[Report 1955] / School Medical Officer of Health, Exeter.

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INDEX

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

To the Right Worshipful the Mayor, Aldermen and Councillors of the City and County of the City of Exeter.

LADIES AND GENTLEMEN,

I have the honour to present my report on the health of the inhabitants of the City and on the work of the health services of the City Council during the year 1955, a year characterised by a beautiful Summer, warm and sunny.

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tatistics.

The Registrar General's estimate shews the population (mid-year) as having increased by 200, to 77,100; this increase is slightly more than the natural increase (excess of live births over deaths) which was 159. The corrected birth rate (14.6) was very slightly greater and the corrected death rate (10.6) somewhat lower than in 1954. There were fewer marriages (630) than in 1954 (662). One mother died as a result of child birth. The perinatal death rate, the infant death rate and the stillbirth rate and pre-natal death rate were much lower than in any recent year, the infant death rate being the lowest recorded in the City. But any satisfaction this may give us is chastened by the knowledge that the infant death rate is already certain to be much higher in 1956. During 1955 we had a conference between consultants, general practitioners and our own medical staff on the problems of peri-natal mortality.

eaths.

Of the deaths (956), almost threequarters were in persons over 65 years of age; heart disease (in its various forms) easily heads the list of primary causes; cerebral vascular lesions (strokes, etc.), made up the second group, with cancer close behind: among these last, cancer of the lung accounted for 29 deaths, just as many as in 1954; nearly all were in men. Cigarette smoking is clearly not the *sine qua non* of cancer of the lung, since some non-smokers get the disease, but to encourage the young to smoke seems to me nowadays a shocking thing to do, for of the association between smoking and this kind of cancer there can be very little doubt. It would be a good thing if people who as we say "smoke their heads off" could be made to realise that they might very well "be burning their lungs out." At the least, we should try to dissuade young people from beginning to smoke cigarettes—a habit which is essential to no one (who is not addicted to it). "Treating" whether in regard to alcohol or cigarettes is really a most mischievious idea, and should

no longer be regarded as a necessity to social companionship. We should also try to keep the air free from smoke and fumes for atmosphere pollution is another probably important factor. We have now begun to measure smoke pollution in the atmosphere at four points in the City, so that we can watch trends in this matter reasonably closely.

Tuberculosis.

Deaths from tuberculosis declined to 14 (12 respiratory, 2 non-respiratory), — much the lowest figure ever recorded in Exeter. The notifications of this disease were fewer, but not much fewer, than in 1954, but we are getting the cases earlier. Unfortunately, we have had 2 cases of tuberculous meningitis notified during the year. As in 1954, we B.C.G. vaccinated the 13-year old school children who were found tuberculin negative. I had hoped to re-introduce tuberculosis testing of school entrants in 1956, but the poliomyelitis vaccination has cut across my plans. Exeter has had rather high tuberculosis death and notification rates among men and we must do all we can to improve the position.

Acute Infectious Disease.

Poliomyelitis (bulbar) accounted for the only death from acute infectious disease. Whooping cough and diphtheria immunisation continues at a more or less steady, if unspectacular, pace. Whooping cough was markedly less prevalent than in recent years, but we have had quiet years before and it is too early to claim that this has been due to immunisation. Measles was epidemic and unusually protracted in incidence, beginning in May and declining in September, then increasing again continuously until well into 1956 without intermission. Some occurrences of so called epidemic vomiting are discussed by my Deputy (Dr. McLauchlan) in an Appendix to the report.

Sanitary Department.

The Sanitary Department has laboured under great difficulties due to shortage of staff which was not relieved until housing accommodation for the successful candidates was offered by the Council. The increasing work put on the department by recent legislation—in housing and food hygiene supervision in particular—must be recognised: and staffing problems are becoming difficult.

Housing.

The Council's slum clearance proposals in a five year programme under the Housing Repairs and Rents Act, 1954, were accepted by the Ministry. They involve clearing 454 houses in areas and 160 in individual unfit houses. Meanwhile, the Housing Committee agreed to increase their allocation of houses to re-house tenants from unfit houses from 5 to 8 per month. During the year the Housing Committee introduced its housing points scheme and asked me to advise them on medical justifications for rehousing. This is an eminently necessary system; but it involves a great deal of consideration in order to avoid injustices.

Abattoir.

The public abattoir, now leased by a private marketing company, is rather better than it was, but the Council, which

is anxious to have a modern sanitary abattoir built in the City, has been completely frustrated by Government delay in implementing the report of the Departmental Committee on Abattoirs. Exeter is listed in that report as the key town for an area of South and East Devon covering approximately 188,500 people ; six acres of land have been reserved in the Marsh Barton area, near the Cattle Market, as a site for an abattoir.

tuary.

Existing public mortuary accommodation in the City is shabby and insufficient. Discussions were begun with the Exeter and Mid-Devon Hospitals Management Committees with a view to the Hospital making available on a permanent and mutually acceptable basis mortuary accommodation within the hospital service, for the accommodation of the dead, where public mortuary provision is necessary.

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veniences.

I am pleased to record a decision of the Streets Committee in February 1956, on a recommendation of the public health committee, viz :— that free washing facilities be provided in all future public conveniences and that the City Surveyor do submit proposals for the provision of such facilities in some of the existent conveniences.

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mises.

Turning to the work of the Council under the National Health Service Act, the year has shewn some developments worthy of note. The new Occupation Centre in Hollow Lane was opened formally by the Right Worshipful the Mayor (Alderman G. J. Greenslade) on 22nd March, 1955 ; I venture to think few occupation centres in this country are in as pleasant premises or on as pleasant a site. Excellent work is being done there. Last year, I mentioned that the Council hoped to start a work and occupation centre for adult women defectives. After a great deal of searching, it was decided that the best way to provide the premises was to use the upper floor of St. Thomas Hall, in Cowick St. ; this is being purchased by the Education Committee which will utilise the ground floor as a dental clinic. The arrangements and the necessary adaptations have, in fact, been agreed by the Ministries. It was decided during the year to seek approval for the erection of a temporary building to serve as a health clinic in Countess Wear, and the Ministry agreed with the proposal. This will be very useful, as the present arrangements there are quite unsatisfactory. The domiciliary nursing services of the Council continue to expand in usefulness, and the Housing Committee, on the request of the Health Services Committee, agreed to purchase (for housing) 16, Howell Road which adjoins the properties owned by the Council for the nursing services (managed on their behalf by the Exeter District Nursing Association). Later, if the need to extend their premises arises, the Health Services Committee will ask the Housing Committee to sell them this house. At the end of the year, discussions were begun with a view to the Health Services Committee taking

over the use of the Burnthouse Lane Community Centre as a health clinic : it was used for very little else than health purposes and it is undoubtedly going to prove more useful to us under this new arrangement.

Maternity and Child Welfare Services.

So much for premises. The services for mothers and children continued much as before. Our Local Authority medical ante-natal clinics continue to decline in significance —a development I think wholly bad. The child welfare clinics remain as active as ever. Immunisation against diphtheria and whooping cough is not as widely accepted as I should like. So far, I have not felt able to advise the Council to include tetanus immunisation, but that may come. Health visiting is hampered because a very great increase in work since 1948 has not been matched by a comparable increase in staff. The home nursing service is working to full capacity but the number of visits has not increased. The greater the attempts to keep patients nursed at home—a very proper objective—the more heavy the burdens on the home nursing service. I would like to see more home nursing of children than has so far been done here. The hospital paediatrician (Dr. Brimblecombe) has always been most helpful, as indeed, have the other consultants to the hospitals in their different spheres.

During the year the Central Midwives Board approved the giving of instruction in analgesia to pupil midwives in the Exeter Maternity & District Nursing Association, Part II training school which covers training in domiciliary midwifery. Dr. Powell, consultant anaesthetist, gives the instruction. The home midwives attended 40% of all the confinements in the City. An interesting suggestion has been made in the Lancet (by Drs. Sluggett and Wilson) that more and more confinements should be conducted by domiciliary midwives and general practitioners in suitably prepared and equipped rooms in maternity hospitals, the patients to be returned home as soon as practicable afterwards by ambulance. Though it is true that the facilities available for emergency work are better in hospital than in any ordinary home, the essential thing is not where the confinement is conducted, but how ; not the venue, but the skill of those concerned. It is important therefore, though to some extent obscured by the use of modern therapeutic agents, that the ante-natal care must be of top level quality. I am glad the new maternity block in the City Hospital is being commenced in 1956, for it will replace the unit in the Royal Devon & Exeter Hospital which is quite inadequate.

Ambulance Service.

The ambulance service continues much as in the past ; a financial arrangement between the City and Devon County Council to share costs on an apportionment basis is designed to eliminate unnecessary financial book-keeping. The Ministry of Health have recommended radio ambulance control and though ours is a comparatively small service,

I think it should be tried on an experimental basis and incidentally at very little cost.

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lps.

Home-helps are increasingly required and it is difficult to see any other than an arbitrary limit to the expansion of this service. A slight easing of the assessment scale to favour families with young children was made by the Committee, and conversely, I was authorised to increase the charges where it was felt assessments were unrealistically low as sometimes happens where an old person living with relatives who are working, is assessed on his own income ; in these cases the help, in effect, assists the whole family. The greatest problems in organisation are to reduce the travelling time, and to secure that home-helps are available quickly when needed but are not standing about idle. These problems increase as the demands on behalf of old people increase. The extension of the home nursing and home help services is accepted everywhere as inevitable in view of the ageing of the population and the need to conserve hospital beds for the most needy, that is medically needy, cases. It may be mentioned that there is still a good deal of feeling locally that getting old chronic sick patients into hospital is too difficult. I think there is a good deal to be said for the home help service to be provided free to help cases of early toxaemia of pregnancy where rest is most important but the need for which may be far from evident to the mother, who often has many problems and duties to face at this time.

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alth.

The mental health service continues much as in previous years. The Council protested to the Minister of Health about the difficulty of securing the admission of women patients into Digby and Wonford Hospitals owing to severe crowding there ; this was beginning to hamper our work in the mental health service. The Ministry and the Regional Hospital Board have since authorised the building of an extension to the Digby Hospital, including an admission block. This will greatly ease the position. The High Court judgment in the Rutty case, 1956, has made very difficult the hospitalisation of mental defectives as " neglected " because once a person is cared for in an institution of any kind which may of course want to discharge him—say on a place of safety order—he cannot be regarded as neglected. Apparently one would have to put the person out of doors and wait until it could be said he was in fact neglected even when it is known in advance that he is incapable of caring for or protecting himself, before the magistrates would be justified in removing him to an institution.

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ucation.

Health education is a major function of the department and though it is mainly effected by the personal contact of members of the staff with householders and mothers in their homes or children at school, much is also done by way of public meetings. Most of the senior professional staff have addressed meetings in the City with audiences of varying

and not infrequently small sizes, but generally speaking, shewing considerable interest and indulging in lively questioning. Interest in health is universal; as far as we can we must make sure it is not a morbid and miserable interest in disease and death, but a sensible approach to life.

A number of foreign and Empire visitors (including doctors) has visited the department and seen some of the City's health services. The University's Department of Social Administration students and the Royal Devon and Exeter Hospital nurses have also been shewn the medical, social and nursing work we do. It is a pleasure to be able now to speak of the University of Exeter however affectionately remembered may be the title of the University College of the South West.

Tables.

The statistical tables referring to the Council's National Health Service duties are set out together at the end of the report. Throughout the report I have tried to keep the statistical information in the same form as in recent years, as I regard this as important in enhancing the usefulness of the report as a whole.

Staff Education.

In-service training for staff in health and welfare departments is engaging increasing attention. We do not do a great deal here, and it is not easy nor inexpensive to organise it for a small staff. But it is very important. Refresher Courses are one means to this end. But a more continuous approach is required and in my judgment the most urgent need is more in-service training in relation to mental health. The London County Council have led the way in promoting case conferences between psychiatrists, psychiatric social workers and health visitors and we have done a little here in a very small way in this field. During a fortnightly series of winter lectures on health subjects at Whipton Health Clinic (which was on the whole sparsely attended), the most exciting was a discussion on mental health problems in childhood. Though such questions are not easily discussed at an open meeting except in general terms, whereas mothers have problems peculiar to their own circumstances, and need specific answers and help which cannot be given in such a meeting, it was clear that there is a great deal of real anxiety among mothers which is not *in fact* being allayed. The admissions to mental hospitals represent but a fraction of the total mental ill health and morbid anxiety in the community.

One of our difficulties in the clerical staff is that the ladder of promotion within the department has very few rungs and the opportunities for advancement within the department are exceedingly few.

Staff.

Dr. Whittles left to become Deputy County Medical Officer, Wiltshire, and Dr. McLauchlan came from Guildford in his place : staff changes have been few.

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nt.

I must record, with great regret, that Mrs. P. Steele-Perkins and Mrs. M. Collings gave up their secretaryships of the Ladies' Committees at Bull Meadow and Buddle Lane Child Welfare Centres after 10 and 13 years' service respectively. The voluntary workers have done a great deal for the Maternity and Child Welfare Service in this City over many years.

I wish to thank all who help the department in many ways—the public, the doctors, both in family practice and in hospitals, the clergy and the Press, which here is both sensitive and sensible—sensitive to news of significance in health promotion, sensible in not overdramatising either good or bad news. My own staff have worked well and conscientiously, in tasks which require much "giving": the social-medical workers must be warm hearted, and must feel for those they try to help while keeping an objective outlook on the problems faced. The clerical staff, under Mr. Howells, have done well all they have to do.

Many in my department have helped in the preparation of this report—notably Dr. McLauchlan in regard to the infectious disease section and Dr. Ward in regard to the section on the loss of infant life.

I must finally thank both my Chairmen and Committees for the support they give all the year round to the Health Department; we try to give the professional help in the promotion of health that the public has a right to expect; but it is only if the Council has a clear vision of the needs that we can achieve any measure of success.

I am,

Your obedient servant,

E. D. IRVINE.

CITY AND COUNTY OF THE CITY OF EXETER

The Mayor—

ALDERMAN G. J. GREENSLADE.

HEALTH SERVICES COMMITTEE

(as at 31.12.55)

Chairman—

COUNCILLOR MRS. M. NICHOLS.

Deputy Chairman—

COUNCILLOR H. T. HOWE.

Alderman H. C. PEDRICK.
Alderman F. H. TARR, O.B.E.
Councillor J. COOMBES.
Councillor LT. COL. R. H. CREASY.
Councillor MRS. P. GOODMAN.
Councillor MRS. G. L. HALL-TOMKIN.
Councillor W. A. REDFERN.
Councillor C. REW.
Councillor T. O. RICHARDS, B.E.M.
Councillor E. RUSSELL.
Councillor G. J. E. TOMLINSON.
Councillor MRS. F. M. VINING.

Co-opted Members—

MRS. A. T. SOPER.
MR. A. C. MILTON.
MRS. A. ROBB.
MR. W. J. SELLEY.
DR. A. H. G. DOWN.
DR. J. RUSSELL.
MRS. L. M. INCH.

PUBLIC HEALTH COMMITTEE

Chairman—

COUNCILLOR LT. COL. R. H. CREASY.

Deputy Chairman—

COUNCILLOR J. COOMBES.

Alderman H. C. PEDRICK.
Alderman F. H. TARR, O.B.E.
Councillor P. F. BROOKS.
Councillor W. H. BUTCHER.
Councillor C. C. M. FORCE.
Councillor G. S. GIFFORD.
Councillor H. T. HOWE.
Councillor MRS. M. NICHOLS.
Councillor C. REW.
Councillor MISS D. G. SAUNDERS.
Councillor G. J. E. TOMLINSON.
Councillor MRS. F. M. VINING.

Town Clerk—

C. J. NEWMAN, ESQ., O.B.E.

STAFF.

PUBLIC HEALTH OFFICERS OF THE AUTHORITY.

(*a*) **Medical.**

Medical Officer of Health and Principal School Medical Officer.
EDWARD D. IRVINE, M.D. (Liv.), M.R.C.S., L.R.C.P., D.P.H.

Deputy Medical Officer of Health and School Medical Officer.
J. H. WHITTLES, T.D., B.SC., M.D. (Lond.), M.R.C.S., L.R.C.P., D.P.H.
(To 27.1.55).

G. P. MCLAUCHLAN, M.B., CH.B. (Ed.), D.C.H., D.P.H.
(From 7.3.55).

Assistant Medical Officer of Health and School Medical Officer.
†JESSIE SMITH, M.B., CH.B. (Leeds), D.P.H.

Assistant Medical Officer of Health and School Medical Officer.
IRIS V. I. WARD, M.D. (Lond.), M.R.C.S., L.R.C.P., D.C.H.

Medical Officer, Ante-Natal Clinic (part-time).
BERTHA HINDE, M.B., B.S. (Lond.), M.R.C.S., L.R.C.P.

Chest Physician (part-time).
ROBERT P. BOYD, M.B., CH.B. (Glas.), D.P.H., F.R.F.P.S.G.

Dental Surgeons.
†W. C. ARKLE, L.D.S. (Glas.), *Principal Dental Officer.*
†M. RADFORD, L.D.S. (Eng.). (To 30.6.55).
†J. B. CLARK, L.D.S. (Ed.).

(*b*) **Others.**

Chief Sanitary Inspector and Officer under the Food and Drugs Act, etc.
**F. G. DAVIES, F.R.S.I., A.M.I.S.E.

Deputy Sanitary Inspector.
**D. MAYNARD.

Assistant Sanitary Inspectors.
**A. C. LEWIS.
**D. PECKHAM.
**J. T. BROWN. (From 14.3.55).
**L. G. HOPES. (From 14.2.55).
**R. WALKER. (From 14.2.55).

Public Analyst.
T. TICKLE, B.SC., F.I.C.

---

† Duties mainly under the School Health Service.
**All qualified sanitary inspectors and meat inspectors.

Superintendent Health Visitor.

*Miss A. C. Atkinson.

Health Visitors and School Nurses.

*Miss L. M. Barrett.
*Miss G. M. Bastow.
*Mrs. K. Dunham.
*Miss A. H. Edds.
*Miss B. A. Hill, (From 23.6.55).
*Miss H. Shewan.
*Miss N. E. Smith, (To 31.1.55).
*Mrs. E. Stannard.
*Mrs. J. Tipper.
*Miss L. E. Wathen.

Non-Medical Supervisor of Midwives.

*Miss L. Reynolds, (Part-time).

Tuberculosis Visitor.

*Miss A. Dawson.

Day Nursery — Matron.

Miss J. Bryan.

Organiser of Domestic Help Scheme.

Miss M. Davies.

Mental Welfare Officer and Authorised Officer.

R. W. Stiles.

Authorised Officers.

L. N. Clark.
Mrs. L. Brunt.

Psychiatric Social Worker.

Mrs. M. C. Jenkin, (Part-time), (From 3.1.55).

Occupation Centre.

Supervisor: Mrs. A. M. Horton.

Clerks.

E. S. Howells, (Chief Clerk).
R. W. Stiles, (Principal Asst. Clerk).

F. J. Wreford.
G. A. Gibson.
G. H. Whitley.
R. Pettitt.
R. Tayler.
F. Elliott.
D. Rothero, (To 31.7.55).
R. Hinchliffe, (From 2.8.55).
A. F. Dumper, (Temp.) (To 12.11.55).
P. F. Snow, (Temp.) (From 4.11.55).
Mrs. M. M. Payne.
Miss E. M. Burridge.
Mrs. D. Marsden.
Mrs. D. M. Harris, (To 27.8.55).
Miss A. Bricknell.
Miss A. Northcott, (From 22.8.55).
Miss M. Crabtree (Pt.-time, Temp.)
Miss D. M. E. Barrow do.
Mrs. M. J. Grigg. do.
Mrs. D. Maunder. do.

*All are S.R.N., S.C.M., and H.V. Certificates.

GENERAL STATISTICS.

Area in acres, 9,035 (according to Registrar-General's census 1951)

Population, Civilian, 77,100.

Rateable Value, £878,345, (before revaluation).

Sum represented by a penny Rate, £3,651.

VITAL STATISTICS.

Live Births :—

Legitimate, total 1,046 ; male 533, female 513.

Illegitimate, total 69 ; male 41, female 28.

Stillbirths, 26 (25 male, 1 female).

Stillbirth Rate, 22.8 per 1,000 total (live and still) births.

Birth Rate (recorded), 14.5 per 1,000 population.

Birth Rate (corrected), 14.6 per 1,000 population.

Deaths, total 956 ; male 456, female 500.

Death Rate (recorded) 12.4 per 1,000 population.

Corrected (by the Registrar-General's area comparability factor) 10.6 per 1,000 population.

Maternal Mortality Rate, 0.9 per 1,000 total births.

Tuberculosis Mortality Rate 0.18 per 1,000 population (pulmonary 0.16, non-pulmonary 0.03).

Infantile Mortality Rate, 17.0 per 1,000 live births (legitimate 17.2, illegitimate 14.5).

Deaths from Measles (all ages)	Nil
,, ,, Whooping Cough (all ages)	Nil
,, ,, Gastro-enteritis and Diarrhoea (under 2 years of age)	Nil
,, ,, Diphtheria (all ages)	Nil
Marriages	630

NOTIFICATION OF BIRTHS.

1,531 notifications of live births, including 470 referring to mothers not living in the city, were received during the year ; only 10 notifications were made by doctors or relatives, all the rest being made by midwives.

OCCUPATIONS.

The principal occupations in the City are in the distributive trades, engineering, clothing, hotel and catering, and building trades and in administration. There is very little unemployment.

VITAL STATISTICS.

The following table (Table I) provides some statistical information covering a period of ten years :—

Table I.

MID-YEAR POPULATION.

(Registrar-General's estimates)

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Exeter	72,910	74,160	75,150	76,590	77,260	76,200	76,600	76,700	76,900	77,100

(1951 Census return was 75,479)

BIRTH RATE.

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Live Birth Rate : England and Wales	19.1	20.5	17.9	16.7	15.8	15.5	15.3	15.5	15.2	15.0
Live Birth Rate : Exeter *	19.8	19.2	17.5	15.6	14.6	14.4	14.4	15.0	14.3	14.5
Percentage of illegitimate live births to total live births : (Exeter)	8.7	6.2	4.6	6.05	5.3	6.6	6.3	5.2	6.2	6.2

*Recorded or crude rate.

Birth Rate (1955), corrected by applying the Registrar General's correction factor (1.01) = 14.6

DEATH RATE.

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
England and Wales	11.5	12.0	10.8	11.7	11.6	12.5	11.3	11.4	11.3	11.7
Exeter— Crude	12.7	13.4	10.7	12.9	12.1	13.9	12.0	13.2	12.9	12.4
Exeter— Corrected*	—	—	—	11.7	10.9	12.5	10.8	11.8	11.1	10.6

*Corrected by application of the Registrar-General's comparability factor (which is at present 0.86); this factor takes into account the age and sex distribution in the city as compared with that in the country as a whole.

The death rate per 1,000 of the estimated mid-year population at 12.4 (crude) and at 10.6 (corrected to allow for the age and sex distribution of the population in the City as compared with that of the population in the country as a whole) was lower than in 1954. The deaths from cancer shewed a decline, but not in cancer of the lung among men. The number of tuberculosis deaths was a low record ; they were all in adults over 25 years old.

Table II.

Distribution of Deaths by Age and Cause.

Registrar-General's Figures 1955.

	Under 1		1—4*		5—14*		15—24*		25—44*		45—64*		65—74*		75 and over		Total		Grand Total	1954 Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Tuberculosis, respiratory	—	—	—	—	—	—	—	—	—	2	5	—	4	—	—	1	9	3	12	22
Tuberculosis, other	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2	—	2	1
Syphilitic disease	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Diphtheria	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningococcal infections	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Acute poliomyelitis	—	—	—	—	—	—	—	1	—	—	—				—	—	—	1	1	1
Measles	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other infective and parasitic diseases	—	—	1	—	—	—	—	—	—	—	3	—	—	1	1	1	5	2	7	1
Malignant neoplasm, stomach	—	—	—	—	—	—	—	—	—	—	4	8	3	6	5	2	12	16	28	26
Malignant neoplasm, lung, bronchus	—	—	—	—	—	—	—	—	—	—	11	1	10	3	3	1	24	5	29	29
Malignant neoplasm, breast	—	—	—	—	—	—	—	—	—	3	—	9	—	3	—	1	—	16	16	19
Malignant neoplasm, uterus	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1	—	3	3	15
Other malignant and lymphatic neoplasms	—	—	—	—	—	—	1	—	1	2	8	14	10	9	12	9	32	34	66	92
Leukaemia, aleukaemia	—	—	—	1	—	—	—	—	—	—	1	—	1	2	—	—	2	3	5	8
Diabetes	—	—	—	—	—	—	—	—	—	—	—	3	—	—	2	4	2	7	9	7
Vascular lesions of nervous system	—	—	—	—	—	—	—	—	2	1	8	11	17	24	31	49	58	85	143	139
Coronary disease, angina	—	—	—	—	—	—	—	—	1	—	19	8	34	17	20	30	74	55	129	105
Hypertension with heart disease	—	—	—	—	—	—	—	—	—	—	1	2	1	6	6	4	8	12	20	25
Other heart disease	—	—	—	—	—	—	—	—	1	1	6	4	16	19	37	82	60	106	166	185
Other circulatory disease	—	—	—	—	—	—	—	—	1	—	1	3	4	5	8	11	14	19	33	52
Influenza	—	—	—	—	—	—	—	—	—	—	1	2	1	—	3	2	5	4	9	3
Pneumonia	1	1	—	—	—	1	—	—	—	—	3	1	2	2	6	9	12	14	26	23
Bronchitis	—	1	—	—	—	—	—	—	—	—	7	1	12	2	15	16	34	20	54	51
Other diseases of respiratory system	—	—	—	—	—	—	—	—	—	—	6	1	3	3	2	—	11	4	15	14
Ulcer of stomach and duodenum	—	—	—	—	—	—	—	—	—	—	2	1	6	—	4	—	12	1	13	9
Gastritis, enteritis and diarrhoea	—	—	—	—	—	—	1	—	—	—	1	—	—	—	—	—	2	—	2	6
Nephritis and nephrosis	—	—	—	—	—	—	1	1	1	—	1	2	1	1	—	2	4	6	10	8
Hyperplasia of prostate	—	—	—	—	—	—	—	—	—	—	1	—	4	—	5	—	10	—	10	11
Pregnancy, childbirth, abortion	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1	—
Congenital malformations	1	3	—	—	—	—	—	—	—	1	1	—	—	—	—	—	2	4	6	9
Other defined and ill-defined diseases	5	5	1	—	2	1	—	3	1	2	12	8	5	8	14	29	40	56	96	89
Motor vehicle accidents	—	—	—	—	—	1	—	—	—	—	2	—	2	1	—	2	4	4	8	3
All other accidents	—	2	1	—	—	—	1	—	—	—	5	—	1	1	3	9	11	12	23	16
Suicide	—	—	—	—	—	—	—	1	1	—	2	4	4	1	—	1	7	7	14	15
Homicide and operations of war	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
	7	12	3	1	2	3	4	6	9	13	113	84	141	115	177	266	456	500	956	990

*Throughout this report in the age tables 1—4 means over 1 year and under 5 years, 5—14 means over 5 years and under 15 years and so on.

Table III.

Deaths by Sex, and certain Age Groups.

Deaths at :	1955 Total	1955 Males	1955 Females	1954 Total	1954 Males	1954 Females	1953 Total	1953 Males	1953 Females
0—14	38	16	22	41	21	20	57	35	22
15—64	221	124	97	258	160	98	258	160	98
65 and over	697	316	381	691	306	385	701	321	380
	956	456	500	990	487	503	1,016	516	500

Deaths at all Ages.

Cause :	1955	1954	1953
Infective	59	61	82
Cancer	147	189	172
Degenerative	510	524	546
Others	240	216	216
Total	956	990	1,016

In this table : "Infective" includes Causes 1—9 and 22, 23 and 27.
"Cancer" includes Causes 10—15.
"Degenerative" includes Causes 16—21 and 29.
"Others" all the rest of the 36 Causes given in the Registrar-General's short classification of causes of deaths.

Accidental Death

It has not been possible to make our own allocations correspond exactly with those of the Registrar-General, though we have assigned 31 deaths (as he does) to accidental causes.

Motor accidents, according to the Registrar-General, caused 8 deaths, 4 males (all adults) and 4 females (one a child under 14), (we account only for 7). Other causes of accidental death included 4 (adult males) in railway mishaps, 2 from drowning (1 a child, 1 an adolescent) ; 2 elderly women died from burning and 1 from suffocation in a fire ; 4 males and 9 elderly females from fractures (presumably mostly due to falls) : aspiration of vomit killed 2 infants. Additionally, a boy died from asphyxia in an epileptic attack and this was the subject of a Coroner's Inquest, misadventure being the verdict.

Deaths in Hospitals, Etc.

42% of the deaths of Exeter residents occurred in public institutions of one sort or another.

Place of Death.

Hospitals.			
Royal Devon and Exeter			124
City			143
Digby and Wonford (Mental)			43
Redhills			16
Isolation			11
Franklin (Mental Deficiency)			2
Other Hospitals			1
Nursing Homes			16
Outside City :	Hospitals	30	
	Nursing Homes	16	46
Total Institutional deaths			402
Total deaths in City residents (including 69 transfers-in)			956

MORTALITY IN CHILD-BEARING AND INFANCY.

The following composite table (IV) gives useful information regarding child-bearing and infancy for the past 20 years :—

Table IV.

MORTALITY IN CHILD-BEARING AND INFANCY IN EXETER 1936 — 1955.

Year	Maternal Deaths	Maternal Mortality Rate	Registered Live Births	Registered Still-Births	Live Birth Rate	*Stillbirths* Rate per 1,000 total births	Neonatal Deaths (i.e. under 1 month)	Deaths over 1 month and under 1 year	Infant Mortality Rate per 1,000 live births	Stillbirths and neonatal deaths	Perinatal Death Rate*	5 year average centred on year concerned
1936	2	2.09	915	42	13.3	43.9	29	28	62.3	71	74	
1937	1	0.9	980	41	14.1	40.1	34	21	56.1	75	73	70
1938	1	0.9	1,010	48	14.6	45.3	32	25	56.4	80	76	69
1939	3	3.1	936	37	13.4	38.0	24	16	42.1	61	63	69
1940	2	1.8	1,012	37	13.7	33.7	26	15	38.7	63	60	66
1941	5	4.1	1,027	35	12.8	32.9	42	37	68.0	77	73	62
1942	3	2.7	1,065	31	14.4	29.2	32	21	49.8	63	57	60
1943	3	2.8	1,051	35	15.3	32.2	35	16	48.5	70	64	58
1944	8	5.8	1,334	36	19.5	26.3	32	27	44.2	63	46	53
1945	4	3.1	1,246	29	18.0	23.3	33	37	56.2	66	52	52
1946	4	2.7	**1,444**	42	**19.8**	28.3	45	25	48.5	67	45	48
1947	4	2.7	1,428	34	19.2	23.2	47	35	57.4	81	55	48
1948	2	1.5	1,316	42	17.5	30.9	**15**	9	**18.2**	57	42	46
1949	1	**0.8**	1,192	31	15.6	25.3	25	**5**	25.2	56	46	47
1950	1	0.9	1,130	22	14.6	19.1	28	8	31.8	50	43	44
1951	—	—	1,098	33	14.4	29.1	24	9	30.0	57	50	45
1952	1	0.9	1,101	27	14.4	23.9	18	6	21.8	**45**	40	46
1953	—	—	1,152	**20**	15.0	**17.0**	36	12	41.6	56	48	45
1954	—	—	1,102	41	14.5	35.0	17	12	26.3	58	51	
1955	1	0.9	1,115	26	14.6	22.8	12	7	17.0	38	36	

*Perinatal deaths here include stillbirths and deaths within 28 days of birth except in 1955 where stillbirths and deaths within 7 days of birth only have been included.

MATERNAL DEATHS.

One mother aged 34, Para. 5, died as the result of pregnancy : Caesarian section for obstructed labour was the registered cause of death.

INFANTILE MORTALITY.

The following table shows the infantile mortality rate in Exeter for the past ten years compared with the country as a whole :—

Table V.

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
England and Wales	43	41	34	32	29	29.6	27.6	26.8	25.5	24.9
Exeter	48.5	57.4	18.2	25.2	31.8	30.0	21.8	41.6	26.3	17.0

Table VI.

INFANT DEATHS IN 1955

Cause of Death	Total	Neonatal		1st Year		M.	F.	Leg.	Illeg.	Post Mortem Exam. made	Premature	Complications in Pregnancy.	Complications of labour.	Place in Family						
		Under 1 day	*1–28 days	1–3 months	3–12 months									1st.	2nd.	3rd.	4th.	5th.	6th.	7th.
Congenital Abnormality	3	—	3	—	—	1	2	3	—	1	—	—	2	2	—	—	—	—	—	1
Atelectasis and Lung Infection	2	—	2	—	—	1	1	2	—	2	2	1	1	1	—	—	—	—	1	—
Haemorrhagic Disease	1	—	1	—	—	1	—	1	—	1	1	—	1	—	—	—	—	1	—	—
Erythroblastosis	2	2	—	—	—	1	1	2	—	2	—	—	—	—	—	—	2	—	—	—
Birth Trauma.																				
Cerebral Injury	1	—	1	—	—	1	—	1	—	1	1	—	1	—	—	—	—	—	1	—
Cerebral Thrombosis	1	1	—	—	—	1	—	1	—	—	—	—	1	1	—	—	—	—	—	—
Cerebral Haemorrhage	1	—	1	—	—	—	1	1	—	1	1	1	1	1	—	—	—	—	—	—
Prematurity	1	—	1	—	—	—	1	—	1	—	1	—	—	1	—	—	—	—	—	—
Lung Infection	5	—	—	2	3	1	4	5	—	4	1	2	1	1	1	—	2	—	2	—
Accidental inhalation of vomit	2	—	—	1	1	—	2	2	—	2	—	—	—	—	—	2	—	—	—	—
Totals	19	3	9	3	4	7	12	18	1	14	7	4	8	7	1	2	4	1	3	1

*Over 1 and under 28 days.

LOSS OF CHILD LIFE.

INFANT DEATHS.

MUCH of the information set out in this Section and in that dealing with still births, is set out here for medical record purposes and some of the terms used may not be readily understood by non-medical readers.

During 1955, there were 19 deaths of infants under 1 year giving a rate of 17.0 per 1,000 live births, the lowest rate on record in the City. 12 died within the first month of life at ages ranging from 5 hours to 3 weeks, and 7 died at ages over 1 month—ranging from 6½ weeks to 8 months.

DEATHS AT 1—12 MONTHS. Of these 7 children in the older group, 2 died from asphyxia due to the accidental inhalation of vomited milk. In each instance the baby was fed at 10 p.m. and seemed normal but was found dead next morning. No other abnormalities were discovered at post-mortem examination. It is difficult to see how this can be avoided, provided the baby is settled comfortably by the parents before retiring to rest. The other five children in this group all died from broncho-pneumonia, 3 in hospital and 2 at home ; one of them aged 8 months also had fibrocystic disease of the pancreas. In no case was the baby an only child. Post mortem examinations were made on 6 of the 7 cases.

NEONATAL DEATHS (i.e. within 28 days of birth) : 6 of these 12 children were premature and 2 were post-mature at 43 and 42 weeks respectively.

(a) *Congenital abnormality* (3 deaths) : the defects were :

(1) Meningo-myelocele and malformation of L. leg.

(2) Tracheo-oesophageal fistula.

(3) Congenital aortic stenosis.

(b) *Birth injury* (3 deaths) :

(1) Tentorial tears in a breech delivery, the baby weighing 4 lbs. and living 32 hours : this was a 6th child.

(2) Cerebral thrombosis in a post-mature child of a primipara ; gestation was 42 weeks, labour was long and obstructed necessitating delivery by Caesarian Section ; the infant died at 22 hours.

(3) Cerebral haemorrhage in a premature second twin weighing 4 lbs. 7 oz. The mother, a primipara, had pre-eclamptic toxaemia and there was some delay in the birth of this second twin which was hypotonic and asphyxiated at birth and died at 6 days old.

(c) *Lung Infection* (2 deaths). Both were in premature children :

(1) a 6th child, a twin, died at 5 days of neonatal lung infection ; the other twin also died at 6½ weeks from confluent broncho-pneumonia : there was no history of respiratory infection in the family and contacts.

(2) a first child about 8 weeks premature on account of antepartum haemorrhage died of a neonatal lung infection at 37 hours.

(d) *Rhesus incompatibility* (2 deaths) :

(1) a 4th child, Rhesus antibodies were present in the mother's blood during the 3rd pregnancy in 1953. The blood should have been examined during this 4th pregnancy but the mother failed to attend for this purpose. The child was born 19 days before the expected date of delivery, was jaundiced at birth and died at 7 hours during replacement transfusion.

(2) a 3rd child. During the 2nd pregnancy in 1954 despite a high titre of antibodies a spontaneous live birth resulted. In this 3rd pregnancy antibodies were present 17 days before the expected date of delivery and the patient should have reported again in one week's time but failed to do so and delivery was post-mature at 43 weeks, 37 days after antibodies were reported. This child was jaundiced at birth and died during replacement transfusion at 5 hours.

(e) *Prematurity* :

(1) a premature baby weighed 1 lb. 10 oz. and was not transferred to a premature unit from home until 24 hours after birth.

(f) *Haemorrhagic disease* :

(1) another premature baby, the 5th child of a mother who has " habitual " premature births : this child succumbed to haemorrhagic disease at 6½ days. It had been moved to a premature unit from home immediately after birth.

Post-mortem examinations were carried out on 8 of these 12 children.

STILLBIRTHS.

There were 27 stillbirths (18 male, 9 female) registered in Exeter in 1955. This includes one stillbirth occurring in December 1954 but not registered till January 1955 and 3 inward transfers. In all, 9 had severe congenital defects, 6 were in toxic mothers, in 7 no cause was found.

Table VII.

STILLBIRTHS, 1955.

	WEIGHT	Total	SEX		Home Delivery	Hospital or Nursing Home Delivery	Complications in Pregnancy	Complications of Labour	Rhesus	Parity	Post Mortem Examinations made	Legitimate	Illegitimate	Age of Mother	CAUSES								Macerated
			Male	Female											Toxaemia	Congenital Abnormality	Placental Insufficiency	Birth Injury	Premature separation of Placenta	Difficult Labour	Rhesus Incompatibility	Not known	
Premature	3 lbs. 4 ozs. or under	5	1	4	3	2	2	—	—	—	—	5	—	—	1	3	—	—	—	—	—	1	2
	Over 3 lbs. 4 oz. to 5½ lbs.	11	2	9	2	7	3	3	—	—	1	9	2	—	2	2	2	—	—	—	—	5	8
	Totals	16	3	13	5	9	5	3	—	—	1	14	2	—	3	5	2	—	—	—	—	6	10
Full-Term	Over 5½ lbs.	11	6	5	1	9	4	7	—	—	3	11	—	—	1	4	—	1	1	2	1	1	4
	Totals	27	9	18	6*	18	9	10	—	—	4	25	2	—	4	9	2	1	1	2	1	7	14

* 3 at private nursing homes.

I. *Premature Stillbirths* (16). There were 16 premature stillbirths (13 female, 3 male) weighing 5½ lbs. or less : 10 of these were dead before the labour began. No stillbirth in this group was due to birth injury or difficult labour but 8 were in first pregnancies.

(a) *Congenital abnormalities* (4). Congenital abnormality of the head was the cause of death in 4 cases, all being anencephalic. Additionally one baby was hydrocephalic but this stillbirth has been classified (below) as due to toxaemia.

(b) *Toxaemia* (4) ; stillbirth was attributed solely to toxaemia in the mother in 3 cases ; in the 4th case the child was hydrocephalic but had been dead for 1 week before the delivery probably because of the toxaemia. The mother of this infant had had a Caesarian section for pre-eclamptic toxaemia in 1954 and that child died after 36 hours.

(c) *Placental insufficiency* (2).

(d) *No known cause detected* (6).

II. *Full-term Stillbirths* (11). There were 11 full term stillbirths. The causes included :

(a) *Severe congenital abnormality* (4) ; in 3 cases obstructed labour resulted.

(b) *Delayed forceps.*

(c) *Post-mature child*—toxaemia—forceps.

(d) *Cerebral injury in a breech*—forceps.

(e) *Caesarian section for placenta praevia*—baby already probably dead because of rhesus incompatibility.

(e) *Rhesus incompatibility.*

(f) *Ante partum haemorrhage.*

(g) *No known cause.*

PREMATURE INFANTS, 1955.

77 premature infants were born alive during 1955, their birth weights ranging from 3 lbs. to 5½ lbs. 52 were born in hospital, 25 at home, 3 of the latter being transferred to hospital in the neonatal period.

6 of these premature children died in hospital during the year, 3 of them having been born in hospital, 1 born at home and transferred to hospital immediately after birth and 2 others born at home and transferred to hospital when they became ill at 5 days and 6½ weeks respectively. The 2 smallest children weighed 3 lbs. each ; both were born in hospital and both have survived ; so 72 of the 77 survived at the end of the first month, the 6th

death occurring at 6½ weeks. We know that 2 more of the babies died early in 1956 but these are not here discussed.

Causes of Death. These were lung infection 2, cerebral injury in a breech case 1, cerebral haemorrhage 1, prematurity and neonatal lung infection 1, haemorrhagic disease 1.

Causes of Prematurity. Various adverse maternal factors were present in about half of the mothers of the 77 premature children ; how far these factors were responsible for either premature cessation of pregnancy or small weight it is difficult to say except in the cases of induction of labour and caesarian section for maternal conditions on the one hand and twin pregnancies on the other. 17 of these premature children were twins. (Prematurity is defined by weight, so one twin may be immature by this standard, the other being mature). Induction of premature labour was effected in 4 cases (2 for toxaemia of pregnancy, 1 for hydramnios, 1 for ante-partum haemorrhage). Toxaemia of pregnancy was present in 6 other cases, including 2 cases of pre-eclamptic toxaemia in the mother of twins. Caesarian section for placenta praevia causing ante-partum haemorrhage terminated pregnancy prematurely in one case and ante-partum haemorrhage also occurred in 3 other mothers, one being the mother of twins. There was a history of pulmonary tuberculosis in 3 cases but one only was active during pregnancy ; 2 others had a past history of positive Wassermann reactions. Caesarian section was performed in 2 other cases, both of whom had a bad obstetric history ; one of the mothers concerned was under 5 ft. in height and the other was aged 43 years, but the actual cause of the small birth weights (5 lbs. 6 ozs. and 5 lbs. 4 oz.) may have been constitutional. 2 other cases were apparently full term small children and one was to a mother who has habitually had a premature cessation of pregnancy. So that a maternal factor of direct or maybe indirect influence was present in half of the cases.

The Condition of the Infants : congenital abnormalities included talipes in 2 cases, deformity of foot in 1, abnormality of the legs which will handicap walking in 1, hydrocephalus in 1 and other abnormality of brain in 1.

2 children have been in hospital for some weeks, one with a recurrent urinary infection and another with gastro-enteritis and broncho-pneumonia. Following up 3 very small children born in 1954 I have to report :

(1) child with birth weight 3 lbs., weighed 14 lbs. at 1 year, 9 months, and is wearing a surgical boot for shortening of the left leg.

(2) child with birth weight 2 lbs. not walking at 2 years and ? mentally retarded.

(3) child with birth weight 2 lbs. 15 oz., although unable to sit alone at 1 year has now made rapid strides and is in excellent health and of almost average weight.

(See Table XXII, Page 104).

ABORTIONS.

We do not know how many abortions (death of the unborn infant before it is capable of an independent existence) occur : the figure has been estimated at 20% of all pregnancies ; most of these abortions are natural and not induced. We know that 45 cases of abortion were cared for in hospitals in the City in 1955 and that during the same year 49 were cared for at home, making a known total of 7.8% of all pregnancies. This is, of course, a serious loss of infant life.

PERINATAL MORTALITY.

There were 27 stillbirths and 11 neonatal deaths, of which 10 were in the first week of life, in Exeter in 1955. The total live and stillbirths numbered 1,141. The perinatal mortality (the number of stillbirths and infant deaths in first week per 1,000 live and stillbirths) was 32.4 per 1,000 total births.

Causes of Mortality.

Congenital abnormality	11	2 neonatal. 9 stillbirths.
Rhesus incompatibility	3	2 neonatal. 1 stillbirth.
Birth trauma and difficult labour	6	3 neonatal. 3 stillbirths.
Toxaemia of pregnancy	4	All stillbirths.
Placental abnormality	3	All stillbirths.
Lung infection	2	Neonatal.
Prematurity only	1	Neonatal.
Haemorrhagic disease	1	Neonatal.
Unknown cause	7	Stillbirths.
22 *were premature*	16	Stillbirths.
	6	Neonatal deaths.

A conference was held in the Council Offices in September, 1955, to discuss the comparatively high incidence of peri-natal

mortality in the City. The Consultant Obstetricians, the Paediatrician, a number of family doctors and some of our own medical staff attended.

The discussion was wide and varied and included, inter alia, the following subjects : the high and rising rate of prematurity in Exeter ; the size of the premature infants in the City as related to the believed gestation period ; the absence of gross " disproportion " in Exeter ; the significance of breech labours as almost the only cause of difficult labour in Exeter ; weighing in pregnancy ; the cause and treatment of atelectasis ; foetal abnormalities ; fatigue in pregnancy ; local services, and hospital provision.

CANCER.

Unfortunately, it has not been possible for the Regional Cancer Records Bureau to give us the figures of new registrations of Exeter cancer patients for 1955, but it has returned the figures for **1954** which are set out below.

EXETER RESIDENTS, 1954.

SITE		AGE. Und'r 20	20 to 29	30 to 39	40 to 49	50 to 59	60 to 69	Over 70	TOTAL
Buccal Cavity & Pharynx	M	—	—	—	—	1	2	3	6
	F	—	—	—	—	2	—	1	3
Digestive Organs and Peritoneum	M	—	—	1	4	5	13	7	30
	F	—	—	—	3	2	11	18	34
Respiratory System	M	—	—	1	1	10	13	7	32
	F	—	—	—	1	2	—	—	3
Breast	M	—	—	—	—	—	—	—	—
	F	—	1	1	8	6	12	4	32
Genito Urinary Organs	M	—	—	1	—	1	2	8	12
	F	1	—	2	3	6	5	4	21
Skin	M	—	—	2	2	1	7	6	18
	F	—	—	—	1	2	1	4	8
Other and unspecified sites ..	M	—	3	—	—	1	2	—	6
	F	—	1	—	1	2	—	—	4
Lymphatic and Haematopoietic tissues	M	1	—	1	—	3	1	1	7
	F	—	—	1	—	1	1	4	7
TOTAL		2	5	10	24	45	70	67	223

The total number of deaths from cancer in 1955 was 147, considerably fewer than in the previous year. Cancer of the lung and bronchus accounted for 29 deaths, the same number as in 1954.

The following table (using the Registrar General's figures), shews the deaths from cancer during the past 10 years :—

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Deaths	129	128	151	152	143	180	152	172	189	147

It should be noted that leukaemia is now counted as a cancerous disease.

We have done very little in the way of health education in a subject which is of profound importance. We really must do more.

PUBLIC WATER SUPPLY.

I am indebted to the City Surveyor (Mr. J. Brierley) for most of the following information.

There was no change in the method of treatment of the water from the river Exe as described in my 1954 Report.

Rainfall over the watershed was about average for the twelve months, although the year was notable for the hot dry summer and there were four spells of absolute drought. Consumption during July averaged 4,389,000 gallons per day and reached a peak of 4,700,000, the highest summer consumption yet recorded. Despite these conditions it was not necessary to impose any restrictions. The estimated population supplied direct was 82,000 and in bulk 1,000. Average daily consumption per head of population was 50.0 gallons.

The average doses of chemicals used for treatment were :— chlorine (breakpoint dose) 3.31 p.p.m. ; alumina for coagulation 10.3 p.p.m. ; hydrated lime for pH correction 7.0 p.p.m. Occasional dosage with sulphur dioxide was necessary to remove excess chlorine in the final treatment stage.

Details of the bacteriological examinations carried out by the Public Health Laboratory Service (Director, Dr. B. Moore) are set out in Table IX. 98% of the samples from consumers' supplies were reported Class I according to the Ministry of Health's classification for piped supplies.

The Public Analyst made quarterly chemical and bacteriological analyses of both raw and treated waters, and details of

two of these are attached (Table VIII). It has been arranged for the Public Analyst to include an estimation of the fluorine content in these regular analyses.

The fluorine content (two analyses) averaged 0.037 milligrammes per litre and iodine (two analyses) 0.0012 milligrammes per litre. The water supplied to consumers was reported free from plumbo-solvency. Professor Krebs of Oxford kindly examined a sample of the water in December, 1955, and obtained a value of 1.8 + .2 microgrammes per litre or approximately .002 milligrammes per litre ; the iodine of public water supplies varies from approximately .5 to 4 microgrammes per litre (according to J. B. Orr et al., reporting in 1928 on 12 different areas in the country).

The city Water Committee's proposals for the extension and improvement of the pressure filtration plant at Pynes Waterworks were submitted to the Ministry of Housing and Local Government.

During the year, discussions (unfortunately with little effect) took place with the Devon River Board regarding pollution of the river Exe up river from the water collection point. Whilst the water is satisfactorily treated and purified in the Council's works, we must do all we can to limit pollution of the raw water.

Table VIII.

DETAILED ANALYSIS OF RAW AND FILTERED WATER IS SET OUT BELOW :

	Results in Parts per Million.			
	31.1.55.		14.7.55.	
	Raw	Filtered	Raw	Filtered
Chlorine as Chlorides	14.0	15.0	12.0	14.0
Nitrogen as Nitrites	trace	0	trace	0
Nitrogen as Nitrates	2.0	2.0	.85	0.8
Nitrogen as Free and Saline Ammonia	0.108	0.010	0.030	0.006
Nitrogen as Albuminoid Ammonia	0.25	0.048	0.160	0.090
Total Hardness	57.0	59.0	50.0	67.0
Temporary Hardness	35.0	31.0	32.0	42.0
Parmanent Hardness	22.0	28.0	18.0	25.0
Total Solids	160.0	140.0	110.0	140.0
Suspended Solids	50.0	0	6.0	0
Oxygen absorbed 4 hrs. 27°C.	3.5	0.4	2.4	0.9
Chlorine as free chlorine	—	0.35	—	0.12
Plumbo-solvency	—	nil	—	nil
pH	7.2	7.0	7.1	7.4
B.Coli per 100 ml.	1800	0	600	0
Streptococcus per 100 ml.	50	0	2	0
Microbes : 72 hrs. at 22° per ml.	4500	3	1200	5
48 hrs. at 37° per ml.	650	0	180	1

Table IX.

EXETER PUBLIC WATER SUPPLY.

BACTERIOLOGICAL ANALYSES OF SAMPLES TAKEN IN 1955 : EXAMINED BY PUBLIC HEALTH LABORATORY SERVICE.

WATER AFTER TREATMENT.	No. of Samples	Presumptive B. Coli count per 100 millilitres				
		0	1-2	3-10	11-50	50+
(a) AT TREATMENT WORKS	51	51	—	—	—	—
(b) ON CONSUMERS' SUPPLY : DANES CASTLE RESERVOIR ZONE	68	64	3	—	1	—
INTERMEDIATE ,, ,, ...	49	48	1	—	—	—
MARYPOLE HEAD ,, ,, ...	23	23	—	—	—	—
BARLEY LANE ,, ,, ...	30	30	—	—	—	—
TOTAL	221	216	4	—	1	—
(c) OTHERS :— BUILDING SITES, NEW MAINS, ETC.	61	24	2	10	15	10

In addition, 52 samples of raw river water were examined—generally these shewed gross pollution (over 1800 Presumptive B.Coli per 100 ml.) ; and also 36 samples of water whilst undergoing treatment for the purpose of checking the efficiency of various parts of the sterilisation plant.

PRIVATE DOMESTIC WATER SUPPLIES.

As usual, a survey of the wells in the city was carried out in 1955 :

Number of known wells and springs used in the city for domestic purposes		25
These are situated as follows :—		
Northern District	18	
Western District	4	
Southern District	2	
Eastern District	1	
Central District	0	
Number of farms, including 6 dairy farms, served by these wells		8
Number of dwellinghouses served by these wells ..		21
Number of persons served		91

Samples of water from these wells and springs were taken by the district sanitary inspectors during 1955 and examined by the Public Health Laboratory Service. The results were as follows :—

Presumptive Coliform. Count per 100 *ml.*	*Number of samples.*
Less than 1	6
1 — 10	2
11 — 50	4
50+	12

The tenants of all the premises where the water supply has a high bacterial count have been warned to boil water used for drinking purposes.

CONNEXIONS TO MAIN DRAINAGE

During 1955, 4 properties, not previously on main drainage, were connected to the sewers.

SEWERAGE AND SEWAGE DISPOSAL.

The City Engineer (Mr. J. Brierley) has kindly given me the following information.

SEWERAGE. In order to relieve flooding, sewers were reconstructed at Isleworth Road, Barley Mount, Howell Road and Northernhay Place.

Foul sewers were reconstructed at Mount Pleasant Road, Polsloe Road, Princes Street East, Preston Street, Southernhay Gardens and Woodwater Lane.

Sewage Disposal. No major improvements were carried out during the year. An experimental recirculating pump has been installed on one of the aeration units to determine to what extent this form of increasing the capacity of the works can be utilised, but it is too early yet to give any results.

PUBLIC CONVENIENCES.

Public conveniences should be conveniently sited, well constructed, with modern, easily flushed and easily cleaned fittings, well ventilated, kept clean and provided with suitable personal washing facilities. Unquestionably these should be free so far as necessary to allow hand washing. To talk glibly about food hygiene and all the rest of it whilst making hand washing, after the use of the lavatory, dependent on paying a few coppers is simply hypocrisy : and local authorities should realise it. Wash and brush up facilities still justify a small charge. Supervision of conveniences must be efficient, but in our present age it should not be necessarily continuous, nor should conveniences have to be locked up at night. That the facilities available are abused is common knowledge, but to some extent it is due to the fact that the conveniences have so often in the past been inconvenient, insanitary, unclean, and in some instances frankly appalling.

I am glad to say that the Streets Committee resolved on 2nd February, 1956, that all public conveniences yet to be built in the City should have free washing facilities with paper towels and that as practicable, the older ones should be provided with these. I hope that so far as practicable, hot water will be included, but this may prove difficult in some instances. In my view, even though we expect, unfortunately, such facilities to be abused in the first stages, as people get more used to the idea they will use them in a normal way, with due regard for public property. We must make a start, so that in time free washing facilities will be the normal thing, as it should be. The free washing facilities at the Catherine Street central conveniences are proving of great help to the public.

ANNUAL REPORT OF THE CHIEF SANITARY INSPECTOR FOR THE YEAR 1955.

Introduction.

The report is in two parts. Part I consists of comment on some of the difficulties experienced and on some of the more unusual aspects of our work, while the second part comprises an analysis of the work done.

Part I.

Staffing Difficulties.

The year opened badly for this section of the Health Department. The staffing difficulties mentioned in my last annual report continued : replacements were not immediately available and the staff did not return to full strength until mid-March. For many years I have been concerned at the lack of space in the Health Department as a whole and at every opportunity the Medical Officer of Health and I have discussed the possibility of making better use of the available accommodation. The sanitary inspectors' section in particular is badly overcrowded. Some of the staff are housed in the attics, others in the basement, making supervision and administration difficult. Over the years, adjustments and alterations have been made in an endeavour to avoid overcrowding and to provide the necessary facilities for members of the public who are frequent visitors (my section alone deals with some fifty to sixty callers a week). Despite our efforts, however, the problem of providing additional space remains a major issue.

Increase in Work.

The staffing difficulties, coupled with the facts that the work of the section continues to grow and that there were arrears of work from the previous year, placed an additional burden on the inspectorate. The investigation of house conditions, which has always been one of our more important activities, is increasing and in view of the emphasis placed by the Minister on reconditioning and slum-clearance, it must inevitably continue to do so.

Some idea of the increase in the amount of work being done may be obtained from Table A, which represents the average number of visits made per year by a district inspector over the past ten years. It will be seen that the average number of visits has risen from 2,195 in 1946 to 3,765 in 1955. This improvement is due to the average age of the inspectorate decreasing as a result of staff changes, partly to the use of a car by one of the inspectors and partly to the overhaul and streamlining of the organization of the section. A modern filing system has been installed and every effort made to reduce to a minimum the

clerical work required of the inspectors so that more time can be spent on the district. At first sight, this would appear to be highly satisfactory, but Table B shows how the emphasis of our work has shifted, and while house inspections have increased, visits to food premises have decreased. In housing matters alone we are not doing sufficient. It is still our policy to enforce the repair of houses only upon the receipt of a complaint from the tenant, but there is a statutory obligation placed upon the local authority to satisfy itself as to the housing conditions in its area and the only way of doing this is to make the house-to-house inspections which were common before the war.

TABLE "A"

AVERAGE NUMBER OF INSPECTIONS PER DISTRICT SANITARY INSPECTOR OVER THE PAST TEN YEARS.

YEAR	No. of Inspections
1955	3,765
1954	3,535
1953	3,379
1952	3,244
1951	2,825
1950	3,039
1949	2,922
1948	2,909
1947	2,692
1946	2,195

TABLE "B"

HOUSING INSPECTIONS AND INSPECTIONS OF FOOD PREMISES IN THE YEARS 1952—1955 SHOWING THE CHANGE IN EMPHASIS IN THE SECTION'S WORK.

YEAR	Housing Inspections.	Inspection of Food Premises.
1955	4,919	2,902
1954	2,633	3,903
1953	2,463	4,308
1952	1,994	5,152

Decline in the Inspection of Food Premises.

The fall in the number of inspections of food premises is particularly serious in view of the increasing incidence of food poisoning and the importance now attached to food hygiene. The coming into force of the new Food Hygiene Regulations will place additional duties on the section in that boarding-houses, hospital kitchens, university halls of residence, etc., will be regularly inspected. Many improvements will be required in existing cafes, shops and hotels and it is difficult to see how this work can be done without increased staff, and increased staff raises the question of accommodation.

Inspection of Dining-cars on Railways.

During the year we commenced the routine inspection of dining-cars on the railways. The inspection includes the bacteriological testing of the water used in the cars and our first impressions are favourable. I had the opportunity of discussing the problem of hygiene in dining-cars with the head of British Transport Hotels and Catering Services and I understand that it is planned to replace the whole of the dining car fleet within three to four years. New cars will all incorporate facilities for sterilizing dishes and a school has been established at Marylebone where all charge-hands are trained in the serving and presentation of food. Hygiene is given due emphasis in the curriculum.

Abattoir.

1955 was the first full year during which the abattoir was operated by the Exeter and District Meat-Trading Association, Limited, and the arrangements appeared to run smoothly.

I have received no serious complaints of retailers experiencing difficulty in obtaining supplies or in arranging for their own stock to be slaughtered. As I reported last year, the trading association has made some improvements at the abattoir, but it still falls far short of modern requirements. The way in which the cattle have to be dragged to slaughter is revolting and the meat inspection service is carried on with great difficulty.

Inter-departmental Committee Report on Slaughterhouses.

The committee will recall that this report was published in July, 1955, and that a summary of the recommendations was placed before them. The report suggested Exeter as being the slaughtering centre for a population of 188,500, but press reports have since made it clear that some local authorities object to being grouped with Exeter. The Minister of Agriculture has not yet indicated how much of the report he is prepared to accept, but it is to be hoped that some pronouncement on the subject will be made soon. This question of slaughtering facilities has developed in many places into a struggle for control between the producers and the retailers. As the local authorities have im-

portant responsibilities in this matter and many will be reluctant, or even unable, to incur the expense of providing the necessary facilities, I think a reasonable solution will lie in some form of co-operative body representing producers, retailers and the local authority. Of course, the hygienic supervision of the abattoir remains the duty of the local authority.

Disposal of Condemned Meat.

Under the terms of the lease, the Exeter and District Meat-Trading Association, Limited, is permitted to dispose of condemned meat only to firms approved by myself, and apart from small quantities of livers sold to mink breeders, the bulk of it is sold to a local company which renders it down to tallow and fertilizers.

Meat Content of Sausages.

As a result of The Lord Chief Justice's ruling in a case involving the meat-content of a sausage, there is now no legal standard for the composition of a sausage and opportunity has been given for the unscrupulous trader to exploit the public.

One case was noted in the city where 3s. 0d. per pound was charged for sausages, the meat content of which was 17 per cent below the minimum prescribed during control. More recently the Minister of Agriculture, Fisheries and Food has stated that the question of standards had been referred to the food standards committee and that some form of control will probably be re-introduced.

Sale of Orange Juice Drinks.

During the last few years there has been a large increase in the sales of orange juice drinks and there are three brands now on sale in the city. Two firms buy the concentrate which is diluted and bottled and the third firm acts purely as distributor for the product which is manufactured and bottled in Torquay.

Complaints were received of a dark deposit in some of the bottles sold to the public and it was ascertained that it was a fungus. In order to avoid a recurrence of this trouble the firm concerned increased the strength of the detergent in the bottle-washing machine, purchased a small hand-operated washing machine to deal with the very dirty bottles, and improved the system of examination of the empty and filled bottles.

Watercress.

All watercress sold in the city is regularly sampled to assess its purity and one sample proved to be heavily contaminated with faecal coli. Following my request, the sanitary inspector of Tiverton Rural District Council (in whose area the cress had been gathered) made a survey of the cress bed and found that the contamination could be of animal or human origin. The sale of

cress from this field was immediately discontinued and the bed was dredged up.

Food Poisoning.

Thirty-two cases of suspected food poisoning were investigated by the sanitary inspectors and this involved making 90 visits to the homes of the patients and to the shops where suspected food was sold. The causal agent in five of the cases was a rare type of *Salmonella Paratyphoid " B," Type 3a, var.* 2, which is usually found in Asiatic countries. This discovery focussed attention on imported Chinese egg which is used to a large extent in the baking industry and has been known to be the cause of food poisoning in other parts of the country. However, despite the most exhaustive inquiries, extending over many weeks, we were unable to link the illness with Chinese egg.

Our inquiries regarding the other cases of food poisoning also proved fruitless, notwithstanding the expenditure of much time and energy. I think one of the main reasons for our lack of success is the time-lag between the onset of the disease and notification being received by this department. Delays of a week are not uncommon and by that time it is difficult for the patient to give any definite information of the food eaten during the critical period.

Inspection of Plans.

We continue to examine many of the plans submitted in connexion with proposed alterations to existing buildings and with the erection of new buildings. Some 164 sets of plans were examined during the year and as I am anxious that any new shop or office should provide everything which might be required by legislation in the foreseeable future, our examinations often lead to long conferences with the technical representatives of the various developers.

One of my major difficulties in this connexion is that when plans are first submitted, the developers are unable to provide any information as to the probable lessees, nature of business and number and sex of the employees.

Flooding.

On Monday, 18th July, 1955, following a period of hot dry weather, a heavy rainstorm broke over Exeter and it appears from information received from the Devon and Exeter Institution that during the twenty-four-hour period covering the storm, 3.37 inches of rain fell, compared with a *monthly* average of about 2.5 The heaviest rainfall occurred between 6.0 a.m. and 8.30 a.m., when there was a fall of nearly 1½ inches.

Throughout the day a steady stream of complaints of flooding and requests for assistance were received by the health department

and some more requests came in on the following Tuesday and Wednesday. In all we were notified of fifty-eight properties which were affected. With one exception, all the sanitary inspectors were taken off routine duties and concentrated on flood relief work. It was found possible to visit all the affected areas within a few minutes of receiving the complaints and 87 visits were made by the inspectors.

The disinfecting station at Exe Island was opened and arrangements were made for the collection, drying and return of household articles. The office van was used for this purpose as well as for some urgent visiting. A summary of the work done by the department is given below.

1. Liaison with, and obtaining help from, other departments, e.g. hosing down of premises by the Fire Service ; clearing of blocked drains and sewers, and the removal of silt, etc.
2. Advice and supervision in connection with the clearing and drying of premises.
3. Removal of wet carpets, rugs, bedding, etc., for drying.
4. Issue of concentrated disinfectant.
5. Inspection of flooded food premises.
6. Rehousing of tenants of flooded premises (one case).
7. General advice on precautions to be taken in handling foodstuffs, etc.
8. Service of notices on owners of premises to effect repairs, where necessary.

The disinfecting plant was kept in operation from Monday to Thursday and the following articles were collected, dried and returned :

Rugs and mats	40
Carpets and underfelts	13
Cushions	6
Mattresses	2
Other bedding	3
	64

Exhibition Fields.

During the year, the Devon County Agricultural Show was held at Exhibition Fields and, again, complaints were received of the serious nuisance which arose from urine flowing down Summer Lane. The arrangements for the disposal of slop water and for the collection of rubbish were also unsatisfactory, but following a conference with the city engineer and surveyor, certain extra drainage work was carried out and it is anticipated that the 1956 show will not cause us any anxiety.

Public Conveniences.

There are 34 public conveniences in the city and these are made up as follows : sixteen for men and eighteen for women. In four of these, free washing facilities are available and our observations indicate that it is an amenity which is much appreciated by the general public.

Some years ago, I expressed the hope that free washing facilities would be provided in all conveniences in the city and it is pleasing to record that, following representations from the Public Health Committee, the Streets Committee has now agreed to install free washing facilities in all future conveniences and will consider whether or not they should be installed in some of the existing ones.

Septic Tanks and Cesspools.

(*a*) *Mill Road, Countess Wear.*

The Committee will recall that since 1951 some of the cesspools in this area have given rise to complaint and it is gratifying to record that the construction of the sewer for this area is now in progress.

(*b*) *Little John's Cross Hill.*

This is also an area which gave rise to considerable anxiety some eight years ago. Sewage was then percolating through the main road and a great deal of resistance was encountered to my request for the regular emptying of the tanks. At that time the estimated cost of sewering the area was approximately £6,000 and the Streets Committee was not prepared to spend that sum to provide an amenity to a limited number. Fortunately, probably through some disturbance of the ground, the percolation suddenly ceased, but I think it should be recorded that trouble is likely to recur and consideration should be given to providing sewers for this area.

(*c*) *Argyll Road and Cowick Lane.*

Other areas which demand attention are Argyll Road and Cowick Lane ; the Argyll Road area has been the subject of comment in earlier reports.

In Cowick Lane, some of the large houses are being converted into flats and all these will drain into tanks. Septic tanks are an accepted form of sewage disposal when sewers are not available, and provided they are well designed and maintained they cause little anxiety, particularly in country districts. The Cowick Lane area, however, is on the fringe of a large zone of residential and industrial development and septic tanks in such an area are a potential danger and a nuisance.

Housing.

(*a*) *Certificates of Disrepair.*

The Housing Repairs and Rents Act became operative on the 30th April, 1954, and during 1955, only nine applications for certificates of disrepair were received. Eight were granted and of these three have since been revoked.

(*b*) *Improvement Grants.*

During the year, detailed inspections were made of 118 dwellings as a result of formal or informal applications for improvement grants. Of these, seventy were in respect of property owned by a local housing society, 32 in respect of owner-occupied premises, and 16 rented.

We are always ready to advise owners about the facilities available for reconditioning their property and we frequently inspect houses before a formal application has been made. In this way, owners of houses which would not merit a grant are saved the trouble and expense of making an application, while early " approval in principle " facilitates the prompt consideration of the formal applications.

Grants were actually made in connexion with twenty-five properties and varied from £62 10s. 0d. to £423 per house.

(*c*) *Slum Clearance.*

The survey of the 454 houses which it is proposed should be the subject of clearance area procedure within the next five years was completed in April. Following the approval of the recommendations by the City Council, the work of detailed inspection, recording and the preparation of maps was commenced, and should continue for the next five years.

One tragic feature of the survey was the discovery that some of the tenants were in process of purchasing the houses. In some cases the prices paid were high, the people having been forced to buy in order to obtain accommodation. At the time of the survey, compensation for property condemned under slum-clearance procedure was small, in many cases nil, but the government has since promised to review the compensation due to people purchasing houses between 1st September, 1939 and 13th December, 1955.

(*d*) *Houses Occupied by More than one Family.*

Another problem which gives rise to concern is the number of houses occupied by more than one family. Sometimes the house is an ordinary two- or three-bedroomed house where a son or daughter has married and set up home with the family. Whatever the relationship which exists normally between the two

families, shared kitchens invariably result in a feeling of strain and frustration which ultimately leads to ill-health. It is my opinion that often such cases, although not overcrowded in the legal sense, deserve our sympathies more than the families living alone in substandard dwellings.

There are in the city, too, the larger houses which have been let off in flats and where the tenants share water closets, bathrooms and water supplies. Under the Housing Repairs and Rents Act, 1954, the local authority is empowered to serve a notice on the owner informing him that he must either reduce the number of tenants or provide additional facilities, but little has so far been done in this connexion, because many of the buildings do not lend themselves to improvement, except at very great cost. It is feared, too, that any concerted action in this respect even it if were possible with existing staff, would result in a further strain being put on our slender housing resources.

Smoke Abatement.

Smoke and grit do not yet present a serious problem in Exeter and it is our ambition to prevent it becoming one. Three deposit gauges have now been set up in the city : one at the old filter beds in Dunsford Road, one at the Water Works at Danes Castle and the other at the Corporation Highway Depot, near Marsh Barton. In addition, an apparatus which filters the air drawn through it and enables the sulphur dioxide and smoke in the atmosphere to be measured, has been fitted in one of our attic rooms. We cannot claim that these four stations will give us an accurate picture of conditions existing in the city as a whole, but it is anticipated that they will give us sufficient information to observe any adverse trends in air-pollution.

Air pollution has at long last been given the attention it merits. It took the London smog of 1950 and the increasing incidence of carcinoma of the lung to shake the government and public out of their apathy. The Clean Air Bill is now before Parliament, its purpose being to implement the principal recommendations of the Committee on Air Pollution which sat under Sir Hugh Beaver. Unfortunately, there are so many ' escape ' clauses in the bill that much of it will be of doubtful value, but there is provision for local authorities to make " smoke control areas." If such areas are established the local authorities must make a substantial contribution (which will be grant-aided) to the cost incurred by any house-owner who has to install an improved fuel-burning appliance in order to prevent the emission of smoke.

Refuse Tip.

A number of complaints were received of flies and smell arising from the corporation tip at Clifton Hill. Noise caused

by gulls frequenting the tip also caused a serious nuisance. However well supervised, controlled tipping does at certain times of the year give rise to nuisance and annoyance. This method of refuse disposal has the merit of being comparatively cheap and can be used to reclaim disused pits, etc., but suitable tipping space in the city is getting scarce and consideration will have to be given in the near future to other methods for the hygienic disposal of refuse.

Local Land Charges.

Information was supplied to the Town Clerk in 1,294 cases in reply to searches submitted under the Local Land Charges Act, 1925.

Part II.

General Summary.

Number of visits made during the year	13,686
Number of samples taken	889
Number of carcases inspected	39,579
Total weight of footstuffs condemned	96 tons

A.—Supervision of Food Supplies.

1. *Licensed Premises.*

The improvements effected in the licensed premises during the year are as follows :—

Premises cleansed or redecorated	6
Premises where sanitary accommodation was improved	2
Premises in which facilities for washing utensils were provided	3
Other improvements effected	15

2. *School Canteens, University Halls of Residence, etc.*

The total number of visits to the various schools and halls, etc., was 146, as compared to 40 during 1954 when staffing difficulties were more acute. No visits were made to the children's homes, the old people's welfare homes, many of the private schools and the university halls of residence.

The report of the Chief Medical Officer of the Ministry of Health for 1953 shews that 19% of all outbreaks of food poisoning were connected with school meals and I am pleased to report that no case in the city was attributable to this source. There is, however, no room for complacency and additional staff is necessary before this important field can be adequately covered.

The number of establishments and particulars of the visits made are as follows :—

Local education authority schools with kitchens and canteens	13
Local education authority schools with canteens only	18
Special school with canteen facilities (Occupation centre and Buddle Lane Day Nursery).	2
Other schools having facilities for school dinners	14

Visits Made.

L.E.A. school kitchens	46
L.E.A. school canteens	79
Special Schools	2
Schools other than L.E.A.	19
TOTAL	146

3. *Factory Canteens.*

Factory canteens were fairly regularly inspected and conditions were, in the main, satisfactory.

Market.

36 inspections were made of the Higher Market, in Queen Street, where fruit, vegetables, etc., are sold. The water closet accommodation for stall-holders is considered adequate, but the washing facilities will have to be extended under the requirements of the new Food Hygiene Regulations. In view of the forthcoming work it was agreed to defer the repair of the floor.

4. *Food Premises, Generally.*

The following food premises are situated in the city :—

Butchers	77
Cooked Meats	10
Bakers and Confectioners (including Sweet shops)	73
Fried Fish	27
Fresh Fish	24
General Provisions	240
Greengrocers	77
Cafes	32
Snack Bars	12
Dairies	34
TOTAL	606

5. *Registered Food Premises.*

There are 328 registrations under Section 14 of the Food and Drugs Act, 1938, affecting 314 business establishments, made up as follows :—

Storage of bulk ice-cream	3
Manufacture, storage and sale of ice-cream	38
Storage and sale of pre-packed ice-cream	223
Preparation or manufacture of potted, pressed, pickled or preserved food (including fried fish shops)	41
Preparation or manufacture of sausages and potted, pressed, pickled or preserved food	20
Preparation or manufacture of sausages	43

6. *Improvements Effected.*

As I have mentioned earlier in this report, there is a serious decline in the frequency of the inspection of food premises generally and I consider that each place should be visited at least once a month.

All food premises were visited on an average of six times each during the year and improvements effected were as follows :—

Premises cleansed or redecorated	38
Hot water supply installed	2
Water closet facilities improved	3
Washing facilities provided	16
Equipment for fish-preparation room provided	1
New potato preparation room provided	1
" Wash Hands " notices posted	4
Other improvements	68

7. *Slaughtering of Animals and Meat Inspection.*

The number of animals slaughtered and inspected (at the public abattoir and private slaughterhouses) and the reasons for condemnation, are set out below in the revised form prescribed by Ministry of Health Circular 17/55. No separate figures are available for *cows* for the year under review, but this information will be included in future reports. No horses were killed or inspected.

Table X.

	Beasts incl. Cows	*Calves*	*Sheep and Lambs*	*Pigs*
Number slaughtered	7,633	1,042	16,717	14,168
Number inspected	7,633	1,042	16,735	14,169
Diseases except Tuberculosis and Cysticercosis.				
Whole carcases condemned	46	38	261	151
Carcases of which some part or organ was condemned	4,979	29	1,837	2,236
Percentage of No. inspected affected with disease other than tuberculosis and cysticercosis	65.8	6.4	12.5	16.8
Tuberculosis only.				
Whole carcases condemned	45	1	—	5
Carcases of which some part or organ was condemned	631	—	—	407
Percentage of No. inspected affected with tuberculosis	8.8	0.09	—	2.9
Cysticercosis only.				
Carcases of which some part or organ was condemned	7	—	—	—
Carcases submitted to treatment by refrigeration	—	—	—	—
Generalized and totally condemned	—	—	—	—

8. *Congenital Tuberculosis in Calves.*

During the year, only one calf was found to be affected with congenital tuberculosis, as compared with four in 1954; an incidence of 0.09 per cent. This shows a continued decrease over previous years and is highly satisfactory.

The animal health division of the Ministry of Agriculture, again co-operated in endeavouring to trace the dam, but a clinical examination of the herd gave negative results.

9. *Meat Transport.*

I am still not satisfied with the way in which meat is handled and transported by some of the transport contractors, but I am hopeful that the new Food Hygiene regulations will help me to effect an improvement.

10. *Condemnation of Food.*

During the year, approximately eight tons of food, apart from meat, was condemned, involving the issue of 1,672 certificates. All this food was buried at the council's tip in Clifton Hill. Among the food condemned were some two tons of decomposing bananas.

11. *Milk.*

(A) *Chemical and Bacterial Quality.*

The following tables indicate the chemical and bacterial quality of milk sold in the city during the year :—

(*i*) *Chemical Quality.*

Classification	*No. of Samples.*	*Fat %*	*Non-fatty solids %*
T.T. (Channel Islands) (Farm Bottled)	1	5.0	9.10
T.T. (Farm Bottled)	25	3.63	8.92
Channel Islands (Pasteurized)	1	4.35	9.05
Tuberculin Tested	6	3.61	9.07
Pasteurized	3	3.5	8.71
T.T. (Pasteurized)	1	3.8	8.9
T.T. (Channel Islands) (Pasteurized)	7	5.33	9.20

(*ii*) *Bacterial Quality.*

School Milks (Pasteurized)

Number of samples taken 16
Number of samples satisfactory 15

Designated Milks, other than School Milk.

(*a*) *Pasteurized Milk.*

Number of samples taken 12
Number of samples satisfactory *10

*(Results of 2 samples void owing to air-temperature being above 65°F.)

(*b*) *Tuberculin Tested (Farm Bottled) Milk.*

Number of samples taken 50
Number of samples satisfactory 47

(*c*) *Tuberculin Tested (Pasteurized) Milk.*

Number of samples taken 12
Number of samples satisfactory .... †11

†(Results of 1 sample void owing to air-temperature being above 65°F.)

(*d*) *Tuberculin Tested (Channel Islands) (Pasteurized) Milk.*

Number of samples taken	4
Number of samples satisfactory	4

(B) *Testing for Presence of Tubercle bacilli.*

All milks consumed in the city are tested quarterly for the presence of tubercle bacilli. During the year, 55 samples were tested of which fifty-four proved to be negative. The result of the remaining sample was inconclusive as the guinea pig died before the test was complete. A repeat sample of the milk from that source proved negative.

12. *Ice-Cream.*

(A) *Cleanliness.*

Sixty-four samples of ice-cream were taken during the year and gradings, according to the bacteriological standards suggested by the Ministry of Health, were as follows :

Grade I.	Satisfactory	50%	=	89%
Grade II	,, ...	39%		
Grade III	Unsatisfactory	8%	=	11%
Grade IV	,, ...	3%		

The following table indicates the grading, according to the method of manufacture of the ice-cream :

		Hot Mix. (*62 samples*)	*Cold Mix.* (*2 samples*)
Grade I	Satisfactory ..	50%	50%
Grade II	,, ..	39%	50%
Grade III	Unsatisfactory ..	8%	—
Grade IV	,, ..	3%	—

(B) *Composition.*

The Food Standards (Ice-Cream) Order, 1953, prescribed the following standard for ice-cream :

Fat	5%
Sugar	10%
Milk-solids-other-than-fat	7½%

The average composition of the ice-cream sampled in the city was :

Fat	10.8%
Sugar	14.8%
Milk-solids-other-than-fat	8.5%

(C) *Manufacture.*

There are now only seven premises in the city where ice-cream is manufactured ; six manufacturers use a hot mix and one a cold mix. The premises were each visited an average of 6 times each and conditions were generally satisfactory.

13. *Sampling.*

During the year 44 samples of milk and 152 samples of other foods were procured ; 88 were *formal* and 118 *informal.*

The following samples were found to be below standard and details of the action taken is shown in Appendix " A " :

Milk	5
Ice-cream	1
Lemon Juice Flavouring	1
Tinned Crab	1
Pork Sausages	2
Marzipan	2
Sago	1
Whipped Cream Lollie	1
	14

14. *Legal Proceedings.*

During the year prosecutions under the Food & Drugs Act 1938 and the Clean Food Byelaws were taken in the following cases :

(*a*) *Hotel*—prosecuted because of the dirty condition of the premises and utensils, failing to take steps to protect food from rodents and for having in their possession food which was intended for, but unfit for, human consumption. The defendants pleaded " Guilty " to all charges and through their solicitor put forward a plea in mitigation of the offences.

The Justices, however, were satisfied there had been lack of supervision of the kitchens and imposed fines totalling £26.

(*b*) *Grocer*—Firm prosecuted for selling ham which was contaminated with larvae from flies ; the defendant pleaded " Guilty " to the first charge and was fined £20 ; the second charge was found proved by the Magistrates and a fine of £10 was imposed. The third charge, under the Byelaws, was dismissed.

(*c*) *Snack Bar*—prosecuted for an infringement of the Food Standards (Ice-Cream) Order, 1953, in that ice-cream was sold which was 44% deficient in the required fat content. The defendant was found guilty of the offence and a fine of £10 was imposed.

15. *Merchandise Marks Act.*

243 visits were made during the year to ensure that the provisions of this Act were being observed. Apart from some verbal warnings, it was not found necessary to take any action.

16. *Labelling of Food Order.*

We continue to examine the labels of the various commodities on sale to the public, to ensure that they meet the requirements of this Order.

B.—Housing.

During the year, housing work of this section showed a marked increase over previous years. In part, this is accounted for by the re-introduction of slum clearance and in part by an increase in the number of dwellings represented as unfit for human habitation under Sections 11 and 12 of the Housing Act, 1936.

1. *Houses represented to the Public Health Committee under Sections* 11 *and* 12.

Sixty dwellings were represented to the Public Health Committee as being unfit for human habitation and they were dealt with in the following manner :

Undertakings accepted under S.11(3) of Housing Act, 1936	34
Closing Orders made	15
Demolition Orders made	2
Repaired to the satisfaction of the Council	1
Schedule of repairs accepted but not yet carried out	1
Outstanding (of these, six are under consideration for acquisition by the city council)	7
	60

2. *Informal Notices.*

Sixty-five houses were rendered fit during the year without the service of formal notices.

3. *Formal Notices.*

Ten houses were rendered fit during the year, following the service of formal notices. Six were remedied by the owners and four by the council in default of owners.

4. *Overcrowding.*

(A)	(i)	Number of dwellings known to be overcrowded at the end of the year	30
	(ii)	Number of families dwelling therein	41
	(iii)	Number of persons	190
(B)		Number of new cases reported during the year	27
(C)	(i)	Number of cases of overcrowding relieved during the year	36
	(ii)	Number of persons concerned in such cases	249
(D)		Particulars of any cases in which dwellinghouses again became overcrowded after the Council had taken steps to abate overcrowding	Nil.

C.—Noise Nuisances.

Nine complaints of noise nuisance were received, five of these were of a minor nature and were dealt with satisfactorily. Two complaints related to factories and in both cases the managements have co-operated in reducing the nuisance. Two complaints were of the noise from the generating plant at a large bakery and with the co-operation of the South-Western Electricity Board it was found possible to discontinue the use of this plant, except in very cold weather when some slight nuisance is bound to occur. Other complaints arose in connexion with the starting of lorries, which had been parked overnight on some of the vacant plots in the city. This type of complaint will, it is hoped, cease when adequate parking for long-distance vehicles, together with accommodation for the drivers, is provided, as planned, on the by-pass.

D.—Common Lodging Houses.

A total of fourteen visits were made to the two common lodging-houses in the city and conditions were found to be satisfactory. The fire-escapes required by the Committee have been provided.

E.—Cinematograph Licences.

In addition to the routine inspection of the theatre and cinema an annual inspection is made to ensure that all the conditions attached to the licensing, with which we are concerned, are being observed.

F.—Smoke Nuisances.

Twelve complaints of nuisance arising from smoke, grit, dust or fumes were received during the year. Nine of these were dealt with satisfactorily, the remaining three all related to the factory mentioned in my last report. During the year, the firm carried out certain alterations to the plant in an attempt to prevent the nuisance, but I regret to record that complaints from the neighbourhood are still received when the wind is in a certain quarter. Various authorities have been consulted with a view to finding a solution to this problem, but none of them is able to state with certainty what will effect a remedy.

G.—Movable Dwellings.

There is one large caravan site in the city. It is pleasantly laid out and provides amenities such as electricity, shower baths, modern sanitary conveniences and incinerators in the women's conveniences. I have tried to persuade the owner to install "Bendix"-type clothes washing machines, but so far, without success. There are at the moment, 26 caravans on the site and it is ultimately intended to equip the site for 58.

In addition, there are eleven caravans in different parts of the city. Some of these are used as temporary dwellings while other accommodation is being erected. Others are used as permanent living accommodation.

Forty-three inspections were made by the district inspectors during the year.

H.—Swimming Baths.

Owing to pressure of work it was not found possible to take samples of the water in the swimming baths.

I.—Fertilisers and Feeding Stuffs.

Five samples of fertilisers and thirteen of animal feeding stuffs were taken during the year.

The irregularities detected and the action taken were as follows :—

Feeding Stuff.

1. The percentage of albuminoids was 2.6 per cent. in defect of the amount stated.
2. The percentage of oil is 1.11 per cent. in defect of the amount stated.

(In both cases letters were sent to the manufacturers drawing attention to the irregularities).

J.—Rag Flock and Other Filling Materials.

The following samples were taken during the year :—

Feathers	2
Washed Flock	2
Millpuff	2
Washed Flock, layered	1
New Coir Fibre	1
Unused Cotton Felt	1
Cotton Felt	1
Woollen Mixture	1
Hair	1
Woollen Flock	1

One irregularity was detected and the following action was taken :—

Millpuff.

The oil content was 2.7% against the permitted maximum of 2%. A letter was sent to the manufacturer who replied stating that the excess oil content was probably due to an isolated bale of the raw material which contained a high oil content. In view of the small variation involved and the assurances given by the manufacturer, it was decided to take no further action in the matter.

K.—Rodent Control.

1. *Contracts.*

It has been customary to enter into contract with various business undertakings for the regular inspection and necessary treatment of their premises. The scheme, which is not profit making, has proved popular and is of mutual advantage in that it is comparatively cheap and provides us with the opportunity of preventing any " build-up " of rats.

275 complaints were received during the year, involving 299 properties and these were made up as follows :—

	Type of Premises.			Total
	Business	*Private*	*Local Authority*	
Rats	38	99	39	176
Mice	30	85	8	123
Totals ..	68	184	47	299

A further 26 rat infestations were discovered as a result of inspections and these were treated.

2. *Inspection and Treatment.*

Type of Premises.	*Inspections.*	*Treatments.*
Business	1,014	253
Private	1,950	437
Local Authority	669	148
Totals ..	3,633	838

3. *Sewer Treatment.*

The annual test-baiting and bi-annual treatment of sewers as required by the Ministry of Agriculture, Fisheries & Food, was carried out in April and October, with the following results :—

	Baited	*Infested*	*Treated*
Annual test-baiting	283	50	50
Bi-annual treatment—April	286	128	128
Bi-annual treatment—October	160	72	72

4. *Details of Operations.*

Details of operations in the form required by the Ministry of Agriculture and Fisheries are set out below.

	TYPE OF PROPERTY				
	NON-AGRICULTURAL				
	Local Authority	*Dwelling houses (incl. Council)*	*All others (incl. Business)*	*Total*	*Agricultural*
Number of properties in district	64	21,594	4,036	25,694	48
Number of *properties inspected* as a result of : (a) Notification	47	184	68	299	—
(b) Survey	3	84	150	237	24
Total inspections carried out (incl. re-inspections)	1,487	4,316	2,311	8,114	—
Number of *properties inspected* found to be infested by :					
(a) rats (major)	1	—	—	—	—
,, (minor)	38	99	38	176	7
(b) mice (minor only)	8	85	30	123	—
Number of *infested properties* treated	47	184	68	299	3
Total treatments carried out (incl. re-treatments)	145	420	258	823	12
Number of *block control schemes* carried out	—	—	3	3	—

General Sanitary Inspections, Etc.

Bakehouses.

Number in city	23
Number of underground bakehouses in city	1
Number of inspections made	153
Number of contraventions found	11
Number of contraventions remedied	11
Number of contraventions outstanding at end of the year	—

Bed Bugs, etc.

Number of inspections made	125
Number of Council houses disinfested by this department	25
Number of other houses :	
(i) found to be infested	38
(ii) disinfested by this department	38

Infested rooms are sprayed with a solution containing D.D.T. and verminous bedding is treated by steam at the disinfesting station.

Twenty-two nests of wasps and hornets were destroyed during the year.

Cinemas, etc.

Number of cinemas, etc., in city	4
Number of inspections (all satisfactory)	50

Closets.

Number of water closets repaired or reconstructed	10
Number of walls, etc., cleansed	4
Number of flushing apparatus provided, repaired or renewed	14
Number of new water closet pans or pedestals provided	8

Drains.

Drains constructed or reconstructed	24
Tests to new drains	41
Tests to existing drains	64
Repaired or cleansed	52
New inspection chambers	9
Additional gullies	5
Sink waste-pipes repaired or renewed	9
Soil and ventilating pipes repaired or renewed	2
Disconnecting Traps inserted	4
Inspection Chambers repaired	11
Drains ventilated	5
Cesspools abolished or emptied	2
Septic Tanks repaired	1

Offensive Trades.

Number of businesses in city	12
Number of inspections made	57
Number of contraventions found	—

Fried Fish Shops.

Number of fried fish shops in city	27
Number of inspections made	118
Number of contraventions found	6
Number of contraventions remedied	6

Infectious Diseases, etc., Disinfections.

†Number of visits re food poisoning, etc.	90
Number of rooms disinfected	92

†Routine investigations of infectious diseases are made by the health visitors.

Sanitary Defects Remedied.

(A) *Dampness.*

Damp Proof Courses inserted	2
Number of roofs renewed or repaired	95
Number of rainwater gutters and pipes repaired	18
Yard Surfaces repaired or relaid	12
Yard drainage improved	2
Walls repaired—external	43

(B) *Interior Work.*

Number of rooms cleansed and limewashed	9
Number of walls repaired	115
Number of floors repaired	41
Number of chimney stacks repaired or rebuilt	18
Number of firegrates repaired or renewed	26
Number of washboilers repaired or renewed	1
Number of ceilings repaired	53
Dampness remedied	21
Lighting improved	2
Offensive accumulations removed	9
Ventilation improved	3
Staircases repaired or hand-rail provided	9

Table XI.

FACTORIES ACT, 1937

Factories (including Bakehouses), (Factories Act, 1937, *ss.* 1-7).

(A) INSPECTIONS for purposes of provisions as to health :

Premises.	Number on Register	Number of Inspections	Number of written notices	Occupiers prosecuted
1. Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authority	47	69	14	—
2. Factories not included in 1 (above) in which Section 7 is enforced by Local Authority	393	488	40	—
3. Other premises in which Section 7 is enforced by Local Authority (exclud'g Out-workers' premises)	64	113	6	—
Totals	504	670	60	—

(B) Cases in which DEFECTS were found :

Particulars.	No. of cases in which defects were found.				No. of cases in which prosecutions were instituted.
	Found.	Remedied.	Referred		
			To H.M. Inspector.	By H.M. Inspector	
Want of cleanliness (S. 1)	7	3	—	2	—
Overcrowding (S. 2)	—	—	—	—	—
Unreasonable temperature (S. 3)	1	—	—	—	—
Inadequate ventilation (S. 4)	—	—	—	—	—
Ineffective drainage (S. 6)	—	—	—	—	—
Sanitary Conveniences (S. 7) :—					
(*a*) Insufficient	3	1	—	—	—
(*b*) Unsuitable or defective	34	25	—	10	—
(*c*) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to outwork)	12	7	5	—	—
Totals	57	36	5	12	—

(C) List of OUTWORKERS :

NATURE OF WORK.	Number of Outworkers.
Wearing Apparel (Making, etc.)	33
Curtains and Furniture Hangings	15
Furniture and Upholstery	6
Jewellery Repairs	1
Church Embroidery	8
The making of Cardboard Boxes	12
Net mending	1
TOTAL	76

APPENDIX "A"

Food and Drugs samples reported below standard.

No. of Sample.	Article.	Adulteration	Action Taken.
192	Ice-Cream (formal)	44% deficient in fat	Vendor was prosecuted and a fine of £10-0-0 was imposed.
196	Milk (informal)	3% deficient in fat	Followed up with formal sample which proved genuine.
203	Milk (informal)	4% deficient in fat	Followed up with formal sample No. 208.
204	Milk (informal)	5% deficient in fat	Followed up with formal sample which proved genuine.
208	Milk (formal)	2% deficient in fat	Appeal to herd sample indicated that milk was sold as it came from the herd.
219	Milk (formal) .... (Appeal to herd following sample 208).	5% deficient in fat	Seven other samples taken at the same time proved to be genuine. Producer advised to mix milk more thoroughly.
253	Sago	Contaminated with a blue colouring matter	Notified producers in London who communicated with their suppliers in Sarawak. The suppliers were unable to offer any satisfactory explanation as they stated no chemical whatever is used in the preparation of their sago. They suggested the presence of Fluorides in the local water supply, but there are none. It is possible that the colouring came from the wrapping and this commodity will be sampled again.
265	"Whipped Cream Lollie"	Contained 12% fat, but not more than 2.5% butter fat	Communicated with manufacturer who agreed to alter the label.

APPENDIX "A"—*Continued.*

Food and Drugs samples reported below standard.

No. of Sample.	Article.	Adulteration.	Action Taken.
284	Pork Sausages	17% deficient in meat	In view of decision of Lord Chief Justice, no proceedings instituted. Warning letter sent to producer.
352	Lemon Juice Flavouring	Incorrectly labelled	Shopkeeper interviewed and it was found that sample was manufactured prior to the Labelling of Food Order. Remainder of stock was destroyed.
360	Tinned crab	Incorrectly labelled	Warning letter sent to producer.
371	Marzipan	Contained not more than 15% of ground almonds	Followed up with formal sample which proved genuine.
373	Marzipan	Contained not more than 12% of ground almonds	Further sample, required for formal action, unobtainable. Warning letter sent to producer.
377	Pork Sausages	6% deficient in meat	No action taken in view of small deficiency and absence of standard for the meat content of sausages.

HOUSING.

Details re closures, house inspections, etc., are set out on page 45.

The City Architect (Mr. H. B. Rowe) has kindly sent me the following information regarding new housing :

1. No. of dwellings built and rebuilt during 1955 380
2. No. of dwellings built and rebuilt since last war 3,735

	Built by Council.			Private Enterprise.		Total.
	Dwellings	Bungalows	Rebuilds	New Permanent Dwellings	Rebuilds	
1945 to Dec. 31st, 1954	2,245	430	21	450	209	3,355
Jan. 1st to Dec. 31st, 1955	269	—	—	111	—	380
Totals	2,514	430	21	561	209	3,735

The Housing Manager (Mr. T. H. Baker) has kindly sent me the following particulars which are of great interest and significance :—

Analysis of Points — January, 1956.

The number of applicants on the current register whose housing need is NIL or very slight is 573 or 35%. The reason for suggesting this is that :—

Of this number	152 have no points.	
,, ,, ,,	136 have 1 point.	The majority are in the one bedroom group ;
,, ,, ,,	144 have 2 points.	The majority are in the two bedroom group ;
,, ,, ,,	27 have 3 points.	The majority are in the two bedroom group ;
,, ,, ,,	92 have 4 points.	This figure is equally divided between the two and three bedroom groups ;
,, ,, ,,	22 have 5 points.	Approximately half this number are in the three bedroom group.

Among other awards, an Expectant mother gets 1 point, families sharing the toilet get 1 point, each child gets 2 points.

As to type of accommodation required, the following percentages are interesting :—

	1 bedroom.	2 bedroom.	3 bedroom.	4 & 5 bedrooms.
Current Register	33%	46%	18%	3%
1955 Applications	49%	35%	12%	4%

Analysis of Applicants Register — January, 1956.

Points	Type of Accommodation Required. 1B.	2B.	3B.	4B.	5B.	Totals
"Queries"	4	5	2	2	1	14
H.M. Forces	1	6	4	—	—	11
Nil	122	26	3	—	1	152
1	128	8	—	—	—	136
2	15	120	7	2	—	144
3	2	23	2	—	—	27
4	—	45	42	5	—	92
5	4	7	11	—	—	22
6	100	11	23	—	—	134
7	13	43	4	—	—	60
8	7	79	4	8	—	98
9	113	24	27	5	2	171
10	8	25	4	1	—	38
11	10	23	25	—	—	58
12	6	4	5	2	—	17
13	9	87	21	2	1	120
14	3	7	2	1	—	13
15	—	12	19	4	—	35
16	1	118	6	2	—	127
17	—	10	7	—	—	17
18	—	30	30	1	—	61
19	—	7	—	—	—	7
20	—	8	14	4	—	26
21	—	9	4	—	—	13
22	1	4	8	1	—	14
23	—	4	6	—	1	11
24	—	1	1	—	1	3
25	—	—	11	—	—	11
26	—	1	2	—	—	3
27	—	—	—	1	—	1
28	—	2	—	—	—	2
29	—	1	1	—	—	2
30	—	—	—	—	—	—
31	—	—	—	—	—	—
32	—	—	—	—	—	—
33	—	—	3	—	—	3
34	—	—	—	—	—	—
35	—	—	—	—	—	—
36	—	—	1	—	—	1
37	—	—	—	—	—	—
38	—	—	—	—	—	—
39	—	—	—	—	—	—
40	—	—	—	—	—	—
41	—	1	—	—	—	1
	547	751	299	41	7	1,645
1955 Applications	400	285	98	26	3	812
Totals	947	1,036	397	67	10	2,457

This analysis is based on the provision of the minimum number of bedrooms to satisfy the applicants' present needs.

RE-HOUSING — REFERENCE BY M.O.H.

During the year, the Housing Committee approved a points scheme for grading applicants in relation to house allocation, and asked me to advise on individual cases, where a medical social reason, including disability, disease, tuberculosis (as a specially favoured category) or insanitary conditions in the house, justified special consideration.

Quite apart from the families in houses or basements closed or demolished as individually unfit houses or basement rooms under the Housing Acts (of whom 57 were referred to the Housing Committee by the Health Committee), 129 families were referred to the Housing Department as needing rehousing in 1955 and dealt with as follows :—

REASON REFERRED	*Total*	*Re-housed*	*Approved for re-housing*	*Not approved or deferred*	*Application lapsed*
Statutory Overcrowding	4	1	3	—	—
Social Overcrowding Conditions	38	10	21	3	4
Other Medical Social Reasons	7	1	4	2	—
Tuberculosis	58	20	27	7	4
Other Medical Reasons	22	3	15	4	—
TOTALS	129	35	70	16	8

6 cases were brought forward from 1954. 4 were in regard to tuberculous families, 2 being rehoused and 2 approved for re-housing ; 1 overcrowded family was rehoused and 1 approved for rehousing.

I have for long considered that the major objective of housing must be " one family—one house " (using the word " house " to include " flat ") so as to eliminate the fearful troubles caused by " sharing." Young married couples should be encouraged to have a house of their own—both to avoid domination by in-laws, and to encourage their own personal responsibility. It is far better to start married life in an imperfect house than to start with relations, however well-intentioned they may be. And it must be remembered we cannot expect young people to put off marriage indefinitely. A great many young couples marry from (and into) their own parents' houses so that they have young families herded together in conditions which cause a steady worsening of social relationships with mental stress as the price.

LABORATORY WORK.

The Public Health Laboratory Service (Director, Dr. B. Moore) undertakes the bacteriological examination of specimens

of public health importance, and during the year 863 (including 220 for dysentery and 144 for Salmonella) were examined for us. Dr. Moore told me that influenza B was proved serologically to be in the City during December, 1954, and January and February, 1955. 1 case of influenza A was confirmed in the spring of 1955.

Dr. Stewart Smith, Area Pathologist, Royal Devon and Exeter Hospital, as in previous years, examined blood samples of expectant mothers for Rhesus incompatibility and for the Wasserman and Kahn reactions (tests for constitutional disease). It is not possible without disproportionate effort to find out what proportion of expectant mothers was so examined.

I am grateful to Dr. Moore and Dr. Stewart Smith for their unfailing helpfulness.

INFECTIOUS DISEASE.

Food Poisoning.

1. *Local Authority* : Exeter County Borough. *Year* : 1955.

2. *Food Poisoning Notifications (corrected) returned to Registrar General.*

First Quarter.	*Second Quarter.*	*Third Quarter.*	*Fourth Quarter.*	*Total.*
1	1	5	6	13

3. *Outbreaks due to identified agents* .... Nil.

Outbreaks due to :—

(a)	Chemical Poisons	}	
(b)	Salmonella Organisms		
(c)	Staphylococci (including toxin)		Nil.
(d)	Cl. Botulinum		
(e)	Other bacteria	}	

4. *Outbreaks of undiscovered cause.*

Total outbreaks, 1 ; Total cases, 4.

5. *Single Cases.*

Agent identified.	*Unknown cause.*	*Total*
5	4	9

There was only one outbreak of food poisoning during the year, the rest being single cases. This outbreak was a small one, involving four members of one household the symptoms being vomiting, diarrhoea and dizziness. No organisms were found in the stools of any of those affected. Several specimens of suspected foodstuffs (including sausage, liver and lard) were examined, but with negative results.

Among the 9 single cases, a food poisoning organism was isolated in five instances, 3 being due to Salmonella Typhi-Murium, 1 to Salmonella Enteritidis and 1 to Staphylococcus Aureus.

Only in the Staphylococcal case was it possible to link the poisoning conclusively with a definite foodstuff. There staphylococci of the same phage type (42E) as found in the stools were isolated from a piece of pork eaten the day the illness started. The case was clinically one due to Staphylococcus enterotoxin (poison) and so this Staphylococcus was almost certainly the causal organism. The patient was found to have a cut on his hand sustained a few days previously while clearing a drain. Staphylocci were isolated from the wound, but unfortunately, the swab sent for phage typing proved negative so it was not possible satisfactorily to demonstrate conclusively all the links in the chain.

Delay in notification of food poisoning makes it impossible in most cases to identify the organism responsible and any foodstuff that might be suspected has usually been thrown away by the time investigation is started. Early notification of suspected cases would help the department greatly in the investigation of food poisoning.

Epidemic Vomiting.

This is an infectious disease believed to be due to a virus infection, characterised by vomiting, sometimes associated with diarrhoea and other symptoms. Three outbreaks in schools and 3 family outbreaks were recognised in the city in 1955. Dr. McLauchlan has written a detailed account of these in the Appendix (page 125).

Scarlet Fever.

There were 56 confirmed cases during the year, more or less evenly distributed throughout the twelve months. The illness was in all cases mild, and all but 19 were nursed at home.

There were 4 small outbreaks in schools :

(1) In June, in the Nursery Section of the Royal Deaf School (a mixed residential and day school), there were 3 cases among 21 children. The cases were moved to the Isolation Hospital. Throat swabs were taken of the staff and the other children and two children were found to have an abundant growth of haemolytic streptococci (Lancefield Group A). They were isolated in the school sick room and treated with chemotherapy. Negative swabs were thereafter got from both : no more cases occurred.

(2) In July there were 3 cases in Stoke Hill Infants School.

(3) In December, 4 children out of 22 all sleeping in one dormitory developed scarlet fever in the Royal Deaf School during six days. As it was near the end of term, after discussion with the Headmaster it was decided to close the school a week early, due precautions being taken about the return of children to their own homes.

(4) Also during December, there were 3 cases in Whipton Infants School.

During the year, two milk workers, fathers of children with scarlet fever, were excluded from work for one week under the Milk and Dairies Regulations (1949).

Diphtheria.

2 cases of diphtheria were notified during the year, but both proved to be cases of streptococcal tonsillitis. There has not been a confirmed case of diphtheria in Exeter since 1948.

Poliomyelitis.

There were 21 confirmed cases of acute anterior poliomyelitis notified during the year. 4 of them were normally resident outside the City, but were diagnosed in an Exeter hospital and so were notified to this department.

Of the 17 cases actually occurring in the City, 5 were paralytic and the rest non-paralytic. Non-paralytic poliomyelitis varies in its severity and may present itself as quite a severe illness with definite meningeal symptoms or merely as a mild illness rather like a cold with minimal meningeal signs. Without examination of cerebro-spinal fluid diagnosis is difficult in these mild forms and it is probable that there were more cases of this type in the City than were actually notified. The first was notified on 14th July, and the last on 20th November. The distribution was as follows :—

Quarter of Year	Non-paralytic.		Paralytic.	
	Male.	Female.	Male.	Female.
July to September	8	2	—	1
October to December	1	1	2	2

There was one death. It was in a girl of 16 who developed the bulbar type of the disease. She was admitted to Ham Green Hospital at Bristol which has the special equipment and trained staff required for the treatment of this type, but unfortunately, died suddenly on the morning after admission.

Although it is not common to get a recognisable second case in the same family, this occurred twice in Exeter this year. In a two-child family both children developed non-paralytic poliomyelitis, confirmed in hospital, the second child developing the disease 10 days after the first. In another two-child family on 4th August a little girl, 2 years old, developed paralytic poliomyelitis and was removed to the Isolation Hospital. On 19th September, after too long an interval to have been due to direct

contact with his sister, a brother, 6 years old, developed non-paralytic poliomyelitis confirmed in hospital.

One of the paralytic cases was a mild one and was discharged from the Isolation Hospital with full recovery of movement. Three were transferred from the Isolation Hospital to The Princess Elizabeth Orthopaedic Hospital where they are still undergoing treatment. The fifth paralytic case was overlooked and was only diagnosed at a later stage because of wasting of one leg.

In June, 1956, another boy was diagnosed in the later stage of the disease. He was found to have wasting of the left leg and to have a marked limp brought on by running. This limp started following a feverish illness in November, 1955, when he had severe back pain and pain in the legs. This illness was almost certainly acute poliomyelitis.

It is interesting that except for the first case which occurred in the St. Thomas area, all the cases were from homes in the north-eastern part of the City.

Whooping Cough.

There were 144 cases notified during the year, 100 of these occurring during the first quarter. There were 31 cases in the second quarter, 9 in the third and only 4 cases in the last quarter. It is hoped that this small number of cases occurring during the second six months of the year is an indication that immunisation is helping to eliminate the disease. It is, however, too early yet to put too hopeful an interpretation on these figures. The immunisation state of the cases occurring this year was :—

Immunised against whooping cough :	25	cases.
Not immunised against whooping cough :	117	,,
Immunisation state not known :	2	,,

It is not possible to say whether the disease varied in severity as between immunised and non-immunised children. The disease was on the whole mild and complications were few. There were no deaths directly attributable to whooping cough though one infant of eight months with congenital fibro-cystic disease of the pancreas, developed broncho-pneumonia while she had whooping cough and died several weeks later. She had not been immunised against whooping cough.

Pneumonia.

There were 66 cases of primary pneumonia notified during the year, 42 being in people over 50 years old. The oldest was in a

woman of 96 who made a satisfactory recovery. There were 9 deaths, all in adults.

	Over 90	80	70	60	50	40	30	20	10	Under 10
Cases	1	5	14	10	12	7	6	2	3	6
Deaths	—	1	3	2	1	2	—	—	—	—

Erysipelas.

There were 12 cases of erysipelas notified during the year, one being from a country area. As is usual with this disease, it mostly affected older people (10 of the cases were over 50 years of age). With modern methods of treatment this is not the serious condition it once was to old people and there were no deaths from it.

Measles.

Measles affected Exeter again this year and 1,931 cases were notified. Notification of measles during the last few years has shewn that as is general the disease continues to reach epidemic proportions in Exeter in alternate years.

Year :	1949	1950	1951	1952	1953	1954	1955
No. of Cases	1,318	48	2,153	31	1,943	192	1,931

The epidemic this year was an unusually prolonged one and shewed a biphasic distribution of cases. The number of notifications during the last week in May ran to 16 cases and thereafter there was an increase in the number of notifications each week until a peak of 94 cases was reached in the week ending 16th July. The number of notifications then began to fall until only 6 cases were notified during the week ending 3rd September. The number of notifications then began to rise again reaching a peak of 215 cases during the week ending 10th December, the numbers falling each week from then on.

The form of the disease was not severe, complications were few, and no deaths resulted. With modern methods of treatment the complications of measles are not so common or so serious as they once were.

Ages affected. The youngest affected were 7 weeks and 10 weeks old though during the whole epidemic only 7 cases under 6 months of age were notified and 41 between 6 months and a year. The largest number of cases were among the five and six year olds.

	Under 6 months.	6-11 months.	1+	2+	3+	4+	5+	6+
Number of cases	7	41	159	224	206	231	328	354
			7+	8+	9+	10+	11-15	15+
Number of cases			232	46	23	7	10	12

To assess the susceptibility of children under a year to measles a survey was made of all children under a year old in houses where there was one and more other children with measles to see whether they became infected or not. These showed that the chances of a child under 6 months getting measles were about 1 in 6, whereas between 6 months and a year there was an even chance of his picking up the infection.

	Did not get measles.	Got measles.
Under 6 months	35	7
6 month to 11 months	25	27

From the study of second and subsequent cases of measles occurring in families, it was possible to work out incubation periods. These were measured from the appearance of the rash in each case, this being a more definite sign than the first appearance of malaise (" off colour."). The shortest incubation periods noted were 4 days (in 2 cases) and the longest 18 days (in 2 cases). The largest number of cases were those with an 11 day incubation period, the majority falling in the range 9 to 12 days.

No. of days :	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
No. of cases :	2	8	4	13	17	48	65	88	43	27	25	10	7	3	2

During a small occurrence of measles in the Children's Wards in the Princess Elizabeth Orthopaedic Hospital, it was considered desirable to immunise passively by gamma globulin 3 children in the ward who were believed not to have had measles and were somewhat immobilised. In all 10 children got measles. 2 of the three treated with 6cc. gamma globulin on 4th January (last removed cases having been on 1st and 3rd January) developed measles, the rash appearing on 20/1/56, i.e. 17 days from exposure. Both were mild cases.

Dysentery.

There were 29 cases of dysentery during the year. Except for a small outbreak in The Princess Elizabeth Orthopaedic Hospital, the cases were single ones or at least an outbreak confined to one house with two or three members of the family affected. 26 cases were due to Shigella Sonne and one to Shigella Flexneri. In 2 cases no faecal specimen was obtained until after treatment had been given and although clinically dysentery, no organism was isolated. The single case due to Shigella Flexneri is particularly interesting. It was found in the stools of a 9 month old baby whose six year old sister had dysentery due to Shigella Sonne. The baby had no symptoms and the stool was examined routinely as of a dysentery contact. Shigella Flexneri was found in two specimens and thereafter no organisms were found. Re-

peated examinations of the mother's and father's stools all shewed no pathogens present.

In The Princess Elizabeth Orthopaedic Hospital there were 5 cases of Sonne dysentery in the children's wards. It was found that one of the children affected had been admitted from a home outside the City in which there had been recent cases of diarrhoea and it is possible that he was a carrier on admission. Three children and one nurse were transferred to the Isolation Hospital between 28th August and 3rd September. Thereafter there were no cases until 30th September when another child developed diarrhoea and Shigella Sonne was isolated from his stools. There appeared to be no connection between this and the earlier cases. Faecal specimens were examined from all children in the affected wards and from nursing, medical and domestic staff to see if any carrier existed, but none was found. This was repeated on the occurrence of the fourth case again with negative results; no further cases occurred.

Typhoid Fever.

There were 2 cases of typhoid in the City during the year. Both cases were normally resident in the County areas. The first was in a woman of 63 who developed symptoms two days after her arrival in Exeter to stay with friends. It is certain that the infection was picked up before coming to Exeter, but in spite of thorough investigation no source could be traced. The second case was in a woman of 43. She was admitted to the Royal Devon and Exeter Hospital from outside the City and the diagnosis of typhoid was made there. The symptoms were of several weeks' duration and had started while she was on holiday in Spain. The phage type of the responsible Salmonella Typhi was, Dr. Moore tells me, one common in Spain, but not in this country, and it is assumed that the infection was picked up there.

Both cases were admitted to the Isolation Hospital where they made a complete recovery and were both discharged free from infection.

Paratyphoid Fever.

3 cases of paratyphoid fever were notified in the City during the year and 2 persons were found to be symptomless excretors of the organism.

The first case, in a young married woman, started on 16th September. A routine check was made on the other members of the household and her mother was found to be a symptomless excretor of Salmonella paratyphi B. and her 12 year old nephew to be a mild case.

On 23rd September, a boy of eight with acute diarrhoea was found to be suffering from paratyphoid. No cases or excretors were found in his house.

On 1st November, 1955, during the routine check of a house where there was a suspected case of food poisoning, a married woman, the sister of the suspected case, was found to be a symptomless excretor of Salmonella paratyphi. B. The sister and the rest of the household had negative stools.

All were removed to Whipton Isolation Hospital for treatment and all are now clear of infection.

The organism in all these Exeter cases was found to be Salmonella Paratyphi, phage type 3a variant 2. This phage type is one not commonly found in this country.

During August and September, 1954, 51 strains of this organism had been identified at the Central Enteric Reference Laboratory and as it had only been identified once in the previous three years an intensive epidemiological investigation was made in 1954. Strong circumstantial evidence was found to suggest that the organism had been brought into the country in chinese frozen egg which is used by bakers. Unfortunately, the organism was not isolated from any of the samples of egg taken though other Salmonellae were found. The infection had, we think, presumably been passed in the medium of artificial cream used in cream cakes, cream buns, etc. During August of 1955, in an outbreak of paratyphoid in Weymouth and Worthing, chinese egg again came under suspicion. Salmonella paratyphi of the same phage type responsible for the cases was found in samples of the egg taken. This was phage type 3a and not the same as was found in Exeter. However, suspicion was again thrown on chinese egg and so the possibility of its association with the Exeter cases was investigated.

All the persons affected except for one member of the first family mentioned were found to have eaten cakes or buns (with artificial cream filling) frequently and it was found that during the period when they picked up the infection, the bakeries supplying these cream cakes and buns were using chinese egg. The chinese egg is used in making sponges and other cake and buns, in which the heat applied during baking will effectively kill any organism present. It is not used in the making of artificial cream, but the same bowls and mixers used to mix the cakes are often used also to mix the cream and unless cleaning and sterilisation of the equipment has been more than ordinarily careful and effective any organism present can be passed to the cream. The three bakehouses concerned had stopped using chinese egg by the time the cases were diagnosed and no samples could be examined. The members of all the bakehouse staffs were examined and none were found to be excreting the organism. There was no connection between the cases except this, but though suspicion rested on the chinese egg, it was not possible to prove it. Investigation failed to reveal any other possible source of the infection.

Since the time when this outbreak occurred action has been taken by the Ministry of Health for the control of the importation of chinese egg.

Ophthalmia Neonatorum, 1955.

1 case only occurred, in a baby born in hospital ; the onset was on the 6th day of life and recovery was complete. Swabs taken from the eye were sterile.

TABLE XII.

Puerperal Pyrexia, 1955.

Cases Notified	Cause	Investigations re pathology by laboratory	Confinement :	
			Home	Hospital
11	Uterine of Pelvic	10	1	10
12	Breasts (engorgement or mastitis)	3	5	7
7	Respiratory	4	3	4
12	Urinary	12	7	5
6	Other causes	4	1	5
7	Unknown	4	2	5
55		37	19	36

Of the 55 cases of Puerperal Pyrexia notified during the year, 13 had one single rise above normal to or above 100.4° ; 2 other cases of pyrexia in the puerperium never at any time reached a notifiable degree, as far as the 1951 regulations are concerned, but both these cases had proven urinary infection. In the first case the temperature fluctuated from 99°—100.2° for 6 days ; in the second the temperature reached 99°—99.8° for 5 days and B.coli were found on culture both of the urine and of a high vaginal swab. 54 cases occurred after confinements and 1 after a miscarriage at the 20th week of pregnancy.

The number of pathological investigations made—37 out of 55—is a great increase and helps towards more accurate diagnosis especially if investigations are made before the administration of antibiotics or chemo-therapy. The 6 " other " causes were, jaundice, infection of an episiotomy wound, phlebitis (2), enteritis and a septic mouth.

3 of the mothers were regarded as really ill : one had breast abscess, one a B. coli uterine infection and the third a urinary infection. As it is to be expected puerperal pyrexia was rather more common in hospital than at home. No midwives were suspended because of pyrexia in the mothers.

Table XIII.

NOTIFIABLE DISEASES NOTIFIED DURING THE YEAR 1955 AFTER CORRECTION FOR CHANGE OF DIAGNOSIS.

DISEASE	AGES OF CASES NOTIFIED													Cases admitted to Isolation Hospital
	Under 1	1—	2—	3—	4—	5-9	10-14	15-19	20-34	35-44	45-64	65 and over	Total	
Scarlet Fever	—	—	2	7	2	35	6	1	2	—	1	—	56	20
Erysipelas	—	—	—	—	—	1	—	—	—	2	7	2	12	2
Whooping Cough	13	19	12	23	22	50	3	—	2	—	—	—	144	6
Measles	55	152	232	217	245	996	20	4	9	—	1	—	1,931	38
Meningococcal Infection	—	—	1	—	1	—	—	1	1	—	—	—	4	—
Poliomyelitis—Paralytic	—	1	1	1	—	2	1	1 (1)	—	—	—	—	7 (1)	4
Poliomyelitis—Non-Paralytic	—	—	1	—	—	3	8	1	1	—	—	—	14	11
Influenzal-Pneumonia	—	—	—	—	—	1	—	1	2	1	8 (2)	11 (4)	24 (6)	2
Pneumonia	1	1	—	—	—	3	—	2	6	1	14 (1)	14 (2)	42 (3)*	4
Puerperal Pyrexia	—	—	—	—	—	—	—	4	48	3	—	—	55	2
Ophthalmia Neonatorum	1	—	—	—	—	—	—	—	—	—	—	—	1	—
Dysentery	3	1	2	1	2	10	1	3	3	2	1	—	29	4
Food Poisoning	—	—	—	—	2	—	2	2	2	3	1	1	13	1
Para. Typhoid, B.	—	—	—	—	—	1	—	—	1	1	—	—	3	3
Typhoid Fever	—	—	—	—	—	—	—	—	1	1	—	—	2	2

(Figures in brackets represent deaths in notified cases).

*There were also 28 deaths where pneumonia was a contributory factor.

Table XIV.

EXETER CASES OF INFECTIOUS DISEASE NOTIFIED DURING 1955.

After Correction both for Residence and for Revised Diagnosis.

Disease.	Ages of Cases Notified													Cases admitted to Isolation Hospital
	Under 1	1—	2—	3—	4—	5-9	10-14	15-19	20-34	35-44	45-64	65 and over	Total	
Scarlet Fever	—	—	2	7	2	35	6	1	2	—	1	—	56	20
Erysipelas	—	—	—	—	—	1	—	—	—	2	6	2	11	2
Whooping Cough	13	19	12	23	22	50	3	—	2	—	—	—	144	6
Measles	55	152	232	217	245	992	20	4	9	—	—	—	1,926	38
Meningococcal Infection	—	—	1	—	—	—	—	—	1	—	—	—	2	—
Poliomyelitis—Paralytic	—	1	1	1	—	1	—	1 (1)	—	—	—	—	5 (1)	3
Poliomyelitis—Non-Paralytic	—	—	—	—	—	2	8	1	1	—	—	—	12	9
Influenzal-Pneumonia	—	—	—	—	—	1	—	1	2	1	8 (2)	11 (4)	24 (6)	2
Pneumonia	1	1	—	—	—	3	—	2	6	1	14 (1)	14 (2)	42 (3)	4
Puerperal Pyrexia	—	—	—	—	—	—	—	4	35	2	—	—	41	2
Ophthalmia Neonatorum	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	3	1	2	1	2	10	1	3	3	2	1	—	29	4
Food Poisoning	—	—	—	—	1	—	2	2	2	3	1	1	12	—
Para. Typhoid, B.	—	—	—	—	—	1	—	—	1	1	—	—	3	3
Typhoid Fever	—	—	—	—	—	—	—	—	—	—	1	—	1	1

(Figures in brackets represent deaths in notified cases).

Table XV.

MONTHLY INCIDENCE OF NOTIFIED CASES OF INFECTIOUS DISEASE DURING 1955
AFTER CORRECTION FOR CHANGES OF DIAGNOSIS.

Disease.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Scarlet Fever	3	1	5	5	—	9	5	4	5	3	3	13	56
Erysipelas	1	2	—	3	2	1	—	—	—	1	1	2	12
Whooping Cough	51	26	23	14	16	1	4	1	4	2	1	1	144
Measles	19	—	1	5	23	105	286	144	61	169	319	799	1,931
Meningococcal Infection	—	1	—	2	—	—	—	—	—	—	1	—	4
Poliomyelitis (Paralytic)	—	—	—	—	—	—	—	1	—	3	1	2	7
Poliomyelitis (Non-Paralytic)	—	—	—	—	—	—	3	3	6	1	1	—	14
Influenzal-Pneumonia	14	—	5	—	—	1	—	1	—	1	—	2	24
Pneumonia	8	5	2	6	2	2	1	3	1	2	2	8	42
Puerperal Pyrexia	6	3	7	6	7	6	4	2	4	3	6	1	55
Ophthalmia Neonatorum	—	—	—	—	—	—	—	—	—	—	1	—	1
Dysentery	3	—	—	3	—	—	4	2	6	3	2	6	29
Food Poisoning	—	—	1	—	—	1	2	2	1	4	2	—	13
Paratyphoid 'B'	—	—	—	—	—	—	—	—	1	1	1	—	3
Typhoid Fever	—	—	—	—	—	—	2	—	—	—	—	—	2

Table XVI.

MONTHLY INCIDENCE OF EXETER CASES OF INFECTIOUS DISEASE NOTIFIED DURING 1955 AFTER CORRECTION FOR CHANGES OF DIAGNOSIS.

Disease.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Scarlet Fever	3	1	5	5	—	9	5	4	5	3	3	13	56
Erysipelas	1	2	—	2	2	—	—	—	—	1	1	2	11
Whooping Cough	51	26	23	14	16	1	4	1	4	2	1	1	144
Measles	19	—	1	5	22	105	284	144	60	169	319	798	1,926
Meningococcal Infection	—	—	—	2	—	—	—	—	—	—	—	—	2
Poliomyelitis (Paralytic)	—	—	—	—	—	—	—	1	—	2	1	1	5
Poliomyelitis (Non-Paralytic)	—	—	—	—	—	—	2	2	6	1	1	—	12
Influenzal Pneumonia	14	—	5	—	—	1	—	1	—	1	—	2	24
Pneumonia	8	5	2	6	2	2	1	3	1	2	2	8	42
Puerperal Pyrexia	4	2	5	4	3	4	4	2	3	3	6	1	41
Ophthalmia Neonatorum	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery	3	—	—	3	—	—	4	2	6	3	2	6	29
Food Poisoning	—	—	1	—	—	1	1	2	1	4	2	—	12
Paratyphoid 'B'	—	—	—	—	—	—	—	—	1	1	1	—	3
Typhoid Fever	—	—	—	—	—	—	1	—	—	—	—	—	1

THE BLIND.

Follow-up of Registered Blind and Partially Sighted Persons — 1955.

	Cause of Disability							
	Cataract		Glaucoma		Retrolental Fibroplasia		Others	
	Blind	Partially Sighted	Blind	Partially Sighted	Blind	Partially Sighted	Blind	Partially Sighted
(i) Number of cases registered during the year in respect of which Sec. F, para. 1 of Form B.D.8 (Revised) recommends : (a) No treatment.	(2)	—	—	—	—	—	(15)	(2)
(b) Treatment : (Medical, surgical or optical).	(3)	(2)	(1)	—	—	—	(4)	(4)
(ii) Number of cases at (i) (b) above which on follow-up action have received Treatment.	(3)	(1)	(1)	—	—	—	(3)	(3)

Ophthalmia Neonatorum. (See page 66).

SPASTICS.

There are 39 cases of cerebral palsy known to the department (at the end of 1955) including 7 under school age, 16 of school age and 16 over 15 years of age ; there are rather more males (especially among the adults) than females (23 to 16). The table below sets out the present position of the patients in relation to occupation, education, etc.

TABLE OF SPASTICS.
(According to type and handicap)

Type	Total		*Spastic*		*Athetoid*		Handicap					
							(A). Severe		*(B). Mod.*		*(C). Mild*	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Hemiplegia	13	6	13	6	—	—	1	1	4	3	8	2
Monoplegia	1	—	1	—	—	—	—	—	—	—	1	—
Diplegia	4	2	3	2	1	—	—	—	2	2	1	—
Paraplegia	4	2	4	2	—	—	1	1	2	—	1	2
Quadriplegia	1	6	—	5	1	1	—	5	1	1	—	—
Others	—	—	—	—	—	—	—	—	—	—	—	—
Totals	23	16	21	15	2	1	2	7	9	6	11	4

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TABLE OF SPASTICS.
(According to placing etc.)

Age Groups	Sex		*At Home*	*Day School*	*Day Special School*	*Residential School*	*Occupation Centre*	*Working*	*Training College for Handicapped Persons*	*Hospital for Mental Defectives*
	M.	F.								
0—4	5	2	7	—	—	—	—	—	—	—
5—14	8	8	1	8	2	2	3	1	—	—
15—64	10	6	4	1	—	—	—	5	3	2
65 plus	—	—	—	—	—	—	—	—	—	—
Totals	23	16	12	9	2	2	3	6	3	2

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EPILEPTICS.

We know of 112 epileptics (21 boys, 29 girls, 34 men and 28 women) in the City, i.e. 1.5 per 1,000 of the population. It is probable the numbers shewn in the table below, of ages 15 years upwards are a substantial understatement. It has been recently authoritatively stated that 4 in every 1,000 persons are epileptic.

Among our school children the known rate is very nearly 4 per 1,000 (39 in 10,300 children). During the year 3 epileptics (1 boy, 1 man and 1 woman) died.

There were 26 new cases discovered (9 boys, 11 girls and 3 men and 3 women). Of these, 6 children under 4 years of age are at home, 7 boys and 7 girls attended ordinary schools in the City, 3 men are working and 2 married women are at home and 1 single woman is managing satisfactorily in lodgings.

TABLE OF KNOWN EPILEPTICS (at end of 1955).

Age Groups	Sex		At Home	In Special School	Day School	Working	In Colony	In M.D. Hospital	In Hospital		Hostel
	M.	F.							Mental	General	
0—4	4	6	9	—	—	—	—	1	—	—	—
5—14	17	23	6	—	32	—	1	—	1	—	—
15—64	32	26	12	—	—	34	—	—	10	—	2
65 plus	2	2	2	—	—	—	—	—	2	—	—
Totals	55	57	29	—	32	34	1	1	13	—	2
	112										

There was a decided increase in cases known amongst the pre-school children and school children.

Very many epileptics manage perfectly well, especially when on modern drug therapy, but this requires that the patient observes carefully the instructions of his doctor. They need take only minimal precautions and broadly speaking the less attention paid by others to their epilepsy, the better. A few need a good deal of care and help.

NATIONAL ASSISTANCE ACTS, 1948 AND 1951.

REMOVAL TO SUITABLE PREMISES OF PERSONS IN NEED OF CARE AND ATTENTION.

A woman, aged 40, chronically sick (hemiplegia) and not getting satisfactory care, was removed against her will under the Acts to a hospital in the City—she was still in at the end of the year, nine months later. Since 1948 only 5 people (4 women and 1 man) have been removed in this way, (6 removals).

One woman aged 77 removed in 1953 was certified as of unsound mind within a fortnight and is still in the mental hospital.

Another aged 55 admitted to hospital in 1954 is still there two years later, and a third aged 70 admitted to hospital in 1954 is now in a Hostel for Old People. The man, aged 88, admitted to hospital in 1950 died at that hospital in 1952.

MEDICAL EXAMINATIONS MADE ON BEHALF OF THE COUNCIL.

Medical examinations for admission to the superannuation scheme numbered 140 (of whom 2 (men) were rejected) ; for temporary employment (51) ; re sickness or on return to employment after sickness (29) ; and others (3) ; total 223.

The services of the mass radiography unit are used for the periodic examination of Council and other staffs closely concerned with young children, in order to detect and eliminate tuberculosis as a risk to susceptible children. It is now a condition of employment in most such appointments that the candidates are willing to be so X-rayed from time to time, the result to be communicated to the Medical Officer of Health.

CIVIL DEFENCE.

(Ambulance and Casualty Collection Section).

At present, the strength of the section on paper is 128, but of this number 76 have not attended for section training and a further 26 have attended so infrequently that they cannot be considered to be active members. The active strength, therefore, can only be reckoned as 26. It is difficult in time of peace to stimulate and hold interest in Civil Defence. Those people interested in first aid who would be recruits for this section tend to join the British Red Cross Society or the St. John Ambulance Association and so, surprisingly enough, are lost to us.

A full course of first aid was run in the autumn and 15 members took the examination. 12 were successful. It is hoped that in 1956 it will be possible for the section to run its own first aid training.

The section took part in the collective training exercise held in May and in the demonstration exercise " Bonhay " held near the Exe Bridge on 21st October. A member was sent to cooperate with each of the Sector Controllers during exercise " Sector " on 6th September.

CHILDREN'S COMMITTEE.

The Medical arrangements for children within the care of the Children's Committee remained unchanged. The Children's Officer (Miss Wardle) collaborates with the department in relation to the health aspects of placing children in foster homes.

CHILD NEGLECT.

The Child Care Committee has continued to meet each month during the year under the chairmanship of the Medical Officer of Health.

Since the Committee was first formed in 1950 it has dealt with 70 cases. It has been possible to close 32 of them. During the past year 11 new cases were brought before the committee for discussion and 9 cases were closed.

It is difficult to assess the results that this committee achieve. Success cannot be measured only in terms of the complete rehabilitation of a family as so often a family in which child neglect is prominent is basically unsound because of poor intelligence or poor moral character of one or both parents and success may simply mean that deterioration has been prevented. In other cases the picture is a happier one and the family has only deteriorated temporarily perhaps due to the ill-health of the mother, to bad housing conditions or to many other causes in which case complete rehabilitation may be accomplished.

It is most important that any family difficulties should be known of early as so often at this stage a serious breakdown can be prevented. The health visitors who are in close touch with the families in their area are in a good position to hear of and to recognise their difficulties at an early stage and are therefore able to prevent a breakdown by their own help and advice and by their knowledge of the various statutory and voluntary bodies that can be asked to give help.

It often happens that during temporary ill health of the mother the problems that are inevitable in family life get too much for her and lead to a breakdown in her ability to cope with her family. If allowed to go on this may lead to a complete collapse in family life. In these cases much can be done to help the mother and the provision of a home help to take some of the burden off her shoulders may help her back to normality. During the year two such cases were provided with home helps free of charge, one for nearly 4 months and the other for 4 weeks. In both cases there was an improvement following this.

PUBLIC HEALTH ACT, 1936.
(Sections 187-195).

Registered Nursing Homes 6

NURSES ACTS 1943 AND 1945.

Registered Agencies 1

The Homes and Agency remained registered as in 1954.

LOCAL HEALTH SERVICES.
(National Health Service Act, 1946).

HEALTH CENTRES.

No progress was made in regard to General Practitioner health centres. At the present time these are not desired by the family doctors of the City.

MATERNITY AND CHILD WELFARE.

Maternity.

Confinements. There were 1,578 live and stillbirths notified in the City in 1955, of which 494 were to mothers not normally resident in Exeter. Additionally there were 27 live and stillbirths to Exeter mothers who were confined elsewhere. Of all these Exeter babies 446 (40.2%) were delivered at home and 665 (59.8%) in hospitals, etc.

Ante-Natal and Post-Natal Care.

The arrangements continued generally as described in my report for 1954. (See Table XVIII, Page 102).

Relaxation Classes.

186 classes, mainly for mothers in their first pregnancy were held, 318 mothers making 1,935 attendances.

Mothercraft Classes. These classes, conducted by Miss White, Deputy Superintendent at the Exeter Maternity and District Nursing Home, have been attended by just over half of the mothers "expecting" for the first time who were delivered in their own homes in 1955. It is hoped to develop this service during the coming year. The classes have been appreciated by the mothers who have attended them and they are also visited by the pupil midwives as part of their syllabus of training.

Child Welfare.

Child Welfare Centres.

These continued as usual. The babies attending for the first time numbered 760, equal approximately to 68% of the babies born during the year. In all the clinics the number of children attending during the year was 2,336 making 14,464 attendances. The children included 649 born in 1955, 631 born in 1954 and 1,056 born during 1950 to 1953. (See Table XIX, Page 103).

During the year approval was granted by the Ministry of Health to the Council's proposal to build a maternity and child welfare clinic in Countess Wear ; it will be a temporary building.

Toddlers' Clinics.

The Whipton Toddlers' Clinic is now well established on an appointment system, 186 attendances being made during 1955, the majority of the children attending for the first time or after a long lapse since infancy. 93 children were seen at the Eastern Toddlers' clinic ; direct appointments made by health visitors has been tried without a great deal of success. Practically without exception all the children are examined by the doctor.

Orthopaedic Treatment.

19 cases were referred from infant welfare centres to the out-patient department of the Princess Elizabeth Orthopaedic Hospital in 1955. These included 17 cases of defects of the lower limbs and 2 cases of torticollis.

Provision for the Unmarried Mother and her Child.

The illegitimate birth rate in 1955 was 0.9 per 1,000 population, the same as in 1954. The live illegitimate births were 6.2% of all live births compared with the national figure of 4.5%.

The City Case Worker (Miss P. M. Kevan) reports that she dealt with 68 current cases (including 14 continued from 1954), in addition to the usual follow-up work. 8 were not Exeter residents and 6 were lodging here. 36 out of the 54 babies born remained with their mothers and 13 were adopted. (See Table XXIII). This shews an increasing proportion remaining with their mothers.

St. Olave's Home.

The Assistant Medical Officer of Health paid quarterly visits to the Home throughout 1955.

Admissions numbered 22, deliveries 22, stillbirth 1.

At Dr. Ward's suggestion, the Committee installed 3 electric convector heaters (in the labour ward, the lying-in ward and the nursery). This voluntary Home is doing, and has for many years done a useful service in providing a temporary home for expectant unmarried mothers. Under the auspices of the Church of England it receives girls of any or no denomination ; family doctors can attend their own patients and the matron is a certified midwife.

St. Nicholas House.

Miss Kevan reports a happy relationship with the Matron of St. Nicholas House. During the year, it was decided to conduct deliveries at St. Nicholas House, the City's domiciliary midwives attending the cases. This has worked well.

2 beds are reserved for Exeter mothers. Two Exeter mothers were admitted at the House during the year with their babies and one mother admitted ante-natally in 1954 left in 1955.

DAY NURSERY.

39 children were admitted and 40 discharged leaving 30 children attending the Buddle Lane Day nursery at the end of the year. The general health including the mental well-being of the children in the nursery has been well maintained. The standard of care and clothing amongst these children has been good.

There were 16 cases of measles during August and September, one case of chickenpox in August, one of whooping cough in January, and one case of German measles in March.

The percentage of " priority " cases (i.e. where the mother is compelled to work in order to maintain the child) in the nursery during the year has been 90%. Some have been assessed at a higher rate than the standard priority rate of 2/- a day owing to the high income of the mother.

Some examples of the usefulness of the nursery in non-priority cases may be quoted. One little boy, 4 years old, attended the speech therapy class until he left the nursery to attend school.

Another boy aged 4 years admitted to the nursery in July, 1954, for psychological reasons and who wouldn't or couldn't speak, commenced to attend the speech therapy class in September. In July he began to utter single words, and since then his speech has improved greatly, although he is still unable to form a complete sentence. He was seen by an ear, nose and throat specialist in May for the second time, re possible deafness. His behaviour is now normal and his general intelligence is of average standard for his age.

A boy aged 5 years was admitted to the nursery in November because of " traumatic neurosis," on the advice of the child guidance psychiatrist. During the first weeks he was timid and disinclined to join in the general activities of the nursery. He is now more self confident and his speech more fluent both at home and at the nursery. The parents have been very co-operative and have appreciated the general improvement in the child.

Two other children were admitted for medical reasons and three motherless children were admitted at the end of the year.

During the summer holidays three school children were admitted as their mothers were unable to care for them, and it was essential that they should work. Two of these were again admitted for the Christmas holidays.

The children were examined medically three times, and the " over-two's," dentally, once.

NURSERIES AND CHILD MINDER'S REGULATIONS ACT, 1948.

At the end of 1955 there were two private day nurseries (44 places in all) in the City registered under this Act, and also one child minder, but she has no children in her care.

REPORT OF THE PRINCIPAL DENTAL OFFICER FOR 1955.

(Prepared by J. B. Clark, L.D.S., R.C.S. (Edin.), Dental Officer, because of the illness of the Principal Dental Officer).

The dental treatment of expectant and nursing mothers and pre-school children during 1955 was maintained at the average of previous years although the dental staff had fallen to two full-time dental officers. It was an interesting year as it was the first full year that the new Whipton Health clinic was in operation. There was increased co-operation between the Maternity and Child Welfare and dental departments resulting in many more mothers and pre-school children being treated than was the case at the hut in Hill Lane, Whipton, which was isolated. Dental health education at Whipton became easier; and the parents were obviously proud to have this lovely new clinic in their district.

Co-operation was maintained with the Exeter and District Nursing Association to get as many expectant mothers interested in the idea of pre-natal dental care as was possible. The necessity for oral cleanliness during pregnancy was stressed, as was the fact that the teeth are prone to suffer during this period.

Table (a).

Numbers provided with Dental Care.

	Examined	Needing treatment	Treated	Made Dentally Fit
Expectant and Nursing mothers	111	101	94	80
Children under five years	327	292	268	243

Table (b).

Forms of Dental treatment.

	Scalings and gum treatment	Fillings	Silver Nitrate treatment	Crowns or Inlays	Extractions	General Anaesthetics	Dentures provided		Radiographs
							Full Upper or Lower	Partial Upper or Lower	
Expectant and Nursing Mothers	41	159	—	—	318	59	36	14	7
Children under five years	—	268	21	—	496	207	—	—	—

Expectant and Nursing Mothers.

Of the 111 inspected as shown in Table A, 22 were referred from medical ante-natal clinics, 52 from the Exeter and District Nursing Association, 19 from private doctors and 18 were post-

natal cases. Of the 50 dentures supplied to a total of 29 patients, 21 were full uppers, 15 full lowers, 7 partial uppers and 7 partial lowers.

Pre-School Children.

327 children were examined, 15 in Buddle Lane Day Nursery (of whom 11 had sound mouths) and 312 whose parents desired treatment or who were referred from child welfare clinics.

The number of fillings done for pre-school children increased substantially during the year although one cannot help feeling that it is disappointing so many are necessary. If children had their teeth cleaned every night when they went to bed, as soon as they have any to clean, there would be a great improvement in the dental health. Many hours were spent talking to mothers on dental health as well as on diet and the better methods of preparing foods, and most were keenly interested.

It is remarkable how well pre-school children behave during fillings ; one child was only twenty months old, but gave full co-operation. This is partly due to the temporary dentition being less sensitive than the permanent.

Anaesthetics.

The anaesthetics to expectant and nursing mothers were given by Dr. Bertha Hinde whose services were again much appreciated. This was done on alternate Saturday mornings throughout the year at the Central Clinic, 1a, Southernhay West. Most mothers prefer a general anaesthetic but some teeth were extracted under local anaesthesia when preferred.

In conclusion, this department would like to express its thanks to the medical officers, nurses, and health visitors for their co-operation and assistance throughout the year.

Mr. W. Crofts Arkle, Principal Dental Officer, was ill during the latter part of the year and has since died. His death was a severe loss to the department, and his genial personality will be much missed.

DOMICILIARY MIDWIFERY.

(See also Table XXIV, Page 106).

MIDWIFERY.

Organisation.

This remained as described in my report for 1953.

Staff.

At the end of the year there were the Superintendent, 1 Assistant Superintendent (Midwifery), 5 midwives, 5 pupil midwives, all resident in the Exeter Maternity and District Nursing Association's home.

Education and Training.

(a) *Pupils.* The Home is a Part II training centre for pupil midwives, the pupils taking deliveries in conjunction with the Association's domiciliary midwives. 12 pupil midwives were trained in 1955 ; all passed their examination. There is no difficulty in getting sufficient pupils. I am indebted to Mr. Russell, Mr. Jefferiss and Dr. Brimblecombe, consultants at the Royal Devon and Exeter Hospital, who very kindly allow our pupils to attend their clinics. Dr. Powell kindly gave the lecture demonstrations to the pupil midwives in regard to inhalational analgesics, the course of training for which has been approved by the Central Midwives Board.

(b) *Refresher Courses.* The Superintendent attended a short residential course for teaching midwives. The Assistant Superintendent (Midwifery) and one midwife each attended a residential course in Woolwich on the care of premature babies.

(c) *Other.* The Superintendent Health Visitor of St. Kitts, Leeward Islands spent one month at the Home for administrative experience as part of a year's post-graduate course arranged by the Queen's Institute of District Nursing.

Transport.

By the end of the year eleven cars and nine motor-cycles owned by the City Council were in use. These vehicles form a pool used by both midwives and home nurses, priority being accorded to the midwives. In addition, 4 members of the Midwifery staff used their own cars.

Confinements.

443 of the mothers confined in the City in 1955 were delivered by the City's domiciliary midwives. A few of these were residents of other areas. In all, 11,366 visits were paid to mothers either during the pregnancy, the labour or the lying-in period. A further 9 domiciliary confinements (including 3 confinements in the prison) were conducted by private midwives.

27 of the babies delivered by the domiciliary midwives were premature. 2 of these deliveries were in respect of mothers who had come into Exeter for their confinement but who were normally resident outside the City and as such these babies are not included in the table showing premature births (Table XXII).

The home midwives continued to supervise the welfare of the newborn infants attended by them at home for the first three weeks of life. The midwives frequently supervise the welfare of the mother and child beyond 21 days (125 cases in all, including 24 premature babies). They also made 565 visits to 85 infant feeding problem cases mainly referred by doctors.

Owing to the extreme pressure on the maternity unit at the Royal Devon and Exeter Hospital some mothers have to be

discharged before they are completely well ; sometimes it may be very early in the lying-in stage—even the third or second day—or it may be that the mother has been in ten or more days, but still requires nursing care. The domiciliary midwives gave this attention to 126 mothers in 1955, involving 1,299 visits.

I am glad to be able to say that the building of the new maternity unit in the City Hospital has commenced ; this is an important and welcome development in the midwifery service for the present unit in the Royal Devon and Exeter Hospital, nominally of 15 beds, is grossly overcrowded and ill designed.

Medical Aids. (*i.e. midwives' requests for assistance from doctors*).

7 medical aid notices (2 from the Exeter Maternity and District Nursing Association midwives, 1 from a private midwife and 4 from hospital midwives) were issued by midwives. 256 other notifications by midwives in respect of stillbirths, artificial feeding, etc. as required by the rules of the Central Midwives Board were received. (See Table XXV).

Oxygen is sometimes a life saving measure in asphyxiated or shocked newborn infants. The arrangements initiated in 1952 whereby oxygen was made available to general practitioners for temporary administration to newly born and young infants in need of it were continued. Also, a sparklet oxygen resuscitation apparatus is available at each delivery. These outfits have been very useful. 19 babies on the district have been given oxygen (with the precautions indicated in my report of 1953) and 2 of these were given it whilst being transported to hospital. Of these babies 1 was, in fact, stillborn and 2 died (1 at 30 minutes and 1 aged 6 days). So far as I know, no case of retrolental fibroplasia has occurred in Exeter. Dr. Brimblecombe (the consultant paediatrician) has kindly instructed the midwives in the use of intra-gastric oxygen as a resuscitative measure but so far it has not been employed.

Electric Breast Pumps. These were used in 60 cases. They were especially helpful for babies in hospital (e.g., as premature) when the expressed breast milk was required over considerable periods.

Gas and Air Analgesia. All the domiciliary midwives employed under Section 23 are qualified to administer gas and air analgesia. In 317 of 443 deliveries conducted by them, (i.e. in 71%), gas and air was administered ; other analgesia (trilene, etc.) was given in 61 cases, and in all other cases there was some good reason why it should not be administered ; in 194 cases pethidine was given ; of the 5 midwives in private practice none was qualified to administer gas and air analgesia.

We have 3 trilene apparatus in use by the domiciliary midwives.

Supervision of Midwives. The Council as the Local Supervising Authority will have an obligation from January 1st, 1958 onwards to secure the provision of refresher courses, approved by the Central Midwives Board, for all midwives who have not within the previous five years taken such a course or who have not qualified within that period.

Miss Reynolds (Supervisor of Midwives) investigated in conjunction with Dr. Ward (Assistant Medical Officer of Health), 31 notified cases ot purerperal pyrexia, 1 case of " sticky eye " and made 9 visits to private midwives, a number of visits to the Exeter Maternity and District Nursing Association and 2 visits to one nursing co-operation.

Relaxation Classes. The attendances at the Relaxation Classes have increased by 516 to 1,935. Throughout the year four sessions have been held per week—two afternoon sessions at Whipton Health Clinic and one afternoon and one evening session at the Alice Vlieland Welfare Centre. Mrs. Rew, the physiotherapist who took over the classes at the beginning of the year, has taken a great interest in the mothers. Miss White (Assistant Superintendent of the Midwives) attends and discusses with the mothers the course of labour, gas and air and trilene analgesia and breast feeding.

BIRTH CONTROL.

A Birth Control Clinic is conducted by the Exeter and District Women's Welfare Association. Cases suitable in the sense of the Ministry of Health's Memorandum 153/MCW are referred to the local authority and granted financial assistance. Since 1930 a total of 315 cases has been referred.

HEALTH VISITING.

(Superintendent : Miss A. Atkinson).

Organisation.

The organisation, staffing and transport remained unchanged. One health visitor left and one health visitor who had been our own student was appointed. A health visitor student was appointed but she withdrew before taking up her studies, no time being left to make a further appointment.

Maternity and Child Welfare Work.

The number of visits paid by health visitors to babies under one year, was 1,094 first visits and 6,460 subsequent visits, and to children between the ages of 1—5 years, was 9,948.

The total number of visits to expectant mothers was 833. A health visitor attends at the weekly ante-natal session held at Bullmeadow Clinic and also at one session per month in a family doctor's surgery. This continues to be a worthwhile arrangement.

Visiting is also done by health visitors to assess social need for admission to Mowbray House Maternity Home. The importance of ante-natal care has been stressed and advice given to expectant mothers throughout the year.

Health Visitors in Schools.

The health visitors continue to attend nine infant schools, one nursery school and one junior school in relation to the health care of these children. The co-operation of the teaching staffs has been gratifying.

Selective Visiting.

This is showing some difficulty in operation. The health visitors are finding even in the best of homes, psychological problems may arise with which they might help. Mothers will only discuss these problems with someone they know well. One or two visits and the presentation of a phone number and/or invitation to an infant welfare clinic, does not meet this need. A small case load seems to be the only answer. The better a health visitor is known on her area the more problems are presented to her.

Co-operation with the Mental Health Service.

Contact with the part-time psychiatric social worker in the department has brought mental health problems more acutely into the consciousness of the health visitors. Closer contact with the child guidance team is desirable.

Co-operation with other agencies.

A close link is maintained with the home nursing and midwifery service. The health visitors have met the midwives and district nurses on more than one social occasion. The detailed notes now passed weekly to the health visitors from the midwives has encouraged this feeling of close co-operation.

All the hospital almoners in the city know and make use of the health visiting service. The hospital student nurses spend a half day with individual health visitors, but this is not enough to give the student nurses any real insight into the work.

Most of the health visitors are known to the majority of general practitioners and the health visitors do not hesitate to get in touch with the doctors as necessary.

The Council of Social Service, the British Red Cross, the Women's Voluntary Service, S.S.A.F.A. and on more rare occasions Toc H. have all been approached by the health visitors and help has never been refused. Other voluntary bodies found most helpful are the Exeter Dispensary Fund and the Blanket Society.

Close contact is kept with the Children's Officer, Moral Welfare Worker, the National Assistance Board and the Welfare Department.

Work with problem families.

A certain amount of satisfaction can be allowed with regard to the year's work with many of these families. Four of these families have been rehoused and are making a good attempt to improve their standard of living. We hope other families will be given this encouragement and opportunity. No family is known to the health visitors whose social condition has seriously deteriorated throughout the year. Practical help has been given in the form of cots, beds, mattresses and clothing where the need has been great.

Old People.

The health visitors paid 628 visits to old people and the number of old people still being visited at the end of the year was 102. Arrangements have been made with the co-operation of the various departments concerned, for the district nurse to attend, for the old person to go into a hostel or for " Meals on Wheels " to be supplied. Many old people suffer from loneliness and while the health visitors do what they can, the Council of Social Service and other voluntary visitors have been asked for help with this problem. Through the Council of Social Service voluntary help has been got to assist with gardening and house decorating. Domestic helps have been supplied where necessary.

Preventive Care and After Care.

This work continues along the same lines. Two hundred and fifteen visits were paid to patients either waiting admission to or discharge from hospital. The patients appreciate a visit from someone interested and relatives too are grateful. Practical help is offered in the way of domestic help and the services of the district nurse. The morale of the patient is often improved by these visits.

With regard to the work with those suffering from diabetes it is interesting to note that there were two young children among the patients. There were 303 visits paid to diabetics during the year, in close co-operation with the family doctor.

Infectious Disease.

The majority of infectious disease visits paid by health visitors were to children suffering from measles, viz : 1,381 visits out of the 1,893 made during the year. This is an increasing burden on the health visitors' time.

Health Education.

The Superintendent Health Visitor and Mrs. Stannard gave health talks (5) to women's organisations during the year. Mrs. Stannard continues to give talks and demonstrations on mother-craft to senior schoolgirls at the Education Homecraft Centre, Northernhay Street.

Posters are displayed and pamphlets given out at the infant welfare clinics. It is generally felt that group teaching is very difficult to carry out at these clinics. Small interviewing rooms where mothers can speak to the health visitor in privacy as in 2 of our welfare centres are appreciated.

Evening visits.

The health visitors paid 18 evening visits during the year. The majority of these visits were paid to homes where there had been an infectious disease of one type or another. Other reasons were ill or premature babies, to arrange a convalescent holiday for a mother, and in two instances to visit old people.

Refresher Courses.

Two health visitors attended a residential two week course at Leicester.

Uniforms.

The health visitors' uniform is now issued by the Council in bottle green instead of navy blue and with the white blouses provided, the uniform now shows the City's colours; enamel badges of the City crest have been issued.

HOME NURSING.

Organisation. This remained unchanged as described in my report for 1953.

Headquarters. A large semi-detached house adjacent to the present headquarters in Elm Grove Road was purchased by the Exeter Maternity and District Nursing Association and has been adapted for additional office, loan cupboard and home nurses' district room and sleeping accommodation.

Staff. At the end of the year there was a Superintendent, an Assistant Superintendent (Home Nursing), 20 home nurses (including 13 Queen's Nurses—12 female, 1 male), 2 S.R.N.'s (1 female, 1 male), 1 S.E.A.N. and 4 Queen's candidates. Of the home nurses 9 are in fact midwives but normally do not practise as such.

Education and Training.

Candidates. Training of Queen's Nurses. The Home is a training centre for Queen's Candidates. I am indebted to all who help the students by lectures, demonstrations or providing facilities for visits. All the 9 candidates passed their examination for admission to the Queen's Roll.

Refresher Courses. The Assistant Superintendent (Home Nursing) and one general nurse attended a short non-residential home nursing post-graduate course in London.

Other. Forty-five students in training at the Royal Devon and Exeter Hospital have accompanied the nurses for a morning round on the district.

Transport. The nurses use the pool cars and motor cycles (see page 81). 5 of the home nurses use their own cars and 2 use their own motor bicycles.

Visiting. 3,227 cases, including 2,784 new cases, were nursed during 1955 and the total number of nursing visits was 88,294. 1,141 visits were paid to very ill patients after 8 p.m., the nurses working on a rota for this duty. 219 visits were made to 9 patients in blind people's hostels and 2,521 visits were made to patients in old people's homes or almshouses. The home nursing of sick children has not developed notably during the year. This depends very much on the availability of a nurse or nurses of the right temperament and with the right training and experience.

Visits for Injections only. The main group of patients whom the nurse attends especially for the purpose of giving injections is the diabetic patients. 18,309 such visits were paid to a total of 138 diabetic patients during 1955, the majority of them being visited daily. Of these 138 patients, approximately 60 were taught to administer their own insulin or a relative was taught to do this for them. The remaining smaller groups of patients, attended for the purpose of giving injections only, are cardiac cases on regular mersalyl injections, or cases of anaemia receiving some form of liver injection. Patients who are visited for the purpose of administering penicillin are usually having this for some acute condition, and also require other treatment.

The following table which is a reduction of table XXVI, sets out briefly the work of the home nurses according to a simple classification based on the doctor's diagnosis or the nurses' description if no precise diagnosis was offered by the doctor.

TABLE XVII.

HOME NURSING DURING 1955.

	New Cases	Total cases nursed	Total visits	No. of cases over 65 years of age
Degenerative Diseases and Senility	700	1,010	59,528	75.1%
Tuberculosis	27	39	2,645	17.9%
Acute Disease incldg. infectious disease	1,209	1,268	12,350	28.4%
Maternity and Gynaecology	276	281	1,450	52.3%
Accidents	97	105	1,611	41.9%
Others	475	524	10,710	48.6%
Totals	2,784	3,227	88,294	48.7%
Casual visits (Not Nursing)	1,135			

The general picture is much as in 1954. The total number of cases nursed was rather less than in that year and this was rather marked in relation to senility and degenerative diseases, where the number nursed was 16% less and total nursing visits 12% less than in 1954.

IMMUNISATION AND VACCINATION.

(See also Table XXVII, Page 109).

Organisation. During the year a trial was made of doing the immunisation and vaccination of infants and pre-school children during the weekly welfare clinics at the Buddle Lane Centre. Previously, a special monthly immunisation clinic had been held at the Centre. This re-arrangement has proved successful and is popular with the mothers. Immunisation against diphtheria or combined diphtheria/whooping cough immunisation is done every Friday during normal clinic hours and vaccination is done on the last Friday of every month. The arrangements at the other centres continue as before.

A trial was also made in the St. Thomas area of giving the school children their booster immunisation in their schools instead of, as before, at special immunisation clinics. Anything from a dozen up to a hundred children in a school may be ready for booster immunisation and quite apart from a serious loss of school time, it is not always an easy task for the school staff to get these children down to the welfare centre. Doing them in the schools has proved satisfactory and it is proposed to extend this arrange-

ment to cover all the schools in the city during the coming year. The immunisations were done in each school on the last day of the routine medical inspections there.

With this reorganisation the immunisation clinic held each month in the Buddle Lane Centre has been closed and the one held twice a month at the Alice Vlieland Centre has been reduced in frequency to once a month. The immunisation and vaccination clinics held in the other centres continue as before.

All general practitioners giving service under Part IV of the National Health Service Act take part in the general immunisation scheme.

Smallpox Vaccination. During the year 613 persons were vaccinated for the first time and 255 were revaccinated. Of these, 487 were infants under 1 year of age, which is equivalent to 44% of the number of live births in the City during 1955. This is somewhat higher than the 1954 figure which was 39%. The majority of the vaccinations (794) were done by general practitioners.

Diphtheria and Whooping Cough Immunisation.

The number of primary immunisation courses showed a slight falling off when compared with previous recent years. Of 1,049 receiving primary immunisation 925 (88%) received combined diphtheria/whooping cough prophylactic and 124 were immunised against diphtheria alone. The majority of these (746 children) were done by general practitioners.

Re-inforcing doses against diphtheria are recommended at age 5 either before or just after starting school and again at 10 to 11 years old. This second re-inforcing dose has been given during the first year the child has attended a secondary school, but next year it will be given instead during the last year at a primary school. In all, during the year, 1,421 re-inforcing doses were given ; the majority of these (1,039) were given at the clinics.

The assessment of the results of whooping cough immunisation is difficult. In mild cases of whooping cough diagnosis is often uncertain and unless there is a known association with another child with whooping cough a diagnosis of nasopharyngeal infection or bronchitis may be given and the case not notified as one of whooping cough. It is likely, therefore, that the number of cases notified does not give a true picture of the number of cases occurring during the year.

Total cases of Whooping Cough.

There were 144 cases notified during the year, 100 of these being during the first quarter. Only 9 cases were notified in the third quarter of the year and 4 in the last quarter. This figure for the last quarter is the lowest number notified in any quarter

since notification began. I hope of course, that this will continue, as in fact, is the position in the early part of 1956. But it is too soon to say that this low incidence is necessarily due to the effects of whooping cough immunisation, especially when we recall that in 1942 the number of notifications was only 34.

Of the 144 cases notified, only 25 had been immunised against whooping cough, and in 2 instances the immunisation state was unknown.

Contacts. A more accurate method of assessing the efforts of immunisation is to consider the children who have not had whooping cough and are living in a house in which there is a recognised case and are, therefore, in close contact with the disease. As very few children over 5 years old have been immunised against whooping cough (which only started in 1952), I have considered all child contacts under 5 years old who have not already had whooping cough and who live in the same house as a recognised case. At the end of 1955, 53% of children under 5 years in Exeter had been immunised against whooping cough. The numbers (set out below) are unfortunately very small for statistical analysis, but the evidence—fortunately so far as the children are concerned—is significantly in favour of immunisation (giving a Chi square 8.3).

HOUSE CONTACTS UNDER 5 YEARS OF AGE.

	Got whooping cough.	Did not get whooping cough.
Immunised	3	8
Not Immunised	21	6

AMBULANCE SERVICES.

The service continued by agency much in the same way as in 1954. Though the number of patients carried by our own vehicles was less, the mileage involved was greater. As we have no detailed information about the hospital car service, administered by the Devon County Council through a voluntary organisation, and paid for, so far as Exeter is concerned, by a block payment based on a percentage of the total cost, we cannot satisfactorily discuss the overall picture. During 1955 the City Council and the County Council agreed to share the cost of the City's ambulance service on a block payment system (the County paying an appropriate percentage of the total ascertained annual cost) in order to reduce clerical work, invoicing, etc.

The arrangements introduced in 1954 for the ambulance transport of infectious disease have worked satisfactorily. Certain staff changes occurred. We were sorry to lose Mr. H. Richards

who died suddenly when doing his duty as a driver-attendant : he had given good service. Mass radiography (chest) is offered annually to the staff.

The Council now own 7 ambulances and 3 sitting cars, and hire one ambulance from the St. John Ambulance Association. The Council continued to implement its programme of replacement in order to modernise the fleet. One ambulance was replaced during the year and a light dual purpose (utilicon) vehicle was purchased.

Radio-control is not used ; I think it should be tried out experimentally.

(See also Tables XXVIII and XXIX, Page 110).

TUBERCULOSIS : PREVENTION, CARE AND AFTER-CARE.

(1). New Notifications. (Table XXXIII, Page 113).

It is very satisfying once again to be able to report that during 1955 there was a further slight decrease in the number of new cases diagnosed during the year to a total of 96 cases (74 respiratory, 22 non-respiratory). This is the lowest figure since 1950 : it must be seen against a background of a much intensified search for cases both among contacts and among the population at large, notably by mass miniature radiography and tuberculin testing. Among the new cases were three cases of tuberculous meningitis : this used to be characteristically a disease of pre-school childhood but B.C.G. vaccination of new-born infants born into a tuberculous household has altered the picture. These three were (1) a girl aged 11 who had contact with two tuberculous uncles who were up to this, unknown to the Department ; (2) a man aged 20 with a family history of tuberculosis and with a history of previous tuberculous pleural effusion ; and (3) a girl aged 19 who was a school clerk who had contact with an open case not previously known. None had been B.C.G. vaccinated.

(2). Deaths. (Tables XXXII and XXXIV, Page 113).

An even more noticeable decline is seen in the case of deaths during the year. 24 patients known to be tuberculous died during the year ; 8 of the deaths were from causes other than tuberculosis, leaving 16 attributable to tuberculosis (14 respiratory, 2 non-respiratory) ; of these, however, 1 was registered in 1956 and 1 was attributed on the death certificate to Korsakow's Syndrome, though a post-mortem examination shewed the true cause of death to be tuberculous broncho-pneumonia : this was not notified to the Registrar General. Thus the figures here quoted vary slightly from those supplied by the Registrar General which are set out on page 16. In the year before, 6 of the 29 tuberculous persons who died, died from non-tuberculous disease, leaving 23 deaths from tuberculosis (22 respiratory and 1 non-respiratory).

It is interesting to see from the records that as recently as 1949 the number of deaths from tuberculosis in the City was almost three times as great (46) while in the 1930's it was 4 times as great. It was not until 1951 that the figure dropped below 30. During the war years the figures remained fairly constant at 40 to 50 deaths a year and it was not until 1946 that a decline became noticeable and continued (with the exception of 1949) until by 1951 it became pretty clear that the days of high tuberculosis mortality had gone.

(3). Recovery from Pulmonary Tuberculosis.

During the year 15 patients were taken off the books as having recovered from their disease (16 in 1954).

(4). Non-Notifications.

There was only 1 death from tuberculosis where statutory notification had not been effected during life. A man of 50 who had been regarded in life as a case of Korsakow's Syndrome was found to have died from tuberculous broncho-pneumonia—(Coroner's P.M.). All contacts were examined at the chest clinic but nothing of significance discovered.

(5). Transfers.

There were 92 cases added to the register during the year as inward transfers, that is, patients taking up residence in Exeter who were already known as notified cases elsewhere, and whose case papers and X-rays were forwarded for continued supervision here. The outgoing transfers numbered only 67.

The number of transfers-in has recently grown rapidly due to considerable effort by the department in their ascertainment. In 1951 for instance there were only 34 known inward transfers during the year but in 1952 as the result of new arrangements for more complete ascertainment the numbers increased to 67 and has increased each year to the present figure. An excess of inward transfers over outward transfers increases the number of cases on the register.

(6). Tuberculosis Register. (Table XXXI, Page 112).

The number of notified cases on the register at the end of 1955 was 800 (679 respiratory, 121 non-respiratory), compared with 722 cases (619 respiratory, 103 non-respiratory) a year before. This trend has been noticeable since 1950 when the total number of cases on the register was 456 (379 respiratory, 77 non-respiratory). These increases have been inevitable when the notification rate has remained fairly constant while the mortality has been steadily declining ; they do not represent any increase as it were in fresh tuberculosis and most probably, parodoxically the real amount of fresh tuberculosis is declining because our ascertainment has been intensified year by year. We know more than we did about

the tuberculous in the community and we can be pretty confident that the unknown " infector pool," as it is called, is getting steadily smaller. There is an interesting decrease in the number of patients who were in years gone by taken off the books under the 1930 regulations as " lost sight of," " left, destination unknown," " seen only for diagnostic consultation," " desires no further assistance," etc., " mistaken diagnosis, etc." In 1943, for example, 87 patients were struck off as " lost sight of," etc., and in 1947 the figure had declined to 34. There has not been a single case taken off as having refused treatment since 1950, and this is perhaps a significant comment on the present day outlook on the disease in general and T.B. in particular. Modern techniques too have decreased the numbers removed under the heading of mistaken diagnosis. It is now most uncommon for a patient to be wrongly diagnosed as being tuberculous.

(7). Contact Tracing. (Tables XXXVIII and XLI, Page 116).

Great importance continues to be attached to the examination of contacts, rightly so, for in 1955 no less than 19 contacts were found to be suffering from active disease and this clearly illustrates the necessity for energetic case finding efforts in this direction. During the year 359 contacts were examined for the first time, a figure representing 3.7 contacts for each new notified case. In addition 283 contacts attended for re-examination making a total of 642 examination of contacts old and new. The emphasis this year has been on household and family contacts, and of the total number of contacts examined over four-fifths (81.8%) were in these two categories : works contacts made up the balance.

Small surveys (tuberculin testing and X-ray examination) were carried out in three schools following the discovery of tuberculosis in three school-children, but only in one instance was anything of significance found in the other children as the result of the surveys—but in this instance in all, 4 definite cases have been traced and 1 admitted for observation, most in 1956—details of which will be given in my next report. The work was carried out by the School Medical Officers in collaboration with the Mass Radiography Unit, and details are given in the Annual Report of the School Health Service for 1955.

(8). Radiography.

The camera unit at Ivybank which takes a 4 inch x 5 inch film has been mainly used for the examination of contacts (323) and of cases for private practitioners (176), leaving the larger-sized films available for examination of known cases and patients under observation.

(9). Mass Miniature Radiography.

We have arranged the mass miniature radiography of expectant mothers and of old persons with chronic cough, especially

where in contact with little children. School-children in the 13-year old group have been radiographed at about the same time as they have been tuberculin tested in the B.C.G. vaccination programme, and the school-leavers have also been radiographed.

13,759 persons were radiographed in Exeter by the Unit during the year—they were not all Exeter residents. This represents a very small increase over the 1954 figures which is very disappointing in view of the additional unit being now available. Exeter University Students examined numbered 705. In all, 101 cases were referred to the Chest Clinic, 18 being new and proven cases, 10 proved but known cases, the remainder being either kept under observation or discharged. (Table XXXVI).

(10). Tuberculin Testing, B.C.G. Vaccination.
(Table XXXIX, Page 117).

In 1955 all tuberculin testing and B.C.G. vaccination of Exeter school-children who were eligible under the Ministry of Health Scheme has been carried out by the School Medical Officers. 818 school-children were tuberculin tested, 722 were B.C.G. vaccinated, and re-tested. In addition 583 children B.C.G. vaccinated in 1954 were tuberculin tested in 1955 (a year after the Vaccination) ; these children are discussed in greater detail in the School Health Report for 1955. A total of 402 initial tuberculin tests were made during the year and 175 B.C.G. vaccinations effected by the chest physician. A further tuberculin test is carried out in every case six or eight weeks after B.C.G. vaccination, so that in all, 577 tuberculin tests were made.

(11). Pathological Examinations.

The number of pathological examinations made for the chest clinic during the year by the Public Health Laboratory and the Department of Pathology, Royal Devon & Exeter Hospital was 2,088 (see Table XL). This is a very substantial number of examinations and we are very grateful to Dr. B. Moore and Dr. G. Stewart Smith for their continued help and assistance, particularly as regards the examination of sputa and sedimentation rate estimations.

(12). Extra Nourishment.

As in previous years extra nourishment continues to be provided for patients on the recommendation of the chest physician. This was mainly in the form of an extra pint of milk daily over and above the normal household supplies, the cost of the extra milk being borne by the Council. Altogether 39 new cases were helped in this way while the supply was continued to a further 30 patients who were receiving this form of help at the end of 1954. The supply of extra milk is not granted indiscriminately but only after careful consideration of medical need and financial position. Extra nourishment was also provided

free of cost in the form of a vitamin food, mainly for children, and 25 patients benefited from this. Altogether these are very valuable services indeed.

(13). Home Helps.

Home Helps were provided during the year in 13 cases of tuberculosis and the work, as in previous years, was carried out by volunteers.

(14). Diversional Therapy.

During the year 8 patients were recommended for the £1 grant made by the Council to the British Red Cross Society. This enables patients at home to undertake diversional therapy, mainly handicrafts.

(15). Infectivity and Employment of Tuberculous Patients Known to be Infectious.

Of the 800 cases on the register at the end of the year 120 are known to have had a positive sputum during the preceding six months or were considered to be infectious. Of these, only 4 cases are working while known to be infectious. The working conditions in two of these cases have been most carefully assessed to eliminate the possibility of infection to others while the two remaining cases are entirely out-door workers with little or no contact with fellow employees. 21 cases were referred to the Disablement Resettlement Officer for training.

(16). Disposal of Sputum.

The use of Miltherex for liquefying and sterilising sputum from infectious patients has been somewhat extended during the year, and the fluid is now used in many homes with most satisfactory results. It is supplied free of charge and a special polythene sputum flask is also supplied free. Ordinary disinfectant for general use is still supplied free of cost, but perhaps the most valuable issue is that of paper handkerchiefs for which the demand has greatly increased. The advantages of paper handkerchiefs for tuberculous patients are quite obvious and indeed during the year the Ministry stated that their use should be encouraged, and that they should be at least 12 inches square to ensure that the mouth can be covered during coughing. Accordingly a new size of paper handkerchief 12 inches x 12 inches was ordered when the previous supply of an 8 inch x 8 inch handkerchief was exhausted, but the general opinion here is that these are too large, and that the original size was more economical.

(17). Waiting Time for Admission to Sanatoria.

There is no undue delay in admitting T.B. patients for treatment. In the case of the T.B. Unit the average waiting time for admission was 3 weeks for men and 5 weeks for women. For children awaiting admission to Honeylands the waiting time was

2 weeks in the case of notified patients and 7 weeks for observation cases.

(18). Books.

Late in 1954 Dr. B. Moore, Director of the Public Health Laboratory in Exeter, kindly undertook the examination of books read and handled by open cases of tuberculosis—in one instance a very careful patient, a woman, mostly bed-fast with heavily infected and copious sputum—really in the terminal stages—read the book through (and enjoyed it), and later another book was kept by the same patient for a week only and read in that time. In another, a man, with heavily infected and copious sputum again mainly bed-fast but living in poor accommodation and not careful, had a book to read for a month. In no instance did maceration of the book, culture and guinea pig inoculation reveal any tuberculosis organism. Sweepings from the floor (by pan and brush) in the first house proved on guinea pig inoculation to be positive for tuberculosis.

ILLNESS GENERALLY.

Prevention.

There are no specific efforts directed to the prevention of illness apart from the ordinary environmental and personal health services detailed in this report.

Health Education.

This proceeded on the lines indicated in my last report.

Venereal Diseases.

It will be noted from Table XLII that whilst there was a slight drop in the number of new cases of syphilis the number of new cases of gonorrhoea increased.

Case and contact tracing etc. is carried out by the hospital staff by correspondence.

Dr. Dunkerley, Physician i/c. Treatment Centre tells me that his figures show that :—

Patients with Syphilis sent 7 contacts ;
,, ,, Gonorrhoea sent 6 contacts ;
,, ,, Non-Gonococcal Urethritis sent 3 contacts to the clinic for examination.

34 letters were sent to non attenders, resulting in 10 attending, 4 replied that they were attending other centres ; and 5 letters were returned untraced—thus 15 people ignored the letters.

Care and After-Care.

Details of the health visitors' work in after-care visiting are set out on page 85.

Nursing Equipment Loans.

The arrangements are unchanged and work well. The number of loans during the year was 2,246—rather more than in 1954. Additional equipment for the loan cupboard purchased during the year included three folding wheel chairs (suitable for a small house)—a really invaluable addition—two Penryn hoists for heavy lifting cases, and five walking sticks for rehabilitation in walking. These have proved very helpful to the patients.

Consideration is being given to the whole question of the best method of lifting and nursing heavy, bedridden, and perhaps helpless patients. As a rule, two nurses attend any such case, reducing considerably the risk of strain.

Old People—Laundry.

The laundering of soiled linen has continued as previously described and has been much more used. 2,480 articles were laundered under this service during the year, whilst the number of patients for whom this service has been required has increased from 37 to 51 ; the most notable increase has been in the length of time in some individual cases for which this service has been needed, even up to almost the whole year.

Night Home Help.

This, the only night help service, is still extending. 90 families were helped, 15 of them for more than a fortnight. The total nights worked numbered 1,147. 43 of the patients died, 22 were transferred to hospital or nursing home, 16 became able to manage without such help, 3 made private arrangements later and in 6 the help was continuing at the end of the year. The relatives contributed substantially in nearly all cases.

DOMESTIC HELP.

(See also Table XLIII, Page 119).

Organisation and Staff.

The general management remained unchanged. The staff was increased by 3 part-time workers to 37 part-time home helps at the end of the year, including 3 with a guaranteed working time of 36 hours ; their average age was 49 years. " Waiting time," which is " lost time," has been reduced to trivial proportions which indicates improved organisation, but sickness and holidays, and especially travelling, are all substantial items amounting in all to rather less than one fifth of the total time paid for.

Cases Helped.

312 households were helped and the total number of hours worked in households was 49,403½, an increase of 5% over last year's figure. The work done for persons over pension age has increased, again absolutely, but not relatively. The percentage

of the total work carried out for these last is now 60% (compared with 61% in 1954) and more than half of this is for cases of simple infirmity. Tuberculosis cases required less help than last year. Only one in twelve of the families helped were given whole-time domestic help.

GENERAL.

The average weekly case load was 123 compared with 99 in 1954 ; there is no great easing off in the summer : the average time worked per case per week in all categories was 8 hours, being rather less at 6½ hours for cases of simple old age. In 14 instances, it was not possible to supply a home help at the time of demand. In 50 cases the applications were withdrawn, in 5 because the charges were considered too high, in the rest for various reasons stated which may have masked the real ones.

The income recovered from the families amounted to, approximately, 22% of the total expenditure on this service.

TRAINING, ETC.

There are no arrangements for training. Overalls are supplied, and where necessary, equipment.

MENTAL HEALTH SERVICES.

(National Health Service Act, 1946, Sections 28 and 51).

ADMINISTRATION.

There were no changes in the Council's arrangements for carrying out its duty under these Sections.

COMMUNITY CARE.

(a) The total number of domiciliary visits made to and on behalf of persons suffering from mental illness was 1,910 (including 965 visits in relation to admission to hospitals)—an increase of 436 over last year's figures.

(b) Included in these were 174 visits to 67 people (28 men and 39 women) in which no statutory action was found necessary, of whom nearly half (12 men and 16 women) were over the age of 60 years.

(c) In addition to these visits to the mentally ill, the Psychiatric Social Worker made 395 visits to 42 patients (8 men, 29 women and 5 children). She attends one hospital out-patient clinic weekly.

During 1955, there were 337 admissions—a record high figure—of Exeter patients to hospital (concerning 242 persons). As there were 272 discharges and 29 deaths, the number in hospital at the end of the year (399) was 36 more than at the beginning (363), (Table XLIV).

As in previous years there is a continuing increase in hospital admissions with a higher discharge rate. Since the "appointed day" admissions from Exeter have been as follows :—

	Male	*Female*	*Total*
1948 (5 months)	17	24	41
1949	54	73	127
1950	98	120	218
1951	103	135	238
1952	88	142	230
1953	103	149	252
1954	125	157	282
1955	129	208	337

Admissions in all were 337 but individual patients numbered only 242 : some of them were discharged and re-admitted during the year ; some had been in and out during previous years.

The age distribution of the patients at the time of their *first admission during* 1955 is set out below ; it will be understood that they were not all new to mental hospitals.

Age	Male					Female					Total
	Vol.	Temp.	Cert.	S.20	S.21(1)	Vol.	Temp.	Cert.	S.20	S.21(1)	
0—14	—	—	—	—	—	3	—	—	—	—	3
15—44	30	1	3	11	1	41	1	4	22	2	116
45—64	24	—	5	4	—	19	—	7	17	1	77
65 Plus	8	—	5	4	—	11	—	8	9	1	46
Total	62	1	13	19	1	74	1	19	48	4	242
			= 96					= 146			

The correspondingly high discharge rate is due to earlier treatment, especially in the age groups 15-44 years.

The admission rate of voluntary patients continues to be high ; of the 337 admissions, 250 were/or subsequently became, voluntary, 12 were temporary and 59 were certified ; 16 were discharged after extension under section 21. This gives a record rate of 81% of voluntary admissions against 73% last year.

Hospital psychiatric clinics continue to be held as described in my previous reports.

(See Tables XLIV to XLVI, Pages 120 and 121).

Mental Deficiency Acts, 1913-1938.

(i) *Ascertainment and Supervision.*

The majority of cases come to light through the local education authority. During 1955, 27 new cases were reported, as follows : 13 by the L.E.A. as ineducable, 10 by the L.E.A. as requiring supervision on leaving school, 2 men and 1 woman were

referred from the Magistrates' Courts and 1 woman by the Moral Welfare Worker. Of the 13 ineducable children, 5 were not suitable for attendance at the Council's occupation centre : 6 of the others in fact attended. All of the 10 (7 boys and 3 girls) reported on leaving school were placed in employment and appear to be managing all right. 2 of the 3 persons referred by the Magistrates were committed to Institutions under Section 8 of the Mental Deficiency Act, 1913, and the other man was placed in an institution on a "place of safety" order. The latest figure of ascertainment in Exeter is 4.8 per 1,000 population being, I believe, the highest in the South Western Region.

Supervision of defectives in the community is carried out through the mental health social workers.

At the 31st December, 1955, 155 (73 m., 82 f.) were under statutory supervision, as well as 46 (24 m., 22 f.) under voluntary supervision, and there were 151 (97 m., 54 f.) in hospitals. During the year 1,152 visits were made to the homes of defectives and to organisations, such as the Ministry of Labour, National Assistance Board, Magistrates' Court and Youth Employment Officer, with regard to the welfare of the defectives in the community.

During the year 5 Exeter patients were discharged from the Order—1 man and 4 women. 1 defective, aged 49 years, died whilst at home under supervision. In addition, 2 men and 3 women from other authorities were also discharged from the Order and came into Exeter for employment. Voluntary supervision continued in all cases.

Of the adults over 16 years of age, under supervision, it is considered 8 men and 17 women are suitable for training in an adult training centre. The Council are well advanced in their preparations to open an adult training centre in 1956. It has purchased suitable buildings which are being adapted for this purpose. The Minister approved the scheme.

Advantage was taken of the provisions of Circular 5/52 in the case of 4 boys whose parents were in temporary difficulties through illness, to place them in Institutions. This was a great help in the circumstances.

(ii) *Guardianship.*

There is now only 1 Exeter woman under guardianship ; 1 was discharged from the order, early in 1955, and has now married. In addition there are 2 women under guardianship from other authorities' areas who are now living in Exeter.

(iii) *Occupation Centre.*

The newly adapted centre at Hollow Lane was officially opened by the Mayor of Exeter on the 22nd March, 1955, a display of handwork and activities being given by the children. A plan of the building was included in my last report. Kitchen facilities

are good and it is hoped in time to cook meals on the premises, but at present school meals provided by the Education Authority.

"Open Days" were held in May and December; the childrens' acting in a nativity play was very favourably commented upon.

Part of the garden has been grassed over, to be used as a playing field and a girls net ball team and a boys cricket team are to be formed. An outdoor sandpit is being made for the toddlers. Gardening and domestic work are being developed as fresh activities in the curriculum.

At 31/12/1955 there were 42 Exeter children and 6 County children on the register, aged from 3½ years to 19 years of age. When the new Adults Occupation Centre is opened the older ones will be transferred. Attendances have been 80% of possible.

A private bus (45 seater) is used for the transport of the children to and from the centre on contract.

The annual medical inspection and review was carried out in June and there was a marked improvement in the children's health. The health visitor makes regular visits to the centre. At present there are two spastic children attending the centre—a boy of ten years, mildly spastic and a girl of eleven years, who is an athetoid type suffering from quadriplegia. A specially constructed spastic table has been made for this girl and with regular weekly visits to the Orthopaedic Hospital, she has made some progress. There is another known case considered suitable for attendance.

The Parent/Staff Association continues and held meetings during March and October.

During the year the Board of Control Inspector visited the centre in October and made a very encouraging report.

(iv) *Hospital Care.*

The number of mentally defective persons in hospital for care or training at the end of the year was 151, the same as in 1954. There were 5 admissions and 5 discharges.

Quarterly reports are sent to the local health authority from the hospital at Starcross about patients who are on licence in this area.

During the year two "place of safety" Orders were made, one for a boy of 7 years at Starcross and another for a woman aged 35 years who was "found neglected"; the latter was admitted to a private certified institution at Weston-super-Mare. Certain legal difficulties exist in view of the recent High Court Case of Rutty.

(See Tables XLVII to L, Pages 122 and 123).

The greatest co-operation exists between this authority and the hospitals in the South Western Region. This applies not only to mental illness but to mental deficiency as well, and I am especially indebted to Dr. Russell of Digby—Wonford Hospital and Dr. Prentice of Starcross Hospital for their help.

COSTS.

The approximate actual nett cost to the Council for the whole service for the financial year 1955/56 was £56,742. (See Table LI, Page 123).

TABLES.

Table XVIII.

ANTE-NATAL CARE

Municipal Ante-Natal and Post-Natal Centres

(by doctors)

No. of sessions held	38
No. of mothers attending	42
Total attendances	169
New cases	27
Post-Natal cases	15
Referred for treatment :—	
Dental treatment	6
Royal Devon and Exeter Hospital	—

Exeter Maternity and District Nursing Association.

Ante-Natal and Post-Natal Clinics.

(by midwives)

Cases seen at the ante-natal clinics	536
Attendances at the ante-natal clinics	2,080
Examined by doctor	—
Cases seen at the post-natal clinics	—
Attendances at the post-natal clinics	—
Cases examined by doctor	—

Table XIX.

CHILD WELFARE CLINICS

ATTENDANCES

CENTRE	Number of children who attended during the first three months of the year	Number of children who attended during the last three months of the year
Bull Meadow	306	315
Shakespeare Road	202	213
Countess Wear	71	83
Whipton	295	273
Buddle Lane	220	257

Table XX.

CHILD WELFARE CLINICS.

ATTENDANCES BY AGE GROUPS.

CENTRE	Age Groups					Total	Number of sessions held	Average attendance per session
	Under 1	1 to 2	2 to 3	3 to 4	4 to 5			
Bull Meadow	2,189	829	372	178	101	3,669	99	37
Shakespeare Road	1,647	531	355	195	209	2,937	50	58
Countess Wear	448	124	89	69	50	780	48	16
Whipton	1,918	531	257	165	166	3,037	49	62
Buddle Lane	2,399	583	332	275	233	3,762	49	77
Toddlers' Clinics								
Shakespeare Road	—	24	18	24	27	93	10	9
Whipton	—	32	49	53	52	186	11	17
	8,541	2,654	1,472	959	838	14,464	—	—

Table XXI.

DAY NURSERY.

NURSERY	Buddle Lane.	
AGE GROUP IN YEARS	1—2	2—5
Number of Places	15	25
Number on roll at beginning of 1955	6	25
Number on roll at end of 1955	6	24
Mothers working full-time (At end 1955)	21	
Mothers working part-time (At end 1955)	1	
Other reasons (At end 1955)	5	
Maximum Attendances	5	20
Minimum Attendances (excluding Saturdays)	2	8

Table XXII.

Premature Live and Stillbirths Registered during 1955.

Notified Premature Still-births			Weight		Premature Live Births																
					Born at		Survivors at end of 1955	Deaths during 1955—Age at death.				Believed causes of Prematurity.									
Born at home	Born in hospital	Born in nursing home	Over	Up to and inclg.	Home	Hospital		Under 1 day	Over 1 day, under 1 week	Over 1 week, under 4 weeks	Over 4 weeks	Toxaemia and Albuminaria	Ante-Partum Haemorrhage	Twin Pregnancy	History of Tuberculosis	History of Positive Wassermann	Caesarian Section Disproportion	Habitual Prematurity	Induction labour—Acute Hydramnios	No cause Assignable
3	2	—	—	3 lbs. 4 ozs.	—	2	2	—	—	—	—	—	1	—	—	—	—	—	—	1
2	3	—	3 lbs. 4 ozs.	4 lbs. 6 ozs.	5	15	17	1	2	—	—	4	2	8	—	—	—	1	—	5
—	2	—	4 lbs. 6 ozs.	4 lbs. 15 ozs.	6	12	16	—	2	—	—	3	2	7	1	—	—	—	—	5
—	2	2	4 lbs. 15 ozs.	5 lbs. 8 ozs.	14	23	36	—	—	—	1	2	1	2	2	2	2	—	1	25
5	9	2	Totals		25	52	71	1	4	—	1	9	6	17	3	2	2	1	1	36
16					77		77					77								

Table XXIII.

PROVISION FOR THE UNMARRIED MOTHER AND HER CHILD

(Work carried out by the Social Worker).

New Cases, 1955	54
Carried forward from 1954	14
	68

Visits made	388
Interviews	452

Bookings for Confinements were made as follows :—

Okehampton	1
Own home (Queen's Nurses)	8
Mowbray House	29
Redhills	2
Royal Devon & Exeter Hospital	4
St. Olaves'	4
Salvation Army Home, Bradninch	2
Bristol R.C. Home	1
Left Exeter for other areas	3
London—various Homes	7
Sidmouth	1
Bournemouth	2
Somerset, (Wellington)	1
Weymouth, (S. Gabriels)	2
One not known	1
	68

Affiliation Orders :—

Granted by Exeter Magistrates Court	9
Dismissed through lack of evidence	1
Private agreement for maintenance of baby	1
Marriages to putative father	5
Marriage (not putative father)	1
Parents co-habiting	7

Disposition of babies born :—

With mother in own home	19
With mother in lodgings	3
With mother—working	2
In care of Local Authority	1
With foster mother	2
In a residential nursery	1
With mother in Hostel	5
In home where parents are co-habiting	7
Placed for adoption	13
Died	1
	54

Table XXIV.

WORK OF DOMICILIARY MIDWIVES, 1955.

Bookings.	*Total*
No. of cases brought forward on 1st January, 1955 ..	168
No. of cases booked during the year	516
No. of emergency unbooked deliveries	9
No. of cases found not pregnant	1
No. of cases delivered during the year	444
No. of cases of miscarriage of booked patients ..	5
No. of cases left Exeter before delivery	4
No. of cases admitted to hospital undelivered ..	55
No. of booked cases subsequently delivered in maternity homes	8
No. of cases remaining on the books on 31st December, 1955	176

Work Done.	*Total*
Cases attended as midwives	186
Visits paid as midwives	3,994
Cases attended as maternity nurses	258
Visits paid as maternity nurses	5,506
Cases booked during the year	516
Ante-natal visits to patient's homes	1,866
Medical Aid forms sent	2
Midwifery cases transferred to hospital	49
No. of health visits paid by midwives	492
No. of health visits paid by maternity nurses ..	707

Gas and Air Analgesia.	*Total*
No. of cases where gas and air analgesia given ..	317
No. of cases where other analgesia given	61
No. of cases where analgesia not given	66
	444
No. of cases where pethidine administered	194
Reasons for non-administration of analgesia :	
Labour too rapid	43
Medical reasons	1
Premature labours	5
Patient refused analgesia	17
	66

Table XXV.

MEDICAL AID FORMS SENT IN 1955.

Reason for calling Medical Aid.	*By E.D.N.A.*	*By Private Midwives*	*By Hospitals, etc.*
Ante-Natal Period.			
Breech presentation—twins	1	—	—
Labour.			
Ruptured perineum	1	—	4
Delayed Second Stage	—	1	—
	2	1	4
	Total	7	

Table XXVI.

HOME NURSING DURING 1955.

Type of Case	On Books	Sent By				Age Group					Sex		Total Visits	Result				
		G.P's	Hosp.	P.H. Dept.	Others	0–1	1–5	5–15	15–65	65 and over	M.	F.		Deaths	Transd to Hosp.	Convalescent	Removed for other causes	On Books
Degenerative Diseases and Senility :																		
Post-stroke	31	105	6	—	9	—	—	—	28	123	61	90	7,832	40	19	41	10	41
Carcinoma	14	63	17	—	3	—	—	—	47	50	44	53	5,971	53	17	8	10	9
Diabetes	59	30	15	—	11	—	1	—	24	90	25	90	18,702	5	15	1	39	55
Heart Cases	60	182	9	—	18	—	—	—	60	209	109	160	9,714	61	53	63	28	64
Arthritis	16	15	1	—	6	—	—	—	10	28	11	27	2,046	—	4	11	8	15
Other Chronic diseases	62	86	10	3	25	—	—	1	79	106	73	113	8,182	16	25	26	46	73
Ulcers of Legs	26	42	3	—	3	—	—	—	21	53	6	68	6,112	1	6	26	11	30
Simple Senility	68	62	7	3	14	—	—	—	2	152	41	113	9,081	28	31	1	35	59
Tuberculosis :	12	15	6	5	1	—	—	1	31	7	15	24	2,645	4	9	12	7	7
Acute Infections, including Infectious Disease :																		
Influenza	7	30	—	—	1	—	—	2	18	18	14	24	348	3	2	33	—	—
Measles	—	3	—	—	2	1	4	—	—	—	4	1	14	—	—	5	—	—
Whooping Cough	—	2	—	—	—	—	1	1	—	—	2	—	16	—	2	—	—	—
Others	—	7	1	—	—	—	—	1	5	2	3	5	63	—	1	6	1	—
Pneumonia	7	55	1	—	2	2	3	2	20	38	35	30	852	7	9	46	1	2
Other acute chest conditions	26	303	—	—	8	6	27	22	116	166	147	190	3,872	17	23	270	14	13
Tonsillitis	—	73	—	—	—	—	3	9	58	3	33	40	463	—	1	70	2	—
Carried Forward	388	1,073	76	11	103	9	39	39	519	1,045	623	1,028	73,913	235	217	619	212	368

Continued on next page.

Table XXVI.—*Continued.*

HOME NURSING DURING 1955—*Continued.*

Type of Case	On Books	Sent By				Age Group					Sex		Total Visits	Result				
		G.P's	Hosp.	P.H. Dept.	Others	0–1	1–5	5–15	15–65	65 and over	M.	F.		Deaths	Transd. to Hosp.	Convalescent	Removed for other causes	On Books
Brought Forward	388	1,073	76	11	103	9	39	39	519	1,045	623	1,028	73,913	235	217	619	212	368
Acute Infections—Cont.																		
Other acute infections	15	517	21	—	40	26	49	60	332	126	207	386	5,497	12	37	441	91	12
Ear Infections	4	143	—	—	—	12	47	51	28	9	81	66	1,225	—	2	135	3	7
Maternity and Gynaecological :																		
Infect. midwifery	2	1	—	—	13	—	—	—	16	—	—	16	156	—	—	12	4	—
Breast abscess	—	13	1	—	4	—	—	—	18	—	—	18	236	—	—	15	3	—
Flushed breast	—	14	2	—	5	—	—	—	21	—	—	21	151	—	—	19	2	—
Miscarriages	—	46	—	—	3	—	—	—	49	—	—	49	482	—	18	31	—	—
Changing of Pessaries	3	36	—	—	138	—	—	—	30	147	—	177	425	—	3	1	165	8
Accidents :	8	76	15	—	6	1	10	10	40	44	38	67	1,611	—	9	84	5	7
Others :																		
Post Operation Cases	22	74	68	1	3	3	4	17	96	48	86	82	4,103	3	8	138	5	14
Pre X-ray Treatments	—	27	61	—	1	—	—	—	52	37	38	51	104	—	—	—	89	—
Enemata	1	176	4	—	6	1	5	5	59	117	81	106	379	—	10	173	3	1
Threadworms	—	6	—	—	—	—	2	2	2	—	3	3	12	—	—	—	6	—
Totals	443	2,202	248	12	322	52	156	184	1,262	1,573	1,157	2,070	88,294	250	304	1,668	588	417

Casual (Non-Nursing) Visits 1,135.

Table XXVII.

IMMUNISATION AND VACCINATION DURING 1955.

Smallpox Vaccination.

Primary vaccinations	613	By general practitioners	549
		At clinics	64
Revaccinations	255	By general practitioners	245
		At clinics	10

Age Groups of persons Vaccinated during 1955.

	Under 1	1 to 4	5 to 14	15 and over	Totals
Primary	487	42	14	70	613
Re-vaccinations	—	12	19	224	255

Diphtheria Immunisation.

Primary Courses of Immunisation	1,048	By private practitioners	745
		At clinics	303

(These include 924 combined Diphtheria-Whooping Cough immunisation courses—see below).

Re-inforcement Injection	1,421	By private practitioners	382
		At clinics	1,039

Primary Immunisation against Diphtheria, By Age, During 1955.

(Including 924 children who have had combined whooping cough—diphtheria immunisation).

Age at Immunisation	Under 1	1	2	3	4	5-9	10-14	Total under 15
Number Immunised, by end of 1955	684	126	96	42	16	79	5	1,048

Diphtheria Immunisation in relation to Child Population.

Number of children at 31st December, 1955, who had completed a course of immunisation against Diphtheria *at any time before that date* (i.e. at any time since 1st January, 1941).

Age at 31.12.55.	Under 1	1—4	5—9	10—14	Total under 15
i.e.—Born in Year :	1955	1954—1951	1950—1946	1945—1941	
Last complete course of injections (whether primary or booster) A. 1951—1955	271	3,111	4,570	2,303	10,255
B. 1950 or earlier*	—	—	1,302	3,158	4,460
C. Estimated mid-year child population (1955)	1,070	4,230	11,500		16,800
"Immunity Index" (A ÷ C)	25.3	73.5	59.8		61.0

*I doubt if this section is accurate ; it has not been possible to keep close check of removals of war-time evacuees from the City.

No case of diphtheria occurred in Exeter in 1955.

Whooping Cough Immunisation.

Completed courses of Whooping cough Immunisation	21	By private practitioners	13
		At clinics	8
Completed courses of combined Whooping cough-Diphtheria Immunisation	924	By private practitioners	699
		By clinics	225

Immunisation against Whooping Cough By Age, During 1955.

Age at Immunisation	Under 1	1	2	3	4	5	Total under 15
Number immunised by end of 1955	664	114	86	36	15	30	945

Table XXVIII.

Return showing Classes of Work performed by Exeter (St. John) Ambulance Service. 1st January, 1955 to 31st December, 1955.

Code No.	Classification	Ambulances		Sitting Cars	
		Cases	Miles	Cases	Miles
1	Indoor Accidents and Acute Illness	409	1,300	115	410
2	Outdoor Accidents and Acute Illness	544	1,528	166	490
3	Removals to and from Hospitals	2,867	12,180	2,050	9,599
4	Inter hospital transfers	1,167	8,933	268	1,353
5	Maternity	276	1,054	371	1,924
6	Miscellaneous (Including Mental Cases)	677	3,853	492	2,963
7	Infectious Cases (Exeter)	944	5,491	—	—
8	Infectious Cases (Devon)	219	5,651	—	—
9	Removals to and from Devon County	1,660	31,021	876	15,025
10	Removals for Other Authorities	82	2,844	99	1,966
11	Physically handicapped School-Children	734	2,049	2,527	8,729
12	Administration (Journeys)	564	1,465	257	518
13	Abortive (Journeys)	84	199	74	204
14	Civil Defence Corps Training	41	688	3	19
	Totals	10,268	78,256	7,298	43,200

Item 10. Chargeable to Other Local Authorities.
„ 11. Chargeable to Exeter Education Committee.
„ 14. Chargeable to Exeter Civil Defence Committee.

Table XXIX.

EXETER (ST. JOHN) AMBULANCE SERVICE.

Monthly Summary of work, 1955.

MONTH	AMBULANCES		SITTING CASE CARS		TRAINS	
	Patients	Miles	Patients	Miles	Patients	Miles
1st Jan.—28th Jan.	643	5,042	326	2,611	8	896
29th Jan.—24th Feb.	641	5,444	418	2,593	10	916
25th Feb.—24th March	665	5,408	383	2,803	13	1,055
25th March—21st April	667	6,106	390	2,958	13	1,621
22nd April—26th May	932	7,569	394	2,652	15	2,109
27th May—30th June	969	8,331	391	3,222	11	1,725
1st July—31st July	671	6,125	389	2,775	10	1,778
1st Aug.—31st Aug.	783	7,109	290	3,162	18	2,349
1st Sept.—30th Sept.	717	5,689	389	3,070	18	2,469
1st Oct.—31st Oct.	767	6,207	371	2,908	8	900
1st Nov.—30th Nov.	773	5,870	357	2,461	22	3,128
1st Dec.—31st Dec.	617	4,955	389	2,515	12	1,861
TOTALS	8,845	73,855	4,487	33,730	158	20,807

Administrative, Abortive, and Civil Defence Corps training journeys and Mileage are NOT included in this Summary. Neither does it include the numbers of Physically Handicapped School-children nor the mileage involved.

Table XXX.

TUBERCULOSIS STATISTICS FOR THE CITY.

				Totals
1	Total cases on Register, 1st January, 1955 :	Pulmonary	619	
		Non-Pulmonary	103	722
2	Total new notifications received after deduction of duplicates :	Pulmonary	74	
		Non-Pulmonary	22	96
3	Inward Transfers :	Pulmonary	85	
		Non-Pulmonary	7	92
4	Deaths during the year from Tuberculosis :	Pulmonary	14	
		Non-Pulmonary	2	16*
5	Deaths during the year of Tuberculous patients from other causes :	Pulmonary	8	
		Non-Pulmonary	—	8
6	Outward Transfers :	Pulmonary	65	
		Non-Pulmonary	2	67
7	Number of cases removed from Register as "Recovered" or "Mistaken Diagnosis" :	Pulmonary	10	
		Non-Pulmonary	5	15
8	Taken off the Register under the 'Public Health (Tuberculosis) Regulations, 1930' :	Pulmonary	2	
		Non-Pulmonary	2	4
9	Total cases on Register, 31st December, 1955 :	Pulmonary	679	
		Non-Pulmonary	121	800

* See note on deaths on page 91.

Table XXXI.

CASES ON THE TUBERCULOSIS REGISTER (31ST DECEMBER, 1955).

AGE GROUP.	RESPIRATORY	NON-RESPIRATORY						
		Neck glands	Genito-urinary	Spine	Other bones and Joints	Abdominal	Meninges	Lupus, Mastoid
MALE								
0–5	3	—	—	—	—	—	—	—
5–15	33	5	—	—	—	1	1	—
15–25	78	1	—	4	4	2	1	—
25–35	95	5	4	—	1	1	—	—
35–45	48	1	2	1	1	—	—	—
45–65	98	2	1	1	1	—	—	—
65 & Over	11	—	—	—	—	1	—	—
Total Male	366	14	7	6	7	5	2	—
FEMALE								
0–5	2	1	—	—	—	—	1	—
5–15	16	3	—	1	4	—	2	1
15–25	78	4	1	1	4	—	1	—
25–35	101	8	1	4	4	3	1	—
35–45	72	4	6	—	7	—	—	—
45–65	35	2	1	1	4	3	—	1
65 & Over	9	2	2	1	1	—	—	—
Total Female	313	24	11	8	24	6	5	2

GRAND TOTAL, MALE AND FEMALE = 800.

Table XXXII.

TABLE SHOWING THE MORTALITY IN EXETER FROM TUBERCULOSIS DURING THE PAST 10 YEARS.

Year	DEATHS.			DEATH RATE. PER 1,000 POPULATION			DEATHS OF CHILDREN UNDER 5.
	Pulmonary	Non-Pulmonary	Total	Pulmonary	Non-Pulmonary	Total	
1946	33	10	43	0.45	0.14	0.59	—
1947	35	4	39	0.47	0.05	0.52	1
1948	31	4	35	0.41	0.05	0.46	—
1949	32	8	40	0.42	0.1	0.52	1
1950	32	2	34	0.41	0.03	0.44	—
1951	14	5	19	0.18	0.07	0.25	—
1952	19	2	21	0.25	0.03	0.27	—
1953	22	1	23	0.28	0.01	0.29	—
1954	22	1	23	0.28	0.01	0.29	—
1955	12	2	14	0.16	0.03	0.18	—

Table XXXIII.

NOTIFICATIONS OF NEW CASES OF TUBERCULOSIS DURING 1955.
ARRANGED ACCORDING TO AGE.

AGE AT NOTIFICATION	Pulmonary.		Non-Pulmonary.	
	Male.	Female.	Male.	Female.
0—	—	1	—	—
1—	—	—	—	—
2—	—	—	—	—
5—	5	3	—	—
10—	2	—	—	1
15—	3	5	—	2
20—	3	6	2	1
25—	7	13	4	3
35—	3	4	—	3
45—	7†	1	—	2
55—	5	1	—	—
65—	2	—	—	4
75 and over	1	2	—	—
Totals	38	36	6	16

96

†Includes case of Korsakows' Syndrome proved after death to be tuberculous broncho-pneumonia. See note on page 91.

Table XXXIV.

DEATHS FROM TUBERCULOSIS DURING 1955,
ARRANGED ACCORDING TO AGE.

AGE AT DEATH.	Pulmonary.		Non-Pulmonary.	
	Male.	Female.	Male.	Female.
0—	—	—	—	—
1—	—	—	—	—
2—	—	—	—	—
5—	—	—	—	—
10—	—	—	—	—
15—	—	—	—	—
20—	—	—	—	—
25—	—	1	—	—
35—	—	1	—	—
45—	5*	—	1	—
55—	1	—	1	—
65—	4	—	—	—
75 and over	1**	1	—	—
Totals	11	3	2	—

16

*Certified cause of death = Korsakows' Syndrome : post-mortem showed tuberculous broncho-pneumonia as cause of death. See note on page 91.

**Died in 1955 but not registered until 1956. See note on page 91.

Table XXXV.

MASS RADIOGRAPHY UNIT SURVEYS, 1955.

	Male.	Female.	Total.
Number examined :—			
In February survey	1,110	1,011	2,121
In April survey	1,982	1,539	3,521
In August survey	1,301	579	1,880
In October survey	2,943	3,294	6,237
TOTALS	7,336	6,423	13,759

It must be realised that not all the above are Exeter residents.

Table XXXVI.

Cases Examined at Chest Clinic During 1955 Referred by the Mass Radiography Unit.

	Age in Years							
	Under 15	15-24	25-34	35-44	45-49	50-59	Over 60	Total
Male	5	9	8	9	8	12	8	59
Female	5	11	7	7	4	6	2	42
Totals	10	20	15	16	12	18	10	101

The position at the end of the year regarding these cases was as follows :—

		Age in Years							
		Under 15	15-24	25-34	35-44	45-49	50-59	Over 60	Total
(1) Already known to Chest Clinic as cases of Tuberculosis.	M.	—	4	1	1	1	—	—	7
	F.	—	—	1	1	—	1	—	3
(2) Already known to Chest Clinic as Observation cases or Contacts.	M.	—	—	1	—	—	—	—	1
	F.	1	—	1	—	2	1	—	5
(3) Failed to keep appointments at Chest Clinic.	M.	—	—	—	—	—	—	—	—
	F.	—	—	—	1	—	—	—	1
(4) Transferred to other Clinics for investigation.	M.	—	—	—	—	1	—	—	1
	F.	—	1	—	1	—	—	—	2
(5) Diagnosed as suffering from active Pulmonary T.B. Male-Sputum Positive		—	1	4	1	—	—	2	8
Male-Sputum Negative		1	—	1	—	1	—	—	3
Female-Sputum Positive		—	1	1	—	—	1	—	3
Female-Sputum Negative		—	1	2	1	—	—	—	4
(6) Taken off Books — Healed Pulmonary T.B. (Disease not active)	M.	—	—	1	3	3	6	2	15
	F.	—	1	—	2	1	1	1	6
(7) Taken off Books — Chest conditions other than T.B.	M.	1	1	—	1	1	4	3	11
	F.	5	2	1	1	1	2	—	12
(8) Remaining under Observation at Chest Clinic.	M.	—	3	1	2	2	2	1	11
	F.	2	4	1	—	—	1	—	8
Totals		10	19	16	15	13	19	9	101
(9) Disposal of New Cases diagnosed (see (5) above). (a) Sanatorium treatment.	M.	1	1	3	1	1	—	1	8
	F.	—	1	2	1	—	1	—	5
(b) Clinic Supervision.	M.	—	—	1	—	—	—	1	2
	F.	—	1	2	—	—	—	—	3

Table XXXVII.

Summary of Work carried out at Exeter Chest Clinic.

		1953	1954	1955
1.	Number of new cases diagnosed as suffering from active Tuberculosis	103	99	96
2.	Number of patients examined for the first time during the year	752	1,211	1,316
3.	Number of patients re-examined during the year	1,070	1,468	1,814
4.	Number of contacts examined for the first time during the year : Large films	307	162	173
	Miniature films	83 — 390	285 — 447	186 — 359
5.	Number of contacts re-examined during the year : Large films	105	114	146
	Miniature films	30 — 135	132 — 246	137 — 283
6.	Number of inward transfers received during the year	86	76	92
7.	Number of B.C.G. Vaccinations carried out during the year : Clinic Cases, etc.	173	213	175
	13-year old school children under the Ministry of Health Scheme	—	149	—
8.	Number of X-Ray films taken during the year : Full-size	1,792	1,712	2,308
	Miniature films	113	574	562
9.	Number of Screenings made during the year	894	825	958
10.	Number of Refills given during the year	730	719	860
11.	Number of Pathological Examinations made during the year	2,813	2,259	2,088

Table XXXVIII.

Examination of Contacts—Age Groups.

		Under 15	15-24	25-34	35-44	45-49	50-59	Over 60	Total
Number of Contacts examined during the year by Large Films and clinical examination	New	67	20	42	35	9	—	—	173
	Old	20	37	29	31	18	4	7	146
Number of Contacts examined during the year by Miniature Films	New	24	61	43	38	6	7	7	186
	Old	11	53	35	8	7	9	14	137
Number of Contacts found to be suffering from active Pulmonary Tuberculosis.									
Pulmonary :	Positive sputum	—	1	3	2	1	1	—	8
	Negative sputum	3	2	3	—	—	1	—	9
Non-Pulmonary :		1	—	1	—	—	—	—	2

Tuberculin Testing and B.C.G. Vaccination at the Chest Clinic.

Age Groups, Etc	Tuberculin Testing									B.C.G. Vaccination
	Contacts of known cases of Tuberculosis	Sent by School Medical Officers	Sent by Private Practitioners	Sent by other Clinics, etc.	Chest Clinic Cases	Ministry of Health Scheme for 13 year old school-children	Seen as result of special surveys in Schools, etc. after discovery of cases of Tuberculosis)	Results		
								Positive	Negative	
0—1	46	—	—	—	—	—	—	1	45	41
1—2	28	—	1	—	—	—	—	3	26	20
2—3	24	—	3	—	1	—	—	1	27	13
3—4	11	—	5	—	—	—	—	1	15	7
4—5	14	—	1	2	1	—	—	2	16	7
5—6	18	2	10	1	—	—	—	3	28	11
6—7	13	7	7	—	1	—	—	3	25	13
7—8	10	5	3	—	—	—	1	2	17	10
8—9	14	6	8	—	1	—	—	1	28	11
9—10	15	5	1	—	1	—	—	6	16	8
10—11	8	5	1	1	2	—	—	4	13	6
11—12	9	3	5	—	—	—	1	5	13	4
12—13	12	2	2	—	1	—	1	9	9	3
13—14	3	—	2	—	—	—	1	3	3	—
14—15	—	2	—	—	1	—	1	3	1	—
Senior School Children	2	1	—	—	—	—	—	2	1	1
Nurses & Hospital Staff	12	—	—	—	—	—	—	6	6	3
Home Helps	1	—	—	—	—	—	—	1	—	—
Occupational Therapy	37	—	—	—	—	—	—	19	18	17
Others	1	—	1	—	16	—	2	13	7	—
Totals	278	38	50	4	25	—	7	88	314	175

In addition to the 175 B.C.G. Vaccinations above, 64 nurses were vaccinated at Newcourt Preliminary Training School; and 722 (13-14 year old) children were B.C.G. vaccinated by the School Medical Officers (see page 94).

Table XL.

PATHOLOGICAL EXAMINATIONS.

The following Examinations were carried out for the Chest Clinic during the year.

Nature of Examination		Results	
		Positive	Negative
Sputum	Direct Smear	74	701
	Culture	49	348
	Preparation for Malignant Cells	2	9
Gastric Contents	Culture	6	11
Swabs	Nose	4	34
	Throat	5	37
	Sinus	2	15
	Laryngeal	3	—
Urine and Blood Urea		5	34
		Resistant	Sensitive
Sputum. (Sensitivity Tests on Tubercle Bacilli Recovered)	Streptomycin	—	12
	Isoniazid	1	9
	P.A.S.	1	10
Hogben Pregnancy Tests		6	8
Sedimentation Rates (Wintrobe Technique)		351	
Haemoglobin Estimations		351	

Table XLI.

HOME VISITS.

During the year 1,461 Home Visits were made by the Tuberculosis Health Visitor (Miss A. Dawson), made up as follows :—

(a)	Primary visits to New Patients	66
(b)	Primary visits to New Contacts	55
(c)	Repeat visits to Patients	369
(d)	After-care visits	293
(e)	Visits for carrying out Tuberculin Tests at home	382
(f)	Visits for carrying out Gastric Lavages at home	18
(g)	Other visits	278

The Chest Physician (Dr. R. P. Boyd) made 156 Home Visits for the examination of patients, almost without exception to patients who were too ill to attend the Chest Clinic.

Table XLII.

VENEREAL DISEASE CLINIC—EXETER RESIDENTS.

YEAR.	New Cases of Syphilis.	New Cases of Gonorrhoea.	New Cases of Chancroid.	Examined and found not to be suffering from V.D.
1944	34	19	—	134
1945	30	25	—	116
1946	53	56	—	202
1947	31	46	—	115
1948	17	29	—	100
1949	9	22	—	104
1950	15	13	—	80
1951	9	8	—	72
1952	7	9	—	64
1953	8	1	—	54
1954	12	5	—	38
1955	7	11	—	52

Table XLIII.

DOMESTIC HELP SERVICE.

Summary of work undertaken :

	No. of cases helped.		*No. of hours worked.*	
	Full-time.	*Part-time.*	*Full-time.*	*Part-time.*
MATERNITY.				
(a) Confinement	24	25	2,044	1,239
(b) Ante-natal	—	9	—	706
ACUTE ILLNESS.				
(a) Under pension age	—	50	—	4,186½
(b) Over pension age	—	11	—	2,940½
CHRONIC SICKNESS.				
(a) Under pension age	1	31	2,302	7,792
(b) Over pension age	—	50	—	9,786½
OLD AGE AND INFIRMITY	1	91	165	16,543
TUBERCULOSIS	—	13	—	1,135½
OTHERS, INCLUDING MENTAL DEFECTIVES	—	6	—	563½
Totals	26	286	4,511	44,892½
	312		49,403½	

MENTAL HEALTH SERVICES.

Table XLIV.

Table shewing *admissions* of persons suffering from mental illness to hospitals during 1955, through the Authorised Officers :—

Health Service Class.	*Male*	*Female*	*Total*
(1) Voluntary	87	115	202
(2) Temporary	2	5	7
(3) Section 20	23	50	73*
(4) Section 21(1)	1	4	5†
(5) Certified	16	34	50
TOTALS ..	129	208	337

*The 73 Section 20 cases subsequently became :—

Type of Patient.	*Male*	*Female*	*Total*
(1) Extended under Section 21(a)	18	33	51
(2) Voluntary	4	12	16
(3) Certified	—	2	2
(4) Died	—	1	1
(5) Discharged	1	1	2
(6) Remaining under Section 20	—	1	1
TOTALS ..	23	50	73

†The 5 Section 21(1) cases subsequently became :—

Type of Patient.	*Male*	*Female*	*Total*
(1) Voluntary	—	2	2
(2) Temporary	1	—	1
(3) Certified	—	1	1
(4) Discharged	—	1	1
TOTALS	1	4	5

Table XLV.

SHOWING ADMISSIONS, DISCHARGES AND DEATHS OF EXETER RESIDENTS SUFFERING FROM MENTAL ILLNESS IN HOSPITALS DURING THE YEAR 1955, AND THE NATURE OF THE LEGAL CLASSIFICATION OF THIS PATIENT.

Some patients have been admitted and/or discharged more than once during the year and each admission/discharge has been counted in this Table.

Age Group and Sex		State at 31st December, 1954				Admissions					Discharges					Deaths				
		Sec. 20	Vol.	Temp.	Cert.	Sec. 20	Sec. 21	Vol.	Temp.	Cert.	Sec. 20	Sec. 21	Vol.	Temp.	Cert.	Sec. 20	Vol.	Temp.	Cert.	
0-14 years :	Male	—	1	—	—	1	—	1	—	—	1	—	—	—	—	—	—	—	—	
	Female	—	—	—	—	—	—	2	—	—	—	—	2	—	—	—	—	—	—	
15-44 years :	Male	—	20	—	31	12	1	46	2	5	12	1	40	1	5	—	1	—	—	
	Female	—	12	—	31	23	2	56	3	15	22	2	51	—	10	—	—	—	—	
45-64 years :	Male	—	16	—	36	4	—	27	—	6	5	—	21	—	5	—	1	—	1	
	Female	—	18	—	77	18	1	44	1	9	15	1	37	—	9	—	1	1	—	
65 Plus :	Male	—	11	—	26	6	—	13	—	5	5	—	5	—	2	—	3	—	4	
	Female	—	17	—	67	9	1	13	1	10	8	1	7	1	3	1	7	—	9	
Total		—	95	—	268	73	5	202	7	50	68	5	163	2	34	1	13	1	14	
Grand Total		363				337					272					29				

Section 20 Cases—those where emergency requires immediate admission without justice's order— 3 day order.
Section 21 Cases—those where emergency requires immediate admission without justice's order—14 day order.

Voluntary—Cases admitted on request by the patient.
Temporary—Cases admitted, on a temporary basis, when patient has no volition. 2 recommendations required.
Certified—Cases certified as of unsound mind—Justice's and Doctor's certificate.

Table XLVI.

TABLE SHEWING MENTAL HEALTH WORKERS' DOMICILIARY VISITS TO MENTALLY ILL PERSONS DURING 1955.

TYPE OF VISIT	*Male*	*Female*	*Total*
(1) Upon discharge from hospital or H.M. Forces	160	109	269
(2) Prior to and after removal of patient to hospital	419	546	965
(3) Miscellaneous visits on behalf of (2) above and follow up	279	159	438
(4) Visits in which no statutory action was necessary	93	81	174
(5) Special visits and removals to O/P. Clinics	59	5	64
TOTALS	1,010	900	1,910

Table XLVII.

ASCERTAINMENT OF MENTAL DEFECTIVES DURING 1955 :—

HOW REPORTED	*Male*	*Female*	*Total*
(1) By Local Education Authority under Section 57(3) of 1944 Education Act	7	6	13
(2) By Local Education Authority under Section 57(5) of 1944 Education Act, on leaving ordinary schools	6	1	7
(3) By Local Education Authority under Section 57(5) of 1944 Education Act, on leaving special schools	1	2	3
(4) Through Police and Magistrates' Court	2	1	3*
(5) Other sources	—	1	1*
TOTALS	16	11	27

*Over 16 years of age.

DISPOSAL OF THE 27 CASES "ASCERTAINED" DURING 1955 :—

HOW DEALT WITH	*Male*	*Female*	*Total*
(1) Placed under Voluntary Supervision	1	1	2
(2) Placed under Statutory Supervision	14	9	23
(3) Admitted to Institutions	1	1	2
TOTALS	16	11	27

No cases were de-certified under the provisions of Section 8 of the Education (Miscellaneous Provisions) Act, 1948.

At the end of the year there were 3 urgent cases (2 boys and 1 girl) awaiting admission to hospital.

Table XLVIII.

TABLE SHEWING MENTAL HEALTH WORKERS' DOMICILIARY HOME VISITS TO MENTALLY DEFECTIVE PERSONS DURING 1955.

Type of Case and reason for visit.	*Visits to children under 16 years of age.*		*Visits to Persons over 16 years of age.*		*Total.*
	Male	*Female*	*Male*	*Female*	
Voluntary Supervision	—	—	55	64	119
Statutory Supervision	37	56	230	246	569
Guardianship	—	—	—	13	13
Review Reports	—	—	49	29	78
Licence and Holiday Reports	—	—	15	6	21
TOTALS	37	56	349	358	800

In addition to the 800 visits made to mental defectives in the community, 352 visits were made to various organisations, Courts, National Assistance Board offices, Ministry of Labour and Employers on behalf of the mental defectives in the community.

Table XLIX.

MENTAL DEFECTIVES UNDER SUPERVISION AT 31ST DECEMBER, 1955.

AGE GROUP.	STATUTORY SUPERVISION.			VOLUNTARY SUPERVISION.		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
Under 16 years	29	20	49	—	—	—
Over 16 years	44	62	106	24	22	46
TOTALS	73	82	155	24	22	46

Table L.

MENTAL DEFECTIVES FROM EXETER IN HOSPITALS AT 31ST DECEMBER, 1955.

NAME OF HOSPITAL.	MALE.		FEMALE.		TOTAL.	
	Under 16	*Over 16*	*Under 16*	*Over 16*	*Under 16*	*Over 16*
Royal Western Counties	5	80	2	44	7	124
Other Hospitals	3	6	—	5	3	11
Rampton Hospital	—	3	—	3	—	6
TOTALS	8	89	2	52	10	141

Table LI.

EXPENDITURE ON HEALTH SERVICES.

Approximate Actual Expenditure, March 1955/March 1956.

	Expenditure £	*Income* £
Public Health Services	16,039	1,926
National Health Services	103,508	*60,879

*Including Ministry of Health Grant of £41,075.

APPENDIX

EPIDEMIC VOMITING

A Study of Several Outbreaks

by G. P. McLauchlan, Deputy Medical Officer of Health

Epidemic vomiting or "winter vomiting" disease was first described about 27 years ago in America by Zahorsky (1929). A few years later an outbreak in this country was reported by Miller and Raven (1936). Since then, many reports of outbreaks of the illness have been published and it would seem they are becoming relatively common. The disease is almost certainly of virus origin, possibly due to more than one type of virus. So far, no organisms have been isolated from any of the cases, but Gordon et al (1947) have been able to infect human volunteers with filtrates from the faeces of cases of the disease and also with unfiltered throat washings.

The outbreaks so far reported have occurred mainly in schools, probably because in such large semi-closed communities they attract most attention. It must not be overlooked, however, that similar outbreaks occur on a smaller scale in family units. I will describe and discuss six outbreaks that have occurred recently in Exeter. The first three are "school outbreaks," each shewing a different pattern and the others "family outbreaks."

1. *Outbreak in a Nursery School.*

In March 1955, there was a small outbreak of epidemic vomiting in a nursery school. Of the 37 children attending the school, only 9 were affected and unlike the pattern usually described, the spread of infection was slow and the outbreak extended over nine days.

The first child fell ill with vomiting at home during the evening of 16th March; there was no diarrhoea. The second case occurred the following evening when another child developed diarrhoea but did not vomit. Both children were back to normal again by the morning following the onset of symptoms. There were then no more cases for four days until the evening of Monday, 21st March, when another child vomited several times. During the rest of the week 6 more children became ill, some during school hours and others at home in the evening. After the school had dispersed on the Friday no new cases occurred.

None of the children was greatly upset, they either vomited a few times or passed a few loose motions and were back to normal again by the next day. In 2 cases vomiting was followed next day with diarrhoea and in one case the child vomited again several times the next day (see Table 1).

On 24th March during the outbreak 2 five year old children attending a nearby infant school (a few hundred yards away) fell ill in the evening with similar symptoms. One vomited a few times and the other passed a few loose motions. Next day both were back to normal; there were no other children at the time in the school affected by either vomiting or diarrhoea. Each of these two children had a younger brother attending the nursery, who was not affected by the illness but, presumably, acted as a symptomless carrier in taking the infection home to the older child.

2. *Outbreak in a Junior School.*

This was a large outbreak occurring in June, 1955, in a junior mixed school of 300 pupils of ages between 7 and 11 years. In all, 78 children, 2 teachers and 3 of the kitchen staff were affected. The onset was explosive in character with 31 cases occurring on the first day, Wednesday, 8th June, and new cases developed during the two succeeding days. The Medical Officer of Health (Dr. E. D. Irvine) was called to the school on 10th June and carried out the initial investigations. After the school closed for the weekend on the Friday there was only one new case on Saturday morning and none after the school reassembled on the Monday.

The children affected were dispersed throughout the school. Even on the first morning, when only 8 children were affected, 5 classes were involved. The worst hit classes were the top two in which hearly half of the children were affected during the three days. (See Table II).

Nausea or vomiting was the presenting symptom in 62 of the cases. In 17 children this was followed by diarrhoea and in 5 children diarrhoea was the only symptom. Abdominal discomfort was common and in 5 children was the only symptom. 25 children complained of headache, 5 of them suffering nothing else. None of the children complained of giddiness. The duration of symptoms was short, usually only a few hours. Except for those children who had diarrhoea following the nausea or vomiting all were back to normal the next day. The symptoms in most of the diarrhoeal cases lasted under 24 hours. None of the children was much upset and recovery was rapid and complete. (See Table III).

The adults were all more severely affected and all felt very ill, one saying that she felt she was going to die. The duration of symptoms tended to be longer than in the children, lasting for 24 to 48 hours, though the period of prostration only lasted a few hours. The two teachers became ill during the afternoon of the first day of the outbreak. In two of the kitchen staff the onset of symptoms was not until the second day of the outbreak and in the other not until the third day. (See Table IV).

Twelve secondary cases occurred in the homes of affected children during the outbreak. These are particularly interesting

as if we assume that infection was passed on the day the child went home ill we get an indication of the incubation periods and this ranged from 24 to 72 hours. In two of the families a third member of the household was affected 24 hours after the second. The adults tended to be more severely affected than the children but not so severely as the adults in the school. (See Table V).

Faeces were examined from six of the children with diarrhoea, on the first day of their illness, and no pathogens were found. This school was built with a large, well equipped kitchen in which the standard of hygiene was found to be high. Only 40 of the children affected ate dinner in school and in the infant school supplied by the same kitchen, there were no cases. As the Public Health Department was not notified of the outbreak until the third day it was not possible to get samples of the dinner eaten on the previous days but samples of lard and custard powder used in the preparation of the meals suspected were examined and no pathogens were found. The school morning milk was drunk by all the children so a check on the pasteurising plant was made and it was found to be satisfactory. In other schools in the city supplied by the same dairy there were no cases. A week after the main outbreak (on 17th June) four children all in the first class of the infants school (which is in a separate building on the other side of the road) vomited during morning school and felt ill for a few hours. One of these children was the small sister of a boy affected in the Junior school the previous week. There were no other cases of vomiting about this time in that school. (See Table VI).

3. *Outbreak in a Residential School for the Deaf.*

This school has 143 pupils of both sexes and a staff of 36. The majority of the children are boarders, but 13 local children attend as day pupils. The classes are small, of about 10 children on the average. Recreation rooms are used separately by the juniors, i.e. from 7—11 years old, and by the seniors. Sleeping accommodation is in large dormitories, there being separate ones for juniors and seniors and for boys and girls. Meals are all eaten in the same dining room, but the children eat at separate tables, according to their age and sex. There is little direct contact, therefore, between the junior and senior pupils.

The outbreak was a small one in spite of the fact that the children were living together. Only 14 children were affected. These 14, however, included both seniors and juniors and both boys and girls. All were residential and none of the day pupils or staff were affected.

The outbreak started at 4.30 p.m. on the 26th October, 1955, when two 7 year old boys vomited. Shortly after, one of the senior boys complained of nausea and headache. The two younger boys vomited two or three times during the evening, but by next morning all three were well again. At 3 a.m. a boy of 11 awoke feeling ill and vomited several times and about three hours later 5 more boys, 3 in the junior and 2 in the senior dormitories, vomited. The first girl to be affected, a senior, started vomiting at 9.30 a.m. to be followed at 11 a.m. by two junior girls. All three children vomited two or three times during the following few hours and then felt well again. The temperatures of all the children were between 99° and 100°F. except for one 14 year old boy whose temperature was 101.4°F. On the evening of the second day, two more boys vomited and thereafter there were no new cases. In no case was the vomiting followed by diarrhoea, nor were there any other symptoms. (See Table VII).

4. The first family outbreak that I would like to mention was a small one in which a family of mother, father and 11 month old son, were all affected. On Friday, 8th April, the father complained of nausea and abdominal discomfort lasting all day. There was no vomiting or diarrhoea. Next morning he was all right again, but that evening about 9 p.m. the 11 month old boy awoke vomiting. He vomited several times between 9 and 11 p.m. and then went off to sleep. Next morning he was perfectly normal again. During Sunday, 10th April, all were well, but on the Monday morning the mother developed nausea and vague abdominal discomfort shortly after getting up. This continued during the day until about 5 p.m. when she vomited. During the evening she felt much better and was all right again next day. No diarrhoea followed in any of the cases. This was, I consider, a typical example of a virus infection of the epidemic vomiting type with the serial occurrence of the cases of abdominal symptoms with nausea or vomiting of short duration. The incubation period was short, probably between 24—48 hours, if we accept that infection was passed from case to case which seems certain as the baby had had no contact with people outside the family for several days. (See Table VIII).

5. The second of the " family " outbreaks involved two families living next door to each other, the infection passing from one to the other. The outbreak started on 9th June when, a schoolgirl of 15, vomited and complained of abdominal discomfort. By next morning she was all right again. On the 11th June her mother, Mrs. R., fell ill with similar symptoms. She vomited several times during the day and collapsed twice while vomiting. She was prostrated during that day, but felt well again the following day. The next door neighbour, Mrs. B., was called in to help and she cleared up some of the vomit from the floor. Two days later, on the 13th June, Mrs. B. started vomiting and complained of abdominal discomfort for most of the day though had recovered by the next day. On the 15th June her 5 year old girl vomited several times and on the 17th her 11 month old daughter

developed vomiting and diarrhoea for about 24 hours. Meantime, Mrs. R.'s married daughter came up from Plymouth to help on the 12th and she sickened with vomiting and abdominal pain on the 13th, but was well enough to travel home next day. Except for Mrs. R., none of them was severely ill and in all cases recovery was rapid and complete. In the household R., the husband, grandmother and 2 other children did not develop any symptoms and in the household B., Mr. B. and 2 children were not affected. Specimens of stools were examined in all cases and no pathogens were isolated. No food stuffs were investigated, as it was considered none was suspect. (See Table IX).

6. The third family outbreak was confined to one household consisting of father and mother and one unmarried son and living with them a married son, his wife and 6 month old boy. On the 9th April, the married son and his wife both developed nausea and vomiting, the wife also complaining of a severe headache. By next day, they were both fit again, but the mother now complained of nausea and passed several loose motions during that day. On the third day, the other son had nausea for several hours and felt ill though he did not vomit or have any diarrhoea and he was all right by next day. The father and the baby were not affected. The two families lived as a unit and ate meals together, all except the baby having the same food. The stools of all members of the household were examined and no pathogens isolated. Samples of various food-stuffs eaten at the time were examined and no pathogens found. (See Table X).

DISCUSSION.

Of the six outbreaks I have described, only one was in winter ; of the others, two were in April, two in June and one in October. Climatic conditions seem to have no influence on the onset of these outbreaks. None occurred in severe weather ; the onsets ranged from blustery March days to very hot June days.

The usual time of onset of symptoms in epidemic vomiting is said to be at night. In the Junior School all the cases occurred either during morning or afternoon school, but in the Nursery School only four cases had their onset in school and the rest at home during the evening. In the Deaf school, 6 out of the 14 cases had their onset at night.

Spread of Infection.

In an illness whose symptoms are predominantly gastro-intestinal, the possibility of its being food spread must be considered.

In the Junior School only 19 out of the 32 primary cases had dinner in school, and only 40 out of all the 78 children affected had dinner in school ; so school dinner can be excluded as the vehicle of spread. In all 33 children had dinner in school every day.

The only other food that could have been common to all those affected was the school milk which was pasteurised milk from a large city dairy. This was drunk by over 90% of the children including all those children affected, but not by the staff who used milk from a different supplier and which was also pasteurised. A check on the dairy supplying the school milk showed that the pasteurising plant had been working satisfactorily and it was found that in other schools supplied from the same dairy none of the children had showed any ill-effects. It is virtually certain that the infection was not spread in the milk.

In the family outbreak R. and B., the two families lived and ate separately. The only known link was the visit of Mrs. B. to help when Mrs. R. fell ill. The infection must have spread from one household to the other at this time and was not food borne.

In the other outbreaks, meals were shared by all those affected, but the lack of any definite relationship to the taking of food and the spacing of cases at intervals of from a few hours up to 24 hours or more are both against their being food spread.

The water supply to all the schools and homes was from the main City supply which is filtered and chlorinated. There is no reason to suspect that any of the outbreaks were connected with the water supply.

The pattern of the outbreaks all suggest that the spread was airborne. However, the fact that we know the virus is excreted in the faeces makes it conceivable that in some instances infection could be passed in food : but there was no evidence that the children were particularly in the habit of sharing sweets, biscuits etc. It is possible that the lavatories might have been a source of spread, as it is notoriously difficult to preclude this possibility.

The occurrence, on the first day, of cases in eight classes in the Junior School and the dispersal in various classes and dormitories of the children affected in the Deaf School suggest to me that as a preliminary to the onset of these outbreaks there must have been a period during which the virus was spread throughout the school by a series of healthy carriers. It is reasonable to assume that such a rise in carrier rate must take place when so many children not in direct contact with each other become affected almost simultaneously. Why this rise in carrier rate should take place and why it should be followed by an outbreak of clinical cases it is not possible to say except to assume that for some reason there has been an increase in the virulence of the organism.

That symptomless carriers of the virus can exist is strongly suggested by the two instances in the Nursery School, when older children in the homes of children attending the Nursery School were affected while children who presumably brought the infection home, were themselves not affected.

How long after infection a case or carrier can carry the infection is uncertain and there is little evidence in the outbreaks I have described to help us. There was a small outbreak involving four children in the Infant School attached to the Junior School. One of the four children affected was the small sister of a boy who was affected in the Junior School outbreak eight days previously. It may just have been a coincidence, but this small outbreak occurring so soon after the larger one suggests that there must have been some connection and it is possible that the boy had continued to carry the virus after direct recovery, and later infected his sister.

Incubation Period.

In the outbreak that Bradley (1943) described, he considered that the incubation period was probably between two and seven days. In this series of outbreaks however, the incubation seems to have been shorter, probably between 24 and 72 hours.

In the secondary cases occurring in the homes of children involved in the Junior School outbreak (Table V) it can be assumed that infection was passed at the earliest on the day the child came home ill from school. This makes it possible to fix the incubation period with fair accuracy. In most, symptoms developed in the secondary cases about 24 hours after infection though in three instances 72 hours elapsed. In two homes, a third case developed 24 hours after the secondary one. These may have been tertiary cases or, of course, may have been secondary to the original case with a 48 hour incubation period. In the school itself, a wave of new cases occurred each day suggesting a 24 hour incubation period.

In the outbreak involving the households R. and B. (Table IX) there are two instances where the time of infection can definitely be assumed. Mrs. B. came in contact with Mrs. R. when she was ill and 48 hours later became ill herself. In both households second cases occurred 48 hours after the first and in the B. household a third 48 hours after that. Mrs. R.'s daughter came up from Plymouth after having no contact with the family for some time and 24 hours later developed similar symptoms to the others. Though the cases were few in the Nursery School and the other two family outbreaks described there was a tendency for new cases to occur at definite intervals. The majority of cases in the Nursery School (Table I) occurred at 24 hour intervals though there was one period of four days after the second case when no new case occurred. As this gap is so different from the pattern of the rest of the outbreak it may well be that one or more subclinical cases occurred during this period. In the two family outbreaks (Table VIII and X) new cases were spaced at 24 hour intervals.

In the Deaf school outbreak, it is not easy to work out the incubation period. From 4.30 p.m. one afternoon until 6 p.m. the next evening new cases occurred at short intervals (Table VII), the longest time between cases being 10 hours. The next cases at 6 p.m. on the second evening might be secondary to the early

ones with a 24 hour incubation period, but the others are too close together for one to have infected the other unless we accept an incubation of much less than 24 hours which from the other outbreak I have discussed seems unlikely. More probably this spread of cases is due to variation in the time of infection which is likely if infection was not from a common source, but by means of healthy carriers (vide supra).

Symptomatology.

The most common presenting symptom in this series of outbreaks was either nausea or vomiting or often both. Although sometimes the person only vomited once, vomiting, two or three times during the course of a few hours was more usual. The onset of vomiting was often abrupt giving no warning. In less than a third of the cases with vomiting was it followed by diarrhoea. When it did develop it usually followed closely on the vomiting either the same day or the following one though in the case of one child at the Nursery School it did not start until two days later. The diarrhoea was in no case severe usually consisting of the passing of a few loose motions.

During the outbreaks in both the Junior and Nursery Schools a small number of children developed mild diarrhoea, passing a few loose motions, but not accompanied by either nausea or vomiting. Occurring as they did in the midst of an outbreak of epidemic vomiting, it must be assumed that they were part of it and that the diarrhoea was the onset of infection with the virus.

Abdominal discomfort or actual pain of a colicky type was common and was usually accompanied by nausea and vomiting or diarrhoea, but in the Junior School a few children complained of colicky abdominal pain accompanied by no other symptoms.

Frontal headache often quite severe was complained of in a number of cases both in adults and children. Although usually accompanied by other symptoms, during the outbreak in the Junior School, a few children complained of headache with no other symptoms. Whether these children complained of headache as a psychological result of the illness in the others or whether it resulted from infection with virus, it is not possible to say.

Only in the Deaf School was the temperature recorded. In all the children affected it was found to be slightly raised, between 99° and 100°F. though one boy had a temperature of 101.4°F. When taken about 12 hours later in all cases the temperature had returned to normal.

In some previous outbreaks giddiness has been described as a common symptom, but no one in the series of outbreaks I have described complained of it.

Mitchell and Nelson (1950) state that upper respiratory symptoms are a common accompaniment and regard the infection as being primarily an upper respiratory one. Upper respiratory symptoms were not noted in any of this series.

None of the children involved was severely affected and recovery after the cessation of symptoms was rapid. The adults

tended to be more severely affected and a few were prostrated by the illness, one member of the kitchen staff in the Junior School saying that she felt she was going to die (though she is a stable sort of person). The duration of the illness was short in all cases, in most instances only lasting for a few hours though sometimes up to 24 hours and in a few cases in adults extending into a second day.

Infectivity.

About 25% of the children attending the Junior School were affected though it is likely that more became infected and acted temporarily as symptomless carriers. In the School for the Deaf, the number of clinical cases was lower being only 10% of those at the school. Again the clinical cases were dispersed throughout the school and it is likely that more children were infected but did not show any symptoms.

In the nursery school the picture was rather different and although 25% of the children at the school became infected as clinical cases the spread of infection was slow. The outbreak lasted nine days from the first to the last case. We believe that at least two other children were infected as symptomless carriers (i.e. the two who carried the infection home to older children in the family). The pattern of this outbreak suggests that the virus responsible was much less virulent than that in either of the other two school outbreaks.

Diagnosis.

The diagnosis of epidemic vomiting is normally made on the symptoms, the pattern of the outbreak and the negative bacteriological findings.

At the start of an outbreak food poisoning is usually suspected, and occurring as it so often does in schools, the school canteen is blamed. The symptoms of epidemic vomiting are very similar to those produced by staphylococcal entero-toxin and any outbreak must be investigated with this in mind. However, the lack of any definite relationship between the taking of food and the onset of symptoms among the persons affected such as is found with staphylococcal food poisoning helps to exclude this. Later the subsequent development of the outbreak and the absence of bacteriological findings in those affected and in any suspected food should make the diagnosis certain.

In family outbreaks food poisoning is also usually suspected in the first instance. Study of the time that elapses between the taking of any suspected food and the onset of symptoms may serve at once to exclude staphylococcal food poisoning e.g. in the family P. the time of onset of symptoms in the first case was 8 a.m. many hours after the taking of any food. The occurrence of subsequent cases and their lack of any definite relationship to the taking of food and of course the negative bacteriological findings—in food and in stools—serve to make the diagnosis reasonably certain.

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Mitchell & Nelson (1950), Text Book of Paediatrics, pp. 103 & 104.

Table I.

OUTBREAK IN NURSERY SCHOOL.

NAME	AGE	DATE OF ONSET	TIME OF ONSET	SYMPTOMS	REMARKS
M.B.	2½ years	16th March	Evening.	Vomiting.	—
A.D.	4 years	17th March	Evening.	Diarrhoea.	—
S.C.	3 years	21st March	Evening.	Vomiting.	Vomited again on 22nd March.
R.A.	3½ years	22nd March	At Mid-day Meal.	Vomiting.	—
L.B.	3½ years	22nd March	At Mid-day Meal.	Diarrhoea.	—
R.W.	4 years	22nd March	Evening.	Vomiting.	Diarrhoea during 24th March.
A.H.	3 years	23rd March	After morning milk	Vomiting.	Vomited again at Midday and diarrhoea during 24th March.
M.M.	3 years	23rd March	Evening.	Vomiting.	—
E.M.	2½ years	25th March	Morning and Afternoon.	Diarrhoea.	—
R.V.	5 years	24th March	Evening.	Diarrhoea	Both at infant school, but have younger sibling in nursery school.
B.L.	5 years	24th March	Evening.	Vomiting.	

Table II.

OUTBREAK IN JUNIOR SCHOOL.
CLASS DISTRIBUTION OF CHILDREN AFFECTED.

DATE	TIME	TOTAL NUMBER AFFECTED	CLASS DISTRIBUTION								
			1	2	3	4	5	6	7	8	9
8th June	Morning	8	0	1	0	0	1	0	2	3	1
	Afternoon	24	0	4	3	4	2	1	1	3	6
9th June	Morning	18	1	1	1	1	1	0	3	4	6
	Afternoon	7	0	0	1	0	0	0	1	3	2
10th June	Morning	7	0	0	1	0	2	0	1	1	2
	Afternoon	13	1	0	5	0	3	3	1	0	0
11th June	Morning	1	0	0	0	0	0	0	0	1	0
TOTALS	—	78	2	6	11	5	9	4	9	15	17

Table III.

OUTBREAK IN JUNIOR SCHOOL.
SYMPTOMS.

SYMPTOMS	NUMBER AFFECTED.
Vomiting	51
Nausea without vomiting	11
Diarrhoea only	5
Diarrhoea with following nausea (3) or vomiting (14)	17
Abdominal pain only	5
Abdominal pain with nausea or vomiting	39
Headache only	5
Headache with nausea or vomiting	20

Table IV.

OUTBREAK IN JUNIOR SCHOOL.
ADULTS AFFECTED.

NAME	OCCUPATION	DATE AND TIME OF ONSET	SYMPTOMS	REMARKS	DURATION OF ACUTE SYMPTOMS
Miss B.	Teacher	8th June. Afternoon.	Nausea and vomiting followed by severe headache and diarrhoea all night.	Prostrated.	Illness of short duration 24-48 hours.
Mr. M.	Teacher	8th June. Afternoon.	Abdominal pain in afternoon followed by nausea and vomiting in evening, diarrhoea on 9th June.	—	Illness of short duration 24-48 hours.
Mrs. P.	Kitchen staff.	9th June. Morning.	Nausea with vomiting.	"Felt that she was going to die."	Illness of short duration 24-48 hours.
Mrs. G.	Kitchen staff	9th June. Morning.	Abdominal pain.	—	Illness of short duration 24-48 hours.
Mrs. N.	Kitchen staff.	10th June. Morning.	Diarrhoea.	Daughter aged 11 had bout of vomiting on 11th June.	Illness of short duration 24-48 hours.

Table V.

Outbreak in Junior School.
Secondary Cases.

Primary Case	Date of Onset	Symptoms of Primary case	Secondary Case	Date of Onset	Symptoms of Secondary case
J.R.	8th June.	Diarrhoea.	Sister.	9th June.	Diarrhoea.
Miss B.	8th June.	Vomiting and Diarrhoea.	Child next door.	9th June.	Vomiting.
D B.	9th June.	Vomiting.	Sister.	12th June.	Vomiting.
B.B.	9th June.	Vomiting.	Mother.	12th June.	Vomiting.
Mrs. N.	10th June.	Diarrhoea.	Daughter.	11th June.	Vomiting.
M.H.	10th June.	Vomiting and Diarrhoea.	Brother.	11th June.	Vomiting.
S.H.	10th June.	Vomiting and abdominal pain.	Father.	12th June.	Nausea and Diarrhoea.
			Sister.	13th June.	Vomiting.
S.M.	10th June.	Vomiting.	Father.	11th June.	Vomiting
			Mother.	12th June.	Vomiting.
P.C.	11th June.	Vomiting.	Mother.	12th June.	Nausea and Diarrhoea.
R.C.	17th June.	Vomiting.	Sister.	20th June.	Vomiting.

Table VI.

Outbreak in Junior School.
Cases in Infant School.

Name	Date of Onset	Symptoms	Remarks
J.G.	17th June.	Vomiting.	Sister of boy in Junior School ill on 9th June.
R.C.	17th June.	Vomiting.	Sister vomited during 20th June.
S.O.	17th June.	Vomiting.	—
P.H.	17th June.	Vomiting	—

Table VII.

Outbreak in School for the Deaf.

Junior	Senior	Boy	Girl	Date and Time of Onset	Symptoms
2	—	2	—	26th October — 4.30 p.m.	Vomiting.
—	1	1	—	26th October — 5.00 p.m.	Nausea and Headache.
1	—	1	—	27th October — 3.00 a.m.	Vomiting.
3	2	5	—	27th October — 6.00 a.m.	Vomiting.
—	1	—	1	27th October — 9.30 a.m.	Vomiting.
2	—	—	2	27th October — 11.00 a.m.	Vomiting.
2	—	2	—	27th October — 10.00 p.m.	Vomiting.

Table VIII.

Outbreak in Family P.

Name	Age	Date of Onset	Symptoms	Remarks
Mr. P.	Adult.	8th April.	Nausea and abdominal pain.	Lasted all day.
David P.	11 months.	9th April.	Vomiting.	Vomited 3 times between 9 and 11 p.m.
Mrs. P.	Adult.	10th April.	Nausea and Vomiting.	Nausea all day. Vomited once in evening.

Table IX.

Outbreak in Families R. & B.

Name	Age	Date of Onset	Symptoms	Remarks
Christine R.	15	9th June.	Vomiting & abdominal pain.	Daughter of Mrs. R.
Mrs. R.	Adult.	11th June.	Vomiting & abdominal pain.	"Collapsed" twice during the day.
Mrs. M.	Adult	13th June.	Vomiting & abdominal pain.	Married daughter of Mrs. R. arrived from Plymouth on 12th June.
Mrs. B.	Adult.	13th June.	Vomiting & abdominal pain.	Neighbour who helped with Mrs. R. on 11th June.
Wendy B.	5	15th June.	Vomiting.	Daughter of Mrs. B.
Susanne B.	11 months.	17th June.	Vomiting & diarrhoea.	Daughter of Mrs. B.

Table X.

Outbreak in Families M. and M.

Name	Date of Onset	Time of Onset	Symptoms
Mrs. M. M.	4th April.	9.30 p.m.	Nausea and Vomiting.
Mr. M. M.	4th April.	10.00 p.m.	Nausea, Vomiting and Headache.
Mrs. M. Senr.	5th April.	8.00 a.m.	Nausea and Diarrhoea.
Mr. R. M.	6th April.	8.00 a.m.	Nausea.