[Report 1936] / Medical Officer of Health and School Medical Officer of Health, Swindon Borough.

Borough Swindon.

OF

ANNUAL REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1936

AND THE

Isolation Hospital Annual Report

From the 1st April, 1936, to the 31st March, 1937,

BY

DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.

REPORT
OF THE
CHIEF SANITARY INSPECTOR
FOR THE YEAR 1936.

ANNUAL REPORT
OF THE
SCHOOL MEDICAL OFFICER
FOR THE YEAR 1936.

John Drew (Printers) Ltd., 51, Bridge Street, Swindon

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BOROUGH OF SWINDON.

Health Committee.

Chairman—Alderman S. E. WALTERS

Vice-Chairman—Councillor Mrs. S. ANDREWS

Members.

HIS WORSHIP THE MAYOR (Alderman L. J. NEWMAN).

Alderman T. MANNING
,, A. H. WHEELER
,, MRS. M. GEORGE
,, A. E. HARDING
Councillor Mrs. E. CARTER
,, M. ASHBY
,, F. E. AKERS

Councillor G. H. HUNT
,, H. W. GARDNER
,, A. SNOW
,, Mrs. E. M. SIMPKINS
,, G. H. SELMAN
,, F. E. ALLEN
,, W. SEATON

Maternity and Child Welfare Sub-Committee.

Chairman—Alderman Mrs. M. GEORGE.

Members.

HIS WORSHIP THE MAYOR (Alderman L. J. NEWMAN).

Alderman T. MANNING
,, S. E. WALTERS
,, A. H. WHEELER
,, A. E. HARDING
Councillor Mrs. E. CARTER
,, M. ASHBY
,, F. E. AKERS
,, G. H. HUNT
,, H. W. GARDNER
,, Mrs. S. ANDREWS
,, A. SNOW

Councillor Mrs. E. M. SIMPKINS
,, G. H. SELMAN
,, F. E. ALLEN
,, W. SEATON
Miss K. J. STEPHENSON
Mrs. ARNOLD FORSTER
Miss D. P. CHAPPELL
Mrs. WESTON
Mrs. SCHMITZ
Miss I. F. MOORE
Mrs. E. K. RUDDLE
Mrs. L. E. FRY

Town Clerk—W. H. BENTLEY, ESQ.

BOROUGH OF SWINDON.

PUBLIC HEALTH DEPARTMENT.

STAFF.

Medical Officer of Health, School Medical Officer and Medical Superintendent of the Isolation Hospital and Maternity Home.
DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.

Deputy Medical Officer of Health.
V. R. WALKER, B.Sc., M.B., Ch.B., D.P.H.

Assistant Medical Officer of Health.
VIOLET REDMAN KING, M.B., Ch.B.

Chief Sanitary Inspector.
F. H. BEAVIS.
Certificate of the Royal Sanitary Institute.
Certificate of the Royal Sanitary Institute for Meat Inspection.
Certificate in Building Construction.

Assistant Sanitary Inspectors.
H. A. BANWELL.
Certificate of the Royal Sanitary Institute.
Certificate of the Royal Sanitary Institute for Meat Inspection.
Certificate of the Worshipful Company of Plumbers and Final Certificate City and Guilds.
Certificate in Hygiene.

R. N. HUGHES.
Certificate of the Royal Sanitary Institute and Sanitary Inspectors Examination Joint Board.
Certificate of the Royal Sanitary Institute for Meat Inspection.
Liverpool University Certificate in Meat and Food Inspection.
Liverpool University Certificate in Sanitary Science.

F. R. G. SELWOOD.
Certificate of the Royal Sanitary Institute.
Certificate of the Royal Sanitary Institute for Meat Inspection.

Temporary Assistant Sanitary Inspector, appointed to carry out 1935 Housing Act.
G. E. WILLIAMS (Resigned 25th July, 1936.)
Certificate of the Royal Sanitary Institute and Sanitary Inspectors Examination Joint Board.
Associateship Examination of the Royal Sanitary Institute.
Liverpool University Certificate in Meat and Food Inspection.
Liverpool University Certificate in Sanitary Science.

H. MITCHELL (Commenced duties 10-11-36.)
Certificate of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board.

Head Clerk—S. MANSFIELD DEE.
Senior Clerk Public Health Service—W. M. WATTS.
Senior Clerk School Medical Service—J. W. DAY.
Assistant Clerks—W. H. PAUL.
A. M. R. JONES.
D. A. OWEN.

PUBLIC HEALTH DEPARTMENT. **STAFF**—*Continued.*

Clinical Clerks—Miss. G. L. NORRIS, Miss E. M. KEY.

Matron of the Isolation Hospital.
Miss J. McKINNON SMITH, A.R.R.C.

Matron of the Maternity Home and Training Centre.
Miss Q. M. ANSTICE (Commenced duties 1st November, 1936.)
Miss F. R. SILLICK (Resigned 31st August, 1936.)

Health Visitors and School Nurses.

Miss I. D. SAMPSON.
3 years Certificate of Hospital Training.
Certificate for Tuberculosis (Royal Chest Hospital, London).
Queen's Nurse.
Certificate of the Central Midwives Board.
State Registered Nurse.

Miss E. M. PILCHER.
3 years Certificate of Hospital Training.
School Nurse's and Health Visitor's and Tuberculosis Certificate.
Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Miss A. HAWKINS.
4 years Certificate of Hospital Training.
Certificate of the Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Miss O. MARKER
4 years Certificate of Hospital Training.
Certificate of the Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute
State Registered Nurse.

Mrs. K. M. D. FRANCIS.
3 years Certificate of Hospital Training.
Certificate of Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute
State Registered Nurse.

Miss M. EVANS (Resigned 31st August, 1936.)
3 years Certificate of Hospital Training.
Queen's Nurse.
Certificate of Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Miss C. E. MIDDLETON.
(Commenced duties 12th October, 1936.)
4 years Certificate of Hospital Training.
Certificate of the Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Needlework Demonstrator—Miss M. JOBSON.
Disinfector—A. C. MOLE.
Rat Catcher—S. F. WAKEFIELD.
Voluntary Helpers at Maternity Centres.—
Mrs. E. SCHMITZ
Mrs. CHAPMAN
Mrs. OSMOND
Mrs. SANDILANDS

LIST OF CONSULTANT & SPECIALIST STAFF.

MATERNITY DEPARTMENT.

Obstetricians on the Rota :

J. HOLLAND, M.B., B.Ch., B.A.O.R.U.I.

S. McDERMOTT, M.B., B.Ch.

S. J. C. MACKAY, M.B., Ch.B. (Resigned December 1936.)

M. BEHR, M.R.C.S., L.R.C.P. (Lond.).

W. HYND, M.B., Ch.B. (Appointed, December 1936.)

Honorary Consulting Physician :

T. P. BERRY, M.D. (Lond.), M.R.C.S., L.R.C.P. (Resigned, May 1936.)

Consulting Surgeon :

J. EWART SCHOFIELD, F.R.C.S. (Eng.), M.B., Ch.B.

Consulting Obstetrician :

A. W. BENNETT, M.R.C.S. (Eng.), L.R.C.P. (Lond.)

Ophthalmic Surgeon :

OLIVER B. PRATT, M.A., M.B., B.Ch., D.O. (Oxon), M.R.C.S L.R.C.P.

Surgeon for Nose, Throat and Ear Diseases :

F. COURTENAY MASON, B.A. (Lond.), M.S., M.B., B.S., F.R.C.S (Eng.)

Orthopaedic Surgeon :

M. F. FORRESTER BROWN, M.D. (Lond.) M.S.

Cardiologist :

C. E. K. HERAPATH, M.D. (Lond.), M.B., B.S., M.R.C.S., L.R.C.P. (Lond.)

Honorary Consultant for Nervous and Mental Diseases :

J. F. W. LEECH, M.D., M.B., B.Ch., B.A.O., D.P.M., R.C.P.S.I.

To the Chairman and Members of the Health etc., Committee.

LADIES AND GENTLEMEN,

1936 will go down in public health history as the year of the new Midwives Act (1936) and the first part of the Codification of the Public Health Acts ; for the epidemic of typhoid on the South Coast, and, locally in Swindon, for the worst, and what should be the last, of a series of periodic epidemics if diphtheria.

Although the death rate was the highest of any year but four since the borough came into existence, 1936 was in most respects a healthy year in Swindon and in spite of the first quarter's toll of diphtheria, unusually free from dangerous infective sickness. The high death rate is mitigated by the fact that 55% of those who passed out had done over 65 years of earth service, and, apart from those who paid the exceptionally heavy toll of cancer, left us by comparatively peaceful means. Child mortality, which is the best single guide to the health of the community, was low for all ages except for the 5-10 year period which bore the brunt of the diphtheria epidemic. Maternal deaths at one give a maternal mortality as low as we can expect it to be and the absence of serious maternal morbidity tells us that our midwifery service repaid us for the years of toils and anxiety spent upon it. Our schoolchildren are well. Serious defects are lower than they have ever been and the year gave no new blindness, nor deafness, nor hopeless crippling in our children. All this is good, but everything is not as good as it might be, and the successes we have had, though with justice we may be pleased with and proud of them, tell us most clearly that they are not the best which can be obtained and that increased and not diminished effort should be the slogan under which to march to a state of health, energy and prosperity which at present we dimly visualize.

All is not well. We owe that which we have achieved in promoting human health to the development of prevention—using that word to cover all means utilized to preserve health—but that specialized item which is usually called preventive medicine, (though as I have said repeatedly, it is not medicine and not prevention) is the Cinderella of medicine, though it receives fatuous adulation from those who are determined it shall not curtail their perquisites.

There is a legend that the Devil said that his best friends were the clergy who taught the fear of God instead of the love of Him. Which means that we are more fearful of hurt than trustful of benefit. So with alacrity we give millions in the cause of war which everybody hates, and with parsimony and grave misgiving begrudge a few pence to the promotion of Peace which we all

desire. So, in the sphere which is our concern, do we spend lavishly to feed disease and pare down to a pittance what can be so profitable spent on the preservation of health. The health of mankind owes surprisingly little to the treatment of disease and that little is achieved only at enormous cost and energy. The preservation of health is a comparatively cheap business ; but unfortunately it is quite unsensational and brings no profit to any vested interest It is of course essential that we should give to the sick all that science can supply for their alleviation, but the best that can be done for them when they are sick is poor service indeed compared with the benefit we might have given in preventing them from becoming sick.

The new Midwives Act does not come into force until July 1937, but much work had to be done in 1936 to get ready for it. The Act is somewhat drastic and in some districts may be difficult to work satisfactorily, but in Swindon it should relieve most of the outstanding troubles in the midwifery service and give none of its own which cannot be solved.

The Public Health Act 1936 comes into operation in October 1937. It is the first part of a codification of existing health statutes and professes to be an up-to-date edition of the great Act of 1875. Part V, which deals directly with disease prevention, is naturally of greatest interest to me because it is concerned with matters about which I thought I knew something. But it has philosophical interst also, for it ignores all progress made in disease prevention during the present century and takes me back to the days when those who specialized in public health were called Sewer Rats by their professional colleagues. I was born with Disraeli's Public Health Act of 1875 and have always had the hope that I should live to see that great Act brought up to date to reflect the vast progress in preventive medicine made during my lifetime. In this I am bitterly disappointed, for the new Act merely re-enacts rituals and observances which have largely fallen into obeyance. But modern health work makes little use of the Law and when we invoke it we generally get into trouble. Nearly all our work is done by permission, for we have long since found that we can do little to promote the health of the people without the active co-operation of the people.

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

There were some changes in the personnel of the Public Health Department in 1936. Miss F. R. Sillick, Matron of the Maternity Home resigned 31-8-36 and was replaced by Miss Q. M. Anstice who commenced duty 1-11-36. Dr. T. P. Berry, Honorary Consulting Physician to the Maternity Home retired during the year

and Dr. S. J. C. MacKay, one of the obstetricians on the rota, resigned on his obtaining an appointment abroad. Miss M. Evans, one of the health visitors, resigned 31-8-36 and Miss C. E. Middleton appointed in her place.

GENERAL PUBLIC HEALTH AND SANITATION OF THE TOWN.

There is nothing whatever to report under this section. Nothing new was introduced ; nothing was changed and there were no complaints worth speaking about.

SWIMMING POOLS.

We heard little about swimming pools in the alleged Summer of 1936. Towards the end of the year extensive alterations were made to the Swimming Baths belonging to the G.W.R. Medical Fund Society, including means for purification of the water and the removal of certain features which were not in accordance with modern practice. These alterations were expensive, but have resulted in these Baths being well up-to-date and perfectly satisfactory from the health point of view. Extensive work was also carried out at Coate Water belonging to the Corporation, so that the two chief swimming centres in the Town are now perfectly satisfactory and reliable. Owing to the poorness of the season little business was done in the smaller private swimming pools in the Town.

HOUSING.

The chief housing event in 1936 was the scrutiny required by the 1935 Act. A memorandum upon the overcrowding sections of this Act, which was presented to the Health Committee, appears as Appendix One on page 63 of the present report and gives a fair summary of the state of housing in the Town and its particular difficulties.

During the year 434 new houses were erected in the Borough, 53 by the local authority and 381 by private enterprise. As the population of Swindon fell by 250 in 1936, which would release about 50 houses already standing, nearly 500 houses were available to relieve any overcrowding there might be, for no houses were demolished during the year.

NUTRITION AND THE INSPECTION AND CONTROL OF FOODSTUFFS.

There is nothing new to report under this section. The question of supplying a central abattoir for Swindon came up for a number of discussions and was again adjourned.

LABORATORY FACILITIES, HOME NURSING, CLINICS AND TREATMENT CENTRES AND AMBULANCE FACILITIES.

No change of any importance occurred in any of these during the year 1936.

BACTERIOLOGICAL INVESTIGATIONS.

This year we have omitted the table on the bacteriological and pathological investigations made in the laboratories of the Health Office, mentioning only the number of cases for which we sought help elsewhere. The reason for omitting this table is not that these investigations are not done, (there were many more of them in 1936 than in any previous year) but that they are an integral part of clinical diagnosis and are no more worthy of special record than any other means used in the diagnosis and treatment of disease.

Examinations carried out by Bristol or Liverpool Universities during 1936	20
No. of samples of water submitted for chemical and bacteriological analysis during 1936	20
No. of samples of sewage effluent submitted for chemical examination during 1936	11

THE HOSPITAL SITUATION IN SWINDON

For the seventeenth year in succession I can report that negotiations are pending for the amalgamation of the two general hospitals.

NEW LEGISLATION DURING 1936.

Two matters of the highest importance to public health occurred in 1936. The passage of the Midwives Act and of the Public Health Act. Neither of these acts came into operation in 1936, but much work had to be done to work out schemes for their administration. The Corporation was required to submit a scheme of administration of the new Midwives Act to the Ministry of Health on the 30th January, 1937, and in connection with this a memorandum was prepared an abridgement of which is printed as Appendix Two on page 73 of this report. The new Public Health Act, which was a codification of parts of the old public health statutes, comes into operation in October 1937.

Maternity and Child Welfare.

ANNUAL STATISTICS RELATING TO THE MATERNITY HOME, 1936.

	Borough.	County.	Total.
(1) Number of cases in the Home on 1st January, 1936.	15	4	19
(2) Number of cases admitted during 1936	348	99	447
(3) Number of cases remaining in the Home on 1st January, 1937	12	3	15
(4) Average duration of stay	13.38	14.21	13.57
(5) No. of cases delivered by :—			
(a) Midwives	284	78	362
(b) Doctors	34	13	47
No. of cases in which no delivery took place	30	8	38
(6) No. of cases in which medical assistance was sought by the midwives	*259		
(7) No. of cases notified as :—			
(a) Puerperal Fever	—		
(b) Puerperal Pyrexia	†20		
(8) No. of cases of pemphigus neonatorum	3 None of any consequence See appendix.		
(9) No. of cases notified as ophthalmia neonatorum with result of treatment in each case	None		
(10) No. of infants not entirely breast-fed while in the Institution	15		
(11) No. of maternal deaths, with causes	None		

* This number is exactly double that of last year. The increase is due to the inclusion this year of assistance sought by the midwives from the Medical Officers of the Public Health Department.

† Only 6 of these are notifiable under the Puerperal Pyrexia Order, 1926. One case was removed to the Isolation Hospital, a woman incubating measles at the time of her confinement.

ANNUAL STATISTICS RELATING TO THE MATERNITY HOME. 1936—Continued.

(12) No. of foetal deaths :—
Abortion—One.
24 weeks, cause unknown.

STILLBIRTHS 19.
7 macerated

1	Full-time	Hydrocephalic.
1	29 weeks.	Ante-partum haemorrhage.
1	33 weeks.	Toxaemia.
1	33 weeks.	Toxaemia.
1		Hydrocephalic
2	Full-time.	Macerated. No cause known.

12 fresh—

3	Anencephaly.
1	Hydrocephaly.
1	Concealed accidental haemorrhage.
1	Ante-natal injury to the mother
3	Placenta praevia.
1	Normal breech delivery. Full-time foetus.
1	Full-time foetus. Obstruction to the cord.
1	Full-time foetus. Long forceps delivery.

DEATHS WITHIN TEN DAYS—10

3 of these children were not born in the Home, but were admitted with their mothers subsequently.

A pair of twins who lived four days. One a non-viable spina bifida, the other a feeble infant with no obvious deformity.
The other died on the fifth day of life, a premature infant with severe haematemesis.

1	Full-time. Lived four days.	Congenital heart disease.
1	37 weeks. Lived one day.	Non-viable monster.
1	Full-time. Lived one day.	Albuminuria.
1	28 weeks. Lived one day.	Albuminuria.
1	28 weeks. Lived one day.	Ante-partum haemorrhage
1	38 weeks. Lived one day.	Delivered by Caesarean section.
1	30 weeks. Lived one day.	Breech delivery.

Of the 409 cases delivered in the Maternity Home, 42 were delivered by forceps, giving a forceps rate of 9.7%. Among the forceps cases there were 24 ruptured perineum, giving a rate of 57%. Among cases not instrumentally delivered there were 50 ruptured perineum, giving a rate of 13%. There were two Caesarean sections, both of the mothers lived and the infants died. There were three surgical and five medicinal inductions, all of which were satisfactory.

Of pregnancy disease 18 albuminuria and 14 ante-partum haemorrhage were admitted to hospital.

EXTERN MIDWIFERY DEPARTMENT.

On the district there were 146 deliveries including 9 abortions, 3 still-births and 11 born before arrival of the midwife. There was one infant death.

During the year 12 probationers were under instruction. Of these, five obtained the certificate of the Central Midwives Board.

REPORT OF WORK DONE AT THE MATERNITY CLINIC, 1936.

(By Dr. V. Redman King, Assistant Medical Officer of Health.)

A larger number of mothers attended the Maternity Centre during the year, and the attendances were very satisfactory on the whole.

There were three cases of spinal curvature, all mothers being multipara. The confinements were quite normal and the babies alive. Fifteen mothers were admitted to the Maternity Home pre-natally for the following reasons :—1 for abdominal tenderness and vaginal discharge ; 1 for albuminuria only ; 4 for albuminuria and other toxaemic signs and of these one confinement ended in a stillbirth and one in a neo-natal death ; 1 for threatened abortion ; 1 was admitted three times, twice for ante-partum bleeding and once for observation for disproportion between head and pelvis ; 3 for ante-partum bleeding, one delivery ending in a stillbirth and one in a neo-natal death ; 1 for general toxaemia ; 1 for vomiting ; 1 for observation as a breech case ; 1 for prolapse and ante-partum haemorrhage.

The other cases of albuminuria all resulted in normal deliveries of living children and no neo-natal deaths.

Three cases of high blood pressure were kept under special observation. One mother had hers taken ten times pre-natally and daily during her stay in the Maternity Home. At its highest

it was 200/110, at its lowest 148/95. It was taken again at the Welfare Centre a week or two later and was 180. So probably this mother has a normally high blood pressure. On no occasion pre-natally were there any toxaemic signs or albuminuria.

The second mother had a blood pressure varying between 138/88 and 157/82. Otherwise she was normal and the confinement was satisfactory.

The third mother had a gradually rising blood pressure, 140/92—200/120, with indigestion, some headache towards the end, and tendency to breathlessness. There was albumin on one occasion only. The delivery was normal and two weeks premature.

All these three mothers were primi-gravidae.

There were no maternal deaths.

V. REDMAN KING,
Assistant Medical Officer of Health.

STATISTICS RELATING TO THE MATERNITY CLINIC, 1936.

No. of Mothers attending the Maternity Centre	551
No. of attendances at Maternity Clinics	2678
No. of attendances at Consultant's Clinics	62
TOTAL ATTENDANCES AT ALL CLINICS	2740
Primigravidae	212
No. referred to Consultant's Clinic	22
No. referred to Dental Clinic	35
Specimens of urine tested	2523
Gynaecological and post-natal cases	16
Cases of suspected pregnancy	16
Admitted to Maternity Home for Ante-natal Supervision	15
Delivered elsewhere than in County of Wilts	3
Cases X-rayed	7
Aschheim-Zondek tests	3
No. of cases carried over into 1937	176
Results not known	3

Conditions found at Clinics :—

Albuminuria	21
Enlarged Thyroid	4
Varicose veins	87
Anaemia	7
Pyorrhoea	3
Whooping Cough	1
Severe malnutrition	1
Attending V.D. Department	3
Psoriasis	1
Pyelitis	1
Hernia	3
Epistaxis	3
Mentally Deficient	1
Prolapse	3
Spinal Curvature	3
High Blood Pressure	5
Asthma	1

Confinement Results with Particulars :—

No. of deliveries	512
Of these :—	
Twins	10
Still-born, full-time	9
Still-born, premature	6
Premature living	15
Induction	3
Forceps	48
Caesarian Section	1
Breech presentation	11
Posterior presentation	18
Transverse presentation	1
Brow presentation	1
Footling presentation	3
Face presentation	2
Eclampsia	1
Ante-partum haemorrhage	7
Post-partum haemorrhage	2
Notifiable Puerperal Pyrexia	25

Foetal Abnormalities :—

Congenital heart disease	1
Double talipes	1
General deformities	2
Deformed hands and feet	1
Hypospadias	1
Spina Bifida	1

The following table gives the details of confinements of women who had attended the Ante-natal Department, but in whom the child failed to survive:—

No.	Age.	Para.	Visits.	General and Pre-Natal History.	Details of Confinements.
1	44	21	2	This mother had had two abortions. Curettage after the second in 1929. Had severe and prolonged bleeding 1933. Varicose veins of legs and vulva. Should have been attending V.D. Clinic. Blood pressure 128/65.	Admitted to Maternity Home 9 days before delivery for ante-partum bleeding. Induction carried out. Infant premature and presenting by breech.
2	33	4	4	Appeared to be in good health. No serious illnesses. Three normal pregnancies and confinements Headache and varicose veins during this pregnancy. B.P. 128/60.	Admitted to Maternity Home one month before term. Forceps delivery of premature hydrocephalic child presenting by breech. Impacted shoulders.
3	45	2	1	Suffered from migraine. 1st pregnancy ended in abortion 1933. Cause unknown. Booked a bed in Maternity Home 8 days before admittance. At ante-natal examination fibroids were suspected and the patient was to have been X-rayed.	Admitted to Maternity Home in labour 3 days after attending at Ante-natal clinic. Delivered of a premature dead baby. Some history of a fall one month previously.
4	36	3	8	Had not felt well for about a year. Irregular menstruation and much leucorrhœa. Other two confinements normal. In bed for 7 weeks after second with breast abscess. Did not feel well this time, had vague pains. B.P. 135/50.	Delivered at the Maternity Home of a full-time dead child. Confinement quite normal.
5	20	1	9	History of good health. Was well all through pregnancy. B.P. 130/55.	Normal delivery in Maternity Home. Admitted 4 days beforehand. Baby delivered under light general anaesthetic, doctor having been called for foetal distress.

No.	Age.	Para.	Visits	General and Pre-Natal History.	Details of Confinements.
6	37	5	1	History of good health. First two confinements were forceps deliveries. Brought to clinic by a Reading midwife who was to have acted as maternity nurse, but who had to leave before her patient was confined.	Normal delivery in private nursing home of full-time baby. The child, who weighed 9 lbs. had a spina bifida.
7	39	6	4	Mother appeared healthy. Four live babies normally delivered. Fifth weighed 12 lbs. born in 1931 and delivered by forceps. Mother had a bad leg after for seven weeks. At clinic was told to bandage leg and wear an abdominal support. Did not feel very well. B.P. 125.	Admitted from District to Maternity Home by doctor's request. No foetal heart sounds heard or movements detected. Delivered 3 days later of a dead baby weighing 6 lbs. 15½ ozs.
8	39	6	4	No serious illness. Had four normal full-time confinements and one abortion at 3 months. Always had much sickness during pregnancy. Forceps used for third baby. Was formerly on special nourishment and free milk. The latter granted again. Varicose veins in vulva. Did not feel well and had much worry. Given iron and halibut oil. Foetal heart sounds faintly heard one month before delivery.	Delivered at home by private midwife. Footling presentation. Child had spina bifida.

No.	Age.	Para.	Visits	General and Pre-Natal History.	Details of Confinements.
9	26	3	5	Had rheumatism and chorea at 16 years. Two abortions, last one in 1933. Cause of first was eclampsia, delivery in private nursing home. At present time swelling of ankles, headache and albuminuria. Admitted to Maternity Home for observation and remained in for three weeks. Discharged much improved and allowed to go to stay with mother. Attended clinic once afterwards, when there was still much albumin in urine. B.P. varied all the time between 160/90 180/120.	Re-admitted to Maternity Home two days before labour set in. Delivered of a macerated infant with hydrocephalus. B.P. after delivery 170/110.
10	27	1	4	Good health history. Well during pregnancy. B.P. 130/75.	Normal delivery in Maternity Home of a premature infant with hydrocephalus.
11	42	3	5	No serious illness. Much sickness during pregnancy in 1933; admitted to Maternity Home for it. Prolonged labour terminating in forceps delivery. R.P. 2 sutures. Baby dangerously feeble, but did well after. Mother had notifiable pyrexia. She lost heavily after her abortion in 1935. Had much indigestion during this pregnancy. B.P. 124/72.	Normal delivery in Maternity Home of anencephalic child in posterior position.
12	29	1	8	Had convulsions till 6½ years old. Rheumatism after leaving school. Well during pregnancy. B.P. 110/60.	Admitted to Maternity Home and delivered of twins, the second being stillborn. Ruptured perineum and some pyrexia.

No.	Age.	Para.	Visits	General and Pre-Natal History.	Details of Confinements.
13	34	2	4	Feeble-minded high grade. Some deafness at times. Had had quinsy. Attended V.D. department during 1st pregnancy which ended in forceps delivery. Domestic unhappiness. Evidence seen of husband's ill-treatment. B.P. 150/84. General condition very poor.	Difficult forceps delivery in Maternity Home. Adherent placenta. Patient very collapsed afterwards. Was kept in beyond the usual time in order that extra nourishment might be given.
14	21	1	4	No serious illnesses since infancy. Was well during pregnancy. B.P. 120/50. At third visit (six weeks before delivery) mother felt much movement, but foetal heart not heard, nor at subsequent visit one month later.	Normal delivery in Maternity Home of premature macerated foetus.
15	23	2	2	History of scarlet fever at 11 years, followed by diphtheria. Mother unmarried. Previous pregnancy and confinement normal. Well during this pregnancy. B.P. 125/70. Foetal heart not heard at either visit.	Normal delivery in Maternity Home of premature anencephalic infant.

Neo-Natal Deaths in relation to Ante-Natal Work, 1936.

No.	Age.	Para.	Visits	Mother's History.	Confinement.	Infant's History.
1	32	5	3	Said to have 'nerve' trouble. Had two full-time normal confinements, preceded by twins two years before, both of whom died. Had had one abortion, cause unknown. Mother had very bad varicose veins, but kept well during present pregnancy.	Normal delivery on District of premature twins. Both satisfactory at the end of the nurse's 10 day attendance.	Weighed 5¼ lbs. at birth. Visited twice by Health Visitor who reported child was satisfactory. Death at 3 weeks, cause unknown.
2	39	1	1	Had had good health. Booked a private midwife. Had slight varicose veins. Brought to clinic during the 7th month. Presentation then posterior. B.P. 118.	Forceps delivery of 10½ lb. baby. R.P. One suture.	Died in 9 hours.
3	28	2	5	Appendicectomy 1926. 1st baby born 1934, 6½ lbs. Mother had trace of albumin at end of pregnancy. Confinement was normal. Present pregnancy normal throughout. B.P. 105/50.	Premature birth on the District. Born complete in membranes. Breech presentation.	Weighed 3 lbs. at birth, and died 50 minutes after.
4	24	1	5	1931 operation for appendicitis with removal, also, of right ovary. Was living in Oxford and attending Clinic there till arrival in Swindon for confinement. Kept well throughout.	District case due in November. On 26th October membranes ruptured and continued draining with no accompanying pains till 30th, when doctor was called. Tedious labour on 3rd November. Baby weighed 5¼ lbs.	Infant was unsatisfactory from the start. Had a very large head. Was much worse on the last visit and died on 17th November.
5	30	3	1	Had infantile paralysis and wore irons till 12 years old. 1st labour very long, ended in premature still-birth 1929. 2nd, had Caesarian Section in Victoria Hospital, baby weighed 9 lbs. Was well during this pregnancy B.P. 112/70. Booked her bed in Maternity Home only 19 days before date of expected confinement. Seen by surgeon day after booking and Caesarian Section decided on	Admitted to Maternity Home 11 days prior to expected date and was operated upon the following day. Mother developed notifiable pyrexia.	The child was dangerously feeble and was not weighed. It developed convulsions and died a few hours later.

Neo-Natal Deaths in relation to Ante-Natal Work, 1936—Contd.

No.	Age.	Para.	Visits	Mother's History.	Confinement.	Infant's History.
6	25	1	5	Visited oculist 1933 for conjunctival ulcers. No history of serious illness. Was well during pregnancy. B.P. 145/70.	Admitted to Maternity Home and delivered normally, the infant having one hand across the face.	Baby was full-time and was suffering from white asphyxia. It did not respond to treatment and died the following morning.
7	22	1	6	Scarlet Fever in 1925. Well during pregnancy. B.P. 122/60.	Normal delivery in Maternity Home. Much delay in 3rd stage.	Infant weighed 8 lbs. Colour very poor, much vomiting. Two days later some twitching of face and temperature 101. Addomen became distended and baby died on third day. Post-mortem examination revealed congenital malformation of heart.
8	36	8	2	Good health record. Five babies born full-time, last in 1935. One was a premature birth and one was still-born. First delivery was by forceps. Appeared well during this pregnancy. Had many bad teeth.	Mother delivered on District of premature twins and sent into Maternity Home on account of poor home conditions.	Both babies were feeble, and one very much deformed. They both died four days after birth.
9	29	1	2	Good health record. Well during pregnancy. B.P. 128/70. The presentation was doubtful six weeks before birth and the head still floating.	Difficult delivery in Maternity Home a month before full-term. Shoulders were impacted.	Infant very feeble and deformed. Died the same day. Post-mortem examination showed absence of anus and double cystic kidneys.

REPORT ON THE INSPECTION OF MIDWIVES AND NURSING HOMES, 1936.

(By Dr. V. Redman King, Assistant Medical Officer of Health and Inspector of Midwives.)

During the year, 35 midwives notified their intention to practise, 18 of them privately. The latter figure includes those attached to Nursing Homes.

27 routine visits were paid to midwives in their homes and to the three nursing homes in the borough. All midwives showed a keen interest in the new Midwives Bill and were glad of any information that could be given to them.

The following forms, other than for medical help, were sent in by midwives :—

Artificial feeding, 7. The following reasons were given :—

Four— " Mother unable to feed owing to bad nipples."

Two— " Lactation poor, insufficient breast milk."

One— " Mother in Victoria Hospital."

Notification of deaths in midwives practice. 13 infants.

Notification of laying out of dead bodies. 10 infants.

Notification of infectious conditions and contact with them, 2. For the following condition " Pyrexia."

Notification of stillbirth, 20.

No. of medical help forms sent in :—

For mothers	....	243
For babies	....	18

CONDITIONS FOR WHICH MEDICAL HELP WAS SOUGHT BY MIDWIVES, 1936.

Mother.		Child.	
Ruptured perineum	108	Prematurity with dangerous feebleness	9
Prolonged labour	47	Discharging eyes	5
Ante-partum Haemorrhage	15	Convulsions	1
Post-partum Haemorrhage	1	Asphyxia and Feebleness of infant	3
Uncertain, or malpresentation	15		—
Albuminuria	6		18
Rise of temperature	8		—
Abortion	7		
Retained placenta	3		
Extended breech	1		
Medicinal Induction	2		
Vomiting of pregnancy	3		
Toxaemia of pregnancy	1		
Disproportion	2		
Poor general condition of patient	6		
Foetal Distress	3		
Varicose veins	3		
Swelling of leg	4		
Prolapse of cord	2		
Haematuria	1		
Cardiac trouble	1		
Pain in side	2		
Stillbirth	1		
Patient's own request	1		
	243		

V. REDMAN KING,
Assistant Medical Officer of Health and Inspector of Midwives.

PUERPERAL PYREXIA.

31 cases of puerperal pyrexia and 2 of puerperal fever making 33 cases were notified in the Borough in 1936. The numbers for the four preceding years were 29, 47, 51 and 56. 20 cases occurred in the Maternity Home, 3 in the Victoria Hospital, 1 in the G.W.R. Hospital, and 9, including the two notified as fever, in the patients' own homes.

Of those occurring in the Maternity Home, 5 were in women not natives of Swindon. All the cases which occurred in the Maternity Home, except one, were treated throughout in that institution and the cases which occurred in the other hospitals were treated throughout in those hospitals. 3 of the cases which occurred in the patients' own homes, including the two notified as fever, and one notified from the Maternity Home were transferred to Gorse Hill Isolation Hospital.

In addition to these Swindon cases 10 cases of puerperal pyrexia and fever notified in the county were transferred to Gorse Hill Isolation Hospital.

There were no deaths from puerperal pyrexia, so that our puerperal sepsis death rate for the year was zero.

Notification in the Maternity Home is based on the New South Wales Convention. Outside the Maternity Home it is based on the official Puerperal Pyrexia Order. Of the 20 cases notified in the Maternity Home 6 only were notifiable under the Puerperal Pyrexia Order. The case removed from the Maternity Home to the Fever Hospital was a case of measles concurrent with delivery.

Some notes on puerperal pyrexia appear in Appendix 3.

MATERNAL DEATHS.

In Swindon investigation into maternal deaths is based on the New South Wales Convention, by which the death of every female between the ages of 15 and 50 is presumed to be due to or connected with reproduction unless and until it is proved otherwise.

In 1936 only three deaths required investigation. Of these, one was not a native of Swindon and was not a maternal death, one was a native of Swindon and was not a maternal death, one was a native of Swindon and was a maternal death ; so that the maternal mortality of Swindon for 1936 was: Puerperal sepsis, Nil. Other causes, One. Total rate 1·23.

OPHTHALMIA NEONATORUM.

There was only one notification of ophthalmia neonatorum. This was a case due, not to gonococcus, but to mixed pneumococcus and streptococcus. The eyes cleared up without injury, but the child when three weeks old died from pneumonia.

36 cases of sore and discharging eyes were notified by midwives under the local scheme. Not all of these were examined bacteriologically, but no case was gonorrhoeal of those that were examined and those that were not examined were quite trivial. No case of ophthalmia neonatorum of gonorrhoeal origin has occurred in a native of Swindon since 1930. In 1932 and in 1933 there was one case in each year in infants of women who were not natives of Swindon but had come to this Town for their confinement.

CHILDREN ACTS, 1908 AND 1932.

The six Health Visitors are the Infant Protection Visitors under the above Acts. 23 boarded-out children were on the Register at the end of the year, and 68 supervisory visits were made. No proceedings were taken during the year.

OPHTHALMIA NEONATORUM.

Year	No. Notified	Cases of Infantile Ophthalmia due to Gonococcus	Where Treated				Result.				Not Notified as O.N.
			Home	Gorse Hill.	Clinic	Maternity Home.	Cured	Blind	Injured	Died.	
*1921	7	?	3	—	4	—	7	—	—	—	19
1922	21	?	2	....	19	....	20	....	1	....	16
1923	34	23	5	4	25	....	30	....	2	2	11
1924	15	13	....	3	10	2	15	....	....	....	12
1925	9	4	1	2	5	1	9	....	....	....	11
1926	8	3	....	....	8	....	8	....	....	....	22
1927	11	5	1	3	6	1	11	....	....	....	15
1928	4	4	....	2	2	....	4	....	....	....	30
1929	3	2	....	1	2	....	2	....	1	....	28
1930	11	8	1	4	6	....	11	....	....	....	58
1931	4	....	....	1	2	1	4	....	....	....	55
1932	5	1	1	....	4	....	5	....	....	....	49
1933	3	1	1	1	1	....	2	....	1	....	46
1934	4	....	2	....	2	....	4	....	....	....	52
1935	5	....	2	....	2	1	5	....	....	....	60
1936	1	....	....	....	1	....	1	....	....	....	35

* These figures are incomplete.

Table showing number of cases of Ophthalmia Neonatorum notified, the number treated, the results of treatment, and the number of deaths occurring. 1936.

No. of Cases Notified. 1	No. of Cases	Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
Treated at Clinic	1	1	....	....	....
Treated at Gorse Hill Clinic	....	....	....	....	....
Treated at Maternity Home	....	....	....	....	....
Treated Privately	....	....	....	....	....
TOTALS	1	1	....	....	....

Table Showing the Number of Visits Paid by the Health Visitors to Mothers and Children and to cases of Tuberculosis.

	1932	1933	1934	1935	1936
No.of first visits paid to mothers and children	896	778	857	945	987
No. of revisits	4445	4528	3690	3244	3710
No. of visits paid to expectant mothers	299	263	183	113	114
No. of visits paid to cases of deaths and stillbirths	103	77	80	60	53
No. of visits to cases of Tuberculosis	105	81	83	59	83
No. of visits paid to children aged 1—5 years	5686	5877	4859	4403	4112
	11534	11604	9752	8824	9059

Record of Work done at the Infant Welfare Centres during the Years 1932—1936 inclusive.

	1932	1933	1934	1935	1936
No. of separate Infants who attended the Centre at—					
Eastcott Hill	1310	1315	1280	1189	1223
Gorse Hill	267	255	212	205	210
Rodbourne	230	203	195	250	215
Pinehurst	159	153	158	198	348
TOTAL	1966	1926	1845	1842	1996
Number of Attendances—					
Eastcott Hill	8048	7584	6850	7591	7533
Gorse Hill	1869	2047	1644	1699	1630
Rodbourne	2118	2034	1487	1395	1660
Pinehurst	1108	842	884	1110	2333
TOTAL	13143	12507	10865	11795	13156
Number of cases which received medical advice and treatment	1020	1050	1108	1018	1194
Total Consultations	3169	2874	2899	3252	3941

RECORD OF WORK DONE AT INFANT WELFARE CLINICS (continued).

	Infants	Toddlers	Total
No. seen and treated during 1936	910	284	1194
No. of Operations for the removal of Tonsils and Adenoids	—	2	2
No. of Bacteriological examinations	7	—	7
No. of Haematological examinations	2	9	11
No. of X-Rays examinations	1	6	7
No. of Mental Defectives	6	6	12
No. of Physical Defectives	3	3	6
No. of Blind Children	—	—	—
No. of Deaf Children	—	—	—
No. of Mute Children	—	—	—

Table Showing the Number of Infants and Toddlers referred to Special Departments for Treatment during 1936.

	Infants	Toddlers	Total
Dental Clinic	17	325	342
Eye Clinic	13	7	20
V.D. Clinic	5	—	5
Orthopaedic Clinic	7	12	19
Electrical Clinic	12	1	13
Tuberculosis Clinic	—	1	1
Rheumatic Clinic	—	—	—
Total	54	346	400

THE MILK (MOTHERS AND CHILDREN) ORDER.

	1932	1933	1934	1935	1936
No. of applications granted	270	265	206	205	181
Total quantity of Milk issued (Galls)	7025	8320	7105	7627	7910
Total Cost (approx.) £	635	770	720	825	856

THE PROVISION OF FREE MILK FOR CHILDREN AGED 1—5 YEARS.

(By VICTOR R. WALKER, Deputy Medical Officer of Health).

During 1936 one hundred and sixty-four such children were granted an issue of one pint of milk daily for varying periods of time. To qualify for such the family income had to fall below the scale laid down by the Maternity and Child Welfare Committee, and the child on examination by a medical officer had to be found to be suffering from defective nutrition and deemed likely to derive benefit from this provision. Grants were reviewed monthly.

The signs of malnutrition shown in these cases were often slight—usually a general flabbiness and retardation of normal infantile development with tendencies to catarrhal illness. Naturally the scheme would fail as a preventative measure if the grant was delayed till signs of gross ill-health were manifest. However the improvement in general health and vital tone would in most cases be apparent to a lay observer.

For optimum nutrition a pint of milk daily for children under six years is laid down as an essential part of the diet. This optimum we are aware from a knowledge of food costs and family budgets is seldom reached in lower wage groups owing to the high cost for purely caloric value of milk in relation to other foodstuffs. However an attempt is usually made to give a proportion of the desired quantity, and in most families of lower wage groups no gross defect results, though recent national surveys of nutrition are not altogether reassuring. For a family unit the baby has naturally first claim on the available milk supply, and it is obvious that malnutrition is more likely to occur in a family where there are two or more children of tender years through the inelasticity of the quantity of liquid milk purchasable by lower scales of family income. In such cases the scheme gives a high return for outlay in improved nutrition.

The granting of milk by an infant welfare authority to necessitous cases has several values, the highest being to the child under 12 months. The value to toddlers though lower is still much higher than that of the same pint of milk applied to a school child found of subnormal nutrition, where power of assimilation may be damaged, appetite perverted and the benefit to be expected in the repair of nutrition more problematical.

When indicated the milk grant was often combined with the provision of cod liver oil or halibut liver oil as aids to nutrition.

INFANTILE MORTALITY.

The deaths of all persons under the age of 25 which occur in Swindon, and of all Swindon children who die away from the Town, are investigated. Some knowledge of the previous history of these children is in the possession of the Health Office and, in an increasing number, the full life histories are available. Since some children die in the institutions of Swindon who do not belong to the Town, and certain other children who have regularly attended the Swindon clinics die elsewhere, these investigations become somewhat complicated. In the review which follows, cognizance is only taken of those deaths which the Registrar General accredits to Swindon.

STILLBIRTHS.

35 stillbirths were notified in Swindon during 1936, of which 8 which occurred in the Maternity Home, are not accreditable to the Borough. This leaves 27 cases belonging to the Borough, against 28, 33, 36, 33, 42 and 31 in the six preceding years. 11 Borough cases and the 8 outside cases were delivered in the Maternity Home.

The 19 stillbirths which occurred in the Maternity Home have been considered already. Of the 16 which occurred in the mothers' own homes little valuable information is available. Five attended the Ante-natal Clinic. Four of the children were malformed and not viable. In four other cases in which the birth was premature both the untimely birth and the death of the foetus were alleged to be due to accidental injury to the mother. In one of these the foetus was macerated. In another case, though full-time, the death of the foetus was attributed to accident to the mother. This foetus was macerated. Of the remainder, two of the mothers suffered from albuminuria, one from ex-ophthalmic goitre and one from severe vomiting just before delivery, but the last infant was full-time and not macerated. In one case, a breech presentation with delayed labour and instrumental delivery, death was probably due to the difficulty in the process of birth and in two only, both seven-month pregnancies, was nothing found that could account for the death of the foetus.

Deaths before the End of the First Day.

9 such deaths occurred (5 males and 4 females) against 8 for last year and 9 the year before. One died of intercranial haemorrhage. This child was eventually delivered by Caesarian Section and the mother also died. One child died from congenital malformation of the heart. This mother also was delivered by Caesarian Section. Another died from congenital heart disease and one

was a non-viable monster. One was a six-and-a-half months child who weighed only 1½ lbs. at birth. One was a breech delivery with extended legs, one of which was fractured at birth. It is possible that in this case there was some fatal injury besides the fractured leg. Another child, full-time, weighed 13 lbs. and was a very difficult forceps delivery, so that it is not unlikely that this child may have been injured in birth. The other two deaths cannot be explained satisfactorily.

Deaths between the End of the First Day and the End of the First Week.

10 such deaths occurred (3 males and 7 females) against 15 for last year and 17 the year before. One was illegitimate. One died from congenital malformation of the heart (P.M.). One was a spina-bifida. The others were all premature, but there is no satisfactory explanation, either of the prematurity or of the infant's death. One only weighed 18 oz. at birth and another only 2 lbs., both of these were six-month pregnancies.

Deaths between the End of the First Week and the End of the First Month.

5 such deaths occurred (3 males and 2 females) against 3 for last year and 7 the year before. One was a hydrocephalic. One died of capillary bronchitis. This child was a notified ophthalmia neonatorum, not gonorrhoeal, but severe and due to mixed infection of streptococcus and pneumococcus. Two others were viable infants and there is no satisfactory explanation of their death. The last was an infant who was not born in Swindon and had never lived here, reported to have died of convulsions.

Note.—In the following paragraphs cases marked* were physically and † were mentally defectives.

Deaths between the End of the First Month and the End of the First Year.

13 such deaths occurred (8 males and 5 females) against 9 for last year and 10 the year before. One was illegitimate. Six of these cases had attended the Infant Welfare Centre. Of these four had been fully breast-fed and they died—two of tuberculous meningitis, one of whooping-cough and one of erysipelas. Two had been partly breast-fed and died of marasmus, probably due to ill-feeding. Of the six who had not attended the Clinic, one only had been fully breast-fed and died of measles. Four had been artificially fed—one, a spina bifida and hydrocephalus*†, one died of pneumococcal meningitis and the other two died from gastro-enteritis due to ill-feeding. The twelfth case was a child who was not born in Swindon and had never lived here. She died of acidosis.

The last case was a girl of two months who died in St. Margarets Institution of broncho-pneumonia. The mother of this child was staying in the local lodging house at the time the child was removed to hospital. Nothing is known of them.

Altogether the deaths of 37 children under one year of age are accredited to the Borough, of which 24 died within the first month and 13 between the end of the first month and the end of the first year.

Deaths between the First and Second Year.

3 such deaths occurred (3 females) against 7 for last year and 6 the year before. All were legitimate. Two had attended the Infant Welfare Centre and were fully breast-fed. One died of whooping-cough and the other of diphtheria. The one case not known at the Clinic is reported to have been fully breast-fed and died of cerebro-spinal fever.

Deaths between the Second and Fifth Year.

6 such deaths occurred (2 males and 4 females) against 8 for last year and 16 the year before. All but one of these children had attended the Infant Welfare Centre. Three had been fully breast-fed. One (a Mongolian imbecile) was certified as dying from bronchitis† ; one, who died of diphtheria, was also mentally defective† ; the third died of peritonitis, probably appendicitis. One was partly breast-fed and died of broncho-pneumonia, probably whooping-cough. One was artificially fed and died of tuberculous meningitis. This child had lived most of its life outside Swindon and was reported to have infantile paralysis*. The other child died outside the Town from encephalitis and congenital heart disease*. The child appeared all right until shortly before it died, though very little is known of the child in the Public Health Department.

Deaths between the Fifth and Tenth Year.

14 such deaths occurred (8 males and 6 females) against 9 and 9 in the two previous years. All these children were known to the Public Health Department. Of these, 8, all perfectly healthy children, died from diphtheria and a ninth (a mentally defective)† also died from diphtheria. One died of lymphadenoma ; one of tuberculous meningitis ; one of cerebral tumour ; one of congenital syphilis and the last (a mentally defective)† died of septicaemia. He was certified as an imbecile.

Deaths between the Tenth and Seventeenth Year.

6 such deaths occurred (1 male and 5 females) against 8 and 6 in the two previous years. One was not known to the Public Health Department and died of pulmonary tuberculosis. The others were known and died respectively of diphtheria, lymphatic leukaemia, diabetes, congenital heart disease* and rheumatic endocarditis.

Deaths between the Seventeenth and Twentieth Year.

3 such deaths occurred (2 males and 1 female) against 7 and 8 in the two previous years. All were known to the Public Health Department. One died from a motor accident—fractured skull; one died from rheumatic heart disease* and the last, who died away from Swindon, from chronic poliomyelitis, not contracted in Swindon.

Deaths between the Twentieth and Twenty-fifth Year.

8 such deaths occurred (3 males and 5 females) against 9 and 7 for the two previous years. Two who were not known to the Public Health Department died, respectively, from suicide (coal gas poisoning) and motor car injury. Of the two males who were known to us, one died from accidental drowning and one died from ulcerative colitis. Of the four females, one died of cerebral tumour and three of pulmonary tuberculosis.

NOTES ON CHILD MORTALITY DURING 1936.

The number of infant deaths, namely 37, gives us a mortality rate of 46·84. 24 of these deaths occurred in the first month. This gives us an average number of neo-natal deaths. Looking at the table on page 37 it will be seen that the neo-natal deaths vary considerably from year to year, but show no consistent reduction. They were exceedingly low during the years 1928 and 1929 and again in 1933, but no reason can be assigned for this. The deaths between the first and the second year, only three in number, are the lowest in the history of the Borough and the deaths between the second and the fifth year are also low and the second lowest in the history of the Borough. There has been a fairly constant reduction in the toddler death rate for the last 16 years. As there has been no corresponding reduction in the deaths from measles and whooping-cough, which in Swindon vary widely from year to year, the reduction in the toddler death rate cannot be due to this cause. We flatter ourselves that the real explanation is connected with the campaign against endemic goitre. In this research the standard diet of toddlers was considered and found to be grossly bad and an intensive effort was made to get it improved. This has met with a very reasonable amount of success and has resulted in, or to be more accurate, has co-incided with, the abolition of goitre and a rapid decline in toddler mortality. Though no doubt the consistent visiting of toddlers and the attention given to them at the Clinics has helped in increasing their survival rate.

The mortality of the five to ten year old period is in Swindon dominated by diphtheria. Last year of the 14 deaths which occurred in this age period, 9 were due to diphtheria. This matter is discussed in the section on epidemiology.

The mortality of the latter child period, that is, 10 to 25 years old, also shows a fairly satisfactory reduction during recent years. The total for 1936, namely 17, is two-thirds of the lowest previously recorded. Diphtheria adds to the fatality of this period of life, as also does rheumatism, though child rheumatism is rare in Swindon. Towards the end of the period the acute form of pulmonary tuberculosis becomes the dominating killing disease. No child was killed in a road accident in 1936, the youngest death from this cause being a young person of 17. In 1935 only one child was killed on the roads. The police and magistrates of Swindon have been criticised for their severity in the administration of the Traffic Acts, so that it may interest them to know that so far as children are concerned the roads in Swindon are safe.

Table Showing the Causes of Deaths of Children under 25 years of age in the Borough of Swindon during the Year 1936.

CAUSE.	0-1	1-2	2-5	5-10	10-17	17-20	Total under 20	20-25
Congenital, Ante-natal & Natal Defects & Injuries:								
Non-viable Monster	1	—	—	—	—	—	1	—
Congenital Malformations	5	—	1	—	1	—	7	—
Congenital Syphilis	—	—	—	1	—	—	1	—
Intercranial Injury	1	—	—	—	—	—	1	—
Injury at birth	2	—	—	—	—	—	2	—
Imbecile	—	—	1	1	—	—	2	—
Unknown	14	—	—	—	—	—	14	—
Post-natal Diseases:								
Diphtheria	—	1	1	9	1	—	12	—
Measles	1	—	—	—	—	—	1	—
Whooping Cough	1	1	1	—	—	—	3	—
Pneumococcal Diseases	4	—	—	—	—	—	4	—
Cerebro-spinal Fever	—	1	—	—	—	—	1	—
Tuberculosis	2	—	1	1	1	—	5	3
Erysipelas	1	—	—	—	—	—	1	—
Chronic Poliomyelitis	—	—	—	—	—	1	1	—
Rheumatism	—	—	—	—	1	1	2	—
Cerebral Tumour	—	—	—	1	—	—	1	1
Lymphadenoma	—	—	—	1	—	—	1	—
Appendicitis	—	—	1	—	—	—	1	—
Leukaemia	—	—	—	—	1	—	1	—
Diabetes	—	—	—	—	1	—	1	—
Ulcerative Colitis	—	—	—	—	—	—	—	1
Illfeeding	5	—	—	—	—	—	5	—
Car Accidents	—	—	—	—	—	1	1	1
Drowning	—	—	—	—	—	—	—	1
Suicide	—	—	—	—	—	—	—	1
TOTALS	37	3	6	14	6	3	69	8

NOTE— The death of every child under the age of 25 years is made the subject of inquiry, in which all matters connected with the medical history of the child are considered and from the available evidence the conclusion is drawn as to what was the main factor which destroyed life. In the above table the deaths are given in accordance with these findings. They agree in number, but not in causes of death, with the official records.

A TABLE SHOWING THE NUMBERS OF DEATHS OF CHILDREN AND YOUNG PERSONS UNDER 25 YEARS OF AGE.

Year.	No. of births	No. of Deaths.							Total deaths under 17	Estimated number of survivors.	Neo-natal deaths	Diphtheria	Measles	Whooping Cough	Scariet Fever	Tuberculosis	Appendicitis	Rheumatism	Accident
		0-1	1-2	2-5	5-10	10-17	17-20	20-25											
1921	1125	76	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†
1922	1057	64	15	9	15	11*	†	†	†	933	35	2	1	7	1	9	3	3	1
1923	995	52	10	9	7	13*	†	†	†	867	32	1	1	—	—	14	2	1	1
1924	968	58	14	14	5	12	†	†	103	858	31	—	8	17	1	9	1	1	4
1925	942	53	9	23	9	9	†	†	103	838	29	5	13	9	2	6	—	3	1
1926	980	49	12	10	17	12	†	†	100	857	25	6	6	2	—	11	2	8	—
1927	830	39	8	5	6	7	†	†	65	724	21	3	—	4	—	5	—	1	1
‡1928	910	33	10	10	7	6	†	†	66	818	14	2	15	13	—	4	—	1	—
1929	867	41	14	12	6	7	6	†	80	757	18	1	—	19	—	6	—	4	5
1930	971	61	8	11	19	18	7	†	117	863	42	9	7	11	—	6	—	8	3
1931	910	51	5	9	8	11	7	†	84	808	33	10	2	—	—	3	—	—	4
1932	887	47	10	15	11	6	5	13	89	787	28	8	11	—	—	5	1	—	4
1933	766	40	7	14	6	6	4	17	73	666	18	8	—	15	—	—	—	2	6
1934	770	43	6	16	9	6	8	11	80	670	33	5	1	3	3	8	—	3	4
1935	720	35	7	8	9	8	7	9	67	620	26	10	8	3	5	1	1	—	1
1936	790	37	3	6	14	6	3	8	66	700	24	12	1	3	—	5	1	1	1

* 10-16 years.
† Information not available.
‡ In 1928 the Borough was extended

Infection and Epidemiology.

EPIDEMIOLOGY.

The epidemiological history of Swindon in 1936 was more than usually interesting. We finished our report for 1935 with the words "About the middle of December we had warning that the approaching Winter was not going to repeat the gentleness of its two immediate predecessors, though the total absence of influenza in all parts of the World offered the consolation that the Winter 1935-1936 would be no worse and possibly less bad than that of 1932-1933." The condition of things on the 1st January, 1936, was not, however, clear. There was no influenza. Scarlet fever and the streptococcal diseases were low. Pneumococcal disease was low. On the other hand, diphtheria was high, so high indeed that the corynebacterium was the dominating parasite locally during the Winter. It was not till the middle of February that pneumococcus came into prominence and it did not continue its dominance for long. About the beginning of April the health conditions of the Town began to improve very markedly and continued an accelerating improvement for the remainder of the year, so that in December the Town was freer from disease of all kinds than it has ever been in my experience and the outlook for the New Year was favourable.

DIPHTHERIA.

The expectation for diphtheria in 1936 was 72 notifications and 7 deaths ; actually there were 101 notifications and 12 deaths.

With the exception of two children who died before they could be removed, all the notified cases were removed to the Isolation Hospital and there the diagnosis was altered in 33 cases (generally to scarlet fever), leaving 68 cases in which the diagnosis of diphtheria was confirmed. Of these, 10 were either chronic carriers, or nasal cases of little clinical importance, so that of true clinical diphtheria there were only 58 cases. But these furnished 12 deaths, a fatality of 23%, which is the highest that I have encountered in the past forty years. 58 of the notifications, including 39 of the genuine cases of diphtheria and 9 of the fatalities, occurred in the first quarter of the year. The worst crop was connected with a children's party held in January which gave us 14 of the cases with 4 deaths. The alarming experience of January 1936, led us to intensify the campaign for artificial immunisation against diphtheria. This met with a satisfactory response and raises hope that we have seen the last of the serious outbreaks of diphtheria which have been such a prominent feature in the public health history of Swindon since its incorporation. After the first quarter of the year diphtheria became slight and eventually negligible. In the last quarter of the year there were only nine cases of true diphtheria and no deaths.

In Swindon diphtheria is mainly a disease of the school age and its mortality is greatest in the 5 to 10 year age group. Owing to the low birth rate of recent years with the consequent low toddler density in the population, the incidence of the four chief endemic diseases—diphtheria, scarlet fever, measles and whooping-cough—are different in age distribution from what obtains in the crowded parts of cities. Massive infection resulting in reaction occurs comparatively late and latent immunisation is slight or none. In measles and whooping-cough delay in infection is all-important, for the fatality of these diseases varies indirectly with age. This is due to the increase in calibre of the bronchial tubes which occurs with growth, for measles and whooping-cough kill mainly by lung collapse and the liability of collapse is directly proportionate to the size of the air-tubes. Diphtheria, on the other hand, kills by toxaemia, the diphtheria toxin having a special predilection for the heart muscle and vital nerve centres. So, theoretically, there is no reason why the fatality of diphtheria should be influenced by age. In Swindon we have had the opportunity of showing that the fatality of diphtheria is not influenced by age and that the difference in fatality at different ages observed in the big centres of population is not due to the age factor but to the experience factor. In Swindon a child's first acquaintance with corynebacterium generally results in reaction, so the fatality rate is very high and the age at attack makes no difference.

SCARLET FEVER.

There were 128 notifications of scarlet fever against 246, 344, 59, 47, 106 and 327 in the six preceding years. All but seven were removed to the Isolation Hospital. There were no deaths from scarlet fever and very little complication of any kind. Streptococcus dominated Swindon during 1934-1935, but its dominance had ended in the early part of 1936.

There were 12 cases of erysipelas, with one death, a child of seven months.

All diseases of streptococcal causation were low in prevalence in 1936.

PNEUMONIA.

There were 127 notifications of pneumonia, of which 45 occurred in the first quarter and 12 in April. There were 32 deaths. The disease was particularly fatal in February and April. 18 cases were removed to Gorse Hill Isolation Hospital ; three of these died—(1) Influenzal pneumonia, (2) Whooping cough, and (3) Acute pulmonary tuberculosis.

In the latter part of the year Victoria Hospital was able to take in cases of pneumonia and they did take in 8 of the notified cases, of which two died.

THE PNEUMONIAS.

The statistics for Pneumonia for the past sixteen years are as follows:—

Year.	Total No. of cases notified.	Total No. of deaths.	Cases removed to Hospital			Cases treated elsewhere.		
			No.	Deaths	Death Rate	No.	Deaths.	Death Rate.
1921	36	19	....	....	....	36	19	52
1922	156	43	1	0	0	155	43	27
1923	68	28	12	0	0	56	28	50
1924	175	62	31	5	16	144	57	46
1925	204	61	50	10	20	154	51	33
1926	172	52	27	6	22	145	46	32
1927	202	58	63	14	22	139	44	31
1928	204	53	66	16	24	138	37	27
1929	176	54	52	11	21	124	43	34
1930	105	40	44	12	27	61	28	46
1931	143	37	50	8	16	93	29	31
1932	182	44	53	9	17	129	35	27
1933	147	35	25	4	16	122	31	25
1934	154	40	36	3	8	118	37	31
1935	150	29	20	4	20	130	25	19
1936	127	32	18	3	16	109	29	26
16 years	2401	687	548	105	19.1	1853	582	31.4

THE INFECTIONS DUE TO PARASITES BELONGING TO GENUS BACTERIUM.

Our freedom from this class of disease was broken in 1936 by the occurrence of one case of Paratyphoid B in January and another in July. Exhaustive inquiries failed to establish how these cases became infected or anything to connect them together, or with any other epidemiological phenomena, either within or without the Borough.

For years it has been the experience of Swindon to have an epidemic of diarrhoea in November, more frequent in adults than in children and giving us either one or two deaths certified as colitis, or enteritis. There has always been a suspicion that these epidemics were dysentery of some sort but we have never been able to get any proof of it. So this year we were determined to settle the matter, if it were possible, but the epidemic did not materialise. There were, however, one or two cases of unexplained diarrhoea and two cases of colitis which ended fatally. Of the colitis cases unfortunately we have no bacteriological evidence, but two cases of diarrhoea which were highly suspicious of bacillary dysentery had a complete bacteriological examination with negative results. I am not however happy about this situation, as I feel pretty certain that there is some dysentery latent in the Town which at some time may give us an explosive outbreak.

Two cases of Paratyphoid have also left a somewhat uncomfortable feeling. During the epidemic of typhoid on the South coast we had a large number of known contacts under observation in Swindon and doubtless there were a large number of people who had been to the South coast who had not been notified to us as contacts, but none of these people became ill.

THE ACUTE INFECTIONS OF THE NERVOUS SYSTEM.

One case was notified as encephalitis lethargica, which ended fatally. There is no doubt that this case had encephalitis, but grave doubts that it belonged to the lethargica variety.

One case of poliomyelitis was notified in October, though it had started early in September. This case was quite isolated and careful scrutiny of the Borough failed to bring to light any possible cases that had been missed.

The Registrar-General accredits Swindon with one death from polio-myelitis. This was in a young man of 18 years, referred to in the section on child mortality. This boy died away from Swindon ; the disease from which he died was not contracted in the Borough.

One case of cerebro-spinal fever was notified. The diagnosis was confirmed post-mortem.

1936 was remarkable for the low incidence and belignity of streptococcal and pneumococcal diseases and towards the end of the year for a rise, whether apparent or real it is difficult to say, in the incidence and severity of disease attributed to staphylococcus aureus. A short memorandum on this phenomenon is appended in this report as Appendix Three on page 85.

NON-NOTIFIABLE INFECTIONS.

Measles seems to have forgotten Swindon during 1936. An epidemic of the disease was expected in June 1936, and again in December 1936, but neither materialised. There was very little measles at any time and only one death from the disease.

Whooping cough was also low in incidence and caused only three deaths. Whooping cough does not occur in epidemics as regularly as measles, but it seems always to be present, though subject to considerable periodic variation. It is one of the chief killing diseases of man, for though few deaths are attributed directly to whooping cough it is the primary cause of death in many fatal pneumonias in infants. Some epidemiologists believe that most cases of fatal broncho-pneumonia in children, not attributed to other specific causes, are really whooping cough.

Clinically, whooping cough can only be diagnosed by the presence of the whoop, or of spasmodic cough followed by vomiting, but if lung complications occur the whoop is absent and in young children fatal broncho-pneumonia may supervene without there being anything to suggest that the primary disease was whooping cough.

Bacteriologically, we know that the cause of whooping cough is an organism (haemophilus pertussis) which belongs to the same genus as Pfeiffer's bacillus which was believed to be the cause of influenza, but is now known to be complicating symbiotic. Whooping cough can be diagnosed bacteriologically in the early days before the whoop developes and there is a serological test for whooping cough at a somewhat later stage, but both these are difficult and are rarely used in practice. It is possible that within a year or two we shall have a means of producing immunity to whooping cough. Few public health measures would be more valuable than an efficient means of artificial immunisation against whooping cough, for at least 85% of the population go through one attack of the disease and the deaths caused by it are considerable, averaging about 3,000 a year in England and Wales, though

in 1925 and 1929 the deaths exceeded 6,000. And to these must be added a proportion of the deaths attributed to undefined broncho-pneumonia in children. The total mortality caused by whooping cough is probably about the same as that caused by road traffic. Contrary to popular belief, whooping cough is not infectious in the stage of the whoop.

Towards the end of the year mumps came into prominence. It is just possible that there is some epidemiological connection between the present widespread epidemic of mumps and the high prevalence of mastitis in lactating mothers.

There was no epidemic influenza in Swindon in 1936, but six deaths from this disease are accredited to Swindon by the Registrar General. These fatalities were :—(1) Male, aged 60. (2) Female, aged 40. (3) Male, aged 68. (4) Male, aged 74. (5) Male, aged 77. (6) Female, aged 68.

TUBERCULOSIS.

The state of Swindon as regards tuberculosis was more favourable in 1936 than it has been in any year of which we have record. The index, that is the number of deaths from all forms of tuberculosis per million living, for Swindon was 450. In 1929 the index was 440, but, otherwise, that year was not favourable for tuberculosis. The death rate from respiratory tuberculosis, namely 0.35, is the lowest ever recorded. The total notifications, namely 69, were the lowest, excepting last year, recorded in any year of which we have records.

No action was taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, nor under Section 62 of the Public Health Act, 1925.

CANCER.

125 deaths, 60 males and 65 females, occurred from cancer in Swindon during 1936. This is an increase of 20% on the previous year and gives us much the highest rate of death from cancer of any year of which we have records. The index, that is the number of deaths per million living, for cancer in Swindon for 1936 was 2.070, which is not only 25% higher than the index in any preceding year in Swindon, but is the highest index of which I am aware for any time in any part of the World. A high cancer rate is to be expected in Swindon owing to the rapid ageing of the population, for cancer is a disease not of senility, but of senescence. The cancer figures for 1936 are unsatisfactory, not only for the number of fatalities but for the large numbers of deaths in comparative

young people from cancers in sites which offer reasonable chances of cure. Thus, the ages at death of the breast cancer cases, all females, were :—51, 48, 52, 68, 61, 68, 80, 76, 76, 81, 49, 87. Of the total 12 5fatalities, 6 were between 40 and 50 years of age, 22 between 50 and 60, 44 between 60 and 70, 38 between 70 and 80, and 15 between 80 and 90. The average age of death of all cancer cases was 68, so the actual curtailment of life by this disease is not great.

Of the 125 deaths from cancer 80 were due to cancer of the alimentary canal. Twelve deaths from cancer of the breast is somewhat high and may have some connection with the lowering of the birth rate, for cancer is particularly apt to attack an organ which is ill-used, or insufficiently used. Six deaths from cancer of the lung also seems a large number, but, owing to the difficulty of diagnosis of cancer in this situation, present day figures are not comparable with those before X-rays were used for diagnosis. It has been suggested that the increase in cancer of the lung, which certainly appears to be much greater than the increase of cancer in most other situations, is due to the inhalation of tar-dust and motor car exhaust fumes, especially to the former. This is a matter which is receiving attention.

The prevention of cancer is worth an effort, for in Swindon one person in six dies from this disease and though it is true that it kills mainly late in life, it is a particularly unpleasant exit and even those of us who are not afraid of paying their last debt to life may quail, without being accused of cowardice, at paying it in such a distressing manner.

The commonest cause of death in Swindon, as everywhere else, is from diseases of the heart and circulation. This group of diseases caused 301 out of 731 total deaths in 1936.

The conditions grouped under diseases of the heart, arteries, apoplexy, nephritis, etc., are, however, mostly not diseases in the biological sense, but degenerations which are inevitable in sexed beings. So an increase in the number of deaths due to these causes is a point in favour in the health of the population. Unfortunately, with these degenerations are grouped conditions which result from preventable disease, so some fragment of the death rate from the heart group is not only preventable but calls loudly for prevention. Thus, death from heart disease below the age of 60 is always theoretically preventable and in practice offers considerable scope for prevention. A comparatively common cause of death is apoplexy, due to bursting of diseased arteries in the brain. These arteries steadily deteriorate as we grow older and there comes a time when, if we are spared from other fatalities,

they are certain to give way and kill us ; but they should not do so until the body is worn out. There are, however, many diseases, of which the commonest is syphilis which is almost entirely preventable and largely curable, which cause degeneration of the arteries quite early in life. An attack of apoplexy is the happiest of all releases for a great-grand-father, it is a tragedy for a young adult.

The reluctance of the Registrar-General to accept senility as a cause of death, if any other excuse for dying can be found, has resulted in deaths formerly attributed to old-age being registered as myocarditis, and raised an almost universal scare that there is an alarming increase in heart disease. But the so-called myocarditis of the death certificates of old people is not myocarditis at all, but degeneration of the heart muscle to which we must all inevitably succumb, if we are not killed by other means.

There is no doubt that prevention can largely prevent death in those who have not become senile ; nor is there any doubt that it has done so, and that it can do so further is a hope founded upon certainty. There is less hope from the treatment of disease which has failed to be prevented.

Some of the younger generation of physicians and health officers wish to use sickness and not death rates as the basis for computing the health of populations. But we have no definition of sickness and no means of saying definitely whether a person is sick or well. For indeed it is largely a matter of opinion and generally of an opinion which is biassed. Whereas death admits of no equivocation. Moreover, all diseases of a serious nature tend to end in death and therefore the incidence and severity of disease bears a fairly constant relationship to its mortality. In few diseases is the influence of treatment upon mortality of great statistical significance, though there are certain diseases in which efficient treatment does have a material influence on case fatality. Thus, in appendicitis there can be no question that the efficient treatment now available does frequently ensure life to patients who without treatment would die, but it has not reduced the mortality from appendicitis. The modern treatment of diabetes does not cure the disease, for diabetes is not a disease, but a permanent deficiency which is left from a disease which is totally unknown to us. The disease is not therefore curable, but the deficiency can be made good and in theory a person with diabetes can, barring accidents, be kept alive just as long and just as healthily as a normal. We have a statistical evaluation of the modern treatment of diabetes from which we know that since this treatment was introduced the life of diabetics has been prolonged for an average of five years. I am sorry to say that this is the best statistical evidence of the value of medical treatment that we possess.

From the study of mortality we know for certain that the amount of serious disease in the population has dropped enormously during the present century, roughly about 50%. From the reports of the Insurance Commissioners we find that sickness has steadily increased. Last year the insurance practitioners prescribed 60 million bottles of medicine, the largest number on record. It is immaterial to my present argument whether this ocean of medicine did more good than harm, or whether it was prescribed necessarily or unnecessarily, but it is obvious that those persons who received these bottles of medicine either were sick, or thought they were. Based upon the amount of medicine sold, 1936 was the most unhealthy year which has occurred in the history of mankind. Based upon the more exact methods which we use in vital statistics it was the healthiest.

GENERAL OBSERVATIONS ON VITAL STATISTICS.

For the fifth year in succession the Registrar General gives us a reduced population for the borough, his estimate for the middle of 1936 being 60,150, or a drop of 250 from the population of the middle of 1935. The population of Swindon, that is the municipal borough, is now 2,450 less than it was in the middle of 1931 and is less than a thousand more than it was before the borough was extended in 1928. This drop is not a natural decline, for though the birth rate in Swindon has been extremely low during the present decade it has always exceeded the death rate. In 1936 I expected the birth rate and the death rate to be equal, for I knew that a rise in the death rate was inevitable and did not expect a rise in the birth rate. But actually the birth rate rose from 12.32 to 13.13 and the death rate from 10.50 to 12.15, so though the rise in the death rate was double the rise in the birth rate, the net rate was still below it, and there was an excess of births over deaths of 59. The uncorrected death rate of 12.15 must be multiplied by the Comparability factor of 1.01 to enable the death rate of Swindon to be compared with that of England and Wales, which was 12.1. This gives us a rate of 12.27 which is the highest rate since the influenza epidemic year of 1918 and, with the exception of that year and 1915, 1907 and 1904, the highest death rate recorded in the borough since its incorporation. This rise in the death rate does not connote a deterioration in the health of the population, but the rapid ageing of the population, due to the extraordinary low birth rate of recent years. Allowing for topical variations, which in a small population are always considerable, a progressive rise in the death rate for the next 40 years is inevitable unless in the meantime the expectation of life is increased sufficiently to neutralise the effect of the increasing age of the population, which though not absolutely impossible, is highly improbable ; or there is a very extensive rise in the birth rate, which is equally improbable.

The birth rate in 1936 was 13.13 which is the highest since 1932. Since 1933, which was the nadir of the birth rate in English speaking communities (though in Swindon 1935 with its birth rate of 12.32 is the low record) there has been a slight rise in the birth rate and a more appreciable rise in the actual number of persons born, for the population is still on the upward grade, but this rise is to some extent artificial in that it is due to the increased number of marriages due to the improved prosperity of the last few years. Prosperity normally produces a rise in the marriage rate and also a slight lowering of the age of marriage and, what I personally believe to be of great significance, a rise in the desire for children. The importance of the last is that it denotes that the supply of children is less than the demand for them and that when times are good there is less voluntary interference with reproduction. It must, however, be admitted that nothing that we can do can raise the birth rate to a figure sufficient to maintain the population at its present level, because the supply of reproductive females is insufficient for the purpose. There is, also, almost a certainty that the next period of depression will re-establish the fall in the birth rate and bring it even below the low rate of 1933. It is generally assumed that the fall in the birth rate during the present century is due almost entirely to voluntary contraception, but there are strong reasons to doubt whether this is so. That it plays a part there is no doubt, but my own belief is that the most potent factor in reducing the birth rate is the desire not to have children.

In the differential death rates the most notable features are the rise in the cancer index to 2,070 and the fall of the tuberculosis index to 450. Alteration in population age is the main explanation of the variation of these rates from past years, but prevention has certainly had some say in the reduction of tuberculosis and the rise in cancer is considerably above expectation. To what this last may be due is uncertain, but I have some idea that it is connected with the feeding habits of the population, largely because the rise is mainly in alimentary cancer and the rates for other fatal alimentary diseases are also high.

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ANTI-DIPHTHERIA IMMUNISATION.

(By Victor R. Walker, Deputy Medical Officer of Health.)

This work, which was considerably expanded during 1935, was during 1936 increased to five times the figure for the preceding year, 2,136 new children being presented. An individual offer was made to the parents of each child in each infant department in the Borough, and with much helpful co-operation from headmistresses the response was very satisfactory. There is little or no actual hostility to the measure, though there still exists considerable indifference and some suspicion which should continue to lessen as more and more parents become familiar with its innocuous nature. However during 1936 roughly one half of the parents of infant school children were willing to take advantage of the offer when the time and trouble it entailed were reduced to a minimum. For this reason the Education Committee acquired the use of Rodbourne Welfare Clinic for several sessions for that area, the other schools being offered its performance at the nearest school clinic, either Pinehurst or Eastcott Hill.

Preliminary Schick Test. This is now dispensed with under ten years except when there exists a history of previous exposure, suspected diphtheritic illness or special circumstances.

The Immunising Agent. The course now consists of three injections of T.A.F. at 1-2 week intervals, this antigen being generally regarded as least liable to cause reaction.

Reactions. There was noted some local tenderness or swelling after injections in 26 cases—roughly one per cent. This was never noted under 7 years and was commonest in older children. Only in a few cases did parents on this account decline to complete the course but in some older children who reacted the course was taken as completed after two injections, subject to a later Schick test. (Workers in other areas show roughly 90% of children Schick negative three months after two doses of T.A.F.)

Failure to complete the course. Roughly 4% failed to do so which includes many interruptions by illness. This figure is low compared to other areas.

Posterior Schick Test. This was offered to all cases completing the course and was taken advantage of by roughly 80% of parents. Exactly 98% of 1296 children tested were found then to be Schick negative—a remarkably high percentage of what may be regarded as complete successes.

The further history of 26 cases (2% of total) remaining Schick positive and therefore unduly resistant to immunisation is tabulated below :—

Negative on test two months later without further injection	1
Negative two or three months later after receiving 4th injection	16
Still positive after 4th but becoming negative after a 5th injection	1
Persistent positive at two-three monthly interval after 4th injection	1
Received 4th injection—awaiting further test	7

SUMMARY.

The following figures summarise the immunising work carried out by the Department during the year :—

New children commencing during 1936		2136
Carried forward for completion from 1935		173
Preliminary Schick tests performed (on older children, some history of of exposure to diphtheria or special circumstances)	Positive 315—72.2% Negative 121—27.8%	436
Number completing course of immunisation during year		2043
Defaulters after receiving one or two injections (3.9%)		84
In process of completion at end of year		19
Number of posterior Schick tests (performed three or more months after completion of course)	Positive 26—2.0% Negative 1270—98%	1296
Awaiting posterior Schick test		669
Cases showing local reaction to injection (1.2%)		26
Total attendances at clinics for immunisation		9642

A careful observation was kept upon all reports of diphtheritic infection occurring during or after any immunising procedure by the Swindon Health Department, and the following is a complete chronological list of such since the last report, even where the diagnosis has been refuted by subsequent hospital investigation :—

Case	*Date.*	*History.*
1	24/12/35	E.P. 5 years—admitted to Isolation Hospital with severe faucial diphtheria 8 days after the first and only injection of T.A.M. following Schick test +ve. Inpatient 11 weeks—had palatal and ocular paralyses.

Case	*Date*	*History*
2	8/2/36	T.C. 5 years—admitted I.H. 14 days after second injection T.A.F. diagnosed diphtheria—K.L.B.—ve. Corrected diagnosis—Streptococcal tonsillitis with otorrhoea. Post Schick later negative.
3	16/2/36	E.B. 7 years—admitted I.H. 16 days after second injection T.A.F. Nasal swab +ve. —nasal discharge and secretion R. tonsil—. Very mild clinical attack diphtheria—inpatient 16 days. Schick negative 10 days after discharge.
4	20/2/36	G.M. 5½ years—admitted I.H. with moderate clinical diphtheria both tonsils 6 days after second dose T.A.F. Inpatient 36 days.
5	16/3/36	R.G. 8 years—completed course 1934—Post-Schick negative. Admitted I.H. diagnosed diphtheria K.L.B.—ve. Corrected diagnosis—Pleurisy Discharged after 16 days.
6	20/4/36	S.W. 4 years—admitted I.H. 4 weeks after receiving one injection of T.A.F. (had defaulted) K.L.B. + ve. Diagnosis—Nasal carrier K.L.B.
7.	13/10/36	M.W. 6 years—admitted I.H. with moderately severe nasal and faucial diphtheria 5 days after the third injection T.A.F.—had 20,000 A.D.S. in two doses—uncomplicated—Discharged after five weeks.
8	20/12/36	M.E. 5 years—admitted I.H. 5 months after negative posterior Schick following complete course. Throat swab K.L.B. + ve. Very enlarged septic tonsils with speck of ? membrane only. Corrected diagnosis—Tonsillitis with bacteriological (sub-clinical) diphtheria. Inpatient 35 days.

Commentary. Two of these cases were not diphtheria (Nos. 2 and 5). Two more (Nos. 3 and 6) were sub-clinical cases—K.L.B. + ve, while other three (Nos. 1, 4 and 7) were true cases of diphtheria occurring during or immediately after immunisation. One had only received one injection, one two and only one had received the full course. At the time of immunising there was a semi-epidemic prevalence of the disease. The only case in which the time for developing immunity had elapsed (No. 8) was one of tonsillitis complicated by sub-clinical bacteriological diphtheria and the

illness was short and mild. No case of true diphtheria occurred after the period of three months required for the development of immunity, after which period the posterior Schick test is performed.

Other occurrences. One child found Schick negative in 1935 and not immunised developed the most severe type of diphtheria six months later and died. Here we admit the negative preliminary Schick test gave a false sense of security. The possibility of error in technique precludes a 100 per cent. efficiency in any clinical test, and it is always admitted that clinical diphtheria can occur though rarely in a Schick negative child, suggested from massive infection or a *gravis* strain of organism. Such cases will not occur in the future since now all children presented under ten years and without special histories of infection or exposure are immunised without preliminary Schick test, following the information obtained in 1935 that roughly 90% of such children in the Borough can be found to be Schick positive.

Another child strongly Schick positive was admitted to hospital before receiving any immunising injections and died six days later from haemorrhagic diphtheria.

It cannot be too often reiterated that active diphtheria immunisation is an incomplete protection during epidemic prevalence. Three or more months are required for the development of active and fairly permanent immunity, and if a sufficient proportion of the child population is rendered immune by such measures no epidemic should develop. Epidemiologists put this proportion at 60% or more and though this figure has not yet been reached in the infant schools in Swindon it has been nearly approached, by this last year's work. It shortly will be reached if parents continue increasingly to appreciate and take advantage of this measure without waiting for the occurrence of epidemic diphtheria.

Conclusions. Based on the figures for Swindon over recent years your Medical Officer of Health puts the expectation of diphtheria among the child population as one in ten and a fatal termination at roughly one in a hundred. On the assumption made from proved results elsewhere that immunisation can reduce its incidence to less than one in a hundred and the fatality rate to infinitesimal proportions the reasonable claim may be made with some confidence that by the non-spectacular work carried out in the last year over 200 cases of serious illness have been avoided, and the loss from diphtheria in the next few years of twenty otherwise healthy children lives has been prevented.

Further development. The procedure now being well established and accepted by a majority of parents an individual offer will be made at least twice a year to every child on entering school unless already immunised. In the future we expect parents will become

more willing to accept the measure at an earlier age, when it can be offered individually to toddlers on reaching the age of 18 months or possibly two years.

Note by Medical Officer of Health.

To obtain what is required in a preventive measure of this kind is a tedious and difficult business which cannot be unduly hurried. Swindon has, however, suffered so terribly from diphtheria in the past that the majority of parents fully appreciate its risk and are willing to go to a great deal of trouble to avoid it. The latest outbreak—the end of 1935 and the beginning of 1936—led to a very active increase in the campaign to obtain immunisation and there is some reasonable hope that the lesson learnt last year may have a permanent influence upon the population.

The results so far obtained by immunisation have been favourable. The amount of disturbance produced by the procedure has been negligible and the immunity given appears, so far as we are able to judge at present, to be all that it can be expected to be. Very careful watch is kept on children immunised, or who had attended the immunisation clinic, for development of diphtheria. Immunisation does nothing to prevent infection, does not influence the capacity of the throat to harbour corynebacterium, and does not affect the incidence of other forms of throat disease, such as tonsillitis. The use of anti-diphtheria immunisation is to abolish the disease diphtheria. It is without influence upon the parasite. It has been said, possibly with truth in some instances, that an immunised child who subsequently developes diphtheria is recorded as a carrier, or a tonsillitis, or in some way which is not square. Such quibbling is as unnecessary as it is unjustifiable, for it is recognised that it is impossible by any means to give a 100% immunity. If one takes the eight cases of children who had been immunised, or partly immunised, and were subsequently notified as diphtheria, one finds material which tells not against the validity of immunisation but in its favour. Cases 1 and 4 are instructive. Neither of these children had been fully immunised, but I am confident that the partial immunity that they had got saved their lives and possibly the same might be said of case 7, though in October 1936, the ruling type of diphtheria was not highly virulent.

I am, on the whole, quite satisfied with this item in the public health of the borough, but I must press upon the inhabitants of the Town that their effort must be a permanent one, that is that if they want to be free from diphtheria they must have their children immunised, both now and in the future, at all events until such time, if it ever occurs, when the epidemiology of diphtheria shall shift.

ISOLATION HOSPITAL, GORSE HILL.

ANNUAL REPORT

From 1st April, 1936, to 31st March, 1937.

ISOLATION HOSPITAL.

The Isolation Hospital year runs from the 1st April to the 31st March, and it is advisable to keep to this year, because, as the hospital caters for a large area outside the borough boundary its report could not be made to fit in entirely with the report for the borough, whereas, by carrying on the hospital year three months beyond the end of the calendar year it is possible to get a better retrospective view of the epidemiology of the last quarter and a break at the end of March is least disturbing to the history of epidemiology.

The hospital at present accepts for treatment persons suffering from any form of notifiable disease, except smallpox and tuberculosis, and also, at the discretion of the medical superintendent, from any infectious condition which is not notifiable. Also, for administrative reasons, it accepts cases of incomplete abortion, whether these are septic or not.

The hospital normally serves the Borough of Swindon and the rural districts of Highworth and Cricklade and Wootton Bassett, but it relieves other parts of the county should the local accommodation for infectious disease be overstrained. It also admits from districts other than its own, cases which are not normally admissible to the smaller fever hospitals, particularly cases of puerperal pyrexia.

BACTERIOLOGICAL DEPARTMENT.

Excluding the bacteriological and pathological work of the hospital itself, diphtheria swabs from the town and outlying districts are cultured and examined at Gorse Hill, as well as at the health office in Eastcott Hill. During the year 1936-37, 242 swabs were examined on behalf of the hospital, and 352 on behalf of Swindon borough and the surrounding rural sanitary authorities.

AMBULANCE SERVICE.

There is a twenty-four hour ambulance service for accidents, infectious cases and general medical cases. The fleet consists of one modified L.C.C. pattern ambulance on a Talbot chassis, an ambulance on a Morris Commercial chassis and an old ambulance on a Ford one ton chassis which is used mainly for the conveyance of articles to be disinfected and for the laundry. The ambulance service is run in conformity with Circular 1356 of the Ministry of Health.

During the year under review, the following journeys were made :—

Transport of infectious cases	210
Transport of non-infectious cases	693
Transport of bedding for disinfection and laundry articles	357

HOSPITAL SERVICE.

The number of new admissions during the year 1st April, 1936, to 31st March, 1937, was 247, against 527, 710, 366, 412, 321 and 330 for the six preceding years. The number of admissions was the lowest since the hospital was re-organised in 1923.

On the 1st April, 1936, 46 patients remained under treatment in the hospital, so that altogether 293 cases were under treatment during the year. Of these :—

266 were discharged cured.

9 died.

1 was transferred to another institution (Devizes Mental Hospital)

1 was discharged home on his own request.

Both of these died.

16 remained in Hospital on 31/3/37.

Of the 46 cases which remained in hospital on 31/3/36, thirty belonged to an epidemic situation which ceased with the Winter of 1936. Of these 5 were diphtheria, three of which had developed scarlet fever in hospital. One of these was complicated with rheumatism, nephritis, endocarditis, gangrene of the tongue, pyaemia and necrosis of the shoulder, but made a remarkable recovery. Another had general paralysis and squint, but also recovered. The third had endocarditis and recovered without any permanent damage of the heart. Of the uncomplicated diphtherias, one died of cardiac paralysis and another (an adult male of 38) who died on the 59th day of diphtheria, had general paralysis which had spread to the sterno-mastoid, intercostals and the diaphragm. Fourteen further diphtherias who remained in hospital on 31/3/36 belonged to a different epidemiological period and were uneventful.

There were 23 cases of scarlet fever. Three of these were admitted with scabies. Though all the scarlet fever cases recovered, they had a formidable number of complications. One was a case of septic scarlet ; six had nephritis ; three had mastoiditis, one jaundice ; three otorrhoea and one endocarditis.

The remaining cases were—one case of measles which developed cancrum oris and otorrhoea, who recovered ; one case of tonsillitis which developed otorrhoea ; one case of glandular fever which developed abscess, and one case of pneumonia which developed empyema and a pneumococcal abscess in the knee, eventually to recover without any impairment of function.

These cases are taken separately from the admissions during the hospital year 1/4/36 to 31/3/37 because, with the exception of the 14 uncomplicated diphtherias, they belong to a special epidemiological period which ruled in the Winter 1935-36, when both streptococcus and pneumococcus were dominant and an epidemic of diphtheria of great severity was in progress. At the end of March 1936 there was a general clearing of the atmosphere and the cases admitted to the hospital during the year 1/4/36 to 31/3/37, which are detailed below, were in general not severe. In the major part of the year there were no epidemiological problems at all, but towards the end we were met with new problems totally different from those which had troubled us in previous years.

The 247 new admissions arranged according to the final diagnosis were as follows :—

Diphtheria	61
Scarlet Fever	85
Scarlet Fever and Whooping Cough	1
Erysipelas	10
Measles	4
Rubella	7
Mumps	1
Tonsillitis	12
Rheumatic Fever	1
Paratyphoid	1
Pneumonia	29
Pleurisy	1
Acute Tuberculosis	1
Catarrhal Jaundice	1
Laryngitis	1
Bronchitis and Emphysema	1
Erythema	1
Arterio-sclerosis	1
Puerperal Pyrexia	12
Abortion	2
Baby with mother	13
No obvious disease	1

The 247 cases admitted during the year were chargeable to the following local authorities :—

Public Health Acts :—	
Swindon Borough	159
Highworth Rural District	36
Cricklade and Wootton Bassett Rural District	28
Maternity and Child Welfare Act (Puerperal Cases) :—	
Borough of Swindon	8
Wilts County Council	16

DIPHTHERIA.

There were only 61 cases of diphtheria admitted to the hospital during the year, one of the lowest numbers on record. Most of the cases were very mild. There were three deaths—one admitted moribund died the same day and two respiratory cases, one of which was operated upon and the other not. Of the 61 cases, four were respiratory, for besides the two that died there were two laryngeal cases which recovered, one operated upon and the other not. Of the 61 cases, four were nasal diphtheria only ; four were nasal carriers without clinical manifestation and four were positive contacts isolated for a special reason. The complications were few. There were two cases of otorrhoea, two of squint, two of cardiac paralysis, one of palatal paralysis, and one of pharyngeal paralysis. All of these recovered.

In the Winter 1936-37, diphtheria was absent from the Borough of Swindon, in marked contrast to the previous year.

SCARLET FEVER.

86 cases of scarlet fever were admitted to hospital during the year. Less than one-third the number in the previous year. They were also, on the whole, mild. Like diphtheria, scarlet fever was absent from the Borough during the Winter 1936-37.

Of the 86 cases, 28 were treated with anti-toxin. The complications were few : One case of nephritis, two cases of otorrhoea which cleared up, one case of albuminuria; two were complicated with herpes, one with whooping-cough on admission, one relapsed, one developed impetigo and a gland abscess, one developed rheumatic fever and two were infected with rubella in hospital. The only case of importance was a little girl who developed typical rheumatic fever with active endocarditis. The mother of one of the scarlet fever cases was admitted to the hospital at the same time as her child. The child had typical scarlet fever, the mother typical rheumatic fever.

Two erysipelas cases, admitted within a week of each other, had Herpes Zoster of the right fifth nerve. The other erysipelas cases were of no particular interest.

The case of acute tuberculosis that died was admitted as a croupous pneumonia.

The paratyphoid was an isolated case which could not be connected up with anything else and was of distinct interest because he was severely ill and developed periostitis of the tibia.

THE PNEUMONIAS.

The pneumonias admitted into hospital during the year were extremely interesting. They comprize :—

5 June epidemic type, all of which recovered.

3 ordinary croupous type, of which two recovered and one died.

6 whooping-cough pneumonia, of which 5 recovered and one died.
One of those which recovered was complicated by empyema and has the distinction of having had the record stay in hospital, namely, six months and one day.

2 broncho-pneumonias of uncertain type.

1 lobar pneumonia of doubtful type.

1 definite influenzal pneumonia. This case is interesting because it was the only person from whom I was able to obtain Pfeiffer's bacillus during the influenzal epidemic. She was quite typical with a typical blood picture and she recovered.

One man was admitted who apparently had had pneumonia, probably of croupous type, but on admission was found to be suffering from Bell's mania for which he had to be removed to Devizes Mental Hospital, where he died.

Another curiosity was a woman who was admitted with a lobar pneumonia, classified at first as ? June epidemic type, who a week later developed typical measles. The pneumonia returned and never completely cleared up. But she took her discharge after she had been in hospital some months, to be re-admitted later with a chronic interstitial pneumonia which is now resolving.

There were three cases of a type of pneumonia new to us. These had the syndrome of lobar consolidation of the left lung, jaundice, and a low white cell count with immature leucocytes. They were all adult men. They were not very ill and all recovered. In former years we always looked upon this syndrome as fatal.

It is of interest that at the time there was an epidemic of catarrhal jaundice in the district from which these patients came. The district was not in Swindon, so we had not the opportunity of studying its epidemiology. But we saw some of the cases which had not got pneumonia and at the end of the year had in one puerperal case.

Another new type of pneumonia gave us four cases in March 1937. Three of these were children and one a girl of 21. In the acute stage the cases resembled the June epidemic type, except that there was a good deal of pleurisy with pain in the chest and restlessness. These cases ended with a crisis which was in the nature of a collapse, the temperature sinking immediately to the neighbourhood of 95, accompanied with great restlessness. However, they have all recovered. The blood picture of the girl of 21 recalled that of heliotrope influenza.

PUERPERAL MORBIDITY.

The puerperal infections included :—

12 puerperal pyrexia
2 abortions and
11 babies with mothers.

All of these recovered.

The chief interest in these puerperal pyrexias was the crop of staphylococcal aureus infections from Devizes, which is referred to in Appendix Three.

DUNSTAN BREWER,
Medical Supt. Isolation Hospital.

Public Health Department,
61, Eastcott Hill,
Swindon.

Appendix One.

Borough of Swindon.

THE HOUSING OF THE POPULATION.

Overcrowding and Its Abatement.

(Housing Act, 1935: Part I.)

Prior to the passing of the Housing Act 1935, no practicable means was available to mitigate the public health and social evils of overcrowded dwellings. It is true that by Section 91, subsection (5) of the Public Health Act, 1875, "any house or part of a house so overcrowded as to be dangerous or injurious to the health of the inmates, whether or not members of the same family" is a nuisance and must be abated under penalty and by Section 109 there is power to close a house against which there have been two convictions for overcrowding within three months. But this only defines a crime and exacts a penalty, it prescribes no remedy. Indeed, these Sections of the Public Health Act have long since been allowed to lapse, for their enforcement produced greater evils than they relieved. There was no definition of overcrowding, nor has one ever been fixed by the Courts, and the penalty, if exacted, merely turned the offenders adrift to repeat the offence elsewhere, and/or fined them for being poor, or stupid, or both.

In the general administration of the numerous Acts appertaining to housing which have been passed since the War, overcrowding has occupied a prominent position in obstructing progress, so legislation to deal with it was demanded with insistence by all who had to administer the Housing Acts, or were interested in the social problems which they sought to solve. The Act of 1935 was passed in response to the popular demand, and Parliament in granting it gave the minimum which would satisfy those claimants whose demands were reasonable.

The Borough of Swindon, the local government unit, does not coincide with the population unit, for in spite of the alteration of boundaries in 1928 there is still part of Swindon without the Borough. The trend of all towns to grow at the periphery and to decay as residential areas in the centre—a modern and most desirable tendency—may account for the decline in the population of Swindon, and also for its very low birth rate, which appears to have taken up a level in the neighbourhood of 12.5. The population mounted fairly steadily until the middle of 1931, when it reached 62,700. Since then it has declined steadily, and in the middle of 1935 had sunk to 60,400. Estimating four persons per house, we should therefore need to-day 575 fewer houses than we did in 1931. In 1931 there were 16,300 houses available; in 1935 this number had increased to 17,100, so that we have 1,375 houses at our disposal to relieve the overcrowding which existed in 1931. Even in 1931 the density per house was only 3.95, so that the town, as a town, at that time was not underhoused. To-day the density is 3.52. This is not only extraordinarily low, but carries a certainty that it will sink lower, for it means roughly that each couple of this generation is supplying only 1.5 for the next. The decline in population has been brought about entirely by the balance of

migration being against us, for in every year since the beginning of the century there has been some natural increase. But in the past three years this natural increase has shrunk to about 100 a year, and up-to-date this year the balance is against us. The population at the present time is so distributed in regard to age, that a natural decrease, slight at first but accelerating for forty years or more, is inevitable ; so, unless the balance of migration can be reversed in our favour, the town will dwindle. So far as can be foreseen, we shall never need more houses than we have at present ; in fact we do not need and shall not need all that we have. New houses will be needed to replace old, but it is highly desirable that they should be replacements ; in other words, that as new houses go up old houses should come down, else these latter will remain void and deteriorate rapidly, or attract from outside undesirable tenants and deteriorate more rapidly still. This, in course of time, would make Swindon a town with a rotten core, which of all things should be avoided.

There are, as you are aware, many sections of the town in which the property is poor in quality, obsolescing and deteriorating, but there are no slums and no part that can become a slum, because even where the properties are poorest in construction and repair, the spacing is not too bad. The number of houses at present unfit for habitation is negligible, but in course of time all houses become uninhabitable. In Swindon the rate of this natural decay will not be rapid, but owing to the way the town was built, the rot is fairly general ; so whenever possible clearance of deteriorating property should be effected before it becomes imperative on public health grounds alone.

With the population, the class of property, the industries and the percentage of owner-occupiers with which we have to deal, the greatest danger which confronts us is void property. Many of our terrace streets will keep respectably fit for years if they are free from voids, but for many reasons an empty house causes deterioration of a whole street, and this is particularly likely to happen in long, continuous rows of property of the cheaper kind.

Of the 17,100 houses in the Borough, 16,069 were enumerated in the survey. The remaining 1,031 are houses not " suitable for the working classes " however this term may be defined, and are large houses with relatively few inhabitants. Of the 16,069 houses inspected, only 149 were found overcrowded within the meaning of the statute. This is less than 1%, and, we imagine, this shows that Swindon has less overcrowding than any comparable town in the kingdom. Of the 149 overcrowded houses 55 offend to the extent of half a unit, and 50 to the extent of one unit, leaving only 44 houses overcrowded to an extent which is a public danger.

Our problem is, therefore, small and its remedy is not difficult and need not be expensive. By the utilisation of serviceable voids and a little re-shuffling we could accommodate the overcrowded population comfortably.

Overcrowding from Numbers.

The Act of 1935 is framed on the minimum requirement for respectable housing. It is therefore expected that at some date in the immediate future compliance will not only be possible but enforced. Even so, a certain amount of latitude is permissible, else the birth of a child or the occurrence of a tenth birthday might have to be celebrated by a change of residence. Also, overcrowding temporarily is permissible in certain circumstances, the numbers allocated to each house being those of persons who habitually sleep on the premises. Whether Box and Cox are to be treated as one or two persons, and whether a visit from mother-in-law can be determined upon the ground that its continuation would infringe the Act, are for the lawyers to decide. A more important matter is whether a common lodging-house is a house within the meaning of the Act. If it is, the lodging-house in Albert Street is overcrowded. The Act treats all rooms above a certain size, except bathrooms and sculleries, as potential bedrooms, but does not require them to be used as bedrooms, and gives no power to insist that they shall be so used, even if the separation of the sexes cannot be obtained without their being so used. No room, whatever its size, may count for more than two persons, but a large room may be partitioned and count as two rooms. Thus a room 20′ by 12′ only counts for two persons, but if it is divided, it may count for four. For health purposes, the division is inadvisable. So cases may occur where a temporary partition may be required to obtain a certificate of permitted numbers, but should be removable for convenience and health reasons.

Under the Act the average three-bedroomed house can accommodate nine persons, and the average four-bedroomed house eleven persons, though in some houses the bedrooms are below the size (110 square feet) to count for two persons. The requirements, therefore, cannot be said to be unreasonable.

In Swindon we have no structural houses with less than three rooms, and only 657 houses in the meaning of the Act with less than three rooms, of which only 20 are overcrowded ; so our overcrowding problem is mainly the accommodation of families of more than 9 units.

Separation of the Sexes.

For the purposes of the 1935 Act, we must consider three sexes—males, females and married. The Act requires that the available accommodation shall be such that the separation of the sexes is possible, but it gives no power to enforce the separation. In the Act, sitting-rooms and kitchens are counted as potential bedrooms, though in practice they are seldom used for sleeping, even in cases where it is advisable that they should be. The spirit of the Act is that only persons of the same sex should utilise the same bedroom, the wording is that this shall be possible by using all available rooms.

A one-roomed house can accommodate only one sex. A two-roomed house can accommodate two sexes. A three-roomed house can accommodate all three sexes. The neuters, that is, children under 10, do not count for this particular business, so no house of three rooms or more can be overcrowded on account of sex alone, *even if there is only one bedroom.* By "married" is meant two persons of alternate sex living together as man and wife. It would be improper to use this Section of the 1935 Act to break up an irregular union, though circumstances might arise where the Act could be used with this end in view.

The objects of the sex section of the Act are the prevention of incest and to allow the female half of the population some privacy in connection with their menstrual functions. It is well to keep this in mind, for they are matters of extreme social importance in both ethics and hygiene. Our criminal law has made incest a crime, but until the Act of 1935 it has taken no steps for its prevention. When the Act is in operation the excuse for incest cannot exist, as nobody will be living in circumstances in which it cannot be guarded against. I use the word "excuse" advisedly, for though in ethics there cannot be any excuse for such a crime, it must be remembered that man cannot be expected to behave himself unless it is made reasonably easy for him to do so.

The second objective of the separation of the sexes is of great importance to mental hygiene.

I must again emphasise the fact that the Act does not actually mitigate the abuses it seeks to extinguish, it only insists that the means essential for mitigation shall be provided.

The G.W. Rly., Estate.

The Great Western Railway residential estate is one of the oldest parts of the Town. It is self-contained, its roads being

private and protected by barriers. For the times at which it was built, its planning was good. The houses are of excellent construction, kept in good repair and the tenants are selected. For these reasons it is protected from ever becoming a slum, a fate which otherwise might threaten it, for the spacing is poor and the houses, owing to the fewness of the rooms, liable to overcrowding.

On the estate are 280 houses. Most are of the three-rooms type, consisting of a living-room, a kitchen-scullery, and a large bedroom occupying the whole of the upper storey. The scullery does not count as a room, so for the purposes of the Act these houses are two-roomed houses and may not accommodate more than three persons belonging to not more than two sexes. In many of these houses the bedroom has been divided by a partition. These houses count as three-roomed houses, they can accommodate five persons and allow for all three sexes. About half of the overcrowding on this estate could be legally remedied by partitioning the single bedroom, but if the estate remains as a useful part of the town, such partitioning is to be deprecated, for it transforms most acceptable accommodation for smallest-sized families into legally, but not hygienically, acceptable accommodation for families of average size. Curtaining would be superior to partitioning for hygiene, but would not legally carve the room into two.

The estate has more overcrowding than any other section of the town, except the Corporation houses, but owing to the large size of the bedroom, the overcrowding is of less health importance than in other districts where the houses contain more rooms of inferior size.

On the estate there are 280 houses, of which 10 are overcrowded, 7 to the extent of half a unit, 2 to the extent of one unit and 1 to the extent of 1½ units.

The Corporation Housing Estate.

Overcrowding on the Corporation Housing Estate is more serious than in any other part of the Borough, for of the 905 houses, 29, or 3.2% are overcrowded. Of the 15,164 houses in the town inspected apart from the estate, only 120, or .8%, are overcrowded. Of the 29 overcrowded tenements, 8 are overcrowded half a unit, and 9 are overcrowded one unit, leaving 12 cases of serious overcrowding. There are 2 cases of 5 units overcrowding, 1 of 11 persons in a 6-persons house, the other of 11½ persons in a 6-persons house.

Owing to the good spacing and the generally satisfactory state of the property, overcrowding on the housing estate is not such a serious matter as it is in a slum, but abatement is equally necessary.

The Corporation, in avoiding the great crime of abusing the Housing Acts by building for the beautification of the town and the glorification of the Surveyor and Committee, has fallen into the lesser crime of allowing overcrowding of their property, for the policy of granting houses to those families most in need of them has led to small houses being allocated to large families. This is a nemesis which was foreseen, for all concerned with housing were told repeatedly that what was needed was large houses let at a cheap rate. This prime need remains to be satisfied.

29 of the Corporation's tenants must be found alternate accommodation as follows :—

2	living in	5-unit	houses require	6-unit	houses.
5	,,	6	,,	6½	,,
2	,,	6	,,	7	,,
3	,,	6	,,	7½	,,
1	,,	6	,,	8½	,,
1	,,	6	,,	9	,,
1	,,	6	,,	11	,,
3	,,	6½	,,	7	,,
3	,,	6½	,,	7½	,,
1	,,	6½	,,	10	,,
1	,,	6½	,,	11½	,,
1	,,	7	,,	8	,,
1	,,	7	,,	11½	,,
1	,,	7½	,,	8½	,,
1	,,	8½	,,	10	,,
1	,,	8½	,,	11	,,
1	,,	10	,,	12	,,

A three-roomed house can usually accommodate 9 persons, so all but 7 of the overcrowded families could be re-housed in normal houses. 5 families require houses with 5 bedrooms. A difficulty is that many of the bedrooms on the housing estate are of such small size that they will only house one unit, and in some cases only half a unit. A half-unit room, (that is, one below 90 square feet) is practically of little utility.

The Local Requirements of Swindon.

There are 149 overcrowdings to remedy.

15 can be relieved by the eviction of lodgers, sub-tenants, etc.

3 require change to houses of similar number of rooms, but with larger bedrooms. All these are on the housing estate.

40 can be relieved by removal to three-bedroomed houses. There are over 100 voids suitable for this purpose.

74 require four-bedroomed houses. At present there are only 36 suitable voids in the town, but by a re-shuffle a few more may be made available.

10 require five-bedroomed houses, and 5 require six-bedroomed houses. At present there are 15 voids which are available, which might be serviceable for re-housing these large families. In parts of the town not enumerated (*e.g.* Bath Road) there are void houses of suitable size, but they would not be serviceable for many reasons.

Consideration of all the factors, which are known to us, justifies the following observations :—

1.—There are more houses in the town than are required to house the population.

2.—The houses, with very few exceptions, are fit for habitation.

3.—Demolition on public health grounds will not reduce the available houses to any appreciable extent for many years to come, so conversely, the need of new houses to replace old ones is negligible at present.

4.—The voids could take up the majority of the overcrowding, but there is a lack of void large houses in appropriate situations.

5.—Building large houses for large families is not economically sound, for large families are decreasing with accelerating rapidity, and houses suitable to re-house large families now would be unserviceable for any purpose in the future.

6.—Alternatives to building *ad hoc* many-bedroomed houses to relieve present overcrowding are :—buying, or leasing, any suitable houses available ; throwing two small houses into one temporarily ; re-shuffling a pair of small semi-detached houses to take one bedroom from one and add it to the other ; and dividing large families.

7.—The relief required for extra large families is to a large extent a temporary measure, for many more large families are passing out than are coming in ; but care must be exercised not to attract to the town undesirable immigrants, so accommodation reserved to re-house our present large families should be capable of diversion for other purposes when and if local need ceases.

8.—The great obstruction to the relief of overcrowding is, always has been and will be, that large families needing large houses need large incomes.

9.—It is far worse than useless to remove a large overcrowded family from a house which is too small but the rent of which is payable without reducing the money available for food below the poverty line, to a house of suitable size but of unsuitable rent. A full house is a minor matter compared with an empty belly. It may be a punishable offence to live overcrowded, whereas it is not to live underfed, but nobody with any concern for the public health can tolerate large families starved into appropriate premises.

So the re-housing of the large families must be a charge upon the community. Millions of public money have been wasted on disfiguring the landscape because local authorities have refused to accept the onus of the most unprofitable detail of housing; but unless they recognise it now, the Act of 1935 will have little value as a social measure.

10.—Many of the houses in Swindon are owned by the occupiers. Some of these are overcrowded. Ownership does not shift the onus on the occupier to obey the Act, nor that on the Corporation to offer appropriate accommodation.

11.—At present there is no call for "temporary licences," (Section 5, Housing Act 1935) but in the hoped-for but unlikely event of a new industry coming to the town this provision may be required.

12.—There are in Swindon no slums, no obstructed areas, nor any area which can be dealt with as an area under the Public Health or Housing Acts, and individual houses or small blocks of property unfit for habitation or likely to become so in the immediate future are few in number. But there are many blocks which are poor or inconvenient, so if possible a policy should be framed to demolish these before it becomes essential to do so for public health reasons.

DUNSTAN BREWER,
Medical Officer of Health.

Public Health Department,
61, Eastcott Hill,
SWINDON.

15th June, 1936.

Appendix Two.

A MEMORANDUM ON THE MIDWIVES ACT, 1936, AS IT AFFECTS THE BOROUGH OF SWINDON.

The Midwives Act 1936 was passed with the expressed intention of raising the financial and professional status of midwives, for abundant evidence had been collected to prove that the poverty and inferior position of midwives in England was the chief existing obstruction to the reduction of maternal deaths and sicknesses due to child-bearing.

The Act is drastic and in many parts of the country will give great difficulty in its administration, but in Swindon, owing to the development of the maternity service which you have pursued during the past fifteen years, no difficulty should be experienced in bringing the provisions of the Act into operation at the earliest date possible.

Though the 1936 Act did not appear on the horizon until last year, it had been obvious for many years that legislation along the lines eventually accepted by Parliament was essential and would be made. So in the development of the midwifery service in Swindon we have kept in view the probability that such a provision as that afforded by the 1936 Act would come to assist us in framing a complete policy of maternity and child welfare for the Borough. Your first business is to give practical expression to the commands of H.M. Government embodied in the 1936 Act. To help you to do this, this Memorandum is presented to you for your consideration. After this has been done and the preliminary difficulties of smooth working of this present Act have been surmounted, it will be advisable to recast and co-ordinate the whole service in all its details, a task which is simpler than it sounds, for in every direction you have taken in and co-ordinated all mandates and permissions which H.M. Government has imposed upon and allowed to local government authorities.

The experience of working the existing service since you became the Local Supervising Authority in 1931 reveals that, apart from the difficulties which the Act of 1936 will suppress, there are but few and minor matters calling for re-adjustment; so we may reasonably hope that before the end of 1937, a scheme of maternity administration almost proof against avoidable calamities, injustices, unnecessary suffering, annoyances, grievances and stresses and friction at a cost well within the capacity of the ratepayer to discharge can operate in your Borough.

THE MIDWIVES ACT.

Shorn of all unnecessary verbiage, deleting that which does not apply to the Borough of Swindon and substituting for duties generalized in the Act the actual duties here and now placed upon Swindon, the Midwives Act of 1936 is as follows:—

SECTION ONE.

(1) It is the duty of Swindon acting as the local supervising authority to secure by itself employing as whole-time servants a sufficient number of certified midwives to be available in its area for attendance on women in their own homes in the capacity as midwives, or as maternity nurses, during childbirth and for the lying-in period, adequate for the needs of the area.

Notes on above Section :—

(a) The lying-in period is not defined by the Act, but will be prescribed by Order to be a minimum of 14 days. This period may be extended if necessary. The correct practice would be that if the midwife considers that she should attend longer than 14 days she may do so if sanctioned by the Medical Officer of Health and must do so if the Medical Officer of Health requires her to do so.

(b) The Corporation is required to supply both midwives and maternity nurses and in this Section of the Act it appears that both midwives and maternity nurses so employed by the Corporation must be certified midwives.

(c) What the words "adequate for the needs of the area" imply is obscure. Does this mean that the Corporation must supply midwives for all cases of confinement at home which occur in the Borough, or that it need only supply such extra midwives as are needed above midwives already in practice ? Personally, I believe the former is what is meant and the remainder of this Memorandum is based upon this assumption.

(d) Nothing in the Act prohibits private domestic midwifery by registered midwives not whole-time servants of the Corporation. But the authority must have an adequate number of full-time salaried midwives to take all cases of delivery at the women's own homes. The presumption is that the private midwife will disappear, at all events in Swindon.

(2) By the end of January 1937, Swindon Council must submit to the Minister its proposals for carrying out its duties under this Section One after consultation with the local organisations of registered medical practitioners and with the local organisation of the midwives.

NOTES.—Precisely what these consultations are for is not clear for neither the Corporation, nor the local organisations can alter the Act.

I think the best way of proceeding with these consultations is for the Medical Officer of Health to meet these organisations and explain to them what the Act is and how it will affect them and for the Maternity and Child Welfare Committee to meet these organisations at a later date.

In Swindon there are no voluntary associations undertaking midwifery.

(3) The proposals to be submitted to the Ministry shall include (1) particulars of the number of midwives to be employed and (2) the parts of the area of the authority to be served, whether exclusively, or jointly, by the authority.

NOTES.—

(a) It will be obviously an advantage for the midwives to hunt in couples, that is, to divide the Borough into sections and to appoint two midwives to serve each section. Interchange of the midwives of one area with another can be arranged.

(b) The number of midwives that would be required must be based on the average number of confinements taken place in the patients' homes during the past five years.

(c) "Exclusively or jointly." So far as Swindon is concerned, the only body besides the Corporation to be considered is the Wilts County Council. The districts worked by some of the midwives at present in private practice are not confined by the borough boundary. Three midwives, resident in the county take cases in Swindon. Some of the midwives resident in Swindon take a few cases in the county. By agreement with the County Medical Officer, midwives resident in Swindon will be considered as practising exclusively in Swindon and those resident in the county as practising exclusively in the county. For financial adjustment of compensation see further on.

Remarks :—

(1) The expected number of births per annum in Swindon may be fixed at 900. Of these 400 will take place in the Maternity Home, 30 in other institutions and 470 in private houses. The numbers of the last tend to diminish briskly. Of these 470 we can reckon 330 midwives cases and 140 doctors' cases in which a midwife will be required as a maternity nurse. The latter class tends to fall. About 120 midwives cases and 20 maternity nurse cases would be attended by the present Extern Department (if the present Act had not come into operation).

(2) The number of cases per annum which can be attended by one midwife may be fixed at 90. Some authorities think 100 a reasonable number, but, personally, I think this too many. The Minister, in his Circular, suggests that in an urban district 70 midwives and 30 maternity nurses' cases are a reasonable allowance per midwife, but in Swindon the midwives' cases tend to rise at the expense of the maternity nursing cases.

(3) Obviously we must divide the Town into districts and appoint the midwives to each district so that individual choice of midwife by the people can be very limited indeed.

(4) The Borough could be divided into 3 districts. One centre at the Maternity Home, for which one midwife would be ample, as she could call on the staff at the Home to help in emergency (as at present). The remainder of the Borough divided into two parts, each with two resident midwives.

(5) My belief is that the tendency for home confinements to diminish in favour of institution confinements will accelerate for the 1936 Midwives Act will be an incentive for it to do so. We shall have to arrange for this change to proceed without dislocation of the staff. It would not be feasible for the first batch of domiciliary midwives to be appointed for work both in the patients' homes and at the Maternity Home, but subsequent appointments might be made with this in view. The Minister, in his Circular, holds the opposite view, namely, that the Act will tend to diminish institutional delivery in favour of home delivery.

SECTION TWO.

(1) A month before first engaging midwives, that would be after the Council's proposals have been submitted to the Minister, the authority shall give notice that applications for the employment are about to be considered, together with information as to the salary and other conditions of service, in one or more newspapers circulating in the area and send a copy of such notice to every midwife who on or before the 1st January, 1936, had given notice of intention to practise in the area.

NOTE.—This means that as soon as the proposals are approved Swindon must advertise for the necessary staff. It must advertise locally and send a copy of the advertisement to the local midwives.

It is obviously the intention of Parliament that so far as practicable those midwives already in practise in the Town shall be offered the salaried posts. Some may not accept ; some may not be acceptable to the local authority, and all will pass out in course of time and require replacement. I presume that in replacements the Council will be perfectly free to advertise for suitable applicants from anywhere at its discretion. The Council will have to decide the salaries, terms of service, etc.

The proposals of the Council do not require the formal sanction of the Minister, but they must be submitted to him presumably to satisfy him that they embody all the requirements of the Act. It is clear from the Minister's Memorandum that contentions may arise over local arrangements with voluntary associations. As there are no voluntary associations in Swindon no such contentions can arise here.

(2) A midwife employed by an authority under this Act must devote the whole of her time to the service of the local authority. She need not give her whole time to midwifery, but might be employed to do work other than actual midwifery but which is connected with maternity and child welfare. Thus I imagine it would be competent for the authority to employ its salaried midwives at baby clinics. But it is clear that no midwife employed by the authority may do work other than for the authority.

In the Act there is nothing in regard to marriage in connection with midwives accepted for whole-time service, but in the Minister's circular appears the following :—

"The Minister is aware that some local authorities have "adopted rules which require their female officers to retire on "marriage, but there is nothing in the Act to prevent the employ- "ment of married midwives, and the Minister trusts that any "authority whose rules would prevent their employment will "so revise the rules as to enable the authority, when first "selecting midwives for salaried posts, to have regard only to "their efficiency as midwives subject, of course to their ability "to undertake whole-time employment."

Then he goes on to state that he has been in consultation with the Association of Municipal Corporations and the County Councils' Association and that they share his view that no sort of discrimination should be made against married women in inaugurating the new service.

It is perfectly clear from the Act itself and from the social development which led up to the Act that Parliament intends that the new service shall, as far as possible, be staffed from midwives already in practice and it is known that of those midwives practising privately the majority are married.

(3) This sub-section deals with the superannuation of the full-time salaried midwives.

Superannuation appears to be contingent on an existing pension scheme under an enactment, though the general tenor of the Act appears to presume superannuation or some equivalent provision. However, in Swindon the Council will probably bring its midwives into the existing superannuation scheme and designate their posts.

Under this section, the Council may count up to 10 years' private practice of midwifery as though it had been service due for reckoning for superannuation purposes.

NOTE.—Nothing in the Act requires the midwife to surrender her certificate on receiving superannuation, and it is doubtful whether the Superannuation Act allows any restriction upon persons receiving superannuation payments. So a midwife, superannuated by an authority, might continue to practise midwifery privately in the district in which she had worked

as a full-time officer. This would be quite intolerable, so some way out must be found.

Superannuation age is fixed at 65, or 60 if 40 years' service has been completed. No existing midwife can give 40 years' service before she is 65 and no midwife, health visitor or medical officer ever can give 40 years' service before 60 and very few indeed before they are 65. There is a strong concensus of opinion that midwives, health visitors and nurses should be superannuated at 60. Owing to the particularly exacting nature of their duties, very few women in these employments can give satisfactory service after 60.

Section Three.

The authority must fix a scale of fees payable for the attendance of the midwives when acting as midwives, or as maternity nurses. This provision is practically the same as applies to fees charged for delivery in the Maternity Home. It is clear that a scale of charges dependent upon family income is required.

These fees are recoverable as a civil debt. It would probably be more satisfactory to have them collected beforehand. A scheme for collection of these fees might be drawn up before the Act comes into operation.

In Swindon the whole scheme of domiciliary midwifery will work in connection with the Maternity Home, which will continue to be, as it is now, the centre of midwifery administration. When discussing the method of payment of fees of domiciliary midwifery the Council should also consider revision of the method of payment of fees for cases which will be delivered in the Home. The suggestion that the fees, or part of them, might be paid by instalments before the actual delivery takes place has much to commend it, but it must be remembered that the majority of women pay their fees out of their maternity benefits and these are not available until after delivery has taken place. Amongst the poorest section of the community it might be quite inpracticable to collect any part of the fee until the maternity benefits have been paid.

Section Four.

This section deals with finance and the Government grant. This will be dealt with by the Borough Treasurer.

Section Five.

(1) This section deals with the compensation of practising midwives who will not come into the scheme. Any midwife registered, that is, who between 1st January, 1935, and the 18th March, 1936, has given notice to the authority of her intention to

practise, may surrender her certificate and if she does so she must be compensated to the extent of three years' purchase.

NOTE.—This compensation may be payable by more than one authority, for a midwife may practise in more than one area. So far as Swindon is concerned, the only other authority needing consideration is the Wilts County Council. I suggest that the Wilts County Council be approached to approve an arrangement by which Swindon pays the compensation for midwives resident in Swindon and the County Council for midwives resident outside the Borough and that each authority should recover from the other such proportion of the compensation money which would be payable in respect of purchase in the district of the other authority.

It is compulsory upon the authority to give the midwife the opportunity of surrendering her certificate, but it is optional on the part of the midwife whether, or not, she does surrender her certificate. This option operates for three years, after which no midwife will have power to surrender her certificate, nor will the authority have power to demand it.

(2) But if any midwife who has given notice to practise as above, is incapacitated by reason of age, or infirmity, to carry on the duties of midwife, she must surrender her certificate and must be compensated to the extent of five years practice. In Swindon there are two such midwives. This compensation may be paid as a lump sum, or as an annuity ceasing at the age of 70. One half of the money paid in compensation would be refunded by Parliament. The midwives, who either voluntarily, or compulsorily, surrender their certificate will have their names removed from the Midwives Roll and they may not be restored.

NOTE.—This sub-section differs from the last not only in the difference of compensation payable, but in that it is optional of the Council to require the surrender of the certificate, but compulsory to the midwife to surrender it if required to do so.

The age of incapacity is presumably 65.

As regards compensation payable, the *work* done by the midwives is known to the Public Health Department but the amount received for that work is not known. It may be doubted whether any midwives keep accounts which could be audited. In the Town the normal fees for midwifery are :—First confinements, 35/- ; subsequent confinements, 25/-. For maternity nursing the fees vary, averaging about 30/-. But lower fees than these are often taken and some debts are bad.

There is nothing to compel a midwife, not superannuated, or taken into the scheme, to surrender her certificate. She may prefer to continue private practice.

Half the sum paid in compensation will be recoverable from His Majesty's Treasury, so presuming that those midwives whose compensation would be heavy are acceptable for service under the Corporation, the amount payable for compensation will be very small.

Section Six.

Section Six is to me quite un-understandable in conjunction with Section One, for this allows a person registered under the Nurses Registration Act, but who is not necessarily on the Roll of Midwives, to act as a maternity nurse. Anyhow it does not concern us.

Section Seven.

The Central Midwives Board is given power to frame Rules. It is an open secret that the Board has framed rules and submitted them to the Minister for his approval. These rules cover the subject of training and registration of midwives and when they are approved, carry the force of law. The Act itself by Section 7 (2) requires the authority to provide or arrange for courses of instruction to the midwives practising in their area. This latter means that every midwife must be given refresher courses of study at regular intervals. So far as I can see at present this provision could be made satisfactorily by arranging that every midwife for one month every five years shall attend a course of instruction and practise at the Maternity Home.

Note to Section 7 (2)—

The refresher courses must be open to all practising midwives, whether full-time officers of the Corporation, or not. This may cause some trouble, for there is nothing to prevent any number of midwives not employed by local authorities elsewhere squatting in Swindon and demanding refresher courses. To get over this a fee may be charged for the course (say £100) to be refunded to those midwives who are full-time servants of the Corporation, or of any other authority with which the Corporation have concluded an arrangement.

Section Nine.

Section Nine deals with the fees payable to medical practitioners under Section 14 of the Midwives Act, 1918. The Minister is about to alter the scale, but what the alterations will be we do not know at present. This Section also gives the Minister power to make regulations prescribing the qualification of persons appointed by the authority to exercise supervision over midwives. At the present moment the person appointed in Swindon is Dr. King, the second Assistant Medical Officer.

SUMMARY.

	1931	1932	1933	1934	1935	1936
Number of Births notified in the Borough	970	1003	890	919	855	938
Number occurring in the Swindon Maternity Home	259	352	350	382	384	409
Number occurring in other Institutions	49	37	36	30	32	39
Number occurring in the patients' own homes	662	614	504	507	439	490
Number delivered by midwives in which the midwife acted as a midwife	307	359	256	246	206	216
Number delivered by Extern Dept. in which the midwife acted as a Midwife	151	130	101	111	112	140
Number delivered by doctors in which the midwife acted as maternity nurse	192	108	132	128	105	128
Number delivered by Extern Dept. in which the midwife acted as maternity nurse	12	17	15	21	16	6
Number of cases in no certified midwife was employed in any capcity	—	—	—	1	—	—

Schedule Two.

SUGGESTED SCALE OF FEES.

		Maternity Home.	Domiciliary Delivery.	
			Midwife.	Maternity Nurse
(a)	Where the income is less than 12/6 per head, per week.	The equivalent of the maternity benefit up to a maximum of £2.	30/-	30/-
(b)	Where the income exceeds 12/6 per head, per week, but is less than 15/- per head, per week.	The equivalent of the maternity benefit up to a maximum of £2, plus 5/- per week.	30/-	30/-
(c)	Where the income exceeds 15/- per head, per week, but is less than 17/6 per head, per week.	The equivalent of the maternity benefit up to a maximum of £2, plus 10/- per week.	30/-	30/-
(d)	Where the income exceeds 17/6 per head, per week, but is less than 25/- per head, per week.	The equivalent of the maternity benefit up to a maximum of £2, plus £1 per week.	32/6	32/6
(e)	Where the income exceeds 25/- per head, per week, but is less than 35/- per head, per week.	The equivalent of the full maternity benefit, plus 30/- per week.	35/-	35/-
(f)	Where the income exceeds 35/- per head, per week, but is less than 45/- per head, per week.	The equivalent of the full maternity benefit, plus, £2 per week. If there is no maternity benefit, the fee charged shall be £3 per week.	£2	£2
(g)	Where the income exceeds 45/- per head, per week, but is less than 55/- per head, per week.	£4 per week.	£2/10/-	£2/10/-
(h)	Where the income exceeds 55/- per head, per week.	The whole of the expenses incurred in the maintenance of the patient as defined by Section 16 of the Local Government Act, 1929	£3	£3

In view of the increased benefits offered, subtraction of rent and insurance from the per capitum allowance to be dis-continued.

In reckoning the size of the family, each child of any age below 16 counts as one head. No child over 16 years of age is to be counted, nor is the expected child to be counted.

NOTES.—The average income is the average weekly income based on three months preceding date of booking.

The fees shall be settled at the date of booking, but should financial circumstances alter between that date and the actual delivery, the fee can be varied by the Committee. Generally the variation to be based on the average weekly income for the three months preceding delivery.

The fees may be remitted entirely, or in part, at the discretion of the Committee.

Every woman is entitled to be delivered by the Council's salaried staff and to obtain all the benefits of the Council's Maternity Service. This right is absolute, even for women who are not able to pay any fee whatever.

A grievance of Swindon is that the Council not being an authority for Public Assistance, is financially handicapped by this last provision. For women destitute, or nearly so, payment is made to the Council by the Public Assistance Committee provided that the woman is in receipt of relief and is referred to us for maternity service through the Relieving Officer. But the intention of the 1929 Local Government Act is that Maternity shall not be administered through the Poor Law. In counties and county boroughs it makes no material difference whether the expense of maternity falls on Poor Law or Maternity and Child Welfare ; but local districts having powers under Maternity and Child Welfare, but not under Poor Law, pay twice over for extending their maternity service to the destitute.

Appendix Three.

EPIDEMIOLOGY OF SWINDON.

Notes on an Unusual Event which suggested Dominance of Staphylococcus Aureus in Swindon and Neighbourhood in the Autumn of 1936.

In temperate climates, epidemiology is dominated by pneumococcus and haemolytic streptococcus, for not only do these parasites directly produce more disease than all other pathogens, but they are the main agents in producing death and complications in infections not directly caused by them. Of recent years, evidence has accumulated to suggest that a third parasite—staphylococcus aureus—may occasionally exercise a similar dominating influence on the health of the community. These three organisms—pneumococcus, streptococcus and staphylococcus—are universal parasites of man, living epiphytically upon his surfaces and generally causing no inconvenience; but variants from these benign forms are the most dangerous of his enemies. The pathogenic forms of pneumococcus and streptococcus can be distinguished from the harmless forms, but as regards pneumococcus there is more or less proof that the former arise directly from the latter, and though this has not been proved to be so with streptococcus—and indeed our present conception of streptococcus infection is against it—it is still probable that the pathogenic varieties do arise as mutations from the harmless epiphytes. With staphylococcus aureus, however, no constant difference has been detected between those recovered from pathological lesions and those present on the skin, so it is still uncertain whether this organism is the cause of the diseases attributed to it, or is merely a harmless wanderer into diseased tissues. Whereas it is well known that streptococcus and pneumococcus often produce epidemic situations either solely due to them (*e.g.* scarlet fever, septic sore throat, epidemic pneumonia) or imposed upon other parasitic diseases, it is only quite recently that proof has been forthcoming that staphylococcus aureus may do so also. Of importance in this connection are the epidemic of pneumonia recorded by Dr. Millikin Smith in 1935, the numerous outbreaks in maternity homes of mastitis and of pemphigus neonatorum, either separately or combined, and the topical and local variations in prevalence of osteo-myelitis. To further our knowledge all phenomena suggestive of epidemic prevalence of staphylococcus aureus should be recorded, and in pursuance of this I relate the following.

In April-July, 1935, an outbreak of pemphigus neonatorum caused by staphylococcus aureus occurred in connection with the Swindon Maternity Home, which is recorded in the Annual Report of last year. From July 1935 until September 1936, we heard nothing more of staphylococcus activity in the town, but in September 1936, three cases of mastitis occurred in the Borough, which, though not proved to be due to staphylococcus, raised the suspicion that this organism might be about to trouble us again. On 1-10-36 a case of puerperal fever (1936, No. 35) was admitted to the Isolation Hospital. This case was unusual, but the point of importance is that from the interior of the uterus staphylococcus aureus was

obtained. In the notes it is stated that " So far as my memory serves me I have never before recovered staphylococcus aureus from the interior of the uterus." But looking through the records of the bacteriological examinations of the interior of the uterus in puerperal pyrexia cases which have been treated in Swindon from 1925-1936, I find one in which staphylococcus aureus was recovered. This patient died of uraemia. The baby of Case No. 35 and the Medical Officer attending her both developed carbuncle, from which staphylococcus aureus was recovered similar, so far as the investigation was carried, to that from the interior of the uterus of the patient. These two carbuncles though locally extensive and severe produced no constitutional disturbance.

Shortly after Case No. 35, we heard rumours of an outbreak of puerperal fever in a village near Devizes, some twenty miles from Swindon. Three cases from the district (1936, Nos. 32, 36 and 37) were admitted to Swindon Isolation Hospital. The bacteriology of the interior of the uterus of these cases was as follows :—

No. 32 Haemolytic streptococcus of low potency.

No. 36 Staphylococcus aureus and a large bacillus which did not grow in culture.

No. 37 Haemolytic streptococcus of low potency and staphylococcus aureus.

Case No. 32, from which staphylococcus aureus was not recovered, was an ordinary mild uterine sepsis Group 2, exhibiting no special features. But cases 35, 36 and 37, from which staphylococcus aureus was recovered, did exhibit exceptional features.

Geographically case 35 was widely separated from 32, 36 and 37 and there is no proof, and a certain amount of disproof, of actual contact between the three Devizes cases. Nor is there any proof that the two carbuncles were actually infections from No. 35. Since staphylococcus can be grown from the nail matrix of anybody, infection with this organism can be spread by anybody. But the fact remains that such infection, though it must be frequent, only causes diseases exceptionally.

In working out the bacteriology of these cases, help was sought from Dr. Gray, of Bristol University. At the time interest centred upon the streptococci, for it was considered likely that the Devizes outbreak might have been spread by a midwife ; so proof was sought of identity of strain of organisms from the patients and from the throats of their attendants. From the full evidence, both bacteriological and clinical, I am inclined to think the streptococci were of less importance than the staphylococci, for the one pure streptococcus case was the least

severe and the one pure staphylococcus case was the most severe. The blood examinations preclude any serious streptococcal infection in all four puerperal cases, whilst the localised inflammations were more characteristic of staphylococcal infection.

On 1-12-36 two cases of puerperal pyrexia, notifiable under the New South Wales Convention, occurred in Swindon Maternity Home. These cases were due to non-suppurative mastitis, secondary to cracked nipples. There is reason to suspect that cases of this type are due to staphylococcus aureus infection, though it is impossible to prove it unless abscesses develop. The bacteriological examination of the nipples, or the expressed milk, gives no valuable information, as staphylococcus aureus is a normal epiphyte on the nipple.

On 4-12-36 one infant in the Maternity Home developed pemphigus neonatorum. This case was very slight, consisting of some four blisters in the napkin area. From these blisters staphylococcus aureus in pure culture was grown. On the same day one of the breast cases referred to above, not the mother of the infant with pemphigus, developed a small, superficial sore on her breast, from which also staphylococcus aureus was grown.

It may be mentioned that in all the cases referred to the staphylococcus aureus showed haemolytic action on culture.

The presence of staphylococcus aureus in a superficial lesion, even when it is the only organism that can be cultured, is not of great significance, nor is the presence of a considerable amount of superficial skin lesions in the general population due to, or presumed to be due to, staphylococcus aureus anything out of the ordinary, though the number of cases which we meet varies very greatly from time to time.

3-12-36 a child, aged 7, from Cricklade, died in Victoria Hospital from Pyaemia following osteo-myelitis.

7-12-36 a child, aged 2 months, died of Marasmus and on 15-12-36 the mother of this child was admitted to G.W.R. Hospital with an abscess of breast.

At the end of December another case of breast abscess occurred in the Town in a woman who had been delivered in the Maternity Home in November and had no breast trouble whilst in the Home.

At the end of December three abscesses of the neck occurred, two in the Public Health Clinic and one at the Isolation Hospital, and grew pure cultures of staphylococcus aureus. The case in the Isolation Hospital was in a scarlet fever patient.

Throughout December 1936 and January, February, 1937, streptococcal and pneumococcal infections were at an extraordinarily low ebb in Swindon. In January an extensive epidemic of sickness of a minor character believed to be influenza was accompanied by a low death rate, a low pneumonia rate and a low rate of severe disease due to streptococcus. But in January 1937, a case of puerperal pyaemia was recorded and a two months old baby developed a pyaemia secondary to an operation for dermoid cyst. Unfortunately in neither of these cases was a complete bacteriological examination available, though from the nature of the cases it is possible that they were both staphylococcal. At the same time two cases of abscess of the breast occurred in the Borough.

Early in March 1937, a case of puerperal pyrexia from the district was admitted into the Isolation Hospital. This actually was a case of epidemic catarrah jaundice, which was rife in the neighbourhood and the woman developed superficial breast abscess —staphylococcus aureus. Her infant developed a stye and an abscess in the pulp of the finger—staphylococcus aureus. An infant at the Maternity Home developed one blister (napkin area)—staphylococcus aureus. And another baby developed double mastitis, one breast suppurated, also staphylococcus aureus.

Another infant developed an unsatisfactory umbilicus, due to staphylococcus aureus and on March 17th a girl of 10 years died of osteomyelitis of the tibia.

Five further cases of inflammation of the breast came to light at the end of March 1937. Two in connection with the Maternity Home which did not go on to abscess ; two admitted into Victoria Hospital which did go on to abscess and one which remained at home which did not go on to abscess. All these cases were associated with cracked nipples.

Early April 1937, two more infants discovered with pemphigus neonatorum consisting only of a few spots in the napkin area. But one of the babies has a stye on the left eyelid and another one has severe inflammation of both breasts.

Two more cases of pyrexia due to breast inflammation occurred in the Maternity Home. All these breast cases that have occurred recently are associated with cracked or sore nipples.

At the time of going to Press—April 8th, 1937,—one is able to review the epidemiology of Swindon during the past Winter and it gives us a most unusual story.

Diphtheria has been completely absent. The streptococcal diseases have been lower than I have ever known them in any period, or in any place. The pneumonic diseases have been few in numbers and low in fatality and there has been a total absence of disease due to bacterium group of organisms and of the acute infections of the nervous system. On the other hand, there was a short but widespread epidemic of influenza from which at least one-third of the inhabitants of the Town suffered slightly, but from which only one person died directly. The other side of the story is the wide prevalence of minor septic processes from which in all cases subjected to bacteriological research the staphylococcus aureus was recovered. It may be that the quiesence of pneumococcus and streptococcus has brought into prominence the less serious septic processes believed to be due to staphylococcus aureus, but we have the extraordinary number of breast cases in lactating women as a phenomenon which would not be missed even in times of severe stress, and though most of these cases of mastitis resolved without abscess, and therefore did not admit of bacteriological exploration, the fact remains that several of them did suppurate and in those that did the staphylococcus aureus was the only organism discovered.

BOROUGH OF SWINDON.

GENERAL STATISTICS.

Area (acres)	6062
Population : Census 1931	62401
Estd. middle of 1936	60150
Number of inhabited houses (1936)	16968
Rateable Value (General Rate)	£353,642
Sum represented by a penny rate	£1,270

EXTRACTS FROM VITAL STATISTICS OF THE YEAR.

		Total	M.	F.		
Live Births	Legitimate	756	385	371	Birth Rate	13.13
	Illegitimate	34	17	17		
Stillbirths :	Legitimate	25	16	9	Rate per 1,000 total (live and still) births	30.67
Deaths		731	371	360	Death Rate	12.15

Number of women dying in, or in consequence of childbirth—

	Deaths	Rate per 1,000 total (live and still) births
From Puerperal sepsis	—	—
From Other puerperal causes	1	1.23
Total	1	1.23

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	46.84
Legitimate infants per 1,000 legitimate live births	44.97
Illegitimate infants per 1,000 illegitimate live births	88.24

Deaths from Cancer (all) ages	125
,, Measles (all ages)	1
,, Whooping Cough (all ages)	2
,, Diarrhoea (under 2 years of age)	2

INFECTIOUS DISEASE.

Table showing the numbers of Infectious Diseases notified in the Borough during the year 1936.

Disease	Cases notified at various ages. (Years)												Total cases notified	No. of cases admitted to Hospital.	Total Deaths.
	Under 1	1-2	2-3	3-4	4-5	5-10	10-15	15-20	20-35	35-45	45-65	65 and upwards			
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	....	2	6	8	5	50	17	4	7	2	....	....	101	99	12
Erysipelas	2	....	....	....	....	....	....	....	2	3	4	1	12	3	1
Scarlet Fever	....	3	5	4	2	58	27	3	6	2	....	....	128	121	....
Ophthalmia Neonatorum	1	....	....	....	....	....	....	....	....	....	....	....	1	....	....
Dysentery	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pneumonia	5	5	4	6	5	19	4	2	17	19	27	14	127	18	32
Enteric Fever	....	....	....	....	....	1	....	....	....	....	1	....	2	1	....
Continued Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Encephalitis Lethargica	....	....	....	....	....	....	....	....	....	....	1	....	1	....	1
Puerperal Pyrexia	....	....	....	....	....	....	....	1	24	6	....	....	31	2	....
Puerperal Fever	....	....	....	....	....	....	....	1	....	1	....	....	2	2	....
Polio-myelitis	....	1	....	....	....	....	....	....	....	....	....	....	1	....	†1
Cerebro-spinal Meningitis	....	1	....	....	....	....	....	....	....	....	....	....	1	....	1
Polio-encephalitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Malaria	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....
Tuberculosis—															
(a) Pulmonary M	1	....	....	....	....	1	....	....	10	3	4	....	19	....	9
F	....	....	....	....	....	....	....	2	10	3	6	2	23	....	12
TOTAL	....	....	....	....	....	....	....	....	....	....	....	....	42	....	21
(b) Non-Pulmonary M	....	1	....	....	....	4	....	1	1	....	1	....	8	....	3
F	....	....	....	....	....	....	1	....	3	2	....	....	6	....	3
TOTAL	....	....	....	....	....	....	....	....	....	....	....	....	14	....	6
TOTALS	9	13	15	18	30	133	49	14	80	42	44	17	464	246	75

† Died away from home, disease not contracted in Swindon.

TABLE SHOWING MONTHLY INCIDENCE OF INFECTIOUS DISEASES AND THE NUMBER OF DEATHS DURING 1936.

Disease.	Number of Cases.												Total	No. of Deaths.
	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.		
Smallpox	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Diphtheria	26	16	16	5	10	3	....	2	9	5	4	5	101	12
Erysipelas	....	2	2	2	2	....	....	1	....	....	1	2	12	1
Scarlet Fever	8	27	16	9	13	10	4	12	7	10	6	6	128	....
Ophthalmia Neonatorum	....	....	....	....	....	....	....	....	....	1	....	....	1	....
Dysentery	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pneumonia	14	13	18	12	9	13	7	6	1	11	8	15	127	32
Enteric Fever	1	....	....	....	....	....	1	....	....	....	....	....	2	....
Encephalitis Lethargica	....	....	....	....	....	1	....	....	....	....	....	....	1	1
Puerperal Pyrexia	2	2	3	....	4	3	3	2	3	3	1	5	31	....
Puerperal Fever	....	....	....	....	....	....	....	1	....	1	....	....	2	....
Poliomyelitis	....	....	....	....	....	....	....	....	....	1	....	....	1	1†
Polio-encephalitis	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro-spinal Meningitis	....	1	....	....	....	....	....	....	....	....	....	....	1	1
Malaria	....	....	1	....	....	....	....	....	....	....	....	....	1	....
Continued Fever	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Totals	51	61	56	28	38	30	15	24	20	32	20	33	408	48

† Died away from home, disease not contracted in Swindon.

TUBERCULOSIS, 1936.

Age Periods	New Cases Pulmonary		New Cases Non-Pulm'ry		Deaths Pulmonary		Deaths Non-Pulm'ry	
	M	F	M	F	M	F	M	F
Under 1 year	1	....	1	....	1	....	1	....
1—5	....	....	1	1	....	....	....	1
5—10	1	....	4	....	....	....	1	....
10—15	....	....	....	1	....	....	....	....
15—20	....	2	1	....	....	....	....	....
20—25	5	2	....	1	....	3	....	....
25—35	6	11	1	2	4	5	....	....
35—45	5	4	....	3	2	3	....	1
45—55	5	2	1	....	1	....	1	1
55—65	2	4	....	....	1	....	....	....
65 and over	....	2	....	....	....	1	....	....
Totals	25	27	9	8	9	12	3	3

DEATHS FROM TUBERCULOSIS, 1936.

TABLE SHOWING WHEN CASES WERE NOTIFIED.

When Notified.	Pulmonary		Non-Pulmonary	
	Males.	Females	Males.	Females
One year or more before death	3	3	1	....
Less than one year and more than 6 months before death	2	2	....	....
Less than six months and more than two months before death	....	2	....	....
Less than two months before death	2	2	....	....
At or immediately before death	2	2	2	2
Unnotified (Cases who died outside the Borough & never notified to Swindon).	....	1	....	1
Totals	9	12	3	3

Comparative statement showing the number of notifications received of the various forms of Tuberculosis and the Death Rates resulting from each form of the disease for the years 1917-1936.

	1936	1935	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1917
No. of cases notified (all forms)	69	65	73	79	88	80	86	98	114	102	94	91	111	117	103	98	97	73	116	129
Respiratory Tuberculosis	52	40	42	53	62	52	41	57	69	70	56	66	75	75	68	63	72	51	86	102
Deaths from Respiratory Tuberculosis	21	26	28	35	41	40	37	23	40	45	30	42	42	48	59	42	55	44	66	60
Deaths from Tuber.Meningitis	3	1	5	1	5	3	3	3	6	1	8	5	4	12	6	11	8	8	11	8
Deaths from other forms of the disease	3	4	4	3	7	3	12	1	2	9	3	4	7	7	6	12	6	8	11	10
Total deaths fromTuberculosis	27	31	37	39	53	46	52	27	48	55	41	51	53	67	71	65	69	60	88	78
General Death Rate for all forms of Tuberculosis	0.45	0.51	0.61	0.64	0.85	0.73	0.84	0.44	0.82	0.96	0.71	0.89	0.93	1.19	1.27	1.17	1.28	1.16	1.74	1.5
Death Rate for Respiratory Tuberculosis	0.35	0.43	0.46	0.57	0.66	0.64	0.60	0.37	0.68	0.78	0.5	0.73	0.74	0.85	1.05	0.75	1.02	0.85	1.30	1.15

TABLE SHOWING THE DISTRIBUTION OF INFECTIOUS DISEASE IN THE VARIOUS WARDS OF THE TOWN DURING THE YEAR 1936.

Disease.	Ward.						Total.
	North	South	East	West	King's	Queen's	
Diphtheria	24	11	37	7	13	9	101
Scarlet Fever	42	30	19	15	12	10	128
Pneumonia	39	19	22	21	15	11	127
Pulmonary Tuberculosis	9	4	7	9	7	6	42
Other forms of Tuberculosis	4	....	2	4	3	1	14

INFANT MORTALITY IN THE SIX WARDS OF THE BOROUGH.

Ward.	No. of Births.	No. of Infant Deaths.	Infant Death Rate per 1,000 Live Births.
North	2`8	11	52.88
South	101	4	39.60
East	120	4	33.33
West	164	10	60.98
King's	106	6	56.60
Queen's	91	2	21.98
Total for Borough	790	37	46.84

REVIEW OF THE COMPARATIVE VITAL AND MORTALITY STATISTICS FOR THE BOROUGH OF SWINDON, TOGETHER WITH THOSE FOR ENGLAND AND WALES FOR THE YEARS 1901 TO 1936 INCLUSIVE.

	Birth Rate		Death Rate		Infant Mortality Rate		Illegitimate Death Rate
Year	Swindon	England and Wales	Swindon	England and Wales	Swindon	England and Wales	
1901	30.6	28.5	11.8	16.9	102.9	151	—
1902	28.3	28.5	12.7	16.3	104.7	133	—
1903	29.5	28.5	11.27	15.5	106.9	132	—
1904	30.0	28.0	12.49	16.3	111.2	145	—
1905	28.4	27.3	11.2	15.3	95.4	128	—
1906	29.4	27.2	9.9	15.5	86.2	132	—
1907	28.8	26.5	12.3	15.1	91.8	118	—
1908	28.9	26.7	11.8	14.8	101.5	120	—
1909	26.5	25.8	10.8	14.6	78.2	109	—
1910	23.4	25.1	9.7	13.5	86.8	105	—
1911	21.6	24.3	10.9	14.6	103.1	130	—
1912	23.4	23.9	10.3	13.3	76.3	95	—
1913	23.39	24.1	12.08	13.8	86.4	108	—
1914	22.5	23.8	11.5	14.0	73.7	105	—
1915	21.16	21.9	12.83	15.7	67.7	110	—
1916	18.9	20.9	11.3	14.4	72.4	91	—
1917	15.5	17.8	12.25	14.4	88.6	96	—
1918	16.53	17.7	15.13	17.6	81.3	97	129.63
1919	16.86	18.5	11.97	13.8	83.9	89	79.52
1920	23.25	25.4	11.64	12.4	69.0	80	122.44
1921	20.27	22.4	9.58	12.1	67.5	83	102.56
1922	18.98	20.6	12.17	12.9	60.5	77	121.95
1923	17.77	19.7	9.27	11.6	53.2	69	83.33
1924	17.11	18.8	10.78	12.2	63.01	75	192.30
1925	16.56	18.3	11.09	12.2	60.5	75	52.63
1926	17.09	17.8	10.67	11.6	47.95	70	193.54
1927	14.52	16.7	11.16	12.3	46.98	69	107.14
1928	15.63	16.7	9.92	11.7	36.26	65	51.28
1929	13.98	16.3	10.96	13.4	47.29	74	32.26
1930	15.66	16.3	10.77	11.4	62.82	60	157.89
1931	14.51	15.8	10.88	12.3	56.04	66	136.36
1932	14.31	15.3	11.68	12.0	52.99	65	37.04
1933	12.48	14.4	11.06	12.3	52.22	64	66.67
1934	12.66	14.8	11.11	11.8	55.84	59	115.38
1935	12.32	14.7	10.50	11.7	47.04	57	107.14
1936	13.13	14.8	12.15	12.1	46.84	59	88.24

BOROUGH OF SWINDON.

CAUSES OF DEATH, 1936.

(Registrar-General's Official Returns).

Causes.	Males	Females	Total
Measles	....	1	1
Whooping Cough	....	2	2
Diphtheria	5	7	12
Influenza	4	2	6
Encephalitis lethargica	....	1	1
Cerebro-spinal fever	....	1	1
Tuberculosis of Respiratory system	9	12	21
Other Tuberculosis	3	3	6
Syphilis	....	1	1
General paralysis of insane, etc.	4	—	4
Cancer	60	65	125
Diabetes	3	5	8
Cerebral haemorrhage	40	19	59
Heart disease	104	113	217
Other circulatory disease....	12	13	25
Bronchitis	16	11	27
Pneumonia	19	12	31
Other respiratory disease....	3	1	4
Peptic ulcer	4	2	6
Diarrhoea &c. (under 2 years).	2	—	2
Appendicitis	2	1	3
Cirrhosis of liver	1	1	2
Other liver diseases	3	4	7
Other digestive disease	5	2	7
Acute and chronic nephritis	12	13	25
Puerperal sepsis	—	....	—
Other puerperal disease	—	1	1
Congenital Debility, Premature Birth &c., ...	12	12	24
Senility	10	18	28
Suicide	4	6	10
Other violence	5	5	10
Ill defined causes	1	—	1
Polio-myelitis	1	—	1
Other defined causes	27	26	53
All causes	371	360	731

BOROUGH OF SWINDON.

INFANT MORTALITY.

1936. *Nett deaths from stated causes at various ages under One Year of Age.*

COMPILED FROM THE OFFICIAL REGISTRATIONS.

CAUSE OF DEATH.	Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 1 month.	1—3 months	3—6 months	6—9 months	9—12 months	Total Deaths under 1 year.
All Causes—										
Certified	18	2	2	2	24	4	2	3	4	37
Uncertified	....	....	....	....	....	....	....	....	....	....
Measles	....	....	....	....	....	....	....	....	....	....
Whooping-cough	....	....	....	....	....	1	....	....	1	2
Diphtheria	....	....	....	....	....	....	....	....	....	....
Influenza	....	....	....	....	....	....	....	....	....	....
Tuberculosis of nervous system	....	....	....	....	....	....	....	1	1	2
Tuberculosis of Intestines and Peritoneum	....	....	....	....	....	....	....	....	....	....
Other Tuberculous Diseases	....	....	....	....	....	....	....	....	....	....
Syphilis	....	....	....	....	....	....	....	....	....	....
Meningitis	....	....	....	....	....	....	....	....	....	....
Convulsions	....	1	....	....	1	....	....	....	....	1
Bronchitis	....	....	....	1	1	....	....	....	....	1
Pneumonia	....	....	....	....	....	1	1	....	1	3
Other Respiratory Diseases	....	....	....	....	....	....	....	....	....	....
Inflammation of the Stomach	....	....	....	....	....	....	....	....	....	....
Diarrhoea and Enteritis	....	....	....	....	....	1	1	....	....	2
Hernia, Intestinal Obstruction	....	....	....	....	....	....	....	....	....	....
Congenital Malformations	4	....	1	....	5	....	....	....	....	5
Congenital Debility and Sclerema	3	....	....	....	3	1	....	1	....	5
Icterus	....	....	....	....	....	....	....	....	....	....
Premature Birth	10	1	....	1	12	....	....	....	....	12
Injury at Birth	1	....	....	....	1	....	....	....	....	1
Disease of Umbilicus	....	....	....	....	....	....	....	....	....	....
Atelectasis	....	....	1	....	1	....	....	....	....	1
Suffocation	....	....	....	....	....	....	....	....	....	....
Acidosis Toxaemia	....	....	....	....	....	....	....	....	1	1
Erysipelas	....	....	....	....	....	....	....	1	....	1
TOTALS	18	2	2	2	24	4	2	3	4	37

LIST OF HOSPITALS PROVIDED OR SUBSIDISED BY THE LOCAL AUTHORITY OR BY THE COUNTY COUNCIL.

TUBERCULOSIS.	Two beds at Winsley Sanatorium, near Bath, provided by the local authority. The Wilts County Council has two sanatoria for the treatment of tuberculosis; one at Winsley for early cases and the other at Harnwood near Salisbury, for advanced cases.
MATERNITY	A Maternity Home of 24 beds provided by the local authority.
CHILDREN.	Nil.
FEVER.	A fever hospital of 70 beds provided by the local authority.
SMALLPOX.	A Smallpox Hospital provided by the Wilts County Council.
VENEREAL DISEASES.	A hospital with 6 beds provided by the Wilts County Council.
ORTHOPAEDIC.	Use of beds in Bath Orthopaedic Hospital.

Maternity and Child Welfare	61, Eastcott Hill	Mondays, Wednesdays and Fridays 2 p.m. to 4.30 p.m.	Swindon Corporation
Maternity and Child Welfare	Pinehurst Clinic, Beech Avenue	Wednesdays 2 p.m. to 4.30 p.m.	,, ,,
Maternity and Child Welfare	St. Barnabas' Church Hall Cricklade Road	Tuesdays, 2 p.m. to 4 p.m.	,, ,,
Maternity and Child Welfare	Methodist School, Romsey Street	Thursdays, 2 p.m. to 4 p.m.	,, ,,
Ante-Natal Clinic	37, Milton Road	Mondays, 6 to 7 p.m. Tuesdays, Thursdays (G.W.R. cases) & Fridays, 2 to 4.30 p.m.	,, ,,
Consultation Ante-Natal Clinic	Maternity Home, Kingshill	Second & Fourth Wednesdays in each month at 2.30 p.m.	,, ,,
Minor Ailments	61, Eastcott Hill	Every morning 9 to 11 o'clock.	,, ,,
Minor Ailments	Pinehurst Clinic, Beech Avenue	Every morning 9 to 11 o'clock	,, ,,
Dental Clinic	Wesley Schools, Farnsby Street	Daily 9.30 a.m. to 12.30 p.m., and 2 p.m. to 5 p.m.	,, ,,
		(Saturdays 10 a.m. to 12.30 p.m.)	,, ,,
Dental Clinic	Pinehurst Clinic, Beech Avenue	Daily 9.30 a.m. to 12.30 p.m. and 2 p.m. to 5 p.m. (Weds. excepted)	
		Saturdays 10 a.m. to 12.30 p.m.	,, ,,
Eye Clinic	61 Eastcott Hill	Tuesdays, 2 p.m. to 4.30 p.m.	,, ,,
Ringworm Clinic	,, ,, ...	Thursdays, 2 p.m. to 5 p.m.	,, ,,
Nose, Throat and Ear Clinic	,, ,, ...	Mondays, 2 p.m. to 5 p.m.	,, ,,
Medical Officer's Special Clinic	,, ,, ...	Thursdays, 2 p.m. to 5 p.m.	,, ,,
X-Ray Clinic	,, ,, ...	Thursdays, 2 p.m. to 5 p.m.	,, ,,
Electrical Treatment (General)	,, ,, ...	Wednesdays, 2 p.m. to 4 p.m.	,, ,,
Electrical Ionization Clinic	,, ,, ...	Fridays, 2 p.m. to 4.30 p.m.	,, ,,
Observation Clinic	,, ,, ...	Saturdays, 9.30 a.m. to 12 noon	,, ,,
Tuberculosis Clinic	Tuberculosis Dispensary, Milton Road	Thursdays, 10 a.m. to 3 p.m.	Wilts County Council
Venereal Diseases Clinic	Isolation Hospital, Gorse Hill	Men—Wednesdays, 7.0 to 8.30 p.m. Fridays, 6 p.m. to 7.30 p.m.	,, ,,
		Women and Children :— Mondays, 5 p.m. to 6.30 p.m. Fridays, 2 p.m. to 3.30 p.m.	
Orthopaedic Clinic	Isolation Hospital Grounds, Gorse Hill	Tuesdays, 2 p.m. to 3.30 p.m.	Voluntary Association

AMBULANCE FACILITIES.

(a) For Infectious Diseases. (b) For non-infectious and accident cases.	Three Motor Ambulances, giving a 24 hour service, are supplied by the Swindon Town Council.

LIST OF LOCAL ACTS, SPECIAL LOCAL ORDERS AND GENERAL ADOPTIVE ACTS IN FORCE IN THE DISTRICT.

LOCAL ACTS AND ORDERS.

Swindon Water Act, 1894.
Swindon New Town Electric Lighting Order, 1895.
Swindon (Water) Orders of 1902 and 1919.
The Swindon Corporation Act, 1904.
Swindon Corporation (Wilts and Berks Canal Abandonment) Act, 1914.
The Swindon Order, 1923.
The Swindon Order, 1925.
Swindon Corporation Act, 1926.
The Swindon Order, 1927.
The Swindon (Extension) Order, 1928.
The Swindon Electricity (Extension) Special Order, 1929.
Public Works Facilities Scheme (Swindon Corporation) Confirmation Act, 1931.
The Swindon Roads (Restriction) Order, 1935.

ADOPTIVE ACTS IN FORCE.	Date of Adoption.
The Public Health Acts Amendment Act, 1890.	11th Nov., 1890.
Infectious Diseases (Prevention) Act, 1890	11th March, 1902.
The Museums and Gymnasiums Act, 1891 (so far as it relates to museums)	6th June, 1905.
The Local Government and Other Officers' Superannuation Act, 1922	1st May, 1924.

THE PUBLIC HEALTH ACTS AMENDMENT ACT, 1907 :—	
Part III., Secs. 36, 37, 49, 50, and 51 Part IV., Secs. 62, 64 and 65 Part VII., Sec. 85. Part X., Sec. 93.	7th Dec., 1926.

THE PUBLIC HEALTH ACT, 1925. :—	
Part II. (except Secs. 20,24 and 29). Part III. Part IV. Part V.	7th Dec., 1926.

BOROUGH OF SWINDON.

ANNUAL REPORT

OF THE

Chief Sanitary Inspector

F. H. BEAVIS

For the Year 1936

To the Chairman and Members of the Health etc , Committee.

LADIES AND GENTLEMEN,

I have the honour of submitting my eleventh Annual Report dealing with the work carried out by the Sanitary Department during the year ended 31st December, 1936.

Appended hereto will be found the tables giving full particulars of the inspections made during the year, in conformity with the requirements of the Ministry of Health.

The only change which occurred in the staff of the Sanitary Department during the year was when Mr. G. E. Williams, who had been engaged as a temporary Sanitary Inspector for the purpose of assisting in the work under the Housing Act, 1935, was successful in obtaining a post at Salisbury and left the service of the Corporation on the 25th July. Your Committee then decided to advertise for a successor to Mr. Williams, and in November Mr. H. Mitchell was appointed and took up his duties. This caused a serious delay in the Overcrowding section, but every effort is being made to catch up with arrears.

MILK SUPPLY.

Wiltshire, as everyone knows, is noted for its milk production, and in recent years great strides have been taken to ensure to the public a supply of clean, wholesome milk. It is not so many years since Swindon's milk supply was described by a member of the medical profession as " cow sludge," but now all that has changed and the inhabitants of the Borough are getting clean milk within a few hours of its being obtained from the cow. Farms and places of production, together with methods, have undergone a tremendous improvement in recent years, and cleanliness and precautionary methods have been continually urged upon producers, so that to-day we can rely upon our milk supply being safe and satisfactory.

There was only one prosecution for a milk offence during 1936, when a dairyman was fined £1, including costs, for bottling milk in the street. Milk bottling in the street is most objectionable, and your Inspectors are continually on the alert to prevent it. Samples of milk are frequently being taken in the course of delivery, and these samples are sent to the Bristol University for bacteriological examination. The results of this examination are set out in the table appended hereto. The source of any sample which is not satisfactory is at once enquired into and immediate steps are taken to ensure an improvement. A working arrangement has been made with the Officers of the districts outside the Borough so that any sample which on examination proves to be unsatisfactory is referred to the Inspector concerned, who takes the

necessary steps to ensure cleanliness. This arrangement is working satisfactorily, and enables us to deal with any cases from outside the Borough. In addition to taking samples, your Inspectors also visit the farms whilst milking is in progress, and by means of the sediment test they can demonstrate to the milkers how clean milk can be produced and bacterial counts reduced to a minimum.

A considerable quantity of milk now being sold in Swindon is " Accredited," being produced under the conditions set out for " Accredited " producers in the Milk (Special Designations) Order 1936. The taking of samples under the Milk (Special Designations) Order 1923 was delegated to the Town Council by the Ministry of Health, and during the year twelve samples were taken, every one of which proved satisfactory.

Two farms, two bottling establishments, five milkshops and five retailers from outside the Borough are licensed for the production or distribution of " Tuberculin Tested " milk. Ten farms, one bottling establishment, four milkshops and five retailers from outside the Borough are licensed for the production or distribution of "Accredited " milk. There are seven retailers who are licensed to sell " Pasteurised " milk, and two licences have been issued for the pasteurisation of milk within the Borough.

FOOD SUPPLY.

During the year 15,205 animals were slaughtered for human consumption within the Borough, every one of which was seen by your Inspectors previous to being offered for sale. This entails a tremendous amount of work, much of which must necessarily be done after office hours ; but the work is of such importance that no effort is spared in order to carry it out regardless of whether it be night or day. Also on public holidays, when other offices are closed, this work goes on just as usual, and on these occasions one of your Inspectors is detailed for duty so as to ensure that proper supervision is maintained.

Fish-frying establishments and small shops where cooked food is sold seem to be on the increase. These premises are kept under constant supervision by your Officers so as to ensure absolute cleanliness, but I am of the opinion that the time has come when all such shops should be either licensed or registered by the Local Authority so as to enable us to eliminate the undesirables.

The provision of a public abattoir has not materialised, although the principle was approved by the Council some few years ago. During the year your Committee removed from the register one of the registered slaughterhouses owing to continued disuse, so that in Swindon we now have seven registered

and twelve licensed slaughterhouses, some of which cannot be said to be ideally situated, whatever is said to the contrary. These slaughterhouses are kept clean and as satisfactory as possible by their respective owners, but even so the standard of hygiene in privately owned slaughterhouses can never compare with that of a modern public abattoir.

During the year the unsound food amounted to just over twenty tons. This is a slight increase on last year's figure, but the quality of meat, etc., sold in Swindon has been maintained. Appended hereto will be found the tables showing the work carried out under the Public Health (Meat) Regulations, 1924.

It will be noted that the disease of Caseous Lymphadenitis has not been discovered in Swindon for the past two years. This is accounted for by the more rigorous inspection which is being exercised at the place of origin.

During the year a case of suspected swine fever was discovered at one of the registered slaughterhouses, and this case was confirmed and dealt with by the Inspector of the Ministry of Agriculture and Fisheries.

HOUSING.

The Housing Act 1935 threw a tremendous amount of work upon the Department, and your Committee decided to appoint one temporary Assistant Sanitary Inspector and three Enumerators to assist in this work. At present one Assistant Sanitary Inspector and one Enumerator are still in the service of the Corporation.

At the preliminary survey 16,069 houses were visited and the particulars of the occupants recorded. As a result of this preliminary survey just over 4,000 working-class houses have since been measured, either to ascertain the extent of the overcrowding or for the purpose of providing the owners or agents with the official permitted number for each house. The Act provided that the permitted number of persons allowed to sleep in any one house must be inserted in the rent book relating to that house by the 1st January, 1937. Consequently the staff have been kept very busy with this work, as the proper numbers can be ascertained only by taking accurate measurements of the accommodation provided in each house.

At the end of the year there were approximately 12,000 houses still to be measured. The overcrowding survey revealed that the overcrowding in the Borough is less than one per cent, so that in Swindon we can say that the situation as regards overcrowding is not a very serious one, although there are, of course, a few bad cases.

Appended hereto is a table giving full particulars of the overcrowding in each ward of the Borough.

During the year 1936, 53 houses were erected by the Corporation and 381 by private enterprise, making a total of 434 houses erected during the year.

TENTS, VANS AND SHEDS.

There are still one or two caravans in the Borough which are being used for human habitation, but very little trouble regarding them has been experienced during the past year. Every effort was made to ensure that no nuisance arose, and the bye-laws relating to these dwellings are strictly enforced. The solution of the problem regarding these structures would appear to be some form of legislation giving Local Authorities power to prohibit their use in towns of over 30,000 population.

THEATRES, CINEMAS, ETC.

There are at present two theatres, six cinemas, one billiard hall, and twenty-five premises licensed for dancing within the Borough, besides which there are five premises licensed for music and singing only. These buildings are regularly visited by your inspectors so as to ensure their being kept in a cleanly and sanitary condition.

DISINFECTION OF VEHICLES AT THE CATTLE MARKET.

The disinfection at the Cattle Market of vehicles used for the conveyance of animals is carried out under the direct supervision of the Sanitary Department. A small charge is made by the Corporation for this service, and a table is appended showing the particulars of the receipts and expenditure incurred during the year 1936. It should be clearly understood, however, that this table is not an accurate statement so far as profit and loss is concerned, as it does not include the cost of collection, disinfectants plants, etc., but only gives the amounts expended on casual labour. In former years there had been a considerable amount of congestion in the Cattle Market owing to the number of vehicles which arrived together during the rush hour, but late in 1935 the Market Company was induced to instal three new wash-downs and to adopt a system of one-way traffic. Consequently, vehicles now enter the market by one entrance and proceed onward until they arrive at the exit. This has considerably reduced the congestion and has improved the market to a great extent. The scheme which was adopted at the end of 1933, whereby unemployed persons are engaged temporarily on this work, is still working satisfactorily.

DRAINAGE WORK.

Good drainage is of the greatest importance so far as the health of the public is concerned, and during the year the drains of 260 houses were either relaid or overhauled, under the direct supervision of the Sanitary Department. This work takes up most of the time of one of your Inspectors, but too much time cannot be given to work of this description owing to the fact that most of it is underground and consequently never seen by the general public, although it has a direct bearing upon the health of the community. It is essential, therefore, that work of this nature which has to be covered over and which is of so much importance should be carefully supervised so as to ensure that it is efficiently done and in a proper and workmanlike manner. At the south-east border of the Borough another small plant for the purification of sewage was installed under the supervision of the Department, at an approximate cost of £275, and this was working satisfactorily at the end of the year.

RATS AND MICE DESTRUCTION.

The summer of 1936 was disappointing in many ways owing to the weather being wet and comparatively cold ; but so far as the rat population was concerned it was apparently not quite so favourable for the propagation of the species. Certain it is that we did not experience such an influx of these pests at the tips during the autumn as had occurred in former years. During Rat Week your Committee again authorised me to engage an extra man for this work, but owing to the weather the result was somewhat disappointing. A concerted effort was made, however, to destroy as many rats and mice as possible during the Week, which I consider justified the extra expenditure entailed.

A perusal of the table under this heading will show that nearly 5,500 rats were accounted for during the year, and that much useful work is being accomplished.

GENERAL.

Swindon is growing very rapidly and new houses are being built in every direction. This, of course, is very gratifying, but one often wonders how long the growth will continue and where all the people come from who inhabit these new houses. That they do come, however, is quite certain, because there are very few of the houses which have not been let or sold ; so that this new growth is exceedingly healthy and shows that the town is in a flourishing condition.

There are still houses in the Borough where the water-closets are without proper flushing apparatus. During the year 1936, the Department was successful in getting a great number of these brought up-to-date, but many remain and every effort is being

made to gradually reduce the numbers without having recourse to legal action. This, of course, is a relic of the past, when flushes to water-closets were not insisted upon, but the time has come when every water-closet should be provided with a proper flushing apparatus.

The insanitary back roads and passages are gradually disappearing, as a number of these have been properly drained and made up with an impervious material. This is a great improvement, but there are a few remaining which from a health point of view cannot be said to be satisfactory.

The privately-owned swimming-pools within the Borough were kept under constant supervision during the season, and samples of the water were taken periodically, but owing to the cold and inclement weather these pools were not in such great demand as they had been during the hot summers of previous years.

During the year a plague of fleas invaded certain houses on the housing estate. These pests proved to be very persistent and it was necessary to disinfect the houses three or four times before we could say that the premises were clear.

During the year 16 Council houses and 71 other houses were disinfested for bugs. Formerly sulphur had been used for this purpose but had not proved effective, and early in the year Lawes' Disinfestator Blocks were tried and proved to be quite satisfactory. Preventative measures were also adopted whereby each approved applicant for a house belonging to the Corporation is visited by your Inspector prior to being given possession of a house, and if necessary all furniture belonging to the prospective tenant is disinfected in the house before removal, by the method previously mentioned.

Section 10 of the Shops Act 1934 is administered by your Committee and nine certificates of exemption were granted during the year.

Free disinfectants are issued by your Committee to the poorer classes of the community, and the method was re-organised in 1933 as certain abuses had crept in. This method is still working satisfactorily, for without refusing any genuine application the quantity of disinfectant issued has been reduced by about seventy-five per cent.

I am,

Ladies and Gentlemen,

Your obedient Servant,

F. H. BEAVIS,

Chief Sanitary Inspector.

SANITARY STATISTICS, 1936.
TABLE OF NUISANCES RECORDED AND ABATED.

Nature of Complaint.	Not abated 1935	Visited during 1936	Total	Abated during 1936	Not abated at end of 1936
Choked drains	13	254	267	249	18
Defective drains	17	170	187	164	23
,, traps	2	93	95	91	4
,, sinks	6	75	81	41	40
,, and dirty w.c.'s	16	225	241	198	43
,, flushing-cisterns	9	60	69	53	16
,, roofs	43	150	193	140	53
,, eaves-gutters & rainwater pipes	26	111	137	83	54
,, ceilings	21	105	126	80	46
,, walls	43	193	236	148	88
Damp walls	10	153	163	73	90
Dirty rooms	90	612	702	564	138
Defective floors	41	176	217	154	63
,, firegates	—	52	52	25	27
,, coppers	—	30	30	11	19
,, yard paving	13	39	52	49	3
,, forecourt paving	4	54	58	20	38
Offensive accumulations	—	70	70	63	7
,, animals	8	10	18	18	—
Miscellaneous	144	790	934	697	237
TOTALS	506	3422	3928	2921	1007

VISITS AND INSPECTIONS, 1936.

Work in course of construction	1732
Infectious disease	343
Slaughterhouses	3961
Pig-killing on private premises	63
Butchers' shops	165
Markets	387
Bakehouses	119
Ice-cream shops	59
Cow-sheds, milkshops and dairies	386
Fishshops	759
Food shops	622
Workshops	448
Outworkers' premises	6
Common Lodging-house	21
Revisits	1780
Miscellaneous	1990
House-to-House inspections	421
Housing re-visits	969
Overcrowding Survey	4000
TOTAL	18231

DEFECTS IN OUTWORKERS' PREMISES.

Dirty Floors	—
Dirty Ceilings	—
Dirty Walls	—
Defective Roofs	—
,, Water-closets	1
,, Floors	—
,, Yard Paving	—
,, Firegrates	—
,, Walls	—
,, Drains	—
Other Defects	1
TOTAL	2

INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Occupiers Prosecuted (4)
Factories (including Factory Laundries)	177	5	Nil.
Workshops (including Workshop Laundries)	232	6	Nil.
Workplaces (other than Outworkers' Premises)	39	5	Nil.
TOTAL	448	16	Nil.

DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.—Contd.

Particulars. (1)	Number of Defects. Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	Number of Offences in respect to which Prosecutions were Instituted. (5)
Nuisances under the Public Health Acts :—*				
Want of cleanliness	124	142	....	....
Want of ventilation	4	4	....	....
Overcrowding	....	....	....	....
Want of drainage of floors	2	2	....	....
Other nuisances	42	31	....	....
Sanitary accommodation — insufficient	....	....	....	....
Sanitary accommodation — unsuitable or defective	11	10	....	....
Sanitary accommodation — not separate for sexes	....	....	....	....
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouse (s. 101)	....	....	....	....
Other offences (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921)	....	....	....	....
TOTAL	183	189	....	....

* Including those specified in Sections 2, 3, 7, & 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

DISINFECTANTS.

Quantity given : Fluid	....	184 gals. 2 qts. 0 pts.
Powder	....	2 cwts. 0 qrs. 18 lbs.

DISINFECTION.

Cases of Cancer	36
,, Consumption	22
,, Infectious Disease	229
,, Smallpox	—
Verminous Rooms	348
School Rooms Disinfected	—
School Shawls ,, ...	....
Library Books ,, ...	72
Lots of Bedding ,, ...	287
Lots of Bedding Destroyed	46
Animals Destroyed	—
Miscellaneous Articles Destroyed	34
Miscellaneous Articles Disinfected	14

DAIRIES, COWSHEDS AND MILKSHOPS.

Dairies and Milkshops	78
Cowsheds	19
Milk Purveyors from outside the Borough	47
TOTAL	144

Two farms, two bottling establishments, five milkshops and five retailers from outside the Borough are licensed for the production or distribution of "Tuberculin Tested" milk. Ten farms, one bottling establishment, four milkshops and five retailers from outside the Borough are licensed for the production or distribution of "Accredited" milk. There are seven retailers who are licensed to sell "Pasteurised" milk, and two licences have been issued for the pasteurisation of milk within the Borough.

Inspections	386

DAIRIES, COWSHEDS AND MILKSHOPS—Contd.

NUISANCES FOUND—

Dairies requiring limewashing	53
Cowsheds requiring limewashing	26
Dirty yards	1
Defective paving	9
Offensive accumulations	6
Defective ceiling plaster	3
Unsuitable and dirty utensils	—
Milk and containers uncovered	5
Defective floors	—
Defective vent shafts	—
Dirty conditions	11
Insufficient water supply	—
Choked drains	—
Defective water-closets	1
Defective drains	1
Miscellaneous	6
TOTAL	122

SLAUGHTERHOUSES.

Registered	7
Licensed	12
TOTAL	19
Number of Inspections	3961

NUISANCES FOUND—

Requiring limewashing	16
Want of cleanliness	8
Insanitary condition of pens and yards	10
Offensive accumulations	4
Choked drains	4
Other defects	23
TOTAL	65

COMMON LODGING HOUSES.

On Register	1
Number of persons for whom accommodation is provided :—Adults, 111 ; Children 8.	
Inspections	21

RATS AND MICE (DESTRUCTION) ACT, 1919.

The following is a table showing the work carried out by your officer under the above Act during the year under review :—

Rats Caught	Complaints Received	Due to Defects of Drains or Sewers.	Due to Structural Defects.
5,464	301	26	8

BAKEHOUSES.

Factory Bakehouses	20
Workshop Bakehouses	9
Domestic Bakehouses	1
TOTAL	30
Number of Inspections	119

NUISANCES FOUND—

Limewashing overdue	46
Dirty yards	2
Ceilings requiring re-painting	—
Choked drains	—
Dirty W.C. pans	4
No separate accommodation for sexes	—
Accumulations of manure	1
Defective yard paving	2
Defective vent shafts	2
Want of cleanliness	4
Other defects	5
TOTAL	66

FOOD SUPPLY.

There are on the registers of the Department—

Butchers' Shops	92
Butchers' Stalls (in covered market)	2
Wholesale Meat Store	2
Fried Fish Shops	39
Ice Cream Shops	160
Cooked Meat Shops	54

and these premises are regularly inspected by your officers.

MEAT AND FOOD DESTROYED.

	Tons	Cwts.	Qrs.	lbs.
Carcases of Beef and Offal	7	13	1	0
Portions ,, ,, ,, ...	2	13	2	13
Carcases of Veal and Offal		4	0	12
Portions ,, ,, ,, ...			1	22
Carcases of Pig and Offal	1	0	1	21
Portions ,, ,, ,, ...		3	3	14½
Carcases of Mutton and Offal		5	0	13
Portions ,, ,, ,, ...		1	2	9
Heads	2	6	2	1
Lungs	1	6	3	7¾
Livers		19	3	23½
Plucks		13	2	11
Kidneys			1	21
Legs			1	4½
Tongues				8
Udders		1	0	1
Hearts			2	10¾
Offal	1	5	3	0½
Chilled Beef	1	5	0	22½
Frozen Beef		1	3	10
Beef Suet				20
Beef Trimmings			1	13
Filleted Haddock			1	7
Hake			2	1
Prawns			1	7
Frozen Liquid Egg				14
8 Rabbits				—
Turkeys			3	10
2 Fowls	....			7
Tinned Lambs' Livers				10
TOTAL	20	7	1	7

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The following table shows the number of carcases inspected during the year, together with the approximate average per week.

	Beasts	Calves	Pigs	Sheep	Total.
Total inspected....	1210	2254	5577	6164	15,205
Approximate average per week.	23	43	107	119	292

CLASSIFICATION OF DISEASES FOUND IN THE UNSOUND FOOD.

	Tons	Cwts.	Qrs.	lbs
Abscesses	1	0	2	20½
Actinomycosis				12
Angioma		1	0	22
Arthritis		1	0	2
Blood Aspiration		2	2	3½
Bone Taint			1	20
Bruising		10	1	0½
Carcinoma				3
Cirrhosis			3	0
Coccidiosis (1 Rabbit)				—
Contamination		12	2	1
Cystercercus Tenuicollis		1	0	27¾
Decomposition		8	0	21
Degeneration		14	0	21
Distomum Hepaticum		2	3	23
Echinococcus Veterinorum				17
Fatty Degeneration		1	1	17
Fatty Infiltration		1	1	1
Ill-bled		2	0	6
Inflammation		16	1	3
Jaundice		1	1	22
Johnes Disease		13	0	26
Mammitis				9
Mastitis				24
Melanosis			1	0
Moribund		2	1	10
Necrosis		2	3	4½
Nephritis				½
Oedema		1	2	3
Pericarditis		9	0	7¼
Peritonitis		1	0	4
Pleurisy			2	13
Pneumonia	1	6	2	9
Pyaemia		1	0	4
Sarcoma				4
Septicaemia		1	2	20
Strongylus Filaria				24
Strongylus Rufescens				11
Tuberculosis	11	6	2	12
Unsoundness	1	0	1	4
Urticaria			3	22½
	20	7	1	7

DISINFECTION OF VEHICLES AT THE CATTLE MARKET.

Month.	No. of Vehicles Disinfected.	Fees Received.	Expenditure.
		£ s. d.	£ s. d.
January	104	2 12 0	2 1 0
February	218	5 9 6	3 4 0
March	271	6 15 6	4 15 0
April	144	3 12 0	2 8 0
May	168	4 4 0	2 16 0
June	152	3 16 0	2 8 0
July	121	3 0 6	1 13 0
August	143	3 11 6	2 0 0
September	208	5 4 0	2 4 0
October	174	4 7 0	2 6 0
November	213	5 6 6	2 16 0
December	166	4 3 0	3 14 0
TOTALS	2082	52 1 0	32 5 0

TABLES SHOWING THE RESULTS OF THE BACTERIOLOGICAL EXAMINATION OF MILK SAMPLES.

No. of Sample.	Organisms per 1. c.c.	T.B.	Coli per $\frac{1}{100}$ c.c.	Other organisms present.	Sediment per half-pint.	Reduction Time (hrs.)
1	47,000	—	+	—	—	—
2	16,200	—	—	Mastitis	—	—
3	19,200	—	+	—	—	—
4	61,000	—	+	—	—	—
5	12,300	—	+	—	—	—
6	11,600	—	+	—	—	—
7	12,000	—	+	—	—	—
8	58,000	—	—	—	—	—
9	102,000	—	+	—	—	—
10	12,900	—	—	—	—	—
11	11,100	—	—	—	—	—
12	12,400	—	—	—	—	—
13	11,200	—	—	—	—	—
14	218,000	—	+	—	—	—
15	12,700	—	—	—	—	—
16	9,100	—	—	—	—	—
17	10,100	—	—	—	—	—
18	29,000	—	—	—	—	—
19	Over 1,000,000	—	+	—	—	3
20	5,300	—	—	Mastitis	—	10
21	4,400	—	—	Mastitis	—	$10\frac{1}{2}$
22	3,700	—	—	Mastitis	—	$9\frac{1}{2}$
23	143,000	—	+++	—	—	7
24	Over 1,000,000	—	+	—	—	3

No. of Sample.	For Pasteurised Milk only.		Result of Bacteriological Examination.				
	Phosphatase Test.	Organisms per C.M.L.	T.B.	B.Coli $\frac{1}{100}$ per c.c.	Methylene Blue Test	Sediment per half-pint	Other Organisms.
25	—	—	—	—	Over 7 hrs	—	—
26	—	—	—	—	,, 7 ,,	—	—
27	—	—	—	—	,, 7 ,,	—	—
28	—	—	—	+	$6\frac{1}{2}$ hrs.	—	—
29	—	—	—	+	$2\frac{1}{2}$,,	—	—
30	—	—	—	+	Over 7 hrs	—	—

HOUSING ACT, 1935.

OVERCROWDING SURVEY.

Ward.	No.of houses visited for preliminary emuneration	No. of houses surveyed and recorded.	No.of houses found to be definitely overcrowded	No. of void houses.	Percentage of :—	
					Over-crowded houses.	Void houses.
North (excluding Council houses)	2214	816	20	44	.95	1.99
South	1189	584	16	30	.84	1.58
East	2889	434	11	84	.38	2.9
West (excluding Council houses)	2901	367	19	28	.65	.96
King's	2697	312	22	35	.81	1.3
Queen's	2574	582	32	47	1.8	1.82
Council Houses	905	905	29	1	4.3	.1
Total for Borough	16069	4000	149	269	.92	1.6

HOUSING.

Number of new houses erected during the year :—

(*a*)	Total (including numbers given separately under (*b*))	434
(*b*)	With State assistance under the Housing Acts :—	
	(i) By the Local Authority	3
	(ii) By other bodies or persons	—

I. INSPECTION OF DWELLING-HOUSES DURING THE YEAR :—

(1) (*a*)	Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1296
(*b*)	Number of inspections made for the purpose	3086
(2) (*a*)	Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	421
(*b*)	Number of inspections made for the purpose	1696
(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	Nil
(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	832

II. REMEDY OF DEFECTS DURING THE YEAR WITHOUT SERVICE OF FORMAL NOTICES :—

	Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	861

III. ACTION UNDER STATUTORY POWERS DURING THE YEAR :—

A.	Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :	
(1)	Number of dwelling-houses in respect of which notices were served requiring repairs	Nil
(2)	Number of dwelling-houses which were rendered fit after service of formal notices :—	
(*a*)	By owners	Nil
(*b*)	By Local Authority in default of owners	Nil

B. Proceedings under Public Health Acts :

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 9

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—

(*a*) By owners 9

(*b*) By Local Authority in default of owners .... —

C. Proceedings under Sections 19 and 21 of the Housing Act, 1930 :

(1) Number of dwelling-houses in respect of which Demolition Orders were made 3

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders .... Nil

D. Proceedings under Section 20 of the Housing Act, 1930 :

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made .... Nil

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

IV. HOUSING ACT, 1935—OVERCROWDING :—

A. (i) Number of dwellings overcrowded at the end of the year 149

(ii) Number of families dwelling therein 168

(iii) Number of persons dwelling therein 1219

B. Number of new cases of overcrowding reported during the year .... Nil.

C. (i) Number of cases of overcrowding reported during the year 6

(ii) Number of persons concerned in such cases 47

D. Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding .... Nil.

BOROUGH OF SWINDON.

EDUCATION COMMITTEE.

ANNUAL REPORT

OF THE

School Medical Officer

(DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.)

For the Year 1936.

BOROUGH OF SWINDON
EDUCATION COMMITTEE.

* CHAIRMAN — Alderman R. G. CRIPPS.

* VICE-CHAIRMAN — Councillor J. BELCHER.

MEMBERS.

THE MAYOR (Alderman L. J. NEWMAN, J.P.)

* Alderman J. L. CALDERWOOD
* Alderman Mrs. M. GEORGE, J.P.
* Councillor W. R. ROBINS
Councillor F. T. HOBBS
* Mrs. P. M. DARLING
* Mr. T. MEDCALF
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Mr. J. HASKINS
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Alderman A. E. HARDING
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Councillor F. L. TONGE
* Councillor W. SEATON
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* Miss M. E. SLADE
Mr. F. W. HAWKSWORTH
Mr. H. WHITING

Director of Education—Mr. STANLEY HIRST, B.Sc.

* *Members of the Medical Inspection Sub-Committee.*
† *Chairman of the Medical Inspection Sub-Committee.*

STAFF.

School Medical Officer—DUNSTAN BREWER, M.R.C.S., L.R.C.P., D.P.H.

Assistant School Medical Officers—
V. R. WALKER, B.Sc., M.B., Ch.B., D.P.H.
VIOLET REDMAN KING, M.B., Ch.B.

Ophthalmic Surgeon.
OLIVER BEAKLEY PRATT, M.A., M.B., B.Ch., (Oxon.) D.O., M.R.C.S., L.R.C.P.

Specialist Nose, Throat and Ear Diseases.
F. COURTENAY MASON, B.A., Lond. M.S., M.B., B.S., F.R.C.S.(Eng.)

Orthopaedic Surgeon.
M. F. FORRESTER BROWN, M.D. (Lond.) M.S.

Dental Surgeons—W. KENYON BERRIE, L.D.S., R.F.P.S.G.
KENNETH W. MASSEY, L.D.S. (Liverpool).
ERNEST H. HARTLEY, L.D.S. (Liverpool).

Head Clerk—S. MANSFIELD DEE.

Senior Clerk School Medical Service—JOHN W. DAY.

Clinical Clerks and Dental Attendant—Miss G. L. NORRIS, Miss E. M. KEY. and Miss N. JONES.

HEALTH VISITORS AND SCHOOL NURSES.

Miss I. D. Sampson.

3 years Certificate of Hospital Training.
Certificate for Tuberculosis (Royal Chest Hospital, London).
Queen's Nurse.
Certificate of Central Midwives Board.
State Registered Nurse.

Miss E. M. Pilcher.

3 years Certificate of Hospital Training.
School Nurse's and Health Visitor's and Tuberculosis Certificate.
Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Miss A. Hawkins.

4 years Certificate of Hospital Training.
Certificate of Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute
State Registered Nurse.

Miss O. Marker.

4 years Certificate of Hospital Training.
Certificate of Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Mrs. K. M. D. Francis.

3 years Certificate of Hospital Training.
Certificate of Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.
State Registered Nurse.

Miss C. E. Middleton.

4 years Certificate of Hospital Training.
Certificate of Central Midwives Board.
Health Visitor's Certificate of the Royal Sanitary Institute.
State Registered Nurse.

SCHOOL NURSE.

Miss A. M. Hoare.

2 years Certificate of Hospital Training.
Certificate of Central Midwives Board.
Certificate of the Royal Sanitary Institute.
State Registered Nurse.

BOROUGH OF SWINDON.

EDUCATION COMMITTEE.

Area	.... 6,021 acres
Number of Elementary Schools	 16
Number of School Departments	 34
Recognised Accommodation	12,033
Number of Children on Register	 8,633
Average Attendance	 7,767

Number of Secondary Schools	 3
Number of Scholars on Roll :—	
The College, Secondary School	 282
Euclid Street Secondary School	 266
The Commonweal Secondary School	 286

To the Chairman and Members of the Education Committee of the Borough of Swindon.

LADIES AND GENTLEMEN,

I have pleasure in presenting the report upon the Medical Inspection and Treatment of School Children in the Borough for the year 1936.

Co-ordination of the school medical service with the other health services in the borough is now complete, the only surviving relics of the time when the services were separate being that this report is issued to the members of the Education Committee before the general report of the medical officer of health is available and the finances of the educational section are kept apart from those of child welfare for the purposes of grant and audit.

School medical inspection and such treatment as is undertaken by the local authority is carried out by the assistant medical officers and by the specialists appointed by the committee, each of whom gives in the following pages a report on that part of the work for which he is responsible. The business of the school medical officer himself is to co-ordinate the work, to see that the various officers and specialists work together for the wellbeing of the children, to advise the education committee upon all matters appertaining to the health of the children and to obtain from the committee everything that he can for the benefit of the children as a whole and for each child who requires special consideration. In most districts, the school medical officer himself has little to do with individual children, though he generally reserves some aspects of the work as his own province and acts as a referee where there is difference of opinion in regard to the treatment or management of children who present special problems.

The Board of Education requires certain facilities to be supplied by every education authority and has laid down somewhat exact formalities for medical inspection and for those forms of treatment generally undertaken by local education authorities, but apart from this there is wide latitude allowed to local authorities, and great variation in interpreting what is meant by school medicine. To rear citizens in the best health possible, continuous supervision by experts in child medicine and preventive physiology is required throughout the whole of the period of growth; so whether or not the school medical officer does active treatment of pathological conditions he must, if the children are to obtain the best chance in life, exercise supervision over their development and co-operate all measures that are available to help them. On the whole this

work is appreciated by the public as much as any work for the public benefit, and the difficulties and obstructions which occur are neither so great nor so frequent as one would expect. The most serious difficulties are concerned in making the peace between the various agencies which exist entirely for the children's benefits, for it often happens that a line of conduct or treatment undertaken from one point of view is not desirable from another. The school medical officer, who should be able to visualise the whole child and his future and to estimate the ultimate results of any departures from normal education and management, should therefore decide between the conflicts of specialists—a most delicate task which often gives offence in one quarter and not infrequently does so in all.

To rear children in health is not the same as to keep them free from disease. Indeed the latter is only the beginning of health and is becoming a side-issue. The number of children who are actively diseased or severely defective is very small; but the number of children who are as full of health as they ought to be is smaller still, because we are only beginning to realise that there is a state of health and activity, attainable by the vast majority, considerably better than that which actually obtains and which our fathers thought was the best to be had in this imperfect world. For it is only recently that we have recognised that the imperfections of Creation, where not imaginary, are entirely of our own making.

When we started school medicine our object was to clear away disease in the child population. In this we have been remarkably successful and to-day the amount of obvious diseases—conditions to which doctors attach names which might mean something to classical scholars—steadily becomes smaller. But this is not to say that the remainder of the children have attained, or will attain that measure of health which they can attain and which it is our business to see that they do attain.

The first essential of health is perfect nutrition and perfect nutrition involves perfect feeding and a great deal else besides. The feeding of our children is vastly better than it has ever been. In Swindon, children who can be said to be ill-fed are few but there are many who might be better fed than they are. So far as children of Swindon are concerned, poverty in itself is not the complete explanation of any ill-feeding, for wherever necessary we are prepared to supplement the dietary by milk or meals to bring it to a reasonable level. Ill-feeding is hardly more common in the poorest classes of the community than in those whose means admit of a satisfactory dietary, for there still exists a good deal of misunderstanding connected with the feeding of children and the public is largely misled for the sake of vested interests. Much

money is wasted on patent and proprietary foods, nostrums and rubbish of little or no nutritional value, which if spent on standard foodstuffs would pay for a first class dietary. I mentioned last year that in the campaign against goitre success was expected, and eventually achieved, by modifying the diet of toddlers to accord with the physiological requirements of that period of development. This led not only to the disappearance of goitre but also of rickets and great diminution of most of the nutritional diseases, including such states of physiological stress as "tonsils and adenoids" and enlargement of the lymph glands. I cannot subscribe to the belief that children who are perfectly fed will escape all diseases, or that perfect feeding assures perfect nutrition ; but it is certain that neither good nutrition nor good health is possible for long without good feeding and the best possible health is impossible without the best possible feeding. The experimental work done since the War leads to the conclusion, which was expected, that children who are believed to be well-fed can be improved by the addition to their dietary of substances of high food value. The food of highest value is milk, so the supply of milk to school children was a provision which we advocated for many years. We got it finally, though it was not given us primarily for the good of the children. However, we did get it and we shall hold it, so it is now possible for every child in every elementary school to obtain extra milk, either at cost price, or free if their parents have any real difficulty in paying for it. This scheme was put into operation in Swindon as soon as the Board of Education had given permission for its introduction. Much was expected of it and we have got much from it, but on the whole the response of parents to this provision has been disappointing. At the time of writing, of the 8900 children on the register only 4900 are receiving milk for which the parents pay, and some 700 are receiving it free. It is certainly disappointing to find that over 3,000 of the children are not benefitting from this provision. Many reasons are given by the parents for not allowing their children to have this milk in school, and these reasons are mainly bad. In fact, there is only one reason which is good—that the child cannot digest milk. But though this is frequently alleged, it is in fact uncommon and does not affect more than 1% of all children. Two reasons most commonly given are :—First, that the child gets sufficient food at home and does not need extra milk, and, second, that the child does not like milk and does not want it. In the first case (which is the commonest reason why children in Swindon do not get milk, though it is not always so expressed) it may be pointed out that the extra energy which can be obtained from the milk in school can be utilised in enhancing the health and activity of the child, and there are very few children indeed who do not benefit from it. To a large extent the amount of energy which a child can discharge is governed by the amount of good food it can ingest. The second

reason is an excuse given for children who are not, and often never have been, properly fed and whose assimilative apparatus has had to modify itself to do the best it can with a diet which is not a proper human diet. There is great difficulty in improving the nutrition of children who for years and perhaps throughout life have had to shift upon a poor diet, so we find that those children who would be most benefitted by this provision of milk in school are those who are least likely to get it. My own opinion is that our remedy is to supply milk to all school children and to make the taking of the milk "a lesson"—that is, part of the school routine. Everybody who has studied the question wants this, but fears the financial burden. But the cost of supplying health is infinitesimal compared with the cost of mitigating disease, and it is a sheer waste of money to attempt to rear a vigorous race if the first essential of vigour is scamped.

The second essential of health is exercise. In 1936 we heard a great deal about exercises and physical fitness, and towards the end of the year it became the great political show turn. By exercise the physiologist means something different from physical jerks and gymnastics. The principle is that to maintain health at its maximum level each and every function must be worked to its full potential. The harder the body is worked within its physiological potential the longer it will last and less is it likely to become diseased. We must remember that in this great outcry for physical fitness we shall only succeed if we proceed in accordance with the teaching of physiology, and the first thing for us to do is to recognise certain evils which must be combatted. We have already spoken about nutrition. It is worse than useless to attempt to increase physical fitness in a body which is not fully nourished, and as you increase the fitness you must increase the intake, so that the fitter the population the greater will be its appetite—and food is not given away quite so freely as advice. Secondly we start all wrong by keeping children in the sitting position for long hours in school. I am told by educationists that it is impossible to educate children unless they are sitting down, though the Greeks, who are much quoted at present in our campaign for physical fitness, did not consider this was essential. At all events we must recognise that sitting in a desk for lessons is the most unnatural and evil position that can be assumed by a child, and though it can be made as little bad as possible by having desks of the best pattern, it can never be other than evil.

Clothing is another difficulty. But here things are improving very rapidly, and the Circular of the Board of Education on clothing for children doing gymnastic exercises (1450) is a real step in the right direction.

Largely owing to the amount of sitting that they do, the stance of children generally is poor. This is most noticeable in the older girls, because girls between the ages of 12 and 16 grow very rapidly and become heavy. Several deformities of a minor kind—flat foot, knock knee, spinal curvature, protuberant bellies and ill-formed chests—are extremely frequent, due to children increasing in bulk and weight at a greater rate than they increase in power of muscular co-ordination. These things tell us that the physical training of children during the early stages of development leaves much to be desired, for if the body is exercised as it develops, these errors of growth will not occur, on condition that the children are properly fed meanwhile. Bread and jam muscle cannot be trained. There is at present in being a complete re-organisation of physical exercises for school children and this is all to the good and should materially improve the physique of those who are coming on. But it is well recognised that this physical training must not stop at school, for it is needed equally, if not more, for the years between leaving school and of completion of development, and indeed for years after that. In post-school life there are added difficulties in obtaining proper physical exercise. Young persons who have to work for their living are naturally tired when their day's labour is finished, and think, sometimes correctly, but frequently erroneously, that their tiredness is physical and will be relieved by rest. There are, however, many processes in modern industry which call for little physical labour, and tiredness at the end of the day's work may not be physical tiredness at all, and is to be relieved not by rest, but by exertion. The supply of facilities for our young people to indulge in physical exercises and games, amongst which dancing—not slithering along the floor—should take a prominent place, is a matter which must engage the attention of all who are desirous to see improvement in the physique of the nation. But perhaps we have been no more remiss in this than in everything else appertaining to the adolescent.

Lastly for health we must keep busy mentally and learn and practise the hygiene of the mind as well as that of the body. This is education in its full sense, and though much of it can be, and is, taught and instilled at school, more must be learned at home, in the street and in the world where we must keep up our heads or perish. Of mental hygiene I can say nothing here, save that more than one half of sickness at the present day is due either directly, or indirectly, to disordered mental action.

The official tables which appear at the end of this report show the incidence of the various defects found at routine medical inspections and at the special inspections and scrutinies of school children which are the essential part of school medicine. If we take up a table such as that of " Individual school children found

at routine medical inspection to require treatment excluding uncleanliness, nutrition and dental diseases" and find, as we do, that 16 per cent. require treatment, it is difficult to escape the belief that 16 per cent. of the children are defective. Which, of course, is true in the sense that these children have something which they would be better without and which admits of remedy. But they are not necessarily defects of any consequence. If we turn to another table, that of blind children, we see that amongst the 15,000 children under 16 years of age in Swindon there are only 2 who are blind.

The percentage of children found defective in inspection work is governed by the standard of the examiner and a slight difference in this standard may make enormous difference in the recorded percentage of defectives. For instance, the number of children reported as having flat foot bears far less relationship to the children's feet than it does to the persons who examine them, and this is largely true of all the so-called defects met with in school children. The ultimate aim of school medicine being to raise the level of health and efficiency of all, it necessarily follows that any improvement in the children is automatically followed by an increased rigidity of the standard. This connotes real progress but it makes it exceedingly difficult to give statistical evidence of the improvement that has occurred in children during the past thirty years. In diseases and defects of a definite character it is easier to show improvement. Thus, last year there was not a single child in the school population of Swindon who had demonstrable rickets. There were only four children with organic heart disease. In the course of routine inspection only one case of tuberculosis, and that a minor one of the glands, was discovered. Figures like these would not have been recorded thirty years ago. Here I can speak from my own experience. On any day in 1909 I could have found in any school in the country of a thousand places at least as much serious defect as we shall find in the whole of Swindon to-day, and if my figures for those early days of school medicine do not show so many delicate children, or minor deformities, or suchlike things, it is only because in those early days such minor matters were ignored.

A few further remarks on the findings in 1936 will not be out of place.

The commonest single cause of blindness in the past was ophthalmia neonatorum. Blindness from this cause is now practically extinct. The second commonest was keratitis or inflammation of the cornea and corneal ulceration. In 1936 no single case of keratitis was discovered in the school children of Swindon.

Squint is a defect of somewhat complex causation which is very serious because the image in one eye must be discarded and that eye always becomes partially blind. Except by eugenic selection the only measure which will alter the incidence of squint is attention to eye disease in the first few months of life and this can do little because early eye disease is not a common cause of squint. In the past few years Mr. Pratt has operated upon a considerable number of squint cases and we are now scrutinising the ultimate results of this treatment. I am satisfied that the treatment is good and should be continued but must impress that no amount of individual treatment is going to alter the incidence.

Of deviations from the physical mode, the commonest is defective sight for which children wear spectacles. These deviations are not diseases and are treated by spectacles not because children with defective sight are diseased but because we have developed a system of education which calls for an emmetropic eye which Nature seldom supplies. A child with deviation of its refraction from the mode has to wear spectacles to read for a reason comparable to that for which he will wear goggles if he becomes an acetylene welder. Unless man consciously practises eugenic selection against errors of refraction, the percentage of children with defective eyesight will not vary, so that any difference which is recorded in the percentage of children with defective sight either locally or topically is due to chance sampling.

Widely different is the case of ear disease and deafness. Acuity of hearing is subject to deviations similar to those of vision, but for reasons which I shall not discuss here, considerable deviations of hearing are not apparent except on special testing and are of no obvious consequence. The deafness which we encounter in school children is not deviation, but the result of destruction of the ear apparatus and this destruction in most instances follows disease of the middle ear as a complication of infection. Improvement in the treatment of infection reduces ear disease and it is not too much to hope that before another generation has passed, ear disease, which at present is one of the commonest of the defects of school children and is actually the commonest cause of rejection of recruits for military service, will become a rarity.

Tonsils and adenoids were low in incidence in 1936. This disease condition should diminish with improvement in child management, but the improvement must not be expected to be regular, for the supply of tonsil cases is much influenced by epidemics of infections. The tonsils increase in size in all diseases due to coccal parasites, or to viruses, as part of the physiological reaction. Occasionally the strain thrown upon the tonsils is so great that the tonsillar structure is destroyed, or becomes permanently

diseased, and then the tonsils should be removed. The tonsil itself never requires removal merely because it is large, but adenoid vegetation may require to be removed on the count of size alone, because it may obstruct the breathing. There is perhaps no measure used in medicine which has been so much abused as the operation for the removal of tonsils and adenoids. Indeed, not many years ago, a great authority on preventive medicine said that no child has a chance of retaining his tonsils if his parents could pay the fee for their removal. But it must be admitted that in suitable cases, few proceedings do more good than the operation for removal of tonsils and adenoids. In Swindon we have always been conservative of tonsils and adenoids, and I am quite satisfied that no child has been operated upon under the aegis of the Education Committee or of the Maternity and Child Welfare Committee in which the operation was not clearly indicated for the child's benefit. Moreover, no child is submitted to operation under our scheme until his blood has been examined in order that we may be satisfied, so far as we can be, that the operation entails no risk. I admit freely, and I have never done otherwise, that the grounds upon which I refuse to allow operation to be performed are of doubtful validity. The theory goes back many years—actually to 1902—and was a deduction from some work in cytology that I was prosecuting at that time, which was never published. My position is this : I believe upon grounds which are sound, that to perform an operation which is not essential to save life upon a person the cellular contents of whose blood falls below a certain standard, exposes him to a hazard which is not justifiable.

Goitre has nearly ceased in Swindon. The number of cases found at medical inspection has decreased rapidly, until last year it fell to 11 and even these were of no consequence. Of the serious diseases dependent upon disordered thyroid function, the hypothyroid group—cretinism and myxoedema—has always been rare and is now non-existent in Swindon. The youngest Swindon cretin is 32 years old (if she is still alive). On the other hand, the hyperthyroid group, chief of which is exophthalmic goitre, is exceedingly frequent and it has not yet shown any sign of diminution. The high prevalence of exophthalmic goitre was early deduced from the Thyroid Clinic ; indeed, cases of the disease in its commencing stages used to be seen quite commonly in Swindon children. It is a reasonable deduction that exophthalmic goitre should now begin to diminish in Swindon, and in the course of years to become rare.

There is no rickets in Swindon school children. I do not say that no Swindon child has had rickets, for minor forms of rickets and of other nutritional diseases are still not infrequent in preschool children. But I am not impressed by the X-ray diagnosis

of rickets,—which suggests the old lady who objected to people undressing on the beach because if she climbed upon her roof she could see them through a telescope.

The only form of uncleanliness which worries us is nits in the hair. This is steadily decreasing, but it should be swept away altogether, for what remains is a great nuisance and wastes much of the school nurses' time. The difficulty is that the persistent offenders are either persons of low intelligence, or of low civic morality. People of this class cannot be taught and nothing is gained by bullying them.

There is no diminution of dental caries, so the attempts to prevent teeth from decaying have failed. We must therefore rely upon the dentists to keep our teeth in order, for if we cannot prevent dental disease from starting, he can do much to limit it, and his process of ' stopping ' teeth, which actually is the substitution of metal for the natural enamel, if done early and soundly, does save the teeth.

Our failure to control dental caries must of course be due either to lack of knowledge of the causes of caries, or to lack of power to vary the causes, if they are known. Discarding all nonsense, two alleged causes of dental caries rest upon good foundation. The first is that caries results from malformation of the teeth due to nutritional causes. The second is that the teeth decay because they are not exercised. Neither alone, or combined can these explain dental caries, and prevention dependent upon them fails to prevent anything—except veracity. Probably, though poor tooth formation, as alleged by the Mellanbys, and poor jaw use, as alleged by Sims Wallace and his school, do play a part in the production of caries, the major cause is to be found in the evolutionary process which has caused the human forehead to advance and the jaw to recede. Bearing upon this is the variability of the upper lateral incisor. We can do nothing to prevent caries until we know a great deal more of its essential pathology ; but we can give school children good teeth and we can turn them out of school with mouths in a sound and healthy condition and their teeth in that state which the dentists call ' dentally fit.' I am pleased to say that we are doing this for increasing numbers, and if children who are turned out of school ' dentally fit " will continue to look after their teeth there is no reason why they should not remain ' dentally fit ' at least up to the age of 55, and possibly throughout life.

DUNSTAN BREWER,
School Medical Officer.

March 1937.

THE ORTHOPAEDIC SCHEME.

The orthopaedic scheme has continued on the same basis as before, the conduct of the Clinic being in the hands of the Children's Orthopaedic Clinic holding weekly remedial sessions and monthly surgeon's consultations in Gorse Hill Hospital Annexe. In addition to cases continued from the preceding year, 46 new cases attended, whose defects are summarised below :—

	Infant Welfare Section.	*Elementary Education Section.*	*Higher Education Section.*
Old congenital dislocation of hip	....	1	....
Torticollis	....	1	....
Recent poliomyelitis	2	....	....
Remote results of poliomyelitis	1	1	....
,, ,, of encephalitis lethargica	1	....	....
Amyotonia from cerebral disease	....	1	....
Weakness of limbs after cerebral injury	1	....	..
Cerebellar disease	1	....	....
Scoliosis	....	2	....
Postural defects	1	7	1
Kyphosis	....	1	....
Genu valgum	5	3	....
Genu varum	1	1	....
Flat foot	....	2	....
Talipes	2	2	....
Deformities of feet and toes	4	2	....
Knee joint defects	....	1	1
TOTALS	19	25	2

SUMMARY OF WORK OF CLINIC.

	Infant Welfare Section.	*Elementary Education Section.*	*Higher Education Section.*
Consultations with Surgeon	61	147	19
Attendances at Sister's weekly Clinic	31	187	15

In-patient orthopaedic treatment, manipulative or operative, was provided under the scheme in the Children's Orthopaedic Hospital, Bath, for the following :—

Nature of Defect and Treatment	*Hospital In-patient days*	
Severe genu valgum (forcible manipulation)	167	Elementary Education Cases
Coxa plana with contracture of hip	*366	
Residual pareses (arm and abdominal wall following infantile paralysis	*306	Maternity and Child Welfare Cases
Paresis of leg after poliomyelitis (muscle transplantation and mid tarsal fixation)	117	
TOTAL IN-PATIENT DAYS	956	

* Remaining in hospital on 31st December, 1936.

VICTOR R. WALKER,
Asistant School Medical Officer.

March, 1937.

OPERATIONS FOR SQUINT.

Since 1926 a total number of 47 children have been operated upon by the ophthalmologist to the Education Committee, the number for 1936 being 7 cases. The assessment of results in such operations is notoriously difficult owing to the numerous factors in the causation of strabismus, the different types and degrees of squint, and the established tendencies both to recurrence after operation and in a minor proportion to spontaneous cure or reduction in degree about the age of puberty. The latter factor again tends to cause a subsequent divergence in some cases operated upon before puberty. The scientific evaluation of operative results requires a mass of previously recorded detail, scientific apparatus and highly technical knowledge not possessed by the school medical department, and an assistant medical officer was deputed to interview parents and to examine the present state of the operated children. Your medical officer laid it down that in forming a judgment as to the degree of success in a case the opinion of the parent or the individual if an adolescent should be a strong guiding factor.

Of the 47 cases 34 full records of present conditions were obtained, while of the absentees 8 were untraceable or had left the town. The observer had previously only the knowledge of the most conflicting opinions of eye surgeons on the value and degree of success obtainable from operation. He was soon surprised to find the high degree of satisfaction expressed by the majority of parents with operative results which, from the factors at work, never can be perfect in all cases. The gratitude often volunteered appears to greatly exceed that for such an operation as tonsillectomy, probably due to the fact that diseased tonsils are not a visible disfigurement. In adolescents satisfaction seemed equal in both sexes, and when in some cases attention was drawn to the fact that complete straightness and perfect balance of movement had not been achieved they replied that compared with the previous appearance they were pleased with the operative result. Parents of young children operated upon for gross squint with partial success would state that they had received as much as they were promised, and were willing to undergo a second and even a third operation where, as frequently happens, parallelism of the optic axes can only be achieved step by step by balancing the muscles of both eyes. In passing, it would appear from statements made more by girls than boys about taunts of schoolmates that the children of Swindon are as frequently guilty of needless mental

cruelty as elsewhere. The late results of operations were estimated as:—

Cases considered a complete success	9
Very marked improvement—almost complete success	12
Considerable improvement	9
Poor result	3
Failure	1
TOTAL	34

Thus 21 out of 34 cases re-examined showed a very satisfactory result, 9 others being considerably improved. The operation was always offered without any promise of complete success, and only with the willing co-operation of parents.

AGE FOR OPERATION.

Most cases were operated upon after reaching puberty, when there is little further hope of cure by correction of refractive errors and the risk of secondary divergence is minimised. Those operated upon at an earlier age form a restricted group comprising cases of alternating squint—a group which appears to have no tendency to spontaneous cure, strabismus of gross degree, and cases with approximate emmetropia on refraction, where there is no chance of stimulating the nervous mechanism controlling conjugate vision by the correction of refractive errors.

CONCLUSIONS.

In cases operated upon in earlier school life the results of operation are more than cosmetic. In such there is a definite limitation of the tendency to amblyopia and a stimulation of the fusion faculty varying with age and other factors. To state that in operation after puberty the results are almost purely cosmetic is not to decry the measure. It is probable that the well known loss of earning power to the unfortunate victim of a gross squint is due more to facial appearance than to the accompanying amblyopia, since we know that many adults have frequently much impaired visual acuity in one eye often without being themselves aware of it. The gratitude shown with a satisfactory operative result demonstrates the increase in *amour propre* conferred on the individual by the correction of his physical disfigurement.

The great bulk of all children with ophthalmic defects in the Borough are regularly seen by the Education Committee's Ophthalmologist. Only by this continued obervation can the cases most likely to benefit be selected for operation and followed up thereafter. The advantages of the above system appear to form a good and sufficient reason for the continuance of such operative facilities by your committee.

No.	Initials	Defect.	Age of onset.	Date of operation	Age at operation.	Post operative notes.	Result.
1	L.B.	L. conv. strab.-gross.	Infancy	6/35	9	Still small degree conv. increasing on occluding R.	Very marked improvement.
2	V.C.	L. conv. strab.-gross	6 yrs.	10/35	10 7/12	Axes parallel—perfect movements ...	Complete success.
3	B.C.	R. conv. strab.-gross (30°-40°) ...	4 yrs.	1/36	7	Residual conv. 15°-20° (awaiting further operation)	Considerable improvement
4	P.C.	L. conv. strab (15° with glasses) ...	3 yrs.	5/34	9 8/12	Axes parallel after opn.—lately some recurrence (10°)	Considerable improvement (Partial recurrence)
5	M.C.	Alt. con. strab.-gross (congenital myope)	1 yr.	3/34	7 1/12	Still slight alternating strab.	Very marked improvement.
6	E.D.	L. gross strab. with central corneal nebula	Infancy	9/28	8 1/12	Immediate partial success—now complete recurrence. V.A.(L) H.M. only ...	Failure (complete recurrence)
7	O.E.	R. conv. strab. becoming alt about 25°	Infancy	4/32	7 7/12	Axes parallel & movements excellent ...	Complete success.
8	J.F.	L. conv. stab.-"colossal" ...	4 yrs.	5/34	9 7/12	Some residual conv. recurring to 25° 30°	Considerable improvement (Partial recurrence)
9	B.G.	R. conv. strab. associated marked torticollis	Infancy	4/33	8 9/12	R. now divergt. poor fixation—poor movements	Poor result.
10	C.G.	L. conv. strab.-gross.	4 yrs.	5/34	13 2/12	Axes parallel & movements normal ...	Complete success.
11	J.H.	R. conv. strab.-10°-15° ...	4½ yrs.	12/36	14 8/12	Slight conv. without glasses 5°—with glasses axes parallel	Very marked improvement.
12	V.H.	L. conv. strab.-about 15° ...	5 yrs.	10/31	10 2/12	Secondary div. 15° (possibility of further operation)	Poor result (Secondary divergence)
13	J.H.	L. conv. strab. gross but improving with correction ...	4 yrs.	12/30	9 9/12	Eyes straight and movements good ...	Complete success.
14	E.H.	R. conv. strab.	5 yrs.	9/26	12	Sl. diverg. R.-conv. for near vision ...	Very marked improvement.
15	E.K.	L. conv. strab. (large)	Infancy	3/27	11 6/12	Sl. diverg. L. (5°-10°) with loss of power of conv.	Considerable improvement
16	Q.L.	L. conv. strab. 45°	Infancy	1/30	10 3/12	Eyes almost straight—no power of abduction V.A.(L) less than 6/60 ...	Considerable improvement
17	E.L.	R. conv. strab.	Infancy	4/33	8 5/12	Some residual conv. (5°-10°) with fine nystagmus	Very marked improvement.
18	J.M.	L. conv. strab. becoming altg. ...	3	11/35	6 6/12	Straight with glasses. Without-conv. 5°-	Very marked

19	M.N.	L. conv. strab.-gross	under 4	2/36	7 2/12	Some recurrence of conv. about 10° tending to alternate	Considerable improvement (partial recurrence).
20	H.P.	R. conv. strab.-gross	4	4/26	13 6/12	Some secondary alt. divergence... ...	Very marked imp. (mild sec. divergence).
21	N.P.	L. conv. strab.-gross	Infancy	5/33	2 2/12	5° residual conv.—increasing on removing glasses	Very marked improvement.
22	P.P.	L. conv. strab.-gross	Infancy	3/35	12 7/12	Axes practically parallel—Slight tendency to oscillate	Very marked improvement.
23	P.S.	L. conv. strab.-gross	3	9/31	8	Still about 10° conv.—imp. with gls. ...	Considerable improvement
24	D.S.	L. conv. strab.-fairly large ...	Infancy	(1) 7/32 (2) 2/34	10 5/12	After opn. (1) still conv. 15° / 20° ... After opn. (2) eyes straight and movements good.	Complete success (after 2 opns.)
25	W.S.	R. conv. strab-gross	6	2/35	14 4/12	Still has periodic 5°-10° conv. more marked on removing glassess ...	Considerable improvement
26	J.S.	R. conv. strab.-gross	Infancy	(1) 6/34 (2) 5/35 (3) 2/36	9 2/12	After opn. (1) still gross conv. ... ... After opn. (2) still 20° conv. ... ... After opn. (3) (advancement) still conv. R 15° ...	Considerable improvement
27	F.S.	L. conv. strab-40°	under 4	8/33	10 3/12	Eyes straight but eye movements poor ... No. fixation L. (V.A. less than 6/60) ... Excellent cosmetic result.	Very marked improvement (after 3 opns.)
28	K.T.	R. Conv. strab-moderate ...	4 years	6/36	10 5/12	Axes parallel and movements good ...	Complete success.
29	G.T.	Alt. strab.	2 years	12/35	7 4/12	Still variable strab.—improvement slight (possible further opn.)	Poor result.
30	A.T.	L. conv. strab.-severe	Infancy	(1) 10/31 (2) 4/33	11 6/12	After opn. (1) still much conv. ... After opn. (2) eyes straight	Complete success (after 2 opns.)
31	J.T.	L. conv. strab.-moderate	3½ years	(1) 8/36 (2) 12/36	7 10/12	After opn. (1) L. still conv. ... ... After opn. (2) eyes straight with glasses —sl. conv. without.	Complete success (after 2 opns.)
32	S.T.	L. conv. strab.-moderate	3 years	10/31	14 5/12	Axes parallel and movements good ...	Complete success.
33	B.W.	R. conv. strab. (myopic) ...	2 years	9/31	14 10/12	Axes parallel—occasional sl. divergence ...	Very marked improvement.
34	D.W.	R. conv. strab.-moderate ...	3 years	2/35	10 5/12	Eyes straight—slight convergence on removing glasses	Very marked improvement

VICTOR R. WALKER,
Assistant School Medical Officer.

March, 1937.

Some Details Relating to 1,000 Blood Counts Performed on Toddlers and School Children.

Number of individuals	726
Number of boys	397
Number of girls	329
Number of counts	1000
Average number of counts per case	1.37
Number breast fed	326
Number artificially fed	241
Feeding mixed	101
Feeding unknown	58
Number of operations known to have been performed	539
Number of postponements due to adverse counts	331
Age of oldest child	(Boy) 16 yrs. 6 months
Age of youngest child	(Boy) 1 yr. 3 months

Blood pressure :—Highest — 150 in girl of 14 yrs. 1 month
Lowest — (70 in girl of 3 yrs. 5 months
(70 in boy of 5 yrs. 10 months

Red blood corpuscles :—

Highest count 8,400,000 in boy of 4 yrs. 7 months
Lowest count 3,360,000 in boy of 7 yrs. 2 months

White blood corpuscles :—

Highest count 31,000 in boy of 5 yrs. 4 months.
Lowest count 3,700 in boy of 5 yrs. 2 months

BLOOD EXAMINATIONS.

Nos. 101—1100.

Estimation of Red Corpuscles in Millions.

No. of red corpuscles per c.m. in millions.	Boys.	Girls.	Totals.
3 — 4	4	9	13
4 — 5	34	41	75
5 — 6	100	156	256
6 — 7	158	160	318
7 — 8	38	33	71
8 — 9	1	—	1
Totals	335	399	734

V. REDMAN KING, Assistant School Medical Officer.

It used to be taught that the average number of red corpuscles per cubic millimetre of blood in man was 5,000,000 in males and 4,500,000 in females, and that in children the number was lower than the adults. There is some doubt where these figures originated, but for a long time there has been no doubt that they are not correct. In the examinations made by Dr. King it will be noted that in only 88 out of 734 counts was the total below 5,000,000 and that more than 50% of the children had readings above 6,000,000. It will also be noted that the readings on the whole were higher in girls than in boys.

The number of red corpuscles per cubic millimetre is subject to very great variations. Increase in the number can occur very rapidly and to an extent which seems out of proportion to the call.

The blood examinations done by Dr. King are mainly of children who are presented for the operation of tonsils and adenoids, so it may be that as these children are not healthy the pathological condition for which they were presented might, and in fact did, give them high red blood corpuscle counts. Children with adenoids, if there is any real obstruction to breathing, would be expected to have a high red blood corpuscle count; but on the other hand, children with septic tonsils would be expected to have a low red blood corpuscle count. But from other lists of blood examinations of children with various conditions (not yet published) I am inclined to look upon Dr. King's results as being not far from those of healthy children. D.B.

APPENDIX I.

To the Chairman and Members of the Education Committee of the Borough of Swindon.

LADIES AND GENTLEMEN,

I have pleasure in presenting the Annual Report on Dental Inspection and Treatment for the year 1936.

12 Elementary Schools comprising 29 departments have been dentally inspected, and it was found that 70.25% of the children required treatment. 4,304 children were referred for treatment and 3,649 attended the clinics.

ROUTINE INSPECTION.

6107 children were inspected at the schools.
1484 or 24.3% were found free from caries.
319 or 5.2% were found to require no treatment.
4304 or 70.25% were recommended for treatment.
3649 children attended the clinics.
2347 children were rendered dentally fit.
6831 attendances were made.

ELEMENTARY SCHOOLS.

7453 appointments were made.
6831 appointments were kept.
3533 teeth were extracted, and 1328 teeth were filled.
10662 other operations (including dressings, scalings and root treatments) were carried out.

All the children present in the schools inspected were seen and offered treatment where necessary. The dental attendants were present at practically all the sessions and their services are greatly valued. Casuals (those having no appointments) are seen any school morning between 11 and 12 o'clock.

SECONDARY SCHOOLS.

The three Secondary Schools (The College, The Commonweal, and Euclid Street) were dentally inspected and treated.

810 pupils were inspected.
538 or 66.4% were referred for treatment.
363 pupils accepted treatment, and made 651 attendances.
180 teeth were extracted.
486 permanent teeth were filled.
132 other operations were carried out.

An analysis of the results of the inspection and treatment will be found in the statistical tables for Higher Education.

INFANT WELFARE.

342 attendances were made by infants from the Welfare Centre and 35 ante-natal cases were treated or given advice.

I wish to thank all those who helped me to record these results, and all who assisted in carrying on the Clinics.

W. KENYON BERRIE, L.D.S., R.F.P.S.G.,
1st March, 1937. School Dental Surgeon.

APPENDIX II.

REPORT OF THE OPHTHALMIC SURGEON.

To the Chairmen and Members of the Swindon Education Committee.

LADIES AND GENTLEMEN,

I have been privileged to see the findings of the investigation carried out by Dr. Victor Walker into the after results of operations for squint.

He emphasises the number of factors which go towards producing squints, some of which are outside our control, especially the hereditary tendencies which are a marked feature of many squints.

Since we cannot control all these influences we can at best mitigate their effects by doing all we can to ensure that the child's life is healthy and free from undue emotional excitement, by preventing deterioration of the squinting eye through treatment as early in life as possible and by correction of errors of refraction and similar measures. In spite of all we can achieve in these directions there remains a proportion of cases where heredity and environment are too strong for our efforts and it becomes clear that we are not going to correct the squint by any means but operation.

The results of Dr. Walker's investigation are on the whole encouraging, particularly as they show that the number of cases in which the squint recurred after a lapse of time are not a very large proportion of the whole.

In these obstinate cases of recurrence a second operation is usually, but not invariably, permanently successful.

The work of the Clinic has been carried on without interruption throughout the year. Eleven children from this clinic have been operated on by me at the Victoria Hospital. I wish to thank the Nursing Staff and all who have helped me in the work of the Clinic.

OLIVER B. PRATT, M.A., M.B., B.CH., D.O. (OXON.).
M.R.C.S., L.R.C.P.

March, 1937.

APPENDIX III.

To the Chairman and Members of the Swindon Education Committee.

LADIES AND GENTLEMEN,

The number of sessions of the Special Aural Clinic held during the year 1936 has been reduced to two and the number of attendances to eighteen as compared with forty-two in the year 1935.

No special comment is needed concerning the nature of the disorders treated except to note the high proportion of disease of the nasal sinuses.

I wish to express my thanks for the assistance I have had from the staff.

F. COURTENAY MASON,
Ear, Nose and Throat Surgeon.

12th March, 1937.

SUMMARY OF CASES SEEN AT THE SPECIAL AURAL CLINICS, 1936.

Number of Clinics held	2
Number of cases examined	18
Number of consultations at Clinic	18
Number of attendances at Clinic	18

Defects Discovered.

NOSE & THROAT—	
Adenoids only	1
Enlarged tonsils and adenoids	6
Enlarged tonsils only	–
Enlarged glands	3
Nasal catarrh and nasal obstruction	1
Deflected septum	4
Rhinorrhoea and Rhinitis	1
Inflamed turbinates	6
? Simusitis	1
EAR—	
Tympanic sepsis	2
Otitis media	2
Otorrhoea	2
Thickened, scarred, perforated, indrawn, injected and opaque membrane	5
X-ray EXAMINATIONS. Nasal sinuses etc.	6

Operations.

	Recommended.	Performed.	Awaiting operation.	Refused
Tonsils & adenoids	3	3	....	....
Adenoids only	3	1	1	1
Sub-mucous resection	4	3	....	....
Reduction of turbinates	1	1	....	....
Examination of Antra & Nasopharynx under anaesthesia	2	2	....	....
Drainage of Antra	6	2	3	....

ELEMENTARY EDUCATION.

Statistical Tables.

TABLE I.—Return of Medical Inspections.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections:	
Entrants	1074
Intermediates	933
Leavers	930
TOTAL	2937
Number of other Routine Inspections	Nil

B.—OTHER INSPECTIONS.

Number of Special Inspections	3572
Number of Re-Inspections	5972
TOTAL	9544

TABLE I—C.

CHILDREN FOUND TO REQUIRE TREATMENT.

Number of individual children found at Routine Medical Inspection to require treatment (excluding Defects of Nutrition, Uncleanliness and Dental Disease)

GROUP.	For Defective Vision (excluding SQUINT.)	For All other Conditions Recorded in Table IIa.	Total No. of Children requiring treatment.
Entrants	1	92	92
Second Age Group	60	69	125
Third Age Group	38	66	101
TOTAL (Prescribed Groups)	99	227	318
OTHER ROUTINE INSPECTIONS	—	—	—
GRAND TOTAL	99	227	318

TABLE II.—A.—Return of Defects found by Medical Inspection in the Year ended 31st December, 1936.

DEFECT OR DISEASE.	Routine Inspections. No. of Defects. Requiring treatment.	Routine Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring treatment.	Special Inspections. No. of Defects. Requiring treatment.	Special Inspections. No. of Defects. Requiring to be kept under observation but *not* requiring treatment.
(1)	(2)	(3)	(4)	(5)
Skin—				
Ringworm :				
Scalp	3	....	8	....
Body	1	....	13	....
Scabies	3	....	26	....
Impetigo	1	....	65	....
Other Diseases (Non-Tuberculous)	14	5	659	....
Eye—				
Blepharitis	9	....	14	....
Conjunctivitis	5	....	27	....
Keratitis	....	....	....	....
Corneal Opacities	....	1	....	....
Defective Vision (exclud. Squint)	99	....	23	....
Squint	29	4	4	1
Other Conditions	7	9	173	5
Ear—				
Defective Hearing	7	10	25	10
Otitis Media	12	6	103	6
Other Ear Diseases	17	2	97	34
Nose and Throat—				
Chronic Tonsillitis only	36	31	129	47
Adenoids only	10	6	10	6
Chronic Tonsillitis and Adenoids	7	3	21	5
Other Conditions	26	55	110	20
Enlarged Cervical Glands (Non-Tuberculous)	7	12	100	21
Enlarged Thyroid Gland	1	1	5	1
Defective Speech	....	3	....	1

TABLE II. A.—(Continued)

DEFECT OR DISEASE.	Routine Inspections — No. of Defects.		Special Inspections — No. of Defects.	
	Requiring treatment.	Requiring to be kept under observation but *not* requiring treatment.	Requiring treatment.	Requiring to be kept under observation but *not* requiring treatment.
(1)	(2)	(3)	(4)	(5)
Heart and Circulation—				
Heart Disease :				
Organic	....	12	....	4
Functional	1	28	....	10
Anaemia	3	9	5	...
Lungs—				
Bronchitis	4	....	1	....
Other Non-Tuberculous Diseases	5	27	17	2
Tuberculosis—				
Pulmonary :				
Definite	....	....	....	....
Suspected	....	....	....	...
Non-Pulmonary :				
Glands	....	1	....	....
Bones and Joints	....	....	....	....
Skin	....	....	....	....
Other Forms	....	....	....	....
Nervous System—				
Epilepsy	....	1	....	1
Chorea	....	2	....	....
Other Conditions	4	19	19	11
Deformities—				
Rickets	....	....	....	....
Spinal Curvature	7	25	5	1
Other Forms	10	72	14	9
Other Defects and Diseases	19	57	672	51
TOTALS	345	410	2340	235

TABLE II. B.

Classification of the Nutrition of Children Inspected during the Year in the Routine Age Groups.

Age Groups	Number of Children Examined.	A (Excellent)		B (Normal)		C (Slightly Sub Normal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants	1074	182	17	801	75	89	8	2	—
Second Age-Group	933	158	17	672	72	94	10	9	1
Third Age-Group	930	184	20	680	73	63	7	3	—
Other Routine Inspection	—	—	—	—	—	—	—	—	—
TOTAL	2937	524	17.8	2153	73.3	246	8.4	14	.5

TABLE III.

Return of all Exceptional Children in the Area.

BLIND CHILDREN.

A blind child is a child who is too blind to be able to read the ordinary school books used by children, and can only be appropriately taught in a school for blind children.

At Certified Schools for the Blind.	At Public Elementary Schools	At Other Institutions	At no School or Institution	Total
2	....	....	....	2

PARTIALLY SIGHTED CHILDREN.

Children who, though they cannot read ordinary school books or cannot read them without injury to their eyesight, have such power of vision that they can appropriately be taught in a school for the partially blind

At Certified Schools for the Blind	At Certified Schools for the Partially Sighted	At Public Elementary Schools	At other Institutions.	At no School or Institution	Total
....	....	2	1	3*	6

* Three infants. Final result may be better than "Partially Sighted."

DEAF CHILDREN

Children who are too deaf to be taught in a class of hearing children in an elementary school, and can only be appropriately taught in a school for the deaf.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total
2	1	....	....	3

TABLE III.—(Continued).

PARTIALLY DEAF CHILDREN.

Children who can appropriately be taught in a school for the partially deaf.

At Certified Schools for the Deaf	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At Other Institutions	At no School or Institution	Total
....	....	....	....	....	....

MENTALLY DEFECTIVE CHILDREN.

FEEBLE-MINDED CHILDREN

Mentally Defective children are children who, not being imbecile and not being merely dull or backward, are incapable by reason of mental defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools but are not incapable by reason of that defect of receiving benefit from instruction in Special Schools for mentally defective children.

At Certified Schools for Mentally Defective Children	At Public Elementary Schools.	At other Institutions.	At no School or Institution	Total
19	9	....	....	28

EPILEPTIC CHILDREN.

CHILDREN SUFFERING FROM SEVERE EPILEPSY

Children who are epileptic within the meaning of the Act, *i.e.*, children who, not being idiots or imbeciles, are unfit by reason of severe epilepsy to attend the ordinary Public Elementary Schools.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions	At no School or Institution.	Total
....	....	....	....	....

TABLE III.—(Continued).

PHYSICALLY DEFECTIVE CHILDREN.

Physically Defective children are children who, by reason of physical defect, are incapable of receiving proper benefit from the instruction in the ordinary Public Elementary Schools, but are not incapable by reason of that defect of receiving benefit from instruction in Special Schools for physically defective children.

A. TUBERCULOUS CHILDREN

In this category are only cases diagnosed as tuberculous and requiring treatment for tuberculosis at a sanatorium, a dispensary, or elsewhere. Children suffering from crippling due to tuberculosis which is regarded as being no longer in need of treatment are recorded as crippled children, provided that the degree of crippling is such as to interfere materially with a child's normal mode of life. All other cases of tuberculosis regarded as being no longer in need of treatment are recorded as delicate children.

I. CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS.

(Including pleura and intra-thoracic glands)

At Certified Special Schools.	At Public Elementary Schools †	At other Institutions	At no School or Institution	Total
....	....	....	....	....

II.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS.

At Certified Special Schools	At Public Elementary Schools †	At other Institution	At no School or Institution	Total
6	8	2	9	25

† Tuberculous children who are, or may be, a source of infection to others are promptly excluded from Public Elementary Schools.

B. DELICATE CHILDREN.

Children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School.

At Certified Special Schools.	At Public Elementary Schools	At other Institutions.	At no School or Institution	Total
....	71	....	14	85

TABLE III.—(Continued).

C. CRIPPLED CHILDREN

Children (other than those diagnosed as tuberculous and in need of treatment for that disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life, *i.e.*, children who generally speaking are unable to take part, in any complete sense, in physical exercises or games or such activities of the School curriculum as gardening or forms of handwork usually engaged in by other children.

At Certified Special Schools.	At Public Elementary Schools	At other Institutions	At no School or Institution	Total
2	22	....	6	30

D. CHILDREN WITH HEART DISEASE.

Children whose defect is so severe as to necessitate the provision of educational facilities other than those of the Public Elementary School.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions	At no School or Institution	Total
....	3	....	1	4

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Children suffering from any combination of the following types of defect :—

Blindness (Not Partial Blindness).
Deafness (Not Partial Deafness).
Mental Defect.
Epilepsy.
Active Tuberculosis.
Crippling.
Heart Disease.

Number of Children Suffering from Multiple Defects.

Defect or Disease.	Boys	Girls
Feeble-minded and Blind	1	....
Blind and Epileptic	....	1
Feeble-minded and Crippled	1	1
TOTAL	2	2

Statement of the number of Children notified during the Year ended 31st December, 1936, by the Local Education Authority to the Local Mental Deficiency Authority.

Total Number of Children notified — 2.

ANALYSIS OF THE ABOVE TOTAL.

Diagnosis.	Boys.	Girls.
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School :		
(a) Idiots	....	....
(b) Imbeciles	1	1
(c) Others	....	....
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :		
(a) Moral defectives	....	....
(b) Others	....	....
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	....	....
3. Feeble-minded children notified under Article 3, *i.e.*, "special circumstances" cases	....	....
4. Children who in addition to being mentally defective were blind or deaf	....	....
Grand Total	1	1

TABLE IV.—Return of Defects Treated during the Year ended 31st December, 1936

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Group VI).

DISEASE OR DEFECT.	Number of Defects treated, or under treatment during year.		
	Under the Authority's Scheme.	Otherwise	Total.
Skin—			
Ringworm—Scalp { X-ray treatment	....	2	2
Ringworm—Scalp { Other	8	....	8
Ringworm—Body	13	....	13
Scabies	26	....	26
Impetigo	65	....	65
Other Skin Disease	482	....	482
Minor Eye Defects (External and other, but excluding cases falling in Group II).	209	....	209
Minor Ear Defects, &c.	179	....	179
Miscellaneous .... (e.g. Minor injuries, bruises, sores, chilblains, etc.)	1091	6	1097
TOTAL	2073	8	2081

TABLE IV.—(Continued).

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	No. of Defects dealt with			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme.	Otherwise	Total.
Errors of Refraction (including Squint)	466	....	....	466
Other Defect or Disease of the Eyes .... (excluding those recorded in Group I).	78	....	....	78
TOTAL	544	....	....	544

Total number of children for whom spectacles were prescribed :
(*a*) Under the Authority's Scheme 258
(*b*) Otherwise .... —
Total number of children who obtained or received spectacles :
(*a*) Under the Authority's Scheme 239
(*b*) Otherwise .... —

Group III.—Treatment of Defects of Nose and Throat

NUMBER OF DEFECTS.													
Received Operative Treatment.												Received other forms of Treatment.	Total number Treated.
Under the Authority's Scheme, in Clinic or Hospital for :				By Private Practitioner or Hospital apart from the Authority's Scheme				Total					
(1)				(2)				(3)				(4)	(5)
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
....	1	42	6	....	....	....	....	....	1	42	6	96	145

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other defects of the nose and throat.

TABLE IV.—Continued.

GROUP IV. — ORTHOPAEDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme			Otherwise			Total Number treated.
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	
Number of children treated.	2	....	47	....	....	....	48

TABLE IV.—(Continued)

Group V.—Dental Defects.

(1) Number of Children who were :—

(i) Inspected by the Dentist :

Routine Age Groups	Age 3	52	
	4	255	
	5	406	
	6	618	
	7	630	
	8	699	
	9	639	Total 6107
	10	695	
	11	662	
	12	583	
	13	601	
	14	260	
	15	7	
Specials	....	....	 19
GRAND TOTAL	....	....	 6126

(ii) Found to require treatment 4304

(iii) Actually treated 3649

(2) Half days devoted to : { Inspection 75 / Treatment 1032 } Total 1107

(3) Attendances made by children for treatment 6831

(4) Fillings { Permanent teeth 1213 / Temporary teeth 115 } Total 1328

(5) Extractions { Permanent teeth 666 / Temporary teeth 2867 } Total 3533

(6) Administrations of general anæsthetics for extractions 80

(7) Other operations { Permanent teeth 1665 / Temporary teeth 8997 } Total 10662

TABLE IV—(Continued).

Group IV.—Uncleanliness and Verminous Conditions.

(i)	Average number of visits per school made during the year by the School Nurses	7
(ii)	Total number of examinations of children in the Schools by School Nurses	22320
(iii)	Number of individual children found unclean	471
(iv)	Number of children cleansed under arrangements made by the Local Education Authority	282
(v)	Number of cases in which legal proceedings were taken :	
	(a) Under the Education Act, 1921	Nil
	(b) Under School Attendance Byelaws	Nil

TABLE V.—RETURN SHOWING DEFECTS TREATED AT MINOR AILMENT CLINIC. YEAR ENDED 31st DECEMBER, 1936.

Disease or Defect	No. of Defects treated under Authority's Scheme.			No. of Defects cured.	No. of Defects remaining under treatment.	No. of consultations.	No. of attendances at Clinic
	From previous year	New	Total				
Contagious Skin Diseases							
Impetigo	....	65	65	63	2	140	332
Scabies	....	26	26	25	1	92	118
Non-Contagious Skin :							
Dermatitis	....	4	4	4	....	8	10
Eczema	1	2	3	2	1	5	9
Seborrhoea	....	5	5	5	....	9	14
Abscesses	....	15	15	14	1	75	81
Boils	1	28	29	29	....	73	170
Warts	....	47	47	43	4	53	371
Herpes	....	16	16	16	....	16	36
Acne	....	1	1	....	1	6	6
Urticaria	....	7	7	7	....	17	30
Psoriasis	....	—	...	....	....	....	....
Alopecia	1	3	4	3	1	15	15
Intertrigo	1	....	1	1	....	1	1
Other diseases	....	350	350	347	3	493	1415
Ear, Nose and Throat Diseases :							
Adenoids	....	2	2	2	....	4	11
Glands	....	45	45	44	1	117	136
Rhinitis	....	8	8	8	....	17	27
Tonsillitis	....	43	43	43	....	127	118
Earache	....	15	15	15	....	32	32
Laryngitis	....	1	1	1	....	1	1
Pharyngitis	....	7	7	7	....	9	9
Other Diseases	....	58	58	58	....	88	133
Wounds and Injuries :							
Injuries	....	114	114	114	....	233	356
Grazes	....	118	118	118	....	139	443
Bites and Stings	....	50	50	50	....	77	127
Burns, Scalds, Cuts,&c.	....	107	107	106	1	177	512
Septic Sores	4	164	168	166	2	493	1286
Bruises and Sprains	....	125	125	125	....	129	251
Others	2	105	107	106	1	158	312
External Eye Diseases :							
Foreign Body	....	14	14	14	....	16	18
Stye	....	47	47	47	....	90	136
Blepharitis	1	12	13	12	1	21	28
Conjunctivitis	....	27	27	27	....	114	97
Corneal Ulcer	....	1	1	1	....	7	7
Corneal Opacity	....	....	....	....	....	....	....
Pink Eye	1	19	20	20	....	103	131
Other Diseases	....	87	87	85	2	130	155

TABLE V.—(Continued).

Disease or Defect	No. of Defects treated under Authority's Scheme.			No. of Defects cured.	No. of Defects remaining under treatment.	No. of consultations.	No. of attendances at Clinic
	From previous year	New	Total				
Infectious Diseases :							
Chicken Pox	....	3	3	3	....	4	4
Whooping Cough	....	19	19	19	....	37	40
Diphtheria	....	4	4	4	....	4	4
Mumps	....	2	2	2	....	3	3
Scarlet Fever	....	3	3	3	....	4	4
Measles	....	5	5	5	....	7	7
Rubella	....	5	5	5	....	5	6
General :							
Ill-health, &c.	3	272	275	271	4	563	639
Totals	15	2051	2066	2040	26	3902	7641

Total number of children treated—1539.

TABLE VI.—TREATMENT OF DEFECTS OF NOSE, THROAT AND EAR AT SPECIAL CLINIC.

No. of cases referred for treatment.	No. of Consultations.	No. of attendances for treatment.	DEFECTS.														
			Tonsils considerably enlarged.	Tonsils enlarged.	Tonsils and Adenoids	Adenoids	Tonsillitis.	Inflamed Turbinates	Cervical and other Glands	Nasal Spurs, Deflections & obstructions.	Rhinorrhoea and Rhinitis	Cleft Palate	Nasal and Aural Polypi.	Myringitis Diseases and Perforation of Membranes	Mastoid	Discharging ears.	Furuncle in ear.
372	1123	1157	34	73	25	11	9	11	66	20	28	2	1	34	1	60	5

DEFECTS (Continued)							No. for whom operation for tonsils and adenoids was advised.	No. who received operative treatment for tonsils and adenoids	No. of other operations performed.	No. of cases cured.	No. of cases remaining under treatment or kept under observation	No. of cases for whom no report is available.
Foreign body in ear.	Inflamed Membranes	Thickened Scarred and Opaque Membranes	Deafness (Slight)	Deafness (Severe)	Wax in ears	Other Conditions.						
5	13	18	32	2	20	72	75	43	6	162	65	145

TABLE VII. ELECTRICAL IONISATION.

Number of cases referred for treatment	Number of Consultations.	Number of attendances for treatment	Defect		Number of cases cured	Number of cases still under treatment or observation	Number of cases for whom no report is available
			Ears.	Nose.			
8	10	10	8	....	1	5	2

TABLE VIII. TREATMENT OF RINGWORM.

Number of cases			Number of consultations with Doctor	Number of attendances made by children at Clinic	Number of bacteriological examinations	Number of cases cured	Number of cases still under treatment		Number for which no report is available
Old	New	Total					Attending School	Not attending School	
2	19	*21	134	166	10	18	....	2	1

* 8 Scalp R.W.

TABLE IX. ELECTRICAL TREATMENT.

Number of cases					Number of attendances for treatment.	Disease or Defect			
Boys		Girls		Total		Infantile Paralysis	Paralysis Optic Nerve	Naevus	Chalazion
Old	New	Old	New						
4	1	5	4	14	140	3	1	10	....

TABLE X. SUMMARY OF SCHOOL ACCIDENTS WHICH OCCURRED DURING THE YEAR 1936.

(ELEMENTARY SCHOOL CHILDREN)

Number of cases			Total number of attendances made by children at Clinic.	Number of cases where treatment was completed at Clinic.	Still under Treatment	Number of X-ray exposures	Number of cases referred to Hospital or Private Practitioner for further treatment	Number of cases resulting in permanent disability.
Serious	Minor	Total						
....	308	308	937	301	1	9	6	....

NOTE.—Cases of simple fracture not resulting in permanent disability and cuts requiring stitching, however extensive, so long as no permanent injury but a good scar resulted, are included as minor injuries.

TABLE XI. TREATMENT OF ENLARGED THYROID AT SPECIAL CLINIC.

Number of cases			Number of attendances for treatment.	Number of consultations	Number of cases cured.	Number of cases still under observation and treatment.
Old	New	Total				
7	4	11	29	27	7	4

TABLE XII. RETURN OF ELEMENTARY SCHOOL CHILDREN MEDICALLY EXAMINED AND FOUND TO BE FULLY EFFICIENT DURING THE YEARS 1925 to 1936.

Year.	Upper Departments					Infant Departments					Totals			
	Efficient		Defective		%	Efficient		Defective		%				
	Boys	Girls	Boys	Girls	Efficient	Boys	Girls	Boys	Girls	Efficient	Efficient	Defective	Total examined	% Efficient
1925	428	398	457	499	46	294	278	387	329	44	1398	1672	3070	45
1926	393	318	287	248	57	345	336	273	257	56	1392	1065	2457	57
1927	553	635	373	471	58	321	344	259	242	57	1853	1345	3198	58
1928	785	633	532	513	58	367	394	342	267	56	2179	1654	3833	57
1929	474	361	291	257	60	213	202	152	117	60	1250	817	2067	60
1930	687	633	297	299	69	367	407	212	224	64	2094	1032	3126	67
1931	579	459	243	295	66	363	257	165	145	65	1658	848	2506	66
1932	687	572	240	211	74	356	344	93	73	81	1959	617	2576	76
1933	696	726	252	325	71	328	367	117	93	77	2117	787	2904	73
1934	725	579	244	268	72	327	381	103	76	79	2012	696	2708	74
1935	708	610	212	231	75	298	324	120	91	75	1940	654	2594	75
1936	702	683	235	276	73	357	391	153	140	72	2133	804	2937	73

HIGHER EDUCATION.

Statistical Tables.

HIGHER EDUCATION.

TABLE I.—NUMBER OF CHILDREN ATTENDING THE SWINDON SECONDARY SCHOOLS INSPECTED DURING THE YEAR ENDED 31st DECEMBER, 1936.

A.—ROUTINE MEDICAL INSPECTIONS.

	AGE GROUPS.										TOTAL
	10	11	12	13	14	15	16	17	18	19	
Boys	....	50	75	86	90	89	50	19	2	1	462
Girls	2	30	80	58	80	59	42	12	1	1	365
TOTALS	2	80	155	144	170	148	92	31	3	2	827

B.—OTHER INSPECTIONS.

Number of Special Inspections	 360
Number of Re-inspections	 518
	878

TABLE II.—A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1936.

Defect or Disease.	Routine Inspections		Special Inspections	
	Number of Defects		Number of Defects	
	Requiring treatment.	Requiring to be kept under observation but not requiring treatm't	Requiring treatment.	Requiring to be kept under observation but not requiring treatm't
Nutrition :				
Poor	4	2	1	1
Skin :				
Seborrhoea	....	....	....	....
Other Diseases, Acne, etc., (non-Tuberculous)	4	4	12	....
Eye :				
Conjunctivitis	....	....	1	....
Blepharitis	2	....	....	....
Defective vision	57	10	8	....
Squint	....	....	....	....
Other conditions	2	....	1	....
Ear :				
Defective Hearing	2	3	....	....
Otitis Media	6	....	2	....
Other Ear Diseases	4	2	4	....
Nose and Throat :				
Adenoids	....	....	....	....
Enlarged Tonsils only	1	5	3	1
Enlarged Tonsils & Adenoids	....	....	....	....
Other conditions	4	9	6	2
Glands :				
Enlarged, Cervical and Sub-max : (non-Tuberculous)	....	....	1	....
Enlarged Thyroid	6	3	1	....
Heart and Circulation :				
Anaemia	3	1	....	....
Heart Disease—Functional	....	5	....	4
Lungs :				
Other Non-Tuberculous Diseases	....	....	....	....
Nervous System :				
Asthma	2	2	1	1
Overstrain	....	16	1	2
Other conditions	1	9	1	4
Deformities :				
Spinal Curvature	6	6	1	1
Posture	16	5	....	....
Flat Foot	4	4	....	....
Torticollis	....	....	....	....
Other Forms	5	7	1	3
Other Defects or Diseases :	6	17	82	7

TABLE III. SUMMARY OF ACCIDENTS WHICH OCCURRED TO SECONDARY SCHOOL CHILDREN DURING THE YEAR ENDED 31st DECEMBER, 1936.

Number of Cases.			Total number of attendances made by children at Clinic.	Number of cases where treatment was completed at Clinic.	Number of X-ray exposures	Number of cases referred to Hospital or Private Practitioner for further treatment	Number of cases resulting in permanent disability.
Serious	Minor	Total					
....	73	73	222	72	8	1	....

NOTE.—Cases of simple fracture not resulting in permanent disability and cuts requiring stitching, however extensive, so long as no permanent injury but a good scar resulted, are included as minor injuries.

TABLE IV.—RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1936.

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness)

DISEASE OR DEFECT.	Number of Defects treated or under treatment during the year.		
	Under the Authority's Scheme	Otherwise	Total
Skin—			
Impetigo	....	....	....
Other Skin Disease	10	....	10
Minor Eye Defects	7	....	7
Minor Ear Defects	....	....	....
Miscellaneous .... (e.g., minor injuries, bruises, sores, etc.)	101	....	101
TOTAL	118	....	118

TABLE IV.—(Continued).

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

DEFECT OR DISEASE	No. of Defects dealt with			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme.	Otherwise	Total.
Errors of Refraction (including Squint)	156	....	....	156
Other Defect or Disease of the Eyes .... (excluding those recorded in Group I).	21	....	....	21
TOTAL	177	....	....	177

Total number of children for whom spectacles were prescribed :
(*a*) Under the Authority's Scheme 78
(*b*) Otherwise .... —
Total number of children who obtained or received spectacles :
(*a*) Under the Authority's Scheme 72
(*b*) Otherwise 2

Group III.—Treatment of Defects of Nose and Throat

NUMBER OF DEFECTS.

Received Operative Treatment.												Received other forms of Treatment.	Total number Treated.
Under the Authority's Scheme, in Clinic or Hospital for :				By Private Practitioner or Hospital apart from the Authority's Scheme				Total					
(1)				(2)				(3)				(4)	(5)
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
....	....	3	1	....	....	....	....	....	....	3	1	8	12

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other defects of the nose and throat.

TABLE IV.—Continued.

GROUP IV. — ORTHOPAEDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme			Otherwise			Total Number treated.
	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	Residential treatment with education	Residential treatment without education	Non-residential treatment at an orthopaedic clinic.	
Number of children treated.	....	....	8	....	....	....	8

TABLE IV.—(Continued)

Group V.—Dental Defects.

(1) Number of Children who were :—

(i) Inspected by the Dentist :

	Age		
Routine Age Groups	10	....	
	11	7	
	12	101	
	13	140	
	14	179	
	15	140	
	16	150	Total 810
	17	66	
	18	13	
	19	8	
	20	4	
	21	2	
Specials	....	....	....
GRAND TOTAL		....	810

(ii) Found to require treatment 538

(iii) Actually treated 363

(2) Half days devoted to : Inspection 9, Treatment 149 } Total 158

(3) Attendances made by children for treatment 651

(4) Fillings { Permanent teeth 486, Temporary teeth .... } Total 486

(5) Extractions { Permanent teeth 151, Temporary teeth 29 } Total 180

(6) Administrations of general anæsthetics for extractions 5

(7) Other operations { Permanent teeth 118, Temporary teeth 14 } Total 132

TABLE IV.—Continued.

GROUP V. CONDITION OF TEETH OF SCHOLARS DENTALLY INSPECTED AT THE SECONDARY SCHOOLS DURING THE YEAR ENDED 31st DECEMBER, 1936.

THE COLLEGE SECONDARY SCHOOL.

BOYS.

Year of Birth.	Number of carious teeth.						Number free from caries	Total number examined.
	1	2	3	4	5	6		
1915	....	....	1	1	....	....	....	2
1916	....	1	....	....	....	....	2	3
1917	1	2	....	....	....	....	1	4
1918	....	....	....	....	....	....	3	3
1919	5	3	1	....	....	....	4	13
1920	10	....	....	....	....	2	18	30
1921	6	1	....	....	....	....	7	14
1922	17	4	....	....	....	....	13	34
1923	11	8	2	....	2	....	9	32
1924	4	5	2	1	....	....	5	17
1925	....	1	....	....	....	....	2	3
TOTAL	54	25	6	2	2	2	64	155

GIRLS.

Year of Birth	Number of carious teeth.						Number free from caries	Total number examined.
	1	2	3	6	8	13		
1915	....	....	....	....	....	....	....	....
1916	....	....	....	....	....	....	....	....
1917	1	....	....	....	....	....	1	2
1918	....	....	....	....	....	....	2	2
1919	3	2	....	....	....	....	6	11
1920	10	2	1	....	....	1	6	20
1921	1	3	....	1	....	....	1	6
1922	10	3	4	....	....	....	12	29
1923	13	1	....	1	....	....	5	20
1924	10	2	1	....	1	....	5	19
1925	1	....	....	....	....	....	....	1
TOTALS	49	13	6	2	1	1	43	115

EUCLID STREET SECONDARY SCHOOL.

BOYS.

Year of Birth	Number of carious teeth.						Number free from caries	Total number examined.
	1	2	3	4	5	6		
1917	....	....	....	....	....	....	....	....
1918	1	....	....	....	....	....	1	2
1919	6	5	3	1	....	....	2	17
1920	9	2	3	4	....	....	11	29
1921	21	6	2	1	....	....	13	43
1922	12	10	1	2	....	....	7	32
1923	8	4	2	2	1	....	1	18
1924	3	8	3	....	1	2	3	20
TOTALS	60	35	14	10	2	2	38	161

TABLE IV (Continued.)

GROUP V. (Continued).

EUCLID STREET SECONDARY SCHOOL.

GIRLS.

Year of Birth	Number of carious teeth.								No. free from caries	Total No. examined.
	1	2	3	4	5	6	7	8		
1919	....	1	2	3	....	....	....	....	....	6
1920	6	1	1	....	....	....	....	1	5	14
1921	10	4	2	2	....	....	1	....	3	22
1922	5	7	4	....	....	....	....	....	6	22
1923	5	3	1	....	....	....	....	....	4	13
1924	6	1	....	....	1	....	....	....	3	11
1925	....	....	....	....	1	1	....	....	2	4
TOTAL	32	17	10	5	2	1	1	1	23	92

THE COMMONWEAL SECONDARY SCHOOL.

BOYS.

Year of Birth.	Number of carious teeth.						Number free from caries.	Total number examined
	1	2	3	4	5	6		
1917	....	....	....	....	....	....	2	2
1918	1	....	....	....	....	....	1	2
1919	6	2	....	....	....	....	7	15
1920	13	7	2	1	....	....	15	38
1921	9	6	2	1	....	....	9	27
1922	9	2	5	....	....	....	10	26
1923	7	14	1	1	....	1	12	36
1924	6	4	....	1	1	....	2	14
1925	....	....	....	1	....	....	....	1
TOTALS	51	35	10	5	1	1	58	161

GIRLS.

Year of Birth	Number of carious teeth.							Number free from caries	Toral number exam-ined
	1	2	3	4	5	6	7		
1916	1	....	....	....	....	....	....	....	1
1917	....	....	....	....	....	....	....	....	....
1918	1	1	....	....	....	....	....	2	4
1919	3	....	....	....	....	....	....	1	4
1920	6	2	1	1	1	....	....	8	19
1921	10	3	1	....	....	1	....	9	24
1922	13	4	4	....	....	....	1	13	35
1923	6	3	1	2	....	1	....	7	20
1924	7	4	2	2	....	....	....	4	19
Totals	47	17	9	5	1	2	1	44	126

TABLE IV (Continued).

GROUP V. (Continued).

SUMMARY OF RESULTS OF DENTAL INSPECTION AT THE SECONDARY SCHOOLS, YEAR 1936.

Secondary School.	Entrants		Re-Inspections		Total Number Inspected	Total Number referred for treatment	Number free from caries
	Number Inspected	Number referred for treatment	Number Inspected	Number referred for treatment			
The College	52	41	218	120	270	161	109
Euclid Street	41	32	212	160	253	192	61
The Commonweal	54	38	233	147	287	185	102
Totals	147	111	663	427	810	538	272

Percentage of Entrants requiring treatment 75.5
Percentage of children Re-inspected requiring treatment 64.4
Percentage of Total number of children inspected requiring treatment 66.4

TABLE V. TREATMENT OF ENLARGED THYROID AT SPECIAL CLINIC.

Number of cases			Number of attendances for treatment	Number of consultations	Number of cases cured	Number of cases still under observation and treatment
Old	New	Total				
7	1	8	37	30	4	4