-guards on mooring ropes is insisted upon, and gangways are raised at night-time whenever possible. Advice regarding the rat-proofing of vessels is given to masters and other officers of ships.

Systematic visits are paid by inspectors to quays, wharves and warehouses in the vicinity of the docks, and owners and occupiers are advised as to the best means of eradicating rodents. In most instances warehouses are reasonably rat-proof, possessing concrete floors and sliding, close-fitting doors. The importance of rendering all buildings near the docks rat-proof is constantly emphasised on owners and occupiers by the inspectors.

Extensive baiting around the docks is undertaken systematically by the dock owners (the Great Western Railway Company) and by owners and occupiers of premises in the vicinity of the docks under the supervision of officers of the department. During the year, 192,580 poison baits were laid and 1,117 rats and 92 mice were found dead as a result of these measures.

For the purpose of surveying the area around the docks for rats periodically, the district is divided into four areas, as follows :—

No. 1. Penarth Dock, Windsor Slipway to Glamorganshire Canal Entrance.

No. 2. Glamorganshire Canal, West Dock to West Side of East Dock.

No. 3. East Side of East Dock to North Side of Roath Dock.

No. 4. South Side of Roath Dock, Roath Basin and Queen Alexandra Dock.

A rat-catcher is engaged for a period of one week on each area. Traps are set and the live rats caught are submitted to the Department of Zoology of the National Museum of Wales for classification and for identification of their parasitic fleas and later to the Cardiff and County Public Health Laboratory to be examined for plague.

The whole district is surveyed in this way at least once every four weeks, and valuable information is being obtained as to the prevalence of rats, their species and the extent of their infestation by fleas. During the year, 124 rats were caught under this scheme, of which 48 were submitted for classification, all except five of which were subsequently examined for plague.

Leaflets containing full information regarding deratisation of ships are issued to (*a*) shipowners and shipping agents and (*b*) fumigation contractors. With a few exceptions as to details, general agreement has been obtained with all the principal Port Sanitary Authorities in the Bristol Channel as to the essential points included in the leaflets, which were reproduced in the report for 1935.

The following table shows the numbers of deratisation and deratisation exemption certificates issued during each year since 1929 :—

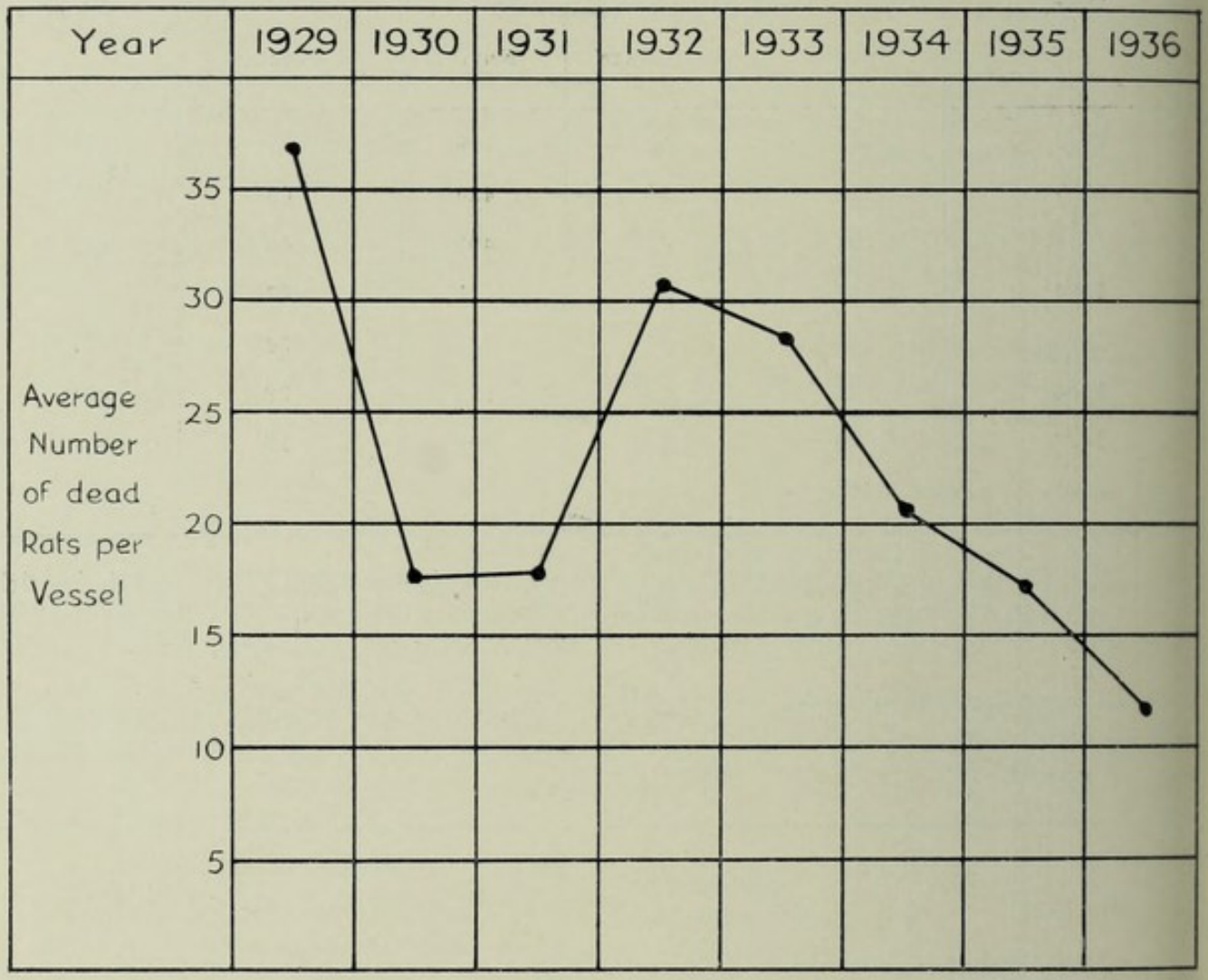
Year	Deratisation Certificates		Deratisation Exemption Certificates		Totals
	Number	Percentage	Number	Percentage	
1929	181	*62*	110	*38*	291
1930	236	*36*	420	*64*	656
1931	195	*32*	407	*68*	602
1932	121	*23*	411	*77*	532
1933	124	*26*	353	*74*	477
1934	126	*28*	328	*72*	454
1935	109	*23*	357	*77*	466
1936	126	*30*	295	*70*	421

The increase in the numbers during 1930 was due to the effect of the Public Health (Deratisation of Ships) Regulations, 1929, which came into force on 1st January, 1930, but which have since been replaced by the Port Sanitary Regulations, 1933.

The following table shows the number of fumigations of vessels, the total number of dead rats found after fumigation and the average number of dead rats found per vessel during each of the years 1929-1936:—

Year	Number of Fumigations of Vessels	Total number of Rats found dead after Fumigation	Average Number of dead Rats found per Vessel
1929	181	6,697	37 ·00
1930	236	4,241	17 ·97
1931	195	3,530	18 ·10
1932	121	3,725	30 ·79
1933	124	3,532	28 ·48
1934	126	2,584	20 ·51
1935	109	1,908	17 ·50
1936	126	1,517	12 ·04

Diagram showing the decline in the average number of dead rats found per vessel after fumigation since 1929 :—



RATS DESTROYED DURING 1936.

Ministry of Health Table E.

(*a*) *Vessels.*

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Number of Rats—													
Black	293	50	224	245	82	175	18	135	341	46	164	131	1,904
Brown	—	—	—	1	—	—	—	—	—	—	—	—	1
Species not recorded	—	—	—	—	—	—	—	—	—	—	—	—	—
Examined	48	3	52	46	14	26	18	57	26	25	34	13	342
Infected with Plague	—	—	—	—	—	—	—	—	—	—	—	—	—

Ministry of Health Table F.

(*b*) Docks, Quays, Wharves and Warehouses.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Number of Rats—													
Black	1	1	2	7	—	5	13	4	—	15	41	3	92
Brown	—	—	4	—	3	—	24	—	1	—	—	—	32
Species not recorded	28	59	188	109	226	158	20	27	22	54	110	116	1,117
Examined	1	1	3	1	3	—	18	—	—	4	12	—	43
Infected with Plague	—	—	—	—	—	—	—	—	—	—	—	—	—

Ministry of Health Table G.

MEASURES OF RAT DESTRUCTION ON PLAGUE "INFECTED" OR "SUSPECTED" VESSELS OR VESSELS FROM PLAGUE-INFECTED PORTS ARRIVING IN THE PORT DURING THE YEAR.

Total Number of such Vessels arriving	Number of such Vessels fumigated by SO_2	Number of Rats killed	Number of such Vessels fumigated by HCN	Number of Rats killed	Number of such Vessels on which trapping, poisoning, &c., were employed	Number of Rats killed	Number of such Vessels on which measures of Rat destruction were not carried not
1	2	3	4	5	6	7	8
75	4	77	2	37	8*	116	65

*Two of these were also fumigated by SO_2 and two by HCN and are included in columns 2 and 4.

Ministry of Health Table H.

DERATISATION CERTIFICATES AND DERATISATION EXEMPTION CERTIFICATES ISSUED DURING THE YEAR.

NET TONNAGE	Number of Ships	No. of Deratisation Certificates issued					Number of Deratisation Exemption Certificates Issued	Total Certificates Issued
		After fumigation with			After Trapping, Poisoning, etc.	Total		
		HCN	Sulphur	HCN and Sulphur				
1	2	3	4	5	6	7	8	9
Ships up to 300 tons	78	—	—	—	—	—	78	78
,, from 301 tons to 1,000 tons	66	2	—	—	—	2	64	66
,, from 1,001 tons to 3,000 tons	188	12	60	—	—	72	116	188
,, from 3,001 tons to 10,000 tons	89	12	40	—	—	52	37	89
,, over 10,000 tons	—	—	—	—	—	—	—	—
Totals	421	26	100	—	—	126	295	421

VI.—HYGIENE OF CREW SPACES, ETC.

The condition of crew spaces continues to be most unsatisfactory, as will be seen from the diagram on the next page, which shows that during 1936 there was actually an increase in the number of dirty and verminous conditions on British vessels. The diagram also shows an increase in the number of structural defects found on British and foreign vessels.

During the year, 3,884 vessels, with a total tonnage of 3,549,810, were visited by inspectors on arrival or as soon afterwards as practicable. The number of persons in the crews carried by these vessels was 67,366. In addition, 4,966 re-inspections of ships in dock were made, and 418 orders were given to masters and others in connection with nuisances and sanitary defects.

Ministry of Health Table J.

CLASSIFICATION OF NUISANCES.

Nationality of Vessel	Number Inspected during the year	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health
British	1,243	1	273	1,010
Other Nations	774	—	157	280

The following table shows the number of the defects referred to in the preceding table which were remedied during the year :—

Nationality of Vessel	Defects of original construction	Structural defects through wear and tear	Dirt, vermin and other conditions prejudicial to health
British	1	257	1,010
Other Nations	—	156	278

The defects and nuisances dealt with during 1936 were as follows :—

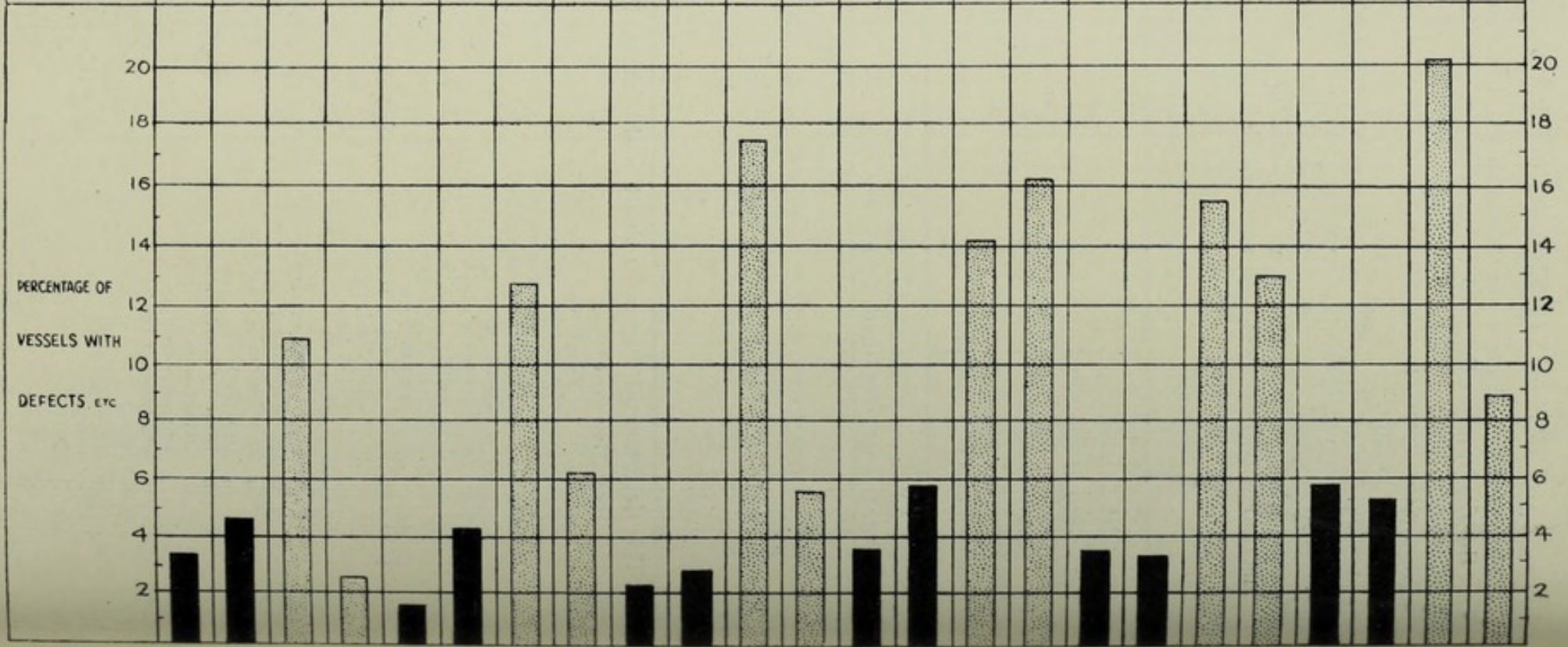
Defective ventilators	4
,, skylights and deck-lights	15
,, stoves, stove-pipes, etc.	43
,, sanitary conveniences	41
,, side ports, deck-prisms, etc.	250
,, bulkheads	2
,, floors	16
,, doors	5
,, bunks	6
,, food-lockers	12
,, wash-hand basins and waste pipes	4
,, cable casings	7
,, hawse-pipes	3
Leaking decks	23
Verminous crew quarters	278
Dirty crew quarters	474
,, messrooms	146
,, food-lockers	115
,, sanitary conveniences	146
,, bathrooms	14
,, wash-houses	7
,, fresh-water tanks	15
Foul bilges	6
Foul accumulations	70
Miscellaneous	19
Total	1,721

CARDIFF PORT SANITARY AUTHORITY

INSPECTION OF SHIPPING

STRUCTURAL DEFECTS AND DIRTY AND VERMINOUS CONDITIONS

YEAR		1931				1932				1933				1934				1935				1936			
Number of Vessels inspected	British	1358				1,250				1,235				1,600				1,661				1,243			
	Foreign	906				875				831				958				955				774			
	Total	2,264				2,125				2,066				2,558				2616				2,017			
Defects, etc		Structural Defects		Dirty & Verminous Conditions		Structural Defects		Dirty & Verminous Conditions		Structural Defects		Dirty & Verminous Conditions		Structural Defects		Dirty & Verminous Conditions		Structural Defects		Dirty & Verminous Conditions		Structural Defects		Dirty & Verminous Conditions	
NUMBER OF VESSELS WITH DEFECTS etc		46	41	148	24	17	37	161	53	26	24	213	47	54	57	226	154	60	34	258	125	72	42	250	69
Nationality		British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign	British	Foreign



VII.—FOOD INSPECTION.

There has for some years been a steady increase in the amount of foodstuffs imported at Cardiff, and the year under consideration has again shown an increase in this class of import. Examination of imported food is carried out by the food inspectors in the dock-side warehouses and occasionally on board ships.

The principal food imports during the year were from Australia and New Zealand and consisted of beef, mutton, pork, lamb, offal, butter, cheese, flour and fresh and dried fruits. From Canada and United States of America lard, cheese, flour, cereals, canned meats, fruit and fish were imported, and from European countries condensed milk, cheese, bacon, fresh tomatoes, canned tomatoes, dried and canned fruits and vegetables. Additional to these direct imports, large quantities of foodstuffs, transshipped at other ports in the United Kingdom, arrived by coastwise traffic.

A percentage examination of all food is made. If the food examined is found to be in good condition, the whole consignment is released for distribution, but if found to be diseased or unsound the whole consignment is detained until a complete examination is carried out. Diseased and unsound articles of food are destroyed under the supervision of the food inspectors. Samples of foodstuffs are submitted to the Public Analyst and to the Bacteriologist for examination. Importers also carry out a trade examination of their goods in the warehouses under the supervision of the food inspectors.

A preliminary inspection of meat imports is carried out in the transit sheds on the dock-sides, the importers then being allowed to transfer the cargo to the local cold stores, where a further examination is carried out. The glandular examination of mutton and lamb carcases weighing over 42 lbs. has been continued throughout the year, and it is satisfactory to record that comparatively little disease has been found.

Imported Foodstuffs.—The quantities of various kinds of foodstuffs imported during the year are shown in the following table : —

Description	Tons	cwt.	Bags	Bales	Barrels	Boxes	Miscellaneous
Bacon	—	—	—	4,262	—	38	—
Barley	—	—	2,006	—	—	—	—
Beer, Canned	—	—	—	—	—	80	—
Biscuits	—	—	—	—	—	17	57 skips
Butter	—	—	—	—	105	36,690	—
Caraway Seed	—	—	5	—	—	—	—
Cheese	—	—	—	—	—	33,457	—
Chicory	—	—	—	—	—	20	—
Coffee	—	—	9	—	—	200	—
Condiments	—	—	—	—	—	32,368	—
Confectionery	—	—	—	—	—	390	—
Cream	—	—	—	—	—	2,063	—
Eggs	—	—	—	—	—	15	—
Fat, Edible	—	—	70	68	929	4,233	28 drums
Fish, Canned	—	—	—	—	—	7,964	—
Fish, Fresh	4,468	10	—	—	—	—	—
Fish, Pickled	—	—	20	—	20	—	—
Fish, Salted	—	—	10	40	18	—	—
Flour	—	—	21,043	—	—	—	—
Fruit, Canned	—	—	—	—	—	65,859	—
Fruit, Dried	—	—	2,636	—	2	14,270	—
Fruit, Fresh	—	—	—	—	66,400	311,091	—
Fruit Juice	—	—	—	—	28	25	—
Fruit Pulp	—	—	—	—	393	25	—
Glucose	—	—	—	—	150	—	100 drums
Hops	—	—	—	38	—	—	—
Lard	—	—	—	—	7	26,435	—
Macaroni	—	—	—	—	—	5,630	—
Malt	—	—	43	—	—	—	—
Margarine	—	—	—	—	—	11,984	—
Meat, Canned	—	—	—	—	—	13,907	—
Meat, Preserved	—	—	—	—	—	2	—
Meat, Salted	—	—	—	—	102	4	—
Milk, Canned	—	—	—	—	79	127,249	—
Milk Dried	—	—	—	—	—	35	—
Nuts	—	—	515	—	—	—	—
Oats, Rolled	—	—	1,650	—	—	38,624	—
Oil, Edible	—	—	—	—	1	—	—
Peas and Beans	—	—	290	—	—	—	—
Provisions, Canned	—	—	—	—	—	34	—
Rice	—	—	1,677	—	—	775	—
Sago	—	—	4	—	—	—	—
Salt	—	—	600	—	—	—	—
Soup, Canned	—	—	—	—	—	25	—
Sugar	16,245	0	15,057	—	—	—	—
Vegetables, Canned	—	—	—	—	—	44,189	—
Vegetables, Dried	—	—	22,009	—	—	—	—
Vegetables, Fresh	1,599	0	448,656	—	—	15,840	82,410 baskets
Vegetables, Salted	—	—	—	—	629	5	21,756 drums
Wheat	76,196	0	—	—	—	—	—
Wheat Products	—	—	—	—	—	22,475	—
Wine	—	—	—	—	12	5	—
Yeast	—	—	—	—	—	14	—

Imported Meat.—In addition to the foodstuffs referred to above, eleven cargoes of frozen meat were imported, the quantities being as follows :—

Carcases of lamb	116,591
Carcases of mutton	14,408
Carcases of pork	3,676
Quarters of beef	8,309
Pieces of beef	2,366
Flitches of pork (bags)	121
Lambs' livers (boxes)	20
Sheep's kidneys (boxes)	30
Boneless beef (bags)	613
Offal (bags)	604
Offal (boxes)	198

The quantities of various kinds of foodstuffs withheld from human consumption during the year were as follows :—

	Tons.	cwt.	lb.
Fish, Canned	—	—	2
Flour	5	5	0
Fruit, Canned	—	1	109
Fruit, Dried	—	2	64
Fruit, Fresh	26	6	4
Fruit Pulp	—	—	60
Meat, Canned	2	0	9
Meat, Preserved	—	12	40
Mutton	—	—	83
Rice	1	0	0
Vegetables, Canned	2	8	100
Vegetables, Fresh	47	7	90
Wheat	24	11	79
Total	109	17	80

Public Health (Imported Food) Regulations, 1925, *Public Health (Imported Food) Amendment Regulations,* 1933, *and Public Health (Preservatives, etc., in Food) Regulations,* 1925-27.—During the year, 51 samples of imported food were submitted to the Public Analyst for analysis. The nature, country of origin and number of samples are shown in the following table :—

Nature	Country of Origin	Number of Samples
Apples, Dried	Canada	1
Asparagus Tips, Canned	Canada	1
Coffee	America	1
Dried Figs	Turkey	1
Dried Mint	France	1
Dried Thyme	France	1
Ground Ginger	China	1
Lemon Peel	Germany	1
Raisins	America	1
Raisins	South Africa	2
Raisins	Spain	34
Salmon, Canned	America	1
Shrimp Paste, Canned	Norway	1
Sultanas	Turkey	2
Sultanas	Greece	1
Tomato Paste, Canned	Hungary	1

Thirty-nine of the samples were reported to be genuine or to contain preservatives within the limits laid down by the Public Health (Preservatives, etc., in Food) Regulations, and twelve samples of raisins were reported to contain preservatives in excess of the prescribed limits. The consignment of raisins, comprising 970 cases from Spain, which contained an excess of preservatives were re-exported.

Bacteriological and Chemical Examinations.—Four samples were submitted for bacteriological examination and two samples for chemical examination. The nature, country of origin and number of samples are shown in the following table :—

Nature of Sample	Country of Origin	Number of Samples	
		Bacteriological	Chemical
Shrimps, Prepared	Norway	1	—
Veal, Canned	Poland	2	2
Lymphatic Gland (Sheep)	Australia	1	—

The samples of prepared shrimps and canned veal showed no evidence of active bacterial growth, but one of the samples of canned veal was found to be under considerable gas pressure, with a considerable amount of fluid contents, the other being normal, with no evidence of gas formation. The sheep's gland showed caseous lymphadenitis, but no obvious calcification or sign of grittiness. The canned veal, which was found to be unfit for human consumption (2 tons 0 cwt. 2 lb.), and the diseased carcase of mutton were destroyed.

Public Health (Imported Milk) Regulations, 1926.—No fresh milk was imported during the year.

Public Health (Shell-fish) Regulations, 1934.—There are no shell-fish beds or layings within the area under the jurisdiction of the Port Sanitary Authority.

VIII.—MISCELLANEOUS.

Medical Inspection of Aliens.—The following is a summary of the work done during the year in connection with the medical inspection of aliens :—

	Total Number.	*Number Inspected by Medical Inspectors.*
Aliens (excluding alien seamen) landing at the port	190	112
Aliens refused permission to land by Immigration Officer	7	—
Totals	197	112
Number of vessels carrying alien passengers		72
Number of such vessels dealt with by the Medical Inspector		16
Analysis of aliens landing :—		
Residents returning		2
In transit		13
Visitors		68
Business		102
Seamen		1
Contract seamen		3
Ministry of Labour permit		1
Coming to settle, not holding Ministry of Labour permit		—
Total		190

Of the 112 aliens medically inspected, 105 who intended taking up employment and remaining in the country over three months, were referred by the Immigration Officer for detailed medical examination.

Diseases of Animals Acts, etc.—The various Orders under the Diseases of Animals Acts with reference to the importation of animals were strictly enforced during the year. Two hundred and ninety-four dogs and 527 cats were brought to the port on vessels, and one vessel arrived direct from a scheduled country with one goat on board. All the vessels were visited regularly during their stay in port to ensure that the requirements of the Orders were observed.

Seventy-nine horses and 4,885 head of cattle were landed at the Imported Animals Wharf during the year from Canada.

Canal Boats.—The Chief Port Sanitary Inspector, who is also Inspector of Canal Boats, has reported that he made 63 inspections of canal boats during the year and found infringements of the Regulations made under the Canal Boats Act, 1877, regarding painting in 13 instances and marking in four instances. Verbal instructions were given, and the infringements in each case were remedied. The number of boats (not propelled by motor) on the register was seven, each with accommodation for two males. The sanitary condition of the canal boats generally was satisfactory.

SCHOOL MEDICAL SERVICE.

I.—STAFF.

The medical staff consists of the School Medical Officer, a Deputy Medical Officer and nine Assistant Medical Officers (including two who are engaged in a part-time capacity). The members of the medical staff devote part time only to the school medical service, as they are also engaged in the work of other sections of the Public Health Department. The staff-time devoted by the Deputy Medical Officer and Assistant Medical Officers to the school medical service is equivalent to the whole time of four medical officers. There are in addition three part-time Specialist Medical Officers—Ophthalmic, Orthopaedic and Aural Surgeons.

The other staff engaged in the school medical service comprises four Dentists, four Dental Clerk-Attendants, a Supervisor of Nurses, 11 School Nurses, a Chief Clerk and 10 Clerks (seven of whom are females). The Supervisor of Nurses, two of the Nurses who are engaged in orthopaedic work and the Chief Clerk are also employed in other sections of the department.

Dr. T. Islwyn Evans, an Assistant Medical Officer, resigned on 30th September, 1936, and Dr. G. E. Phillips was appointed to fill the vacancy in a temporary capacity as from 1st October, 1936. Mr. R. D. Owen was appointed as Aural Surgeon in a part-time capacity in July, 1936, for the purpose of examining ear, nose and throat cases regarding which a specialist opinion is desirable. The only other changes of staff were the usual annual changes in the personnel of the two part-time Assistant Medical Officers on 1st October, 1936.

II.—CO-ORDINATION.

The school medical service is very completely co-ordinated with all other public health work under the Medical Officer of Health, who is also School Medical Officer. The service is also carried on in close co-operation with the Education Department (including school attendance officers), head teachers and all voluntary agencies in Cardiff concerned with the health and welfare of school children.

III.—SCHOOL HYGIENE.

The Public Works Department of the City Council is primarily responsible for the sanitary and structural condition of school buildings. Defects found by medical officers and sanitary inspectors, however, are reported to the Director of Education, by whom they are referred to the appropriate committee to be remedied.

IV.—MEDICAL INSPECTION.

Routine medical inspection of the following groups of children attending elementary schools was undertaken during the year, as required by the Board of Education :—

(*a*) Entrants, within 12 months of admission.

(*b*) Second age group, i.e., children between the ages of 8 and 9 years.

(*c*) Third age group, i.e., children who had attained the age of 12 years.

All routine medical inspections are carried out at the schools, the parents of the children to be examined being notified beforehand and invited to be present. Children outside the routine age groups who are regarded by head teachers as requiring special attention are brought forward at the time routine inspections are taking place. Most of the special inspections, however, are conducted at the school clinics.

The numbers of elementary school children inspected at routine medical inspections were as follows :—

	Boys	Girls	Totals
Entrants (within 12 months of admission)	1,679	1,705	3,384
Second Age Group (8 to 9 years)	1,495	1,573	3,068
Third Age Group (over 12 years)	1,462	1,378	2,840
Other Routine Inspections	74	101	175
Totals	4,710	4,757	9,467

The number of elementary school children specially inspected and the number of re-inspections undertaken were as follows :—

		Boys	Girls	Totals
Special Inspections	At School	305	318	623
	At School Clinic	2,735	3,303	6,038
	Totals	3,040	3,621	6,661
Re-inspections	At School	899	1,097	1,996
	At School Clinic	2,676	3,200	5,876
	Totals	3,575	4,297	7,872

V.—FINDINGS OF MEDICAL INSPECTION.

Details of the diseases and defects found by routine and special medical inspection are given in Table IIA, page 173. Of the 9,467 elementary school children inspected at routine inspections, 1,787, or 18·8 per cent., were found to require treatment (excluding uncleanliness and dental disease). The percentages of the three groups requiring treatment, as compared with the percentages for the two previous years, were as follows :—

Age Groups	Percentage of Children found to require Treatment		
	1934	1935	1936
Entrants (within 12 months of admission)	*18·7*	*18·2*	*17·6*
Second Age Group (8 to 9 years)	*21·3*	*22·2*	*19·0*
Third Age Group (over 12 years)	*23·4*	*22·5*	*20·2*

It will be seen that there was a slight reduction in 1936 in each age group.

Of the 6,661 individual children specially inspected, 3,728, or 56·0 per cent., were found to require treatment (excluding uncleanliness and dental disease).

The number and proportion of elementary school children in whom diseases or defects requiring treatment or to be kept under observation were found are shown in the following table :—

Diseases or Defects	Diseases or Defects found at Routine Inspection		Diseases or Defects found at Special Inspection	
	Number	Percentage	Number	Percentage
Skin diseases	166	1·75	1,447	21·78
Defective vision and squint	695	7·34	163	2·46
External eye diseases	45	0·48	94	1·41
Defective hearing	69	0·73	74	1·11
Other ear diseases	136	1·43	173	2·60
Chronic tonsillitis	533	5·63	197	2·96
Adenoids only	30	0·31	15	0·22
Chronic tonsillitis and adenoids	130	1·37	51	0·76
Other nose and throat defects	88	0·93	176	2·64
Enlarged cervical glands	98	1·03	85	1·28
Defective speech	27	0·28	22	0·33
Diseases of the heart and circulation	324	3·42	357	5·36
Non-tuberculous diseases of the lungs	300	3·17	319	4·79
All forms of tuberculosis (including suspects)	12	0·13	47	0·70
Diseases of the nervous system	125	1·32	215	3·23
Deformities	128	1·35	47	0·70
Other diseases and defects (excluding uncleanliness and dental diseases)	437	4·62	1,386	20·81

Nutrition.—The nutrition of children inspected in the routine age groups is classified in detail in Table IIB, page 174. It will be seen that of 9,467 children inspected, the nutrition of 252, or 2·7 per cent., was excellent, 8,576, or 90·6 per cent., was normal, 485, or 5·1 per cent., was slightly sub-normal and that in 157, or 1·6 per cent., it was bad. This is the second year for the nutrition of children to be classified in this way, and it is satisfactory to note that generally there was a slight improvement in the condition of the children inspected as compared with the condition of those inspected in 1935. This will be seen from the following table, in which the percentages are given under the several headings :—

Age Groups	Nutrition of Children Inspected							
	Excellent		Normal		Slightly Sub-normal		Bad	
	1935	1936	1935	1936	1935	1936	1935	1936
Entrants (within 12 months of admission)	3·3	1·4	91·6	92·1	3·4	5·2	1·7	1·2
Second Age Group (8 to 9 years)	3·4	3·1	86·6	90·0	6·6	4·5	3·4	2·4
Third Age Group (over 12 years)	4·9	3·6	86·0	89·5	7·9	5·5	1·2	1·4
Other Routine Inspections	4·0	2·9	86·0	90·2	8·0	6·9	2·0	—
Totals	3·8	2·7	88·0	90·6	6·0	5·1	2·2	1·6

A detailed inquiry was undertaken during the year with the object of discovering the sociological significance behind these figures, and the Deputy School Medical Officer (Dr. W. Powell Phillips) has compiled the following report on the inquiry :—

An attempt has been made to assess the importance or otherwise of economic factors in securing an adequate diet for the school child. In accordance with Board of Education Administrative Memorandum No. 124, children examined at routine school medical inspection are placed in one of four nutritional categories, namely, excellent, normal, slightly sub-normal and bad. It is fully appreciated that difficulty is encountered in securing a precise method of defin-

ition for each of the four nutritional classes. Clinical observation offers the most reliable means of classification at present available, and when such observation is carried out by those with paediatric experience, this means of definition becomes exceedingly accurate. The opinion of clinicians may vary a good deal in selecting a specific standard for the normal child at varying ages, but divergence of opinion is reduced to a minimum when the extremes of the scale (i.e., excellent and bad) are reached.

For the present inquiry it was decided to make a detailed comparison of the economic position and the dietary of the families of children who are to be found at the extremes of the nutritional scale. Such a comparison may obviously prove helpful in focussing attention upon some possible aetiological factors in the production of a satisfactory or poor state of nutrition. The material comprises 48 children whose nutrition was classed as excellent (group A) and 62 children whose nutrition was classed as bad (group D). Investigations were then carried back to the homes of the individual children in both groups.

A factor of considerable importance in determining the adequacy of purchasing power is the size of the family. It was found that the average number in the families of group A was 5·4 persons, whereas in group D the average was 6·1 persons. These figures are significant when considered in conjunction with the financial position of the families in the respective groups. The average gross weekly income obtained from all sources in group A amounted to £3 9s. 0d., and in group D it amounted to £2 13s. 8d. These figures are particularly interesting, especially in view of the fact that the selection of the material for investigation was purely from the nutritional variant.

The amount of expenditure each week, apart from the purchase of food, is worthy of attention. This heading includes unemployment insurance, essential travelling expenses and domestic out-goings, such as expenditure on rent, rates, coal, gas, electricity, cleaning materials, clothing clubs, hire purchase, medical attention and other necessary items. In group A this sum amounted to £1 10s. 0d., a week, while in group D it was £1 6s. 6d. Particularly is it noticeable that the overhead expenses of both groups closely approximate to one another, the difference being much less marked than in the case of the gross weekly income. This accentuates the relatively adverse financial position of the larger families in group D. The weekly food bill for each family again is noted, the average expenditure on food for group A being £1 10s. 9d., and for group D £1 3s. 1d.

The results obtained are tabulated as follows :—

Nutritional Group	Number of Cases Investigated	Average number in Each Family	Gross Weekly Income	Weekly Expenses other than on Food	Weekly Food Bill
A (Excellent)	48	5·4	£3 9s. 0d.	£1 10s. 0d.	£1 10s. 9d.
D (Bad)	62	6·1	£2 13s. 8d.	£1 6s. 6d.	£1 3s. 1d.

A more detailed analysis as to the manner in which the two groups utilise the money allocated to food is of particular interest from the dietetic standpoint. The amount of money spent on certain classes of foodstuffs shows considerable variation in the two groups. Thus, those in group A spent on an average 7/8d. a week on meat, fish and prepared meat foods, while in group D the amount expended on similar food was 4/4d. Group A spent 5/3d. a week on milk, milk products and eggs, while only 3/- a week was spent by those in the other group. Vegetables and fruit accounted for 4/2d. of the week's budget in group A, while group D spent 2/2d.

The number of families having vegetable allotments in both groups is practically identical. There were eight allotment holders among the families of those showing excellent nutrition and nine among those showing bad nutrition.

Discounting for a moment the difference in the size of the families, it was found that very closely similar sums were spent each week by the two groups on food, as follows :—Cereals and bread—group A, 5/6d., group D, 5/9d.; butter, fat and margarine—group A, 4/11d., group D, 4/10d.; sugar—group A, 1/1d., group D, 1/-; tea, coffee, etc.—group A, 2/2d., group D, 2/-.

The average weekly expenditure on food by the two groups is tabulated below :—

Type of Food	Average Weekly Expenditure	
	Group A (Excellent)	Group D (Bad)
Cereals and Bread	5/6	5/9
Butter, Margarine and Fat	4/11	4/10
Sugar	1/1	1/-
Meat, Fish, and Prepared Meat Foods	7/8	4/4
Vegetables and Fruit	4/2	2/2
Milk, Milk Products and Eggs	5/3	3/-
Tea, Coffee, etc.	2/2	2/-
Totals	£1 10s. 9d.	£1 3s. 1d.

These figures really serve to corroborate by a local investigation the first part of the finding of the Advisory Committee on Nutrition, whose report has recently been published. It would appear that any surplus income spent on food, over and above a basic minimum, is used to purchase protein and vegetable foods.

Calorific Value of Dietary in the Two Groups.—Some difficulty was encountered in obtaining accurate information as to the constituents of the family diet for each week. It has been possible to compare the calorific value for 20 families from each group. For this purpose the families in each group were converted into terms of " man value " as set out in the following scale :—

Man	=	1·0
Woman	=	0·83
Adolescent Boy	=	1·25
Adolescent Girl	=	1·05
Adult over 65 years	=	0·75
Child aged 13 to 14 years	=	1·0
,, ,, 11 ,, 13 ,, ...	=	0·9
,, ,, 9 ,, 11 ,, ...	=	0·8
,, ,, 7 ,, 9 ,, ...	=	0·7
,, ,, 5 ,, 7 ,, ...	=	0·6
,, ,, 3 ,, 5 ,, ...	=	0·5
,, ,, 2 ,, 3 ,, ...	=	0·4
,, ,, 1 ,, 2 ,, ...	=	0·3
,, ,, 0 ,, 1 year	=	0·2

One " man value " = 1·0

The calorific values are on the low side for both groups if a standard of 3,400 calories daily per " man value " is considered ideal. Those in group A are shown to be taking a diet which as well as being higher in actual calories, contains a larger proportion of animal protein and protective substances from the point of view of vitamin sufficiency.

The results are tabulated below :—

Type of Food	Calorific Content per One " Man Value " per day	
	Group A	Group D
Bread and Cereals	1,123	1,277
Butter, Margarine and Fats	685	443
Sugar	438	425
Meat, Fish and Prepared Meat Foods	307	135
Vegetables and Fruit	358	305
Milk, Milk Products and Eggs	265	227
Total daily calories per " man value "	3,176	2,812

History of Past Health.—Using the summary system, which records in an abbreviated form the medical history of each child from the time of the birth inquiry until the school-leaving age, it was possible to obtain information as to the history of the children in the two groups.

Infant Feeding.

In 38 children of group A it was possible to obtain a history of the method of infant feeding; in group D this was obtained in 55 cases. These figures do not appear to show any significant differences between the groups :—

Method of Feeding	Group A (38 children)		Group D (55 children)	
	Number	Percentage	Number	Percentage
Breast (up to 6 months)	16	*42·1*	27	*49·1*
Partly Breast (up to 3 months)	19	*50·0*	24	*43·6*
Artificial (1st month)	3	*7·9*	4	*7·3*

Rickets serves as an indication of vitamin D deficiency. In group A none of the 38 children, the history of whose infant feeding was obtainable, showed signs of this disease, while of the 55 children in Group D, 11, or 16·3 per cent., showed definite evidence of rickets. Moreover, of the 11 affected, nine, or 82 per cent., were breast-fed when babies, the other two being partly breast and partly artificially fed. In spite of the small numbers under consideration, these figures appear significant. Breast feeding, while undoubtedly the best method of infant nurture, must nevertheless be backed up by an adequate diet for the breast-feeding mother ; otherwise it is likely to prove a very mixed blessing and by no means without danger.

Infectious Diseases.

The incidence of the common infectious diseases and juvenile rheumatism in both groups was assessed. Judging the results in the light of the small numbers in both groups, no significant variations are noticeable. The results are set out below :—

	Group A (48 children)		Group D (62 children)	
	Incidence	Percentage	Incidence	Percentage
Measles	36	*75·0*	41	*66·1*
Whooping Cough	23	*47·9*	23	*37·1*
Scarlet Fever	4	*8·3*	5	*8·0*
Diphtheria	3	*6·2*	3	*4·8*
Mumps	4	*8·3*	3	*4·8*
Chicken-pox	14	*29·2*	16	*25·8*
Juvenile Rheumatism	9	*18·7*	4	*6·4*

Respiratory Diseases.

The incidence of respiratory infections would appear to be definitely higher in those who show evidence of malnutrition. Whether this is of aetiological significance is extremely difficult to judge ; probably it is the result of lowered resistance.

	Group A (48 children)		Group D (62 children)	
	Incidence	Percentage	Incidence	Percentage
Bronchitis	7	*14·6*	22	*35·5*
Pneumonia	3	*6·2*	9	*14·5*

Common Diseases of the Ear, Nose and Throat.

The incidence of abnormal conditions in the upper respiratory tract and the ear is substantially equal in both groups, as shown below :—

	Group A (48 children)		Group D (62 children)	
	Number	Percentage	Number	Percentage
Enlarged Tonsils and/or Adenoids	22	*45·8*	22	*35·5*
Otorrhoea	7	*14·6*	8	*12·9*
Cervical Adenitis	7	*14·6*	5	*8·0*

Conclusions.—The results of this small investigation are of interest in that they do, as a whole, tend to show that the children who present evidence of malnutrition come from the homes which are generally on a lower economic level. This lower level is reflected in a restricted dietary, whereas their other expenses closely approximate those on the higher income level.

A high incidence of rickets is evident in the malnourished group, and it is most marked in breast-fed children. This probably indicates an inadequate diet for the mother who was breast feeding.

Respiratory diseases show an increased incidence in the malnourished group.

Entrants.—Parents or guardians are asked to supply particulars as to the medical history of entrants prior to their routine medical inspection. During 1936 information was received regarding 2,853 of the 3,384 children inspected as entrants, from which the following table has been compiled :—

Diseases	Boys		Girls		Both Sexes	
	Number	Percentage	Number	Percentage	Number	Percentage
Measles	790	*55·9*	802	*55·7*	1,592	*55·8*
Whooping cough	502	*35·5*	569	*39·5*	1,071	*37·8*
Chickenpox	252	*17·8*	315	*21·9*	567	*19·9*
Scarlet fever	72	*5·1*	78	*5·4*	150	*5·3*
Diphtheria	29	*2·0*	26	*1·8*	55	*1·9*
Mumps	45	*3·2*	41	*2·8*	86	*3·0*
Rheumatism	9	*0·6*	7	*0·5*	16	*0·6*
Chorea	1	*0·1*	—	—	1	*0·0*
Tuberculosis	5	*0·3*	2	*0·1*	7	*0·2*
Bronchitis	69	*4·9*	69	*4·8*	138	*4·8*
Pneumonia	49	*3·5*	58	*4·0*	107	*3·7*
Other diseases	213	*15·1*	204	*14·1*	417	*14·6*

Of the 3,384 entrants medically inspected, 598 were found to require immediate treatment (excluding uncleanliness and dental disease) and, in addition, many diseases or defects were found which required to be kept under observation. The numbers of *all* diseases or defects found in 1,434 of the entrants inspected, whether requiring treatment or to be kept under observation, were as follows :—

Diseases or Defects.	*Number.*
Skin diseases	87
Defective vision	—
External eye diseases	62
Ear diseases	82
Diseases of nose and throat	459
Heart diseases	92
Anaemia	30
Lung diseases (non-tuberculous)	170
Tuberculosis—	
Pulmonary	—
Non-pulmonary	2
Dental diseases	693
Other defects and diseases	226
Total	1,903

Taking all diseases and defects into consideration, 42·3 per cent. of the entrants were found to be defective, as compared with 41·9 per cent. in 1935 and 44·8 per cent. in 1934.

Re-inspection of Children found with Defects.—When carrying out routine inspections at schools the medical officers re-inspect children previously found with certain diseases or defects. During 1936 the number of children re-inspected in this way was 2,207, the number of diseases or defects from which they had suffered being 2,243. The results of these re-inspections are given in the following table, from which it will be seen that of the total number of diseases or defects, 1,152 had been treated under the Authority's scheme, 128 had been treated elsewhere and 963 had not been treated.

	Cured or Improved	No Improvement	Worse	Total Number of Defects
TREATED UNDER THE AUTHORITY'S SCHEME :—				
Eye diseases	324	9	—	333
Ear diseases	84	15	—	99
Diseases of nose and throat	221	22	—	243
Heart diseases	46	28	—	74
Anaemia	30	5	—	35
Lung diseases (non-tuberculous)	76	2	—	78
Tuberculosis—				
Pulmonary	—	—	—	—
Non-pulmonary	—	—	—	—
Nervous diseases	17	3	—	20
Deformities	64	9	—	73
Other defects and diseases (excluding uncleanliness, infectious skin diseases and dental disease)	184	13	—	197
Totals	1,046	106	—	1,152
Percentage	*90·80*	*9·20*	—	—
TREATED ELSEWHERE :—				
Eye diseases	—	1	—	1
Ear diseases	4	1	—	5
Diseases of nose and throat	14	3	—	17
Heart diseases	8	1	—	9
Anaemia	2	—	—	2
Lung diseases (non-tuberculous)	17	—	—	17
Tuberculosis—				
Pulmonary	—	—	—	—
Non-pulmonary	3	—	—	3
Nervous diseases	6	1	—	7
Deformities	6	1	—	7
Other defects and diseases (excluding uncleanliness, infectious skin diseases and dental disease)	54	6	—	60
Totals	114	14	—	128
Percentage	*89·06*	*10·94*	—	—
NOT TREATED :—				
Eye diseases	62	129	61	252
Ear diseases	4	9	—	13
Diseases of nose and throat	150	163	3	316
Heart diseases	90	69	—	159
Anaemia	10	3	—	13
Lung diseases (non-tuberculous)	63	14	—	77
Tuberculosis—				
Pulmonary	—	—	—	—
Non-pulmonary	—	—	—	—
Nervous diseases	6	3	—	9
Deformities	5	17	1	23
Other defects and diseases (excluding uncleanliness, infectious skin diseases and dental disease)	47	54	—	101
Totals	437	461	65	963
Percentage	*45·38*	*47·87*	*6·75*	—
Grand Totals	1,597	581	65	2,243
Percentage	*71·20*	*25·90*	*2·90*	—

Since 1925 there has been a gradual increase in the proportion of defects that have been cured or have improved, as will be seen from the figures in the following table :—

Year	Percentage		
	Cured or Improved	Not Improved	Worse
1925	60·0	39·7	0·3
1926	58·9	40·4	0·7
1927	58·4	39·5	2·1
1928	60·7	36·8	2·5
1929	61·4	36·3	2·3
1930	62·4	35·3	2·3
1931	69·2	28·9	1·8
1932	65·4	31·8	2·8
1933	70·8	27·0	2·2
1934	70·8	27·0	2·1
1935	71·3	26·5	2·2
1936	71·2	25·9	2·9

VI.—" FOLLOWING UP " AND THE WORK OF SCHOOL NURSES.

In addition to the advice given by the medical officers to parents who are present at the inspection of their children, appropriate notices are sent directing their attention to diseases or defects discovered. Lists of defective children are also sent to head teachers with a view to their co-operation in seeing that treatment is obtained. As a result of the notices sent to parents, many children attend the school clinics for further inspection and/or treatment or obtain treatment elsewhere without visits to their homes by school nurses. The parents of all children requiring treatment who are not seen at the clinics, or are not otherwise ascertained to have received treatment, are subsequently visited by school nurses, who impress upon them the need for treatment. The following is a summary of the work of the school nurses in this connection during the year :—

Diseases or Defects	First Visits	Revisits	Totals
Defects of vision	1,177	473	1,650
Defects of teeth	742	201	943
Defects of ear, nose and throat	599	278	877
Other defects	3,000	881	3,881
Totals	5,518	1,833	7,351

Amongst other work undertaken by the school nurses may be mentioned the systematic examination at the schools of children for uncleanliness, attendance at the clinics in connection with medical inspection, medical treatment and dental treatment, the treatment of minor ailments under the supervision of medical officers, the following up of children who have received treatment at the clinics, and the treatment at the Corporation Cleansing Station of children suffering from scabies.

As shown above, the total number of visits paid by the nurses to the homes of children was 7,351, and the following is a summary of other work done by them during the year :—

Number of—

Special visits to schools	427
Examinations of children for uncleanliness	43,995
Children found with vermin and/or nits	2,740

Number of :—

Re-examinations of children previously found unclean	2,407
Children found to have been cleansed	439
Children suffering from scabies dealt with at the Cleansing Station	146
Number of baths given	282

VII.—ARRANGEMENTS FOR TREATMENT.

Clinics.—The school clinic premises provided at present are totally inadequate. Special inspections, refractions, treatment of minor ailments and dental treatment are undertaken at the Central Clinic and at Canton Clinic, special inspections, treatment of minor ailments and dental treatment at Gabalfa Clinic, and dental treatment only at Glossop Terrace Clinic. A scheme for the provision of three additional clinic premises has recently been approved. One of these—a private house which is being adapted for the purpose—is now being provided in Splott municipal ward, and entirely new buildings are shortly to be erected in South and Ely municipal wards.

Malnutrition.—Children suffering from malnutrition are either referred for special inspection at the school clinics or followed up by the school nurses, and parents are advised as to appropriate methods of treatment. Free meals and milk are provided in financially necessitous cases. Cod-liver oil and malt, cod-liver oil, and iron and ammonium citrate are provided through the clinics at cost price for cases in which they are prescribed. In certain instances malnourished children are admitted to the Open-Air School (see page 165).

Uncleanliness.—Special attention is given by the school nurses to cases of uncleanliness (see page 154). Printed instructions are supplied to parents regarding methods of destroying vermin and nits, and special nit combs are sold by the department at cost price.

Minor Ailments and Diseases of the Skin.—The treatment of minor ailments and diseases of the skin is undertaken at the school clinics. Details of the treatment carried out during 1936 are given in the statistical tables (see page 177), from which it will be seen that 2,142 cases received treatment at the clinics, as compared with 1,992 in 1935. Special attention is given to the treatment of ringworm; the number of cases treated by or under the supervision of the medical staff was 57, four of them being ringworm of the scalp. When necessary and with the consent of the parents, cases of scalp ringworm are treated by X-rays, but during 1936 one case only received this form of treatment. Arrangements have been made whereby nurses of the Queen's Institute of District Nursing render assistance in the home nursing and treatment of minor ailments, and particulars of the work undertaken by them during 1936 are shown in the following table :—

Diseases or Defects	Cases Carried over from 1935		Cases Referred for Treatment during 1936		Totals	
	Cases	Visits	Cases	Visits	Cases	Visits
Skin :—						
Impetigo	1	11	70	860	71	871
Other skin diseases	—	—	16	278	16	278
Minor eye defects	—	—	4	32	4	32
Minor ear defects	—	—	3	55	3	55
Miscellaneous	5	25	100	1,298	105	1,323
Totals	6	36	193	3,523	199	3,559

Visual Defects and External Eye Diseases.—Visual defects and external eye diseases are treated at the school clinics. In addition to a medical officer on the staff who devotes part time to the work, a specialist ophthalmic surgeon is engaged for two sessions weekly. Spectacles are supplied through the department at very reasonable prices, and in necessitous cases they are supplied free of charge. Particulars of the treatment of visual defects are given on page 177, from which it will be seen that 1,718 children were dealt with at the clinics, 1,461 of whom were examined for errors of rafrection and 257 were treated for other defects. Spectacles were prescribed for 1,377 children, and in 1,307 instances they were known to have been obtained.

The diseases and defects discovered in all the children who were dealt with at the vision clinics during the year are shown in the following table :—

Diseases or Defects	Number of Diseases or Defects		
	Boys	Girls	Totals
Squint	81	103	184
Errors of refraction—			
Hypermetropia	259	297	556
Myopia	110	117	227
Astigmatism—			
Hypermetropic	292	308	600
Myopic	75	92	167
Mixed	46	75	121
Conjunctivitis	64	55	119
Phlyctenular conjunctivitis	6	4	10
Blepharitis	53	65	118
Keratitis	1	3	4
Interstitial keratitis	1	2	3
Choroiditis	2	—	2
Corneal ulcer	3	3	6
Corneal nebulae	9	8	17
Nystagmus	4	5	9
Injury to eye	6	2	8
Meibomian cyst	3	1	4
Cellulitis of eyelid	2	3	5
Ptosis	2	2	4
Foreign body	1	1	2
Cataract—Congenital	8	3	11
,, —Traumatic	1	—	1
Dermoid cyst	—	1	1
Papilloma of eyelid	—	1	1
Epicanthus	—	2	2
Dislocation of lens—Traumatic	1	—	1
,, ,, ,, —Congenital	1	1	2
Naevus of eyelid	—	1	1
Entropium	—	1	1
Totals	1,031	1,156	2,187

Nose and Throat Defects.—Children suffering from nose or throat defects who are found to require treatment are specially examined at the school clinics, and those found to need operative treatment are admitted to Llandough Hospital—the Cardiff Municipal General Hospital. The children are admitted to hospital the day before the operation and, if well enough, are discharged the day following the operation. Owing to the long distance of Llandough Hospital from the centre of the city, the children are conveyed to and fro by motor ambulance. The number of defects treated at the clinic or hospital was 916, of which 330 were treated by operation (127 enlarged tonsils only, six adenoids only and 197 enlarged tonsils and adenoids).

Ear Disease and Defective Hearing.—The treatment of ear diseases or defects is carried out at the school clinics by or under the supervision of the medical officers. Many of the cases of otorrhoea are treated by zinc ionisation. Altogether, the number of defects treated at the clinics was 524 (included in the figures regarding the treatment of minor ailments given on page 177).

An audiometer is used for specially testing the hearing of children. The instrument is similar to a gramophone in operation, but has a number of headphones attached to it. Thirty-two children can be uniformly tested together. One 'phone is placed on the ear at a time, each ear being tested separately. The children record on a specially prepared form what they hear of a series of numbers which are transmitted in a measured gradation of loudness and the numbers not recorded, being those not heard, form the measure of the defect of hearing.

The statement below shows the result of the testing of children with the audiometer during 1936. Children shown to be deaf by the test are subsequently examined by a medical officer at the school clinics and, if found to present any difficulty, are referred to the specialist aural surgeon for further examination. It will be seen that a number of the children, although shown to be deaf by the audiometer test, were found on special examination to suffer from no abnormality.

		Number of Children.
Tested with audiometer at school		2,595
Retested		1,111
Found defective after retesting :—		
Defective in one ear	212	
Defective in both ears	117	
Total		329
Subsequently examined at school clinics :—		
Found to be normal	138	
Found normal after treatment	48	
Improved after treatment	10	
Further treatment required	25	
Unlikely to benefit further	27	
Total		248
Failed to attend at first appointment		32
Refused to attend school clinics or left school		49

Dental Defects.—Dental inspection of children at the schools and treatment at the school clinics are undertaken by four school dentists, but the present staff is insufficient to carry out all the work requiring to be done. As mentioned on page 155, the clinic accommodation is shortly to be extended, and when further accommodation is provided at least one additional dentist is to be appointed.

Particulars of the work done during 1936 will be found on page 179. The total number of elementary school children inspected by the dentists was 22,519, of whom 16,813 were found to require treatment. The number of children who were treated was 7,999, 3,370 of whom had previously received treatment.

Orthopaedic and Postural Defects.—The orthopaedic clinic is closely associated with a fracture unit which has been established by the Health Committee at the City Lodge with the consent and co-operation of the Public Assistance Committee. There is a medical officer on the staff of the department who specialises in dealing with children suffering from crippling defects and, in addition, a specialist orthopaedic surgeon is engaged in a consultative capacity. Children requiring indoor hospital treatment are admitted to the Prince of Wales Hospital—a voluntary orthopaedic hospital—and all the appliances required by children attending the clinic are provided through that institution.

The following is a summary of the work carried out at the orthopaedic clinic during 1936 :—

	Children of School Age.
Consultation Clinic :—	
Examined for first time	416
Recommended for treatment and/or appliances for first time	227
Recommended for further treatment and/or appliances	163
Recommendations for :—	
Treatment in Hospital	41
Treatment at Clinic (Special and Routine)	217
Application of plaster at Fracture Unit	6
Appliances	33
Alterations to appliances	1
Special boots	4
Alterations to boots	118
Other forms of treatment	10
Treated at Clinic for first time	11
Attendances at Clinic	1,110
Routine treatment (*massage, electricity, exercises, etc.*) :—	
Treated at Clinic for first time	159
Attendances for routine treatment	4,299

The following statement relates to treatment at and provision of appliances, etc., through the Prince of Wales' Hospital, Cardiff, during 1936 :—

	Children of School Age.
Hospital Treatment :—	
Admitted to Prince of Wales' Hospital—	
(*a*) Day cases	—
(*b*) Other cases	26
Under treatment at Prince of Wales' Hospital at end of 1936	8
On Prince of Wales' Hospital waiting list at end of 1936—	
(*a*) Day cases	1
(*b*) Other cases	9

Other treatment or provision (including appliances, etc., provided following hospital treatment) :—

Appliances provided	67
Appliances altered	14
Special boots provided	3
Alterations to boots	147
Application of plaster	11
Other forms of treatment provided	22

The diseases or defects found in children of school age examined at the clinic for the first time during the year have been classified as follows :—

Diseases or Defects.	*Number.*
Defective posture	188
Scoliosis	11
Flat feet	65
Bow legs	1
Talipes	4
Poliomyelitis	7
Spastic paralysis	1
Birth palsy	2
Congenital malformation or defect	9
Torticollis	4
Perthes' disease	3
Knock knee	20
Metatarsus varus and intoeing	5
Coxa vara	1
Claw feet	5
Tuberculous disease	7
Trauma	16
Other defects	67
Total	416

The following is a classification of the cases discharged during the year :—

Reason.	*Number.*
Cured	206
Improved	65
Unlikely to benefit further	20
Left the district	17
Failed to attend for treatment	78
Over school age	65
Other reasons (including trivial defects)	95
Total	546

Heart Disease and Rheumatism.—School children suffering from heart disease and rheumatism are kept under close supervision at special rheumatism clinics. Cases of acute rheumatism are admitted to the Lord Pontypridd Hospital (Dulwich House)—a hospital of 25 beds which is specially reserved for the purpose and which is under the control of the Health Committee of the City Council. Details of the work undertaken at the clinics and at the hospital are contained in the report on the general health service. The number of school children remaining under supervision at the end of the year was 1,593, a decrease of 80 compared with the number at the end of the previous year.

Tuberculosis.—The department co-operates closely with the Tuberculosis Institute of the Welsh National Memorial Association, by which body the treatment of tuberculosis is undertaken, all cases of tuberculosis and suspected tuberculosis being referred to the Tuberculosis Physician for diagnosis and/or treatment.

Other Defects and Diseases.—Children found to be suffering from minor defects or diseases not already mentioned are referred for special examination at the school clinics, where parents receive advice as to the treatment required, and in some instances suitable remedies are provided at the clinics. Children suffering from defects or diseases for the treatment of which no special provision has been made are visited by school nurses, who advise the parents as to appropriate means of obtaining treatment.

Radiography.—Radiography is carried out by the department. During the year, 75 school children were referred from the clinics to be radiographed, the total number of radiograms taken being 166. Ninety-four parts of the body required X-ray examination in the 75 cases as follows :—

Teeth	8
Ribs	2
Spine	33
Shoulder	2
Arm	3
Elbow	10
Wrist	1
Hip	13
Knee	11
Thigh	1
Leg	1
Foot	7
Skull	2
Total	94

VIII.—INFECTIOUS DISEASES.

Constant attention is paid to preventing the spread of notifiable and non-notifiable infectious diseases amongst school children. As soon as notifiable diseases, such as scarlet fever and diphtheria, come to the knowledge of the department the homes of the patients are visited by an officer of the general health service section and arrangements are made for the isolation of the patients, either at the Isolation Hospital or in their own homes. Nearly all cases of diphtheria, however, are admitted to the Hospital. All children who have been in contact with cases of notifiable infectious diseases are excluded from school for the prescribed periods by means of exclusion certificates, copies of which are sent to the schools and to school attendance officers,

re-admission certificates also being sent in due course. Active immunization of school children against diphtheria, especially of those in infants' schools, is undertaken as time and opportunity allow. Head teachers are supplied with instructions as to the periods of exclusion from school of patients and contacts in all infectious diseases. An arrangement is also in operation whereby the names and addresses of school children who are absent from school on account of non-notifiable diseases, such as measles, chickenpox, whooping cough and mumps, are supplied on appropriate forms in order that they may be visited by officers of the department with a view to preventing the spread of infection as far as possible.

The numbers of school children notified to be suffering from various infectious diseases during the year were as follows :—

Scarlet fever	233
Diphtheria	252
Enteric fever	2
Pneumonia	39
Cerebro-spinal fever	3
Erysipelas	1
Tuberculosis—Respiratory	14
,, —Other forms	21

The following cases of non-notifiable infectious diseases were intimated by head teachers or school attendance officers, or were otherwise ascertained :—

Chickenpox	874
Measles	49
Rubella	4
Whooping cough	297
Mumps	1,230

Vaccinal State of School Children.—Of 10,795 elementary and high school children inspected at routine inspection during 1936, 5,434, or 50·3 per cent., were found to be vaccinated. During the ten years 1927-36 the proportion of children inspected who were found to have been vaccinated has declined from 60·8 per cent. to 50·3 per cent., as follows :—

Year.	*Percentage Vaccinated.*
1927	*60·8*
1928	*60·9*
1929	*56·4*
1930	*57·4*
1931	*56·1*
1932	*58·1*
1933	*54·5*
1934	*52·6*
1935	*50·3*
1936	*50·3*

It is satisfactory to note that the percentage of vaccinated children did not decline further during 1936.

IX.—OPEN-AIR EDUCATION.

At schools where there are suitable facilities, classes are held in the playgrounds during appropriate weather ; at several schools a special feature is made of these playground classes. Children from other schools are taken to the public parks for certain lessons during summer. Excursions are sometimes arranged by schools to places of educational interest in various parts of the country. Educational visits are also made to local institutions and buildings.

Greenhill Open-Air School, which is situated at Rhiwbina, on the outskirts of the city, was provided in 1927 for physically defective (delicate) children. There is accommodation at the school for 120 children, who are selected for admission mainly on the grounds of malnutrition and anaemia. Pre-tuberculous children and children from tuberculous homes, but who are not themselves suffering from tuberculosis, are also admitted. After varying periods of attendance at the open-air school, children are re-admitted to the ordinary elementary schools. The usual report regarding the children in attendance during 1936 is given on page 165.

X.—PHYSICAL TRAINING.

A female organiser has been engaged in connection with physical training in girls' and infants' schools for many years, and during 1936 the usual assiduous attention has been given to the arrangement of organised games, such as netball and rounders, and to the teaching of swimming and national and folk dancing. The usual courses of instruction in physical education for teachers were held, the courses arranged being as follows :—

(*a*) For teachers in infants' schools.

(*b*) For teachers taking junior classes.

(*c*) For teachers taking senior classes.

(*d*) Field games suitable for Forms I, II, III and IV.

As mentioned in the last report, a male organiser of physical training commenced duty in September, 1935, and, as a result, the physical training of boys is now well organised. The Director of Education has prepared a comprehensive report on physical education in the Cardiff schools during 1935-1936 from which the following extracts regarding the training of boys are given :—

" *Classes for Teachers.*—During the winter five classes were organised, and 153 teachers attended either an eight- or a ten-lesson course of training. The work was based on the Board of Education Syllabus, 1933, and consisted of practical work, games, group activities and folk dancing. Incidental talks on posture, the organisation of class teams, commanding and the technique of teaching the activities to children were given."

" Much credit is due to the teachers for the enthusiastic manner in which they have taken to this new work and for the unstinted efforts to improve the standard of physical training in the schools."

" *Time-tables.*—The time-tables of all elementary schools have recently been revised and a daily lesson included. Arrangements have also been made whereby the younger members of the staff will teach physical exercises, games and folk dancing to more than one class. The introduction of this daily period of physical training, bringing with it, as it does, improvement in posture and healthy functioning of the body, is bound to play an important part in the future development of the children."

" *Equipment.*—All schools have been supplied with small apparatus, such as balls, ropes, hoops, braids, etc. In addition, six schools have been partly equipped with movable gymnastic apparatus suitable to the needs of a senior school."

" *Marking of Playgrounds.*—With the exception of a few which are in need of repair, all school playgrounds have been marked out for physical exercises and minor games."

" By arrangement with the Parks Department, playing pitches for inter-school games are marked-out every Tuesday and Friday for soccer, rugby or baseball."

" *Indoor Accommodation.*—Efforts have been made to provide as many schools as possible with some kind of indoor accommodation for physical training during the winter months."

" *Folk Dancing.*—Folk dancing has recently been included in the physical training scheme of a number of boys' schools and many of the men teachers have become really enthusiastic with regard to the benefits to be derived from such training."

" *Play Centres.*—During the past winter, one play centre was opened in South Church Street School. This centre meets the dire need of the children residing in the Docks area, but it is evident that additional centres are needed in other crowded parts of the city."

" As an experiment, eight open-air play centres were organised during the summer. These were opened in congested areas, and they have been instrumental in keeping about 1,500 children away from the streets on three evenings a week. The Education Committee appointed 20 teachers to act as Play Supervisors at the centres."

" A short course in 'play leadership' and 'recreative physical training' was organised for teachers employed in the play centres . . . . . "

" *Swimming.*—The Education Committee provide facilities for swimming in four baths, four instructors, two full-time and two part-time, being employed to teach the children . . . . . "

" *Organised Games.*—

" (1) *Playground Games.*—One lesson of 30 to 45 minutes per week is now devoted to organised games. The syllabus contains such a wide range of minor games and practices that an interesting period may be taken on almost any kind of playground. These minor games are the foundation of all the major games and they require, therefore, the same careful preparation and coaching as the better-known field games."

" (2) *Field Games.*—The choice of field games depends largely on the facilities available on the public playing fields and parks. The shortage of suitable playing pitches for school children has been realised and efforts are being made to procure a number of large playing areas in different parts of the city. When the pitches are available it is hoped that each field will be provided with suitable facilities for changing, washing and for the storage of apparatus. The main games played . . are soccer, rugby, baseball and cricket."

XI.—PROVISION OF MEALS.

Necessitous school children are supplied with dinners by contract at 16 canteens in various parts of the city. During the year the average number of children provided with dinners daily was 2,203. A ration of pasteurised milk is supplied at the schools instead of breakfast. The average number of necessitous children provided with milk free of charge daily was 3,474.

In addition, arrangements have been made for children, whose parents are willing to bear the cost, to be supplied with milk at school, the average number of children who received milk daily under these arrangements during the year being 9,727.

The daily ration of milk supplied free is half-a-pint for children over 8 years of age and one-third pint for younger children. Under the voluntary arrangement one-third of a pint is supplied to children of all ages.

XII.—CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.

Parents.—Parents generally take an interest in the facilities provided for medical inspection and treatment, and follow the advice given as to the care of their children's health. They are invited by notices to attend the inspections that take place at school and many of them accompany their children to the school clinics.

Teachers.—Teachers co-operate in the work that is undertaken, and the help they render in preparing the medical and dental inspection schedules and in marshalling the children for inspection is of very great assistance. Head teachers are supplied with lists of children who are recommended for treatment and they co-operate in ensuring that it is obtained. They also co-operate in the arrangement for notifying the department of the names and addresses of children who require special attention and of children who are absent from school by reason of non-notifiable infectious diseases.

School Attendance Officers.—There is very close co-operation on the part of school attendance officers, whose willing assistance is invaluable to the school medical service staff. Many children requiring attention come to the knowledge of the department through them, and they render useful service in dealing with negligent parents whose children fail to keep appointments at the clinics.

Voluntary Bodies.—Voluntary bodies concerned with the welfare of school children also co-operate closely in the work. The arrangement whereby the Queen's Institute of District Nursing carries out the treatment of minor ailments at the homes of the children, which has been in force for many years, continues to work smoothly, and full value is obtained for the annual grant of £100 which is paid to the Institute for its services. Details of the work undertaken by the Institute during 1936 are given on page 155. Inspectors of the National Society for the Prevention of Cruelty to Children always deal promptly with cases of parental neglect that are referred to them. Senior school children—boys and girls—who are provided with holidays at seaside homes by two voluntary bodies are selected from amongst delicate children known to the department.

XIII.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

Blind, deaf, defective and epileptic children come to the knowledge of the department through various channels, but they are ascertained mainly through routine medical inspection at schools and through notification by head teachers and school attendance officers. The numbers of such children who are known to the department are given in detail in the return on pages 174 to 176.

Mentally Defective Children.—It will be seen from the return referred to that the number of mentally defective children, who were not transferable to the Mental Deficiency Authority, was 119, of whom 103 were attending the special day school. The remaining 16 children are supervised at home by officers of the department. There were also 12 children who, in addition to being mentally defective, suffered from serious physical defects ; five of these were also in attendance at the special day school.

During the year, 93 children suspected to be mentally defective were specially examined or re-examined. The results are classified as follows :—

Feebleminded and suitable for education in a special school	37
Transferred to the care of the Mental Deficiency Authority	7
Dull and backward	41
Backward only	5
Unstable and neurotic	1
Blind and unstable	1
Normal	1
Total	93

Altogether, 41 children were notified to the Mental Deficiency Authority during 1936 particulars of whom are classified in the following table :—

Diagnosis	Boys	Girls	Totals
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School :—			
(*a*) Idiots	—	1	1
(*b*) Imbeciles	2	1	3
(*c*) Others	4	6	10
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :—			
(*a*) Moral Defectives	—	—	—
(*b*) Others	2	3	5
2. Feebleminded children notified on leaving a Special School on or before attaining the age of 16	13	9	22
3. Feebleminded children notified under Article 3 of the 1928 Regulations, *i.e.*, " special circumstances " cases	—	—	—
4. Children who in addition to being mentally defective were blind or deaf	—	—	—
Totals	21	20	41

Mentally Retarded Children.—A special class for mentally retarded children, known as the " delta " class, is held at one of the elementary schools. Children, regarding whose mental condition there is some doubt, are admitted to the class from the elementary schools. They are examined periodically by a medical officer of the department to decide as to the form of education for which they are most suitable. Children who make sufficient progress are allowed to return to ordinary elementary schools, while others who are found to be feebleminded are admitted to the special day school. At the end of the year 21 children (16 boys and five girls) were in attendance at the class.

Special Schools.—There are special day schools for mentally defective, blind (including partially blind), deaf and physically defective children, the numbers in attendance being given in the return on pages 174 to 176. The children attending these schools are regularly inspected and closely supervised by medical officers of the department.

Greenhill Open-Air School.—The number of physically defective children on the register at the end of 1936 was 131, and the average attendance during the year—excluding August—was 107. One-hundred and two children (58 boys and 44 girls) were admitted to the school, and 98 (47 boys and 51 girls) were discharged. The following are the principal diseases or defects found in the children admitted during the year :—

Diseases or Defects.	*Number.*
Anaemia	19
Malnutrition	15
Anaemia and malnutrition	20
Cervical adenitis	4
Quiescent tuberculosis (pulmonary)	2
,, ,, (non-pulmonary)	2

Post-rheumatic debility	12
Post-pneumonic debility	8
Post-operative debility	3
Debility following infectious disease	3
Anorexia	9
Chronic bronchitis	4
Chronic nephritis	1
Total	102

Twelve of these children had previously shown clinical signs suggestive of tuberculosis, but at the time of admission none of them suffered from active tuberculosis. There was a history of tuberculosis in the parents or brothers and/or sisters in eight of the children admitted.

The following table shows the average increases in weight and height of 94 of the 98 children who were discharged from the school during 1936. The remaining four children attended for periods of less than three months.

Average Period in School (Months)	Number of Children in Group	Average Age on Discharge (Years)	Average gain in Weight (Pounds)	Average gain in Height (Inches)
3	9	9·38	0·72	0·11
6	9	9·67	3·75	0·44
9	7	11·51	4·60	0·57
12	16	10·47	8·01	1·57
15	11	10·71	8·77	2·57
18	5	10·46	10·85	3·10
21	13	9·37	8·70	4·06
24	9	10·01	13·77	3·08
27	5	9·64	10·20	2·50
30	1	9·11	17·50	5·50
33	5	11·70	13·90	4·37
36	2	11·25	12·12	4·00
45	1	10·70	26·00	9·00
69	1	14·50	25·00	8·75

XIV.—FULL-TIME COURSES OF HIGHER EDUCATION FOR BLIND, DEAF, DEFECTIVE AND EPILEPTIC STUDENTS.

No special courses of higher education for blind, deaf, defective or epileptic students have been arranged, but suitable blind students receive special training at the Cardiff Institute for the Blind or at residential institutions elsewhere at the cost of the Education Authority. At the Institute for the Blind males are taught to make baskets, mats, cork ship-fenders, brushes and coal bags, and females are taught knitting, weaving, chair-caning and light basket-making. At the end of the year there were 12 blind persons (eight males and four females) for whose training the Education Authority had accepted chargeability.

XV.—NURSERY SCHOOLS.

A joint report by the Director of Education and the School Medical Officer on nursery schools and classes was submitted to the Education Committee in May, 1936, and in December, 1936, it was decided to establish a nursery school in conjunction with Severn Road Council Infants' School, in Canton municipal ward, with accommodation for 120 children. Plans of the new building have been prepared and have been approved by the Education Committee. The cost of the land was £650, the estimated cost of the erection of three class-rooms and of the necessary alterations to Severn Road Council Infants' School, including the provision of a kitchen, dining room, lavatories, etc., is £6,000, and the estimated cost of the furniture and equipment is £600.

XVI.—SECONDARY SCHOOLS AND OTHER INSTITUTIONS OF HIGHER EDUCATION.

Eight high schools have been provided by the Education authority (four for boys and four for girls), for the pupils of which all the facilities of the school medical service are available. There are also a secondary school for boys and two secondary schools for girls aided by the Authority, and arrangements have been made for the medical inspection and treatment of pupils attending the school for boys and one of the schools for girls. High and secondary school pupils are medically inspected on entering and prior to leaving school. Particulars of the number of pupils inspected, the findings of inspection and of the treatment undertaken are contained in the statistical tables on pages 180 to 184.

XVII.—PARENTS' PAYMENTS.

Parents of school children receiving certain forms of treatment provided through the school medical service are required to pay according to an approved scale of family income, but free treatment is provided in the case of children belonging to families whose incomes are below the scale. The forms of treatment for which charges are made are nose and throat operations, dental treatment and in-patient orthopaedic treatment. Charges are also made for orthopaedic appliances and for spectacles. Application forms are required to be filled in and signed by parents, who, unless willing to pay the full charge, are required to supply complete particulars of their incomes from all sources. The charges for dental treatment are payable at the time of treatment and the cost of spectacles before they are supplied, all other payments being collected by collectors employed by the City Council after accounts have been rendered.

XVIII.—HEALTH EDUCATION.

Every opportunity is taken by medical officers and school nurses to disseminate knowledge amongst the parents of children with whom they come into contact on the means of protecting the health of their children. The school dentists give talks to children at school at the time of routine inspection, and large numbers of copies of illustrated pamphlets on the care of teeth, issued by the Dental Board of the United Kingdom, have been circulated amongst school children.

Sex education is conducted systematically in the elementary schools among the senior scholars of both sexes by officers of the Alliance of Honour. Children receive the teaching only with the consent of their parents, and it is satisfactory to record that over 90 per cent. of parents give consent for their children to receive the instruction.

During the months of November, 1935, to February, 1936, a female lecturer of the King Edward VII Welsh National Memorial Association delivered lectures on " Tuberculosis and the Laws of Health " at all the elementary schools and also on" Infant Care " to senior female scholars at the same schools.

XIX.—SPECIAL INQUIRIES.

An inquiry into the sociological facts behind the findings of the nutritional condition of school children at routine medical inspections was undertaken during 1936, and a special report on the subject by the Deputy School Medical Officer is given on pages 148 to 152.

XX.—MISCELLANEOUS.

Medical Examination of Teachers.—The number of newly appointed and other teachers examined by the medical staff was nine (three males and six females).

Juvenile Employment.—Forty-seven children (15 boys and 32 girls) were medically examined on the request of the Juvenile Employment (Education) Officer as to suitability and fitness for employment and 32 children (12 boys and 20 girls) were examined in connection with the issue of entertainment licences.

Junior Instruction Centres.—There are two Junior Instruction Centres (one for males and one for females) and arrangements have been made through the school medical service for the special inspection and treatment of the pupils in attendance who are not entitled to benefit or treatment under the National Health Insurance Acts. During the year, 94 pupils (34 boys and 60 girls) were medically inspected at the centres, of whom 38, or 40·4 per cent., were found to require treatment (excluding uncleanliness and dental diseases). Altogether, 46 pupils attending the centres were dealt with by medical officers at the school clinics (minor ailments 29, defective vision 15 and nose and throat defects two). The number who received dental treatment at the clinics was 35.

Classes for Speech Training.—The average number of children attending the special classes for speech training during the year was 86, the total number of individual children dealt with being 123. The numbers admitted and discharged were 39 and 48 respectively. Of the 48 children discharged, nine were withdrawn for various reasons, six were discharged on account of irregular attendance and seven were discharged temporarily. The classification at the time of discharge of the remaining 26 was as follows :—

Provisionally cured	19
Much improved	1
Improved	4
Unlikely to benefit further	2
Total	26

As usual, at the close of each term, head teachers, were asked to supply reports on the progress made, in their opinion, by children attending the classes. The following is a summary of the reports received :—

	1st Term.	*2nd Term.*	*3rd Term.*
Cured	3	5	4
Much improved	13	23	25
Improved	44	34	42
Not improved	18	18	11
Worse	1	—	—
No definite report	2	5	8
Totals	81	85	90

Head Teachers also supplied reports at the end of the year on 54 scholars who had passed through the special classes and who were still attending school. These reports are summarised as follows :—

Cured	4
Much improved	17
Improved	20
Not improved	9
No definite report	4
Total	54

The instructress continued to visit the schools and homes of children attending the special classes and to make after-care visits to children who had left school. She made, altogether, 305 visits to schools and to the homes of children in attendance and of those who had attended the classes but had since left school. The condition of the speech of 54 of the cases to whom after-care visits were made is summarised as follows :—

Cured	21
Very much improved	7
Much improved	6
Improved	10
Improvement maintained	3
Variable	1
No improvement	3
Relapsed	3
Total	54

Child Guidance Clinic.—The Child Guidance Clinic, which was established in October, 1935, is held at Gabalfa School Clinic, where four rooms are furnished and equipped for the purpose. One afternoon session weekly is devoted to the clinical work involved. During 1936 the staff consisted of Dr. P. K. McCowan, Medical Director, Dr. J. Walker, Psychiatrist, Dr. G. Seth, Psychologist, and a Social Worker (Miss K. Howland and later Miss Joan Yates, B.A.). The following is a summary of the work done at and in connection with the Clinic during the year :—

(1) Number of patients referred to the Clinic during the year :—

Boys	49
Girls	53
Total	102

(2) Number of patients carried forward from 1935 :—

Boys	8
Girls	6
Total	14

(3) Sources of ascertainment of patients dealt with for the first time :—

Juvenile Courts	2
Schools	35
School Medical Service	45
Other sources	4
Total	86

(4) Problems for which the 86 patients were referred to the Clinic :—

Backwardness	4
Stealing	14
Nervousness	11
Difficult and/or unmanageable	10
Temper	7
Enuresis	26
Speech difficulties	10
Lying	2
Sex difficulties	1
Truancy and/or wandering	6
Night terrors and fears	5
Restlessness and sleeplessness	3
Screaming	1
Defiance	2
Nervous movements	1
Anxiety	2
Feeding difficulties	1
Unwilling to attend school	4
Lack of concentration	5
Timidity	2
Fits (doubtful)	1
Epilepsy (doubtful)	2
Somnambulism	2
Total	122

(5) Ages of patients dealt with for the first time :—

Years.	Boys.	Girls.	Totals.
4	—	1	1
5	—	1	1
6	—	5	5
7	2	4	6
8	3	4	7
9	2	6	8
10	6	7	13
11	4	2	6
12	10	7	17
13	13	3	16
14	1	1	2
15	1	1	2
16 and over	1	1	2
Totals	43	43	86

(6) How the patients were dealt with :—

Service of Clinic	75
Diagnosed only	9
Refused examination	2
Total	86

(7) Results of treatment of patients discharged :—

Adjusted	8
Partially adjusted	5
Unadjusted (including 3 who refused treatment)	11
Transferred to other agencies	3
Unsuitable for further treatment	2
Total	29

(8) Number of patients waiting to be dealt with at end of year :—

Boys	5
Girls	4
Total	9

(9) Work of Sections :—

(*a*) *Psychiatric* :—

New patients dealt with	74
Re-examinations	133
Interviews with parents	98

(*b*) *Psychological* :—

New patients dealt with	52
Re-examinations	33
Interviews with parents or teachers	28

(*c*) *Social Service* :—

Interviews with parents, etc., at Clinic	136
Visits to homes of patients	384
Other visits concerning patients	258

(10) Staff conferences regarding patients 76

XXI.—STATISTICAL TABLES.

ELEMENTARY SCHOOLS.

TABLE I.

MEDICAL INSPECTION.

A.—Routine Medical Inspections.

Number of inspections in the prescribed Groups :—	
Entrants (within 12 months of admission)	3,384
Second Age Group (8 to 9 years)	3,068
Third Age Group (over 12 years)	2,840
Total	9,292
Number of other Routine Inspections	175
Grand Total	9,467

B.—Other Inspections.

Number of Special Inspections	6,661
Number of Re-inspections	7,872
Total	14,533

C.—Children Found to Require Treatment.

Number of individual children found at routine medical inspection to require treatment (excluding defects of nutrition, uncleanliness and dental diseases) :—

Prescribed Groups.—	
Entrants (within 12 months of admission)	598
Second Age Group (8 to 9 years)	583
Third Age Group (over 12 years)	574
Total	1,755
Other Routine Inspections	32
Grand Total	1,787

ELEMENTARY SCHOOLS.

TABLE II.

A.—DEFECTS FOUND BY MEDICAL INSPECTION.

DEFECT OR DISEASE	Routine Inspections — No. of Defects		Special Inspections — No. of Defects	
	Requiring Treatment	Requiring to be kept under observation, but *not* requiring Treatment	Requiring Treatment	Requiring to be kept under observation, but *not* requiring Treatment
Skin — (1) Ringworm—Scalp	1	—	7	—
Skin — (2) ,, Body	8	—	59	—
Skin — (3) Scabies	28	—	177	—
Skin — (4) Impetigo	83	—	934	—
Skin — (5) Other Diseases (Non-Tuberculous)	43	3	257	13
Total (Heads 1 to 5)	163	3	1,434	13
Eye — (6) Blepharitis	21	—	29	—
Eye — (7) Conjunctivitis	3	—	14	—
Eye — (8) Keratitis	2	—	4	—
Eye — (9) Corneal Opacities	1	—	3	—
Eye — (10) Other Conditions (excluding Defective Vision and Squint)	17	1	40	4
Total (Heads 6 to 10)	44	1	90	4
(11) Defective Vision (excluding Squint)	501	99	138	6
(12) Squint	91	4	18	1
Ear — (13) Defective Hearing	60	9	72	2
Ear — (14) Otitis Media	102	1	90	2
Ear — (15) Other Ear Diseases	29	4	75	6
Nose and Throat — (16) Chronic Tonsillitis only	132	401	146	51
Nose and Throat — (17) Adenoids only	26	4	13	2
Nose and Throat — (18) Chronic Tonsillitis and Adenoids	109	21	40	11
Nose and Throat — (19) Other Conditions	74	14	146	30
(20) Enlarged Cervical Glands (Non-Tuberculous)	46	52	68	17
(21) Defective Speech	15	12	17	5
Heart and Circulation — Heart Disease :-				
Heart and Circulation — (22) Organic	29	103	65	78
Heart and Circulation — (23) Functional	8	120	35	47
Heart and Circulation — (24) Anaemia	41	23	122	10
Lungs — (25) Bronchitis	46	42	67	26
Lungs — (26) Other Non-Tuberculous Diseases	67	145	123	103
Tuberculosis — Pulmonary :—				
Tuberculosis — (27) Definite	—	—	1	—
Tuberculosis — (28) Suspected	8	1	12	10
Tuberculosis — Non-Pulmonary :—				
Tuberculosis — (29) Glands	—	—	13	7
Tuberculosis — (30) Bones and Joints	1	1	4	—
Tuberculosis — (31) Skin	—	—	—	—
Tuberculosis — (32) Other Forms	1	—	—	—
Total (Heads 29 to 32)	2	1	17	7
Nervous System — (33) Epilepsy	4	5	7	4
Nervous System — (34) Chorea	15	7	42	17
Nervous System — (35) Other Conditions	59	35	95	50
Deformities — (36) Rickets	3	—	—	—
Deformities — (37) Spinal Curvature	4	2	3	2
Deformities — (38) Other Forms	99	20	29	13
(39) Other Defects and Diseases (excluding Uncleanliness and Dental Diseases)	275	162	977	409
Total	2,052	1,291	3,942	926

B.—CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR IN THE ROUTINE AGE GROUPS.

AGE GROUPS	Number of Children Inspected	Excellent		Normal		Slightly Sub-normal		Bad	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Entrants (within 12 months of admission)	3,384	49	*1·4*	3,117	*92·1*	176	*5·2*	42	*1·2*
Second Age Group (8 to 9 years)	3,068	97	*3·1*	2,758	*90·0*	139	*4·5*	74	*2·4*
Third Age Group (over 12 years)	2,840	101	*3·6*	2,543	*89·5*	155	*5·5*	41	*1·4*
Other Routine Inspections	175	5	*2·9*	158	*90·2*	12	*6·9*	—	—
Total	9,467	252	*2·7*	8,576	*90·6*	482	*5·1*	157	*1·6*

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

(NO CHILD ENTERED UNDER MORE THAN ONE HEADING).

BLIND CHILDREN.

At Certified Schools for the Blind	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
6	—	1	—	7

PARTIALLY SIGHTED CHILDREN.

At Certified Schools for the Blind	At Certified Schools for the Partially Sighted	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	29	6	—	—	35

DEAF CHILDREN.

At Certified Schools for the Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
26	—	—	—	26

PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf	At Certified Schools for the Partially Deaf	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
—	—	2	—	—	2

MENTALLY DEFECTIVE CHILDREN.
FEEBLEMINDED CHILDREN.

At Certified Schools for Mentally Defective Children	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
103	—	—	16	119

EPILEPTIC CHILDREN.
CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
2	3	1	—	6

PHYSICALLY DEFECTIVE CHILDREN.
A.—TUBERCULOUS CHILDREN.
I.—Children Suffering from Pulmonary Tuberculosis.
(Including pleura and intra-thoracic glands).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
7	—	6	4	17

II.—Children Suffering From Non-Pulmonary Tuberculosis.
(Tuberculosis of all sites other than those shown in I above).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
9	12	20	7	48

B.—DELICATE CHILDREN.
(Children—except those included in other groups—whose general health renders it desirable that they should be specially selected for admission to an open-air school).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
125	16	—	—	141

C.—CRIPPLED CHILDREN.
(Children—other than those diagnosed as tuberculous and in need of treatment for that disease—who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
11	62	—	3	76

D.—CHILDREN WITH HEART DISEASE.

(Children whose defect is so severe as to necessitate the provision of educational facilities other than those of the Public Elementary School).

At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
22	17*	4	6	49

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Combination of Defect	At Certified Special Schools	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
Feeble-minded and crippled	5	—	1	1	7
Feeble-minded and epileptic	—	—	—	5	5

* These children attend school only when fit to do so.

ELEMENTARY SCHOOLS.

TABLE IV.

TREATMENT TABLES.

GROUP I.—Minor Ailments (excluding Uncleanliness, for which see Table VI).

Defect or Disease	Number of Defects treated or under treatment during the year		
	Under the Authority's Scheme	Otherwise	Total
Skin :—			
Ringworm—Scalp—			
(i) X-ray Treatment	1	—	1
(ii) Other	3	—	3
Ringworm—Body	53	1	54
Scabies	197	9	206
Impetigo	920	83	1,003
Other Skin Disease	228	5	233
Minor Eye Defects :—			
(External and other, but excluding cases falling in Group II)	34	4	38
Minor Ear Defects	524	5	529
Miscellaneous (*e.g.*, minor injuries, bruises, sores, chilblains, etc.)	182	101	283
Total	2,142	208	2,350

GROUP II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

Defect or Disease	Number of Defects dealt with		
	Under the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint)	1,461	4	1,465
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	257	—	257
Total	1,718	4	1,722

Defect of Disease	Number of Children for whom Spectacles were			
	Prescribed		Obtained	
	Under the Authority's Scheme	Otherwise	Under the Authority's Scheme	Otherwise
Errors of Refraction (including Squint)	1,377	2	1,307*	2

* Including 486 free of charge.

GROUP III.—Treatment of Defects of Nose and Throat.

	Number of Defects			
	Tonsils only	Adenoids only	Tonsils and Adenoids	Other Defects
Received Operative Treatment—				
Under the Authority's Scheme, in Hospital	127	6	197	—
By Private Practitioner or Hospital, apart from the Authority's Scheme	3	2	6	—
Total	130	8	203	—
Received other forms of treatment	575			
Total number treated	916			

GROUP IV.—Orthopaedic and Postural Defects.

	Under the Authority's Scheme			Otherwise			Total number treated
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	
Number of children treated	25	—	419	—	—	—	444

TABLE V.

Dental Inspection and Treatment.

(1) Number of Children inspected by the Dentists :—

(a) Routine Age-groups	*Aged* 3	152	Total		21,148
	4	750			
	5	1,994			
	6	2,332			
	7	2,151			
	8	2,013			
	9	2,145			
	10	2,244			
	11	2,326			
	12	2,085			
	13	1,964			
	14	911			
	15	81			
(b) Specials					1,371
Grand Total					22,519

(2)	Found to require treatment		16,813
(3)	Actually treated		7,999*
(4)	Attendances made by children for treatment		14,431
(5)	Half-days devoted to :—		
	Inspection	103	
	Treatment	1,572	
	Total		1,675
(6)	Fillings :—		
	Permanent teeth	4,897	
	Temporary teeth	249	
	Total		5,146
(7)	Extractions :—		
	Permanent teeth	4,055	
	Temporary teeth	16,277	
	Total		20,332
(8)	Administrations of general anaesthetics for extractions		7,861
(9)	Other operations :—		
	Permanent teeth	1,501	
	Temporary teeth	15	
	Total		1,516

* Including 3,370 who had received treatment previously.

TABLE VI.

UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i)	Average number of visits per school made during the year by the School Nurses	3·3
(ii)	Total number of examinations of children in the schools by School Nurses	43,995
(iii)	Number of individual children found unclean	2,740
(iv)	Number of individual children cleansed under Section 87 (2) and (3) of the Education Act, 1921	—
(v)	Number of cases in which legal proceedings were taken :—	
	(*a*) Under the Education Act, 1921	—
	(*b*) Under School Attendance Byelaws	—

SECONDARY AND HIGH SCHOOLS.

TABLE I.

MEDICAL INSPECTION.

A.—Routine Medical Inspections.

Number of Routine Inspections	1,503

B.—Other Inspections.

Number of Special Inspections	208
Number of Re-inspections	318
Total	526

C.—Children Found to Require Treatment.

Number of individual children found at routine medical inspection to require treatment (excluding defects of nutrition, uncleanliness and dental diseases) :—

Routine inspections	278

SECONDARY AND HIGH SCHOOLS.

TABLE II.

A.—DEFECTS FOUND BY MEDICAL INSPECTION.

DEFECT OR DISEASE	Routine Inspections		Special Inspections	
	No. of Defects		No. of Defects	
	Requiring Treatment	Requiring to be kept under observation, but *not* requiring Treatment	Requiring Treatment	Requiring to be kept under observation, but *not* requiring Treatment
Skin — (1) Ringworm—Scalp	—	—	—	—
Skin — (2) ,, Body	1	—	—	—
Skin — (3) Scabies	—	—	—	—
Skin — (4) Impetigo	—	—	3	—
Skin — (5) Other Diseases (Non-Tuberculous	4	—	4	2
Total (Heads 1 to 5)	5	—	7	2
Eye — (6) Blepharitis	3	—	1	—
Eye — (7) Conjunctivitis	1	—	—	—
Eye — (8) Keratitis	—	—	—	—
Eye — (9) Corneal Opacities	—	—	—	—
Eye — (10) Other Conditions (excluding Defective Vision and Squint)	2	—	—	—
Total (Heads 6 to 10)	6	—	1	—
(11) Defective Vision (excluding Squint)	148	16	13	1
(12) Squint	3	1	—	—
Ear — (13) Defective Hearing	7	1	—	—
Ear — (14) Otitis Media	5	—	1	—
Ear — (15) Other Ear Diseases	2	—	1	—
Nose and Throat — (16) Chronic Tonsillitis only	16	38	1	—
Nose and Throat — (17) Adenoids only	—	1	—	—
Nose and Throat — (18) Chronic Tonsillitis and Adenoids	3	—	—	—
Nose and Throat — (19) Other Conditions	7	1	4	2
(20) Enlarged Cervical Glands (Non-Tuberculous)	5	7	—	—
(21) Defective Speech	1	—	—	—
Heart and Circulation — Heart Disease :—				
Heart and Circulation — (22) Organic	13	10	4	3
Heart and Circulation — (23) Functional	3	23	4	1
Heart and Circulation — (24) Anaemia	5	2	1	2
Lungs — (25) Bronchitis	—	3	—	1
Lungs — (26) Other Non-Tuberculous Diseases	2	11	6	—
Tuberculosis — Pulmonary :—				
Tuberculosis — (27) Definite	—	—	—	—
Tuberculosis — (28) Suspected	1	—	—	—
Tuberculosis — Non-Pulmonary :—				
Tuberculosis — (29) Glands	—	—	—	—
Tuberculosis — (30) Bones and Joints	—	—	—	—
Tuberculosis — (31) Skin	—	—	—	—
Tuberculosis — (32) Other Forms	—	—	—	—
Total (Heads 29 to 32)	—	—	—	—
Nervous System — (33) Epilepsy	—	—	—	—
Nervous System — (34) Chorea	—	—	—	—
Nervous System — (35) Other Conditions	2	1	2	3
Deformities — (36) Rickets	—	—	—	—
Deformities — (37) Spinal Curvature	1	—	—	—
Deformities — (38) Other Forms	31	—	8	1
(39) Other Defects and Diseases (excluding Uncleanliness and Dental Diseases)	42	27	20	23
Total	308	142	73	39

B.—CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR AT ROUTINE MEDICAL INSPECTION.

Number of Children Inspected	Excellent		Normal		Slightly Sub-normal		Bad	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1,503	17	*1·1*	1,416	*94·2*	62	*4·1*	8	*0·6*

SECONDARY AND HIGH SCHOOLS.

TABLE III.

TREATMENT TABLES.

GROUP I.—Minor Ailments (excluding Uncleanliness).

Defect or Disease	Number of Defects treated or under treatment during the year		
	Under the Authority's Scheme	Otherwise	Total
Skin :—			
Ringworm—Scalp—			
(i) X-ray Treatment	—	—	—
(ii) Other	—	—	—
Ringworm—Body	—	—	—
Scabies	—	—	—
Impetigo	—	—	—
Other Skin Disease	1	—	1
Minor Eye Defects :—			
(External and other, but excluding cases falling in Group II)	—	—	—
Minor Ear Defects	13	—	13
Miscellaneous (*e.g.*, minor injuries, bruises, sores, chilblains, etc.)	7	—	7
Total	21	—	21

GROUP II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

Defect or Disease	Number of Defects dealt with		
	Under the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint)	210	7	217
Other Defect or Disease of the Eyes (excluding those recorded in Group I)	25	—	25
Total	235	7	242

Defect or Disease	Number of Children for whom Spectacles were			
	Prescribed		Obtained	
	Under the Authority's Scheme	Otherwise	Under the Authority's Scheme	Otherwise
Errors of Refraction (including Squint) ...	202	5	202*	5

* Including 19 free of charge.

GROUP III.—Treatment of Defects of Nose and Throat.

	Number of Defects			
	Tonsils only	Adenoids only	Tonsils and Adenoids	Other Defects
Received Operative Treatment—				
Under the Authority's Scheme, in Clinic or Hospital	4	—	2	—
By Private Practitioner or Hospital, apart from the Authority's Scheme	—	—	—	1
Total	4	—	2	1
Received other forms of treatment ...	17			
Total number treated	24			

GROUP IV.—Orthopaedic and Postural Defects.

	Under the Authority's Scheme			Otherwise			Total number treated
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic	
Number of children ... treated	4	—	15	—	—	—	19

TABLE IV.

Dental Inspection and Treatment.

(1)	Number of children inspected by the Dentists :—		
	(*a*) Routine Age-groups....		—
	(*b*) Specials		956
(2)	Found to require treatment		937
(3)	Actually treated		972*
(4)	Attendances made by children for treatment		2,657
(5)	Half-days devoted to :—		
	Inspection	†	
	Treatment	†	
	Total		†
(6)	Fillings :—		
	Permanent teeth	1,994	
	Temporary teeth	6	
	Total		2,000
(7)	Extractions :—		
	Permanent teeth	584	
	Temporary teeth	263	
	Total		847
(8)	Administrations of general anaesthetics for extractions		405
(9)	Other operations :—		
	Permanent teeth	786	
	Temporary teeth	—	
	Total	786	

* Including 667 who had received treatment previously.

† Special sessions are not devoted to inspection and treatment of secondary and high school children ; the numbers of sessions devoted to inspection and treatment of all children are shown on page 179.

MENTAL DEFICIENCY SERVICE.

The mentally defective persons under the care of the Mental Deficiency Committee are classified according to sex, age and form of mental defect in the tables given below. It will be seen on reference to Table III that the total number of ascertained defectives for the care of whom the Committee were responsible at the end of 1936 was 619—an increase of 26 over the number at the end of the previous year. Of the total number of cases, 226 were in institutions or under statutory guardianship, the institutions in which they were placed being shown in Table VII. The number of ascertained cases remaining at home was 390, of whom 280 were under statutory supervision and 110 under voluntary supervision ; three remained to be appropriately dealt with. In addition, there were 80 cases in institutions under lunacy orders and 11 cases in poor-law institutions but not under orders, who would be dealt with more appropriately under the Mental Deficiency Acts. There were also four cases under consideration but not ascertained to be mentally defective.

TABLE I.

SUMMARY OF WORK, 1936.

	Males.	*Females.*	*Totals.*
(1) Cases examined for the first time :—			
Idiots	1	1	2
Imbeciles	1	6	7
Feebleminded	20	25	45
Not mentally defective	4	2	6
Totals	26	34	60
(2) Re-examinations	41	73	114
(3) Removed from list of ascertained cases under supervision at home—			
(i) Removed to institutions at instance of Local Authority—			
(*a*) Obligatory	5	12	17
(*b*) Permissive	—	—	—
(ii) Removed to institutions at instance of Public Assistance Committee—			
(*a*) Under Lunacy Orders	—	—	—
(*b*) Other cases	1	1	2
(iii) Deceased	3	1	4
(iv) Left Cardiff	3	5	8
(v) Admitted to " places of safety "	—	1	1
(vi) Admitted to Mental Hospitals	—	1	1
(vii) Decertified	2	—	2
Totals	14	21	35

Table I continued—Summary of Work, 1936.

	Males.	*Females.*	*Totals.*
(4) Removed to institutions (not previously under supervision at home)	—	2	2
(5) Total number removed to institutions or placed under guardianship at the instance of Local Authority	5	14	19
(6) Transferred from one institution to another....	9	13	22
(7) Institution cases that ceased to be chargeable to the Local Authority—			
(i) Deceased	4	2	6
(ii) On licence	1	1	2
(iii) Transferred to Mental Hospitals	—	2	2
Totals	5	5	10
(8) Instances in which licence from institutions or guardianship was granted	2	5	7
(9) Instances in which cases on licence were returned to guardianship or institutions	4	2	6
(10) Visits paid by Visiting Officers			1,672

Table II.

Sources of Ascertainment of Cases Examined for First Time.

Source of Ascertainment	Idiots	Imbeciles	Feeble-minded	Not Mentally Defective	Totals
Local Education Authority	—	2	36	1	39
Officers of Public Health Department	1	2	1	—	4
Public Assistance Department	—	—	1	2	3
Mental Hospital	1	—	—	—	1
Parents, Guardians or Relatives	—	1	1	1	3
Other Local Authorities	—	1	3	—	4
Other Sources	—	1	3	2	6
Totals	2	7	45	6	60

TABLE III.

POSITION AT 31ST DECEMBER, 1936.

		Males.	*Females.*	*Totals.*
(1)	Obligatory Cases :—			
	(*a*) In Institutions	102	92	194*
	(*b*) Under Guardianship	3	4	7
	(*c*) On Licence from Institutions	5	8	13
	(*d*) Absconded from Licence	—	1	1
(2)	In " places of safety "	—	—	—
(3)	Cases in Institutions in regard to whom the Local Authority contributes under permissive powers	6	5	11
	Totals	116	110	226
(4)	Cases in Institutions under Lunacy Orders ascertained to be mentally defective :—			
	(*a*) Ely Lodge	33	35	68
	(*b*) Mental Hospitals	5	7	12
	Totals	38	42	80
(5)	Cases at home—ascertained to be defective :—			
	(*a*) Under Statutory Supervision	160	120	280
	(*b*) Under Voluntary Supervision	46	64	110
	Totals	206	184	390
(6)	Attending Occupation Centre—included in (5) :—			
	(*a*) Under Statutory Supervision	18	11	29
	(*b*) Under Voluntary Supervision	—	—	—
	Totals	18	11	29
(7)	Attending Training Centre :—			
	(*a*) Under Statutory Supervision—included in (5)	17	17	34
	(*b*) Under Voluntary Supervision—included in (5)	1	1	2
	(*c*) Under Guardianship—included in (1)	1	1	2
	Totals	19	19	38

* Including 15 cases (7 males and 8 females) maintained by the Board of Control.

Table III continued—Position at 31st December, 1936.

	Males.	*Females.*	*Totals.*
(8) " Subject to be dealt with " but action not yet taken :—			
(*a*) Notified by Local Education Authority	1	2	3
(*b*) In Poor Law Institutions	2	9	11
Totals	3	11	14
(9) Under consideration but not ascertained to be defective	3	1	4

Table IV.

Classification of Known Cases.

	In Institutions or under Guardianship (including cases on licence, etc.)			Under Supervision at Home		
	Males	Females	Totals	Males	Females	Totals
Idiots	15	11	26	11	3	14
Imbeciles	42	23	65	58	61	119
Moral Defectives	1	1	2	—	1	1
Feebleminded	57	74	131	136	119	255
Post-encephalitic Deterioration	—	1	1	1	1	2
Unclassified or not examined ...	1	—	1	1	1	2
Totals	116	110	226	207	186	393

Table V.

Ages of Cases in Institutions or Under Guardianship

(including Cases on Licence, etc.)

Ages—Years	Idiots		Imbeciles		Moral Defectives		Feeble-minded		Post-encephalitic Deterioration		Unclassified		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
3	1	—	—	—	—	—	—	—	—	—	—	—	1
4	1	—	—	—	—	—	—	—	—	—	—	—	1
5	1	—	—	1	—	—	—	—	—	—	—	—	2
6	—	—	1	—	—	—	—	—	—	—	—	—	1
8	1	—	—	—	—	—	—	—	—	—	—	—	1
9	1	—	—	—	—	—	—	—	—	—	—	—	1
10	1	1	1	—	—	—	—	—	—	—	—	—	3
11	—	—	—	1	—	—	—	—	—	—	—	—	1
12	2	—	—	1	—	—	—	—	—	—	—	—	3
13	—	1	1	—	—	—	1	1	—	—	—	—	4
14	2	—	—	1	—	—	—	2	—	—	—	—	5
15	—	1	1	1	—	—	2	3	—	—	—	—	8
16	—	1	—	—	—	—	1	2	—	—	—	—	4
17	—	—	3	—	—	—	2	3	—	—	—	—	8
18	—	1	3	—	—	—	—	2	—	—	—	—	6
19	—	1	1	2	—	—	3	2	—	—	—	—	9
20—25	3	2	14	4	—	—	15	19	—	—	—	—	57
25—30	2	1	8	5	1	1	17	12	—	1	1	—	49
30—40	—	1	6	6	—	—	16	22	—	—	—	—	51
Over 40	—	1	3	1	—	—	—	6	—	—	—	—	11
Totals	15	11	42	23	1	1	57	74	—	1	1	—	226

Table VI.

Ages of Cases under Supervision at Home.

Ages—Years	Idiots		Imbeciles		Moral Defectives		Feeble-minded		Post-encephalitic Deterioration		Unclassified		Totals
	M	F	M	F	M	F	M	F	M	F	M	F	
4	1	—	—	—	—	—	—	—	—	—	1	—	2
5	—	1	—	2	—	—	—	—	—	—	—	—	3
7	—	1	3	1	—	—	—	1	—	—	—	—	6
8	—	—	2	—	—	—	1	1	—	—	—	—	4
9	—	—	—	—	—	—	2	—	—	—	—	—	2
10	—	—	1	2	—	—	—	1	—	—	—	—	4
11	—	—	4	1	—	—	1	—	—	1	—	—	7
12	—	—	3	4	—	—	2	3	—	—	—	—	12
13	1	—	1	3	—	—	4	2	—	—	—	—	11
14	—	1	1	2	—	—	4	5	—	—	—	—	13
15	—	—	2	2	—	—	8	3	—	—	—	—	15
16	2	—	2	4	—	—	14	11	—	—	—	—	33
17	—	—	7	3	—	—	14	7	—	—	—	—	31
18	—	—	2	2	—	—	8	6	—	—	—	—	18
19	1	—	4	—	—	—	5	5	—	—	—	—	15
20—25	4	—	14	15	—	—	41	30	—	—	—	—	104
25—30	1	—	5	5	—	—	14	9	—	—	—	—	34
30—40	—	—	3	12	—	1	14	21	1	—	—	1	53
Over 40	1	—	4	3	—	—	4	14	—	—	—	—	26
Totals	11	3	58	61	—	1	136	119	1	1	1	1	393

Table VII.

Cases in Institutions or under Guardianship.

(*a*) Obligatory Cases.

Name of Institution, Etc.	Idiots	Imbeciles	Moral Defectives	Feeble-minded	Post-encephalitic Deterioration	Unclassified	Totals
(a) Institutions :—							
Besford Court Catholic Mental Welfare Hospital, Worcester	—	—	—	3	—	—	3
Cardiff Public Assistance Institution, Ely, Cardiff	22	38	—	32	—	—	92
Etloe House, Leyton, Essex	—	1	—	2	—	—	3
Hensol Castle Colony, near Pontyclun, Glam.	—	6	—	31	—	—	37
Hortham Colony, Bristol	—	—	1	14	—	—	15
House of Help, Bath	—	—	—	2	—	—	2
Monkton Hall Home, Jarrow-on-Tyne	—	—	—	1	—	—	1
Moss Side State Institution, Maghull	—	2	—	3	—	1	6
Mount Tabor Certified Institution, Basingstoke	—	—	—	2	—	—	2
Pield Heath House, Hillingdon, Uxbridge	—	1	—	—	—	—	1
Rampton State Institution, Retford	—	—	1	7	1	—	9
Rock Hall House, Combe Down, Bath	—	1	—	—	—	—	1
Royal Earlswood Institution, Redhill	—	1	—	—	—	—	1
St. Elizabeth's Home for Epileptics, Much Hadham, Herts.	—	—	—	3	—	—	3
St. Joseph's Home, The Croft, Sudbury	—	—	—	3	—	—	3
St. Mary's Home, Painswick, Stroud, Glos.	—	—	—	5	—	—	5
St. Raphael's Colony for Epileptics, Barvin Park, Herts.	—	—	—	3	—	—	3
St. Teresa's Home, Lewisham	—	—	—	3	—	—	3
Seafield House, Seaforth, near Liverpool	—	—	—	1	—	—	1
Stoke Park Colony, Stapleton, Bristol	—	9	—	8	—	—	17
(b) Guardianship :—							
Central Association for Mental Welfare, London	—	1	—	—	—	—	1
Under Guardianship of Parents	—	1	—	3	—	—	4
Approved Homes	1	—	—	1	—	—	2
Totals	23	61	2	127	1	1	215

(*b*) Permissive Cases.

Name of Institution	Idiots	Imbeciles	Feeble-minded	Totals
Cardiff Public Assistance Institution, Ely, Cardiff	3	2	1	6
Etloe House, Leyton, Essex	—	—	1	1
Hensol Castle Colony, near Pontyclun, Glam.	—	1	1	2
Royal Earlswood Institution, Redhill	—	1	—	1
Stoke Park Colony, Stapleton, Bristol	—	—	1	1
Totals	3	4	4	11

Table VIII.

Cases under Supervision at Home in Need of Institutional Care and Cases Requiring Alternative Institutional Accommodation as at 31st December, 1936.

	Under Supervision at Home		Unsuitably placed in Institutions				Totals		
			Under Lunacy Orders		Not Under Orders				
	M	F	M	F	M	F	M	F	Both Sexes
Idiots	1	—	4	7	—	—	5	7	12
Imbeciles	—	—	17	17	—	2	17	19	36
Moral Defectives	—	—	1	—	—	—	1	—	1
Feebleminded	2	—	16	17	2	6	20	23	43
Post-encephalitic Deterioration ...	—	—	—	1	—	—	—	1	1
Totals	3	—	38	42	2	8	43	50	93