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Health Report

FOR

THE CITY OF PERTH

For 1933

BY THE

Medical Officer of Health

PERTH:
PRINTED BY D. LESLIE: 20 ST. JOHN STREET.

1934

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To the Honourable the Lord Provost, Magistrates and Members of the Town Council of the City and Royal Burgh of Perth.

Gentlemen,

I have the honour to submit my Thirty-fifth Annual Report upon the Health of the City of Perth for the year 1933.

As in previous years, I have incorporated in the Report, Charts and Tables. Every effort has been made to have them accurate and reliable, and it is hoped may make the Report more interesting than it would otherwise be.

The mortality for the year—15.1 per 1000—is slightly higher than that of the previous year, viz., 14.4 per 1000. Notwithstanding, this figure is much below the rate prevailing a decade ago and very satisfactory, more particularly when one considers that of the 527 deaths recorded no less than 252, or 47.8 per cent., were 65 years or over.

The mortality from Phthisis, I am glad to report, continues low, viz., .459, although somewhat higher than the .315 per 1000 of the population of last year, which constituted a record for the City. The same cannot be said of Cancer. Its mortality continues high, and whereas deaths from Phthisis in former years always exceeded those from Cancer, the position since 1912 has been reversed. This year, deaths from Malignant Disease were equivalent to a rate of 1.72, a rate only once equalled in the City, viz., in 1930.

The year's infantile death rate was 89 per 1000 births, as compared with 81 of the previous year. In this connection the most outstanding feature of the year was the opening of the new Child Welfare Centre, kindly gifted by Mr. Wm. Watson, La Quinta, Scone.

C. PARKER STEWART,
M.O.H.

Rockville, Barnhill,
Perth, May, 1934.

Health Report for 1933.

AREA AND POPULATION.

The registration area, as given by the Registrar-General, is 3,134 acres, while the population at the census was 34,807. This represents 11·1 persons to an acre. The additional acreage, due to the extension of the Burgh boundary in 1909, was 1,017 acres. The Registrar General estimated Perth's population for 1933 as 35,300, but after consideration of all the circumstances, including the knowledge to be obtained from the deaths and births during the year, I have arrived at an estimated population of 34,792, and my statistics in this report are based on that estimate.

BIRTHS.

The Births registered in the Burgh during 1933 were 512. This represents a birth rate of 14·7 per 1000 living, as compared with 15·1 in the previous year. Of these 512 births 273 were males and 239 were females, while 54 were illegitimate. The proportion of illegitimate births to total births was 10·4 per cent., as compared with 6·4 per cent. in the previous year.

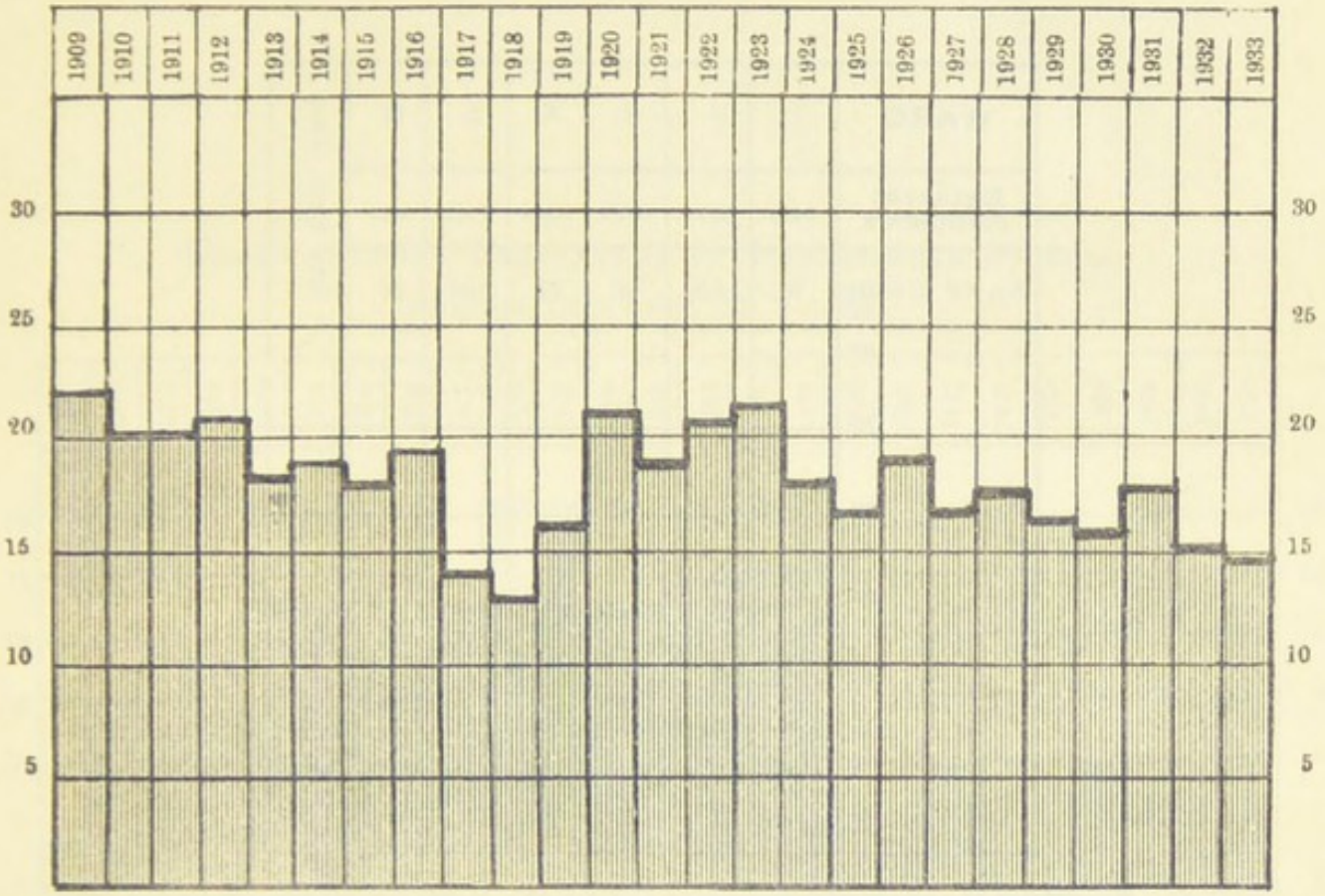
TABLE SHOWING THE NUMBER OF BIRTHS REGISTERED DURING EACH MONTH OF THE YEAR 1933.

MONTH.	Male.	Female.	Total.	Illegitimate.
January, ...	26	20	46	8
February, ...	22	14	36	5
March, ...	38	20	58	7
April, ...	29	25	54	6
May, ...	29	28	57	6
June, ...	22	20	42	3
July, ...	15	25	40	4
August, ...	18	17	35	5
September, ...	15	13	28	2
October, ...	23	12	35	2
November, ...	15	24	39	3
December, ...	21	21	42	3
Total, ..	273	239	512	54 or 10·4 %

This is a very low birth rate, showing a decrease as compared with the previous year when it stood at 15·1. In fact it is the third lowest birth rate during the past twenty-five years. These two occasions were during the war, 1917 and 1918, when the figures were 14 and 12·8 respectively.

An examination of the following Chart will show the steady decline which has taken place until the last few years. This declining birth-rate is a feature of all civilized races, and I stated in a previous Annual Report that I feared the upward tendency of the years following the war was not one which may be expected to continue.

CHART SHOWING THE BIRTH RATE PER 1000 IN THE CITY DURING THE PAST 25 YEARS.



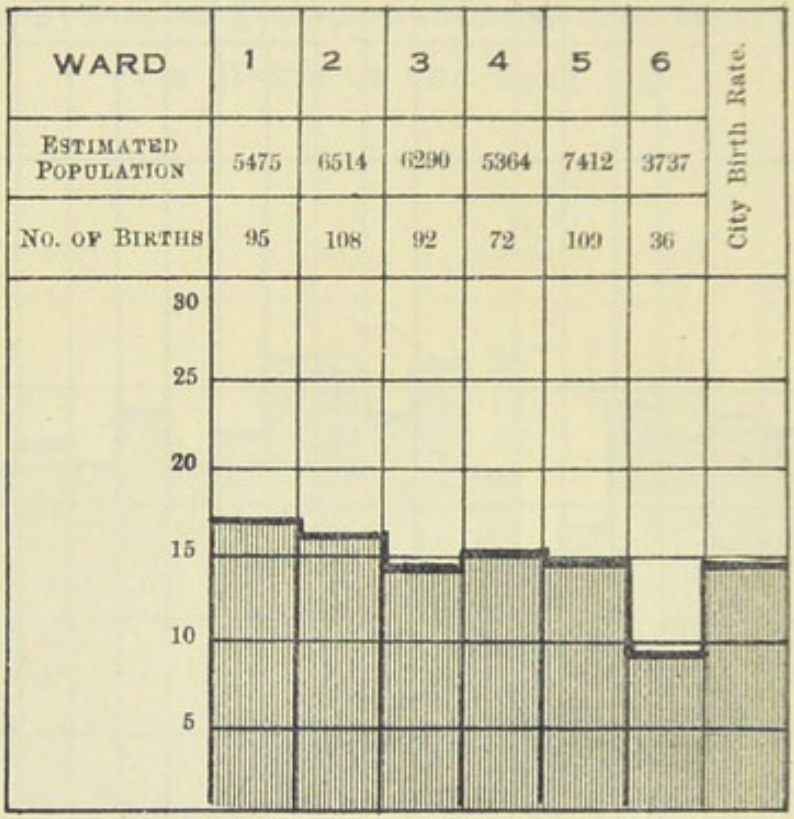
It will be noted from the foregoing chart how steadily the birth rate declined until 1919—in fact in 1899 the birth-rate was 28·1 per 1000 as compared with 12·8 per 1000 in 1918, a decline during a period of 20 years of 50 per cent. From 1919 to 1923 the birth-rate increased, but since the latter date the tendency has been downwards.

While the birth rate for the whole of the City is 14·7 per 1000, it may be noted that in two Wards—viz., Wards 3 and 6—this birth-rate is less; while in Wards 1, 2 and 4 the birth-rate is above that of the City. In 1932 the City rate was exceeded in Wards 1, 2 and 5.

Ward 1 has the highest birth-rate of 17·3 per 1000; Ward 2 has a birth rate of 16·5 per 1000; Ward 3 has a birth-rate of 14·6; Ward 4 has a birth-rate of 15·2; Ward 5 has a birth rate of 14·7, and Ward 6 has the lowest birth-rate of 9·6 per 1000.

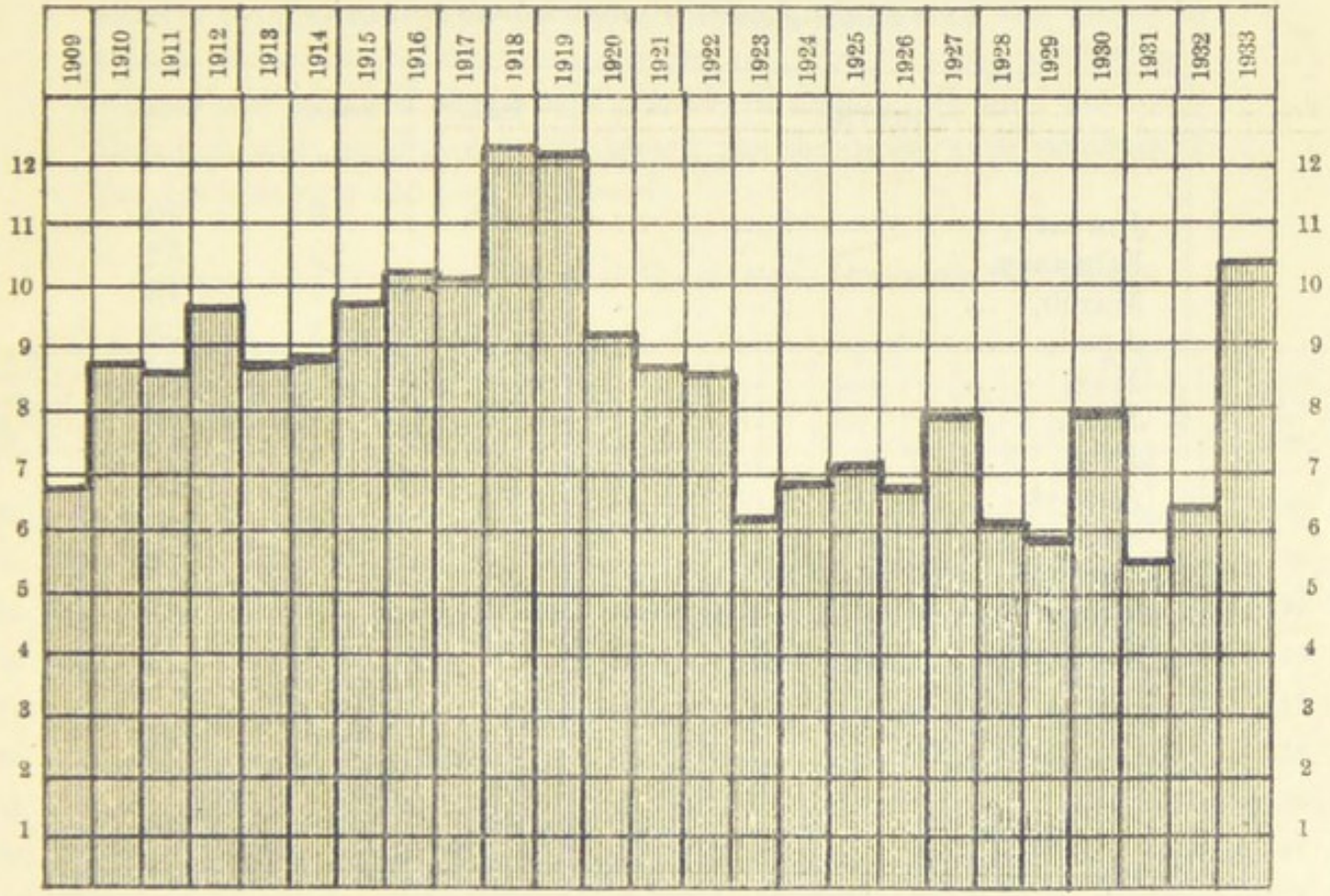
In 1932, Ward 5 had the highest birth-rate and Ward 3 the lowest, the figures then being 18·3 and 9·9 respectively.

CHART SHOWING THE WARD BIRTH RATE PER 1000 OF POPULATION.



Connected with the birth-rate is the question of illegitimacy, and in looking back past years it may be noted that from 1899 to 1902 a gradual decline from 6·8 per cent. to 5 per cent. took place. From the accompanying chart it will be seen that from the latter year there tended to be a steady increase until it reached a record of slightly over 12 per cent. in 1918. In the year following the rate was very slightly lower, but in the succeeding years there was a considerable decline, reaching a figure of just on 6 per cent. in 1923. From that date to 1932 the figures varied from 5·5 per cent. in 1931 to 8 per cent. in 1930, but this year there has been a large increase—approaching the years 1917 and 1918—being no less than 10·4 per cent. It is at the same time only right to state that this unsatisfactory phase in relation to births is more than a local circumstance. Associated with illegitimacy, unfortunately, is an increased infantile mortality. This is especially so during the first month of life, and is largely due to the fact that, in addition to the causes of death common to all infants, the mother of the illegitimate child is often under circumstances where she cannot do justice to her child and, it may be, even indifferent to its welfare.

Chart showing Percentage of Illegitimate Births during the past 25 Years.



DEATHS.

The deaths registered in the Burgh during the year numbered 652, of which 163 were classed by our Registrar as rural, *i.e.*, persons dying within, but not belonging to the Burgh. There was one landward death.

TABLE SHOWING THE NUMBER OF CITY MALE AND FEMALE DEATHS DURING EACH MONTH OF THE YEAR.

(Not including deaths of citizens without the Burgh.)

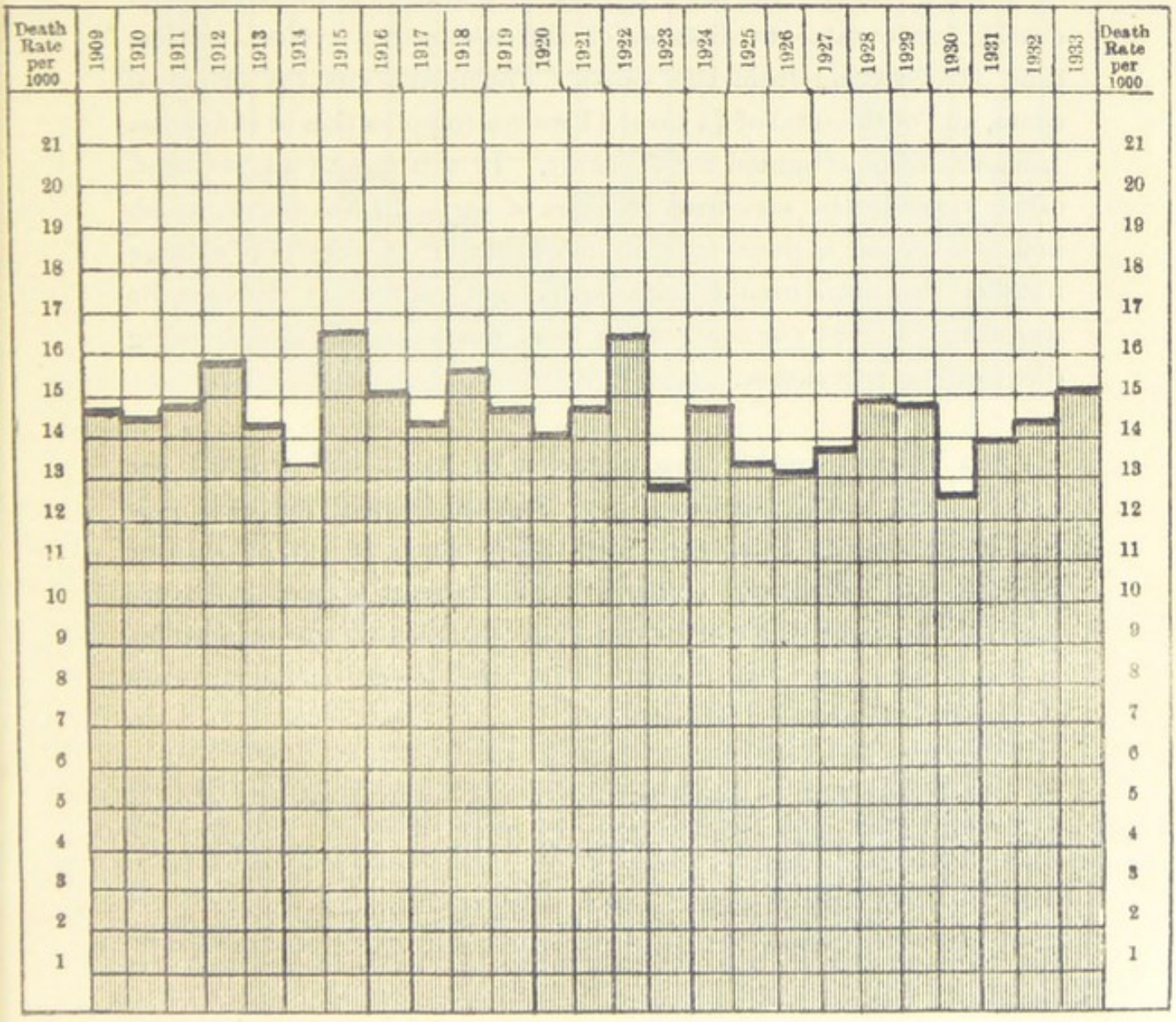
MONTH.	Male.	Female.	Total.
January, ...	42	48	90
February, ...	16	22	38
March, ...	16	27	43
April, ...	15	13	28
May, ...	22	20	42
June, ...	18	16	34
July, ...	18	16	34
August, ...	12	18	30
September, ...	12	17	29
October, ...	18	21	39
November, ...	21	25	46
December, ...	12	24	36
Total, ...	222	267	489
Rural, ...	105	58	163
Total of City, ...	327	325	652

After taking into account the deaths of citizens outside the Burgh boundaries, 38 in number, the annual mortality rate for the year is 15·1 per 1000, a figure which is slightly higher than the previous year when it was 14·4 per 1000. If we compare this year's death-rate with the death-rates of only 30 years back, one cannot fail to find satisfaction in the present existing state of matters. Then, 18 to 20 per 1000 and even over was the rule rather than the exception. In the preface to my Annual Reports of 1903 and 1906 I stated that these reports were not only the most satisfactory

which it had been my province to submit, but, to the best of my knowledge, the most satisfactory which had ever been presented to the Local Authority—the annual mortality for the City being at the exceedingly low rate of 15·5 per 1000.

Again, in 1914, I was able to record that the death rate was only between 13 and 14 per 1000; while in 1930 the mortality rate was the lowest ever recorded in the annals of the City, viz., 12·6 per 1000. This year's rate though somewhat higher, especially considering that close on 50 per cent. of deaths occurred among elderly people, shows that Perth has kept abreast of the times in things pertaining to the welfare of its inhabitants, more particularly when note is taken of the age periods of death. It may be noted that not once, as shown in the chart, has the death rate reached 17 per 1000 during the past 25 years.

CHART SHOWING THE DEATH RATE FOR THE PAST 25 YEARS.



One pleasing feature, which will be referred to again in more detail, is the fact that a large number of deaths occurred in old people, and it is gratifying to record that 47·8 per cent. of the total deaths occurred in persons over 65 years of age. In the previous year it was 49·3 per cent.

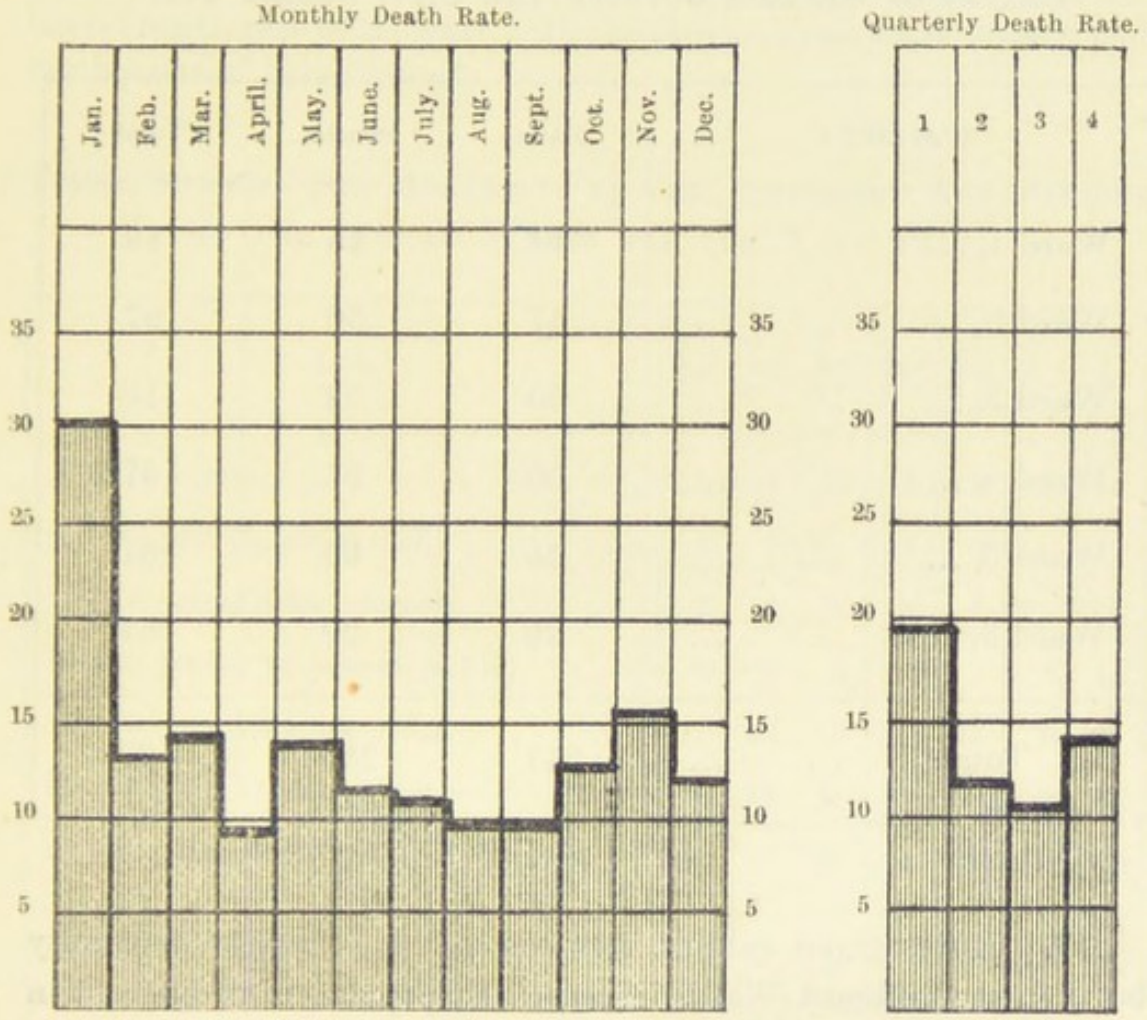
Looking at the monthly death rates, we find that the highest death rate was recorded in the month of January when it reached 30·3 per 1000. The next highest monthly return was in November, when it stood at 16, followed by March with 14·4 and May with 14·1. It will thus be seen that only on one occasion did the monthly mortality reach 20 per 1000, and even this during past years has been rare.

During January the most noticeable feature was the number of deaths attributable to diseases of the respiratory system, no less than 34 occurring from this cause. Pneumonia was the principal cause, and of the total of 14 cases 11 were a complication of Influenza. Influenza also accounted for 7 deaths. In this month 41 per cent. of the total deaths were over 65 years of age. In November, which had the second highest monthly mortality of 16 per 1000, a large number was attributed to circulatory and respiratory diseases, no less than 16 or 34 per cent. of the total deaths of this month being due to these two causes.

The lowest monthly rate occurred in April, and was 9·7 per 1000. Last year the month of June was the lowest, and as a rule the lowest monthly mortality has taken place in either July or September. During the month of April the most noticeable feature was the continued fall in deaths from diseases of the respiratory system. The next two months with the lowest mortality were August and September with 10·1.

In the following months the death rate was above the annual rate, viz. :—January and November, while in the remaining 10 months it was below.

CHART SHOWING THE MONTHLY AND QUARTERLY DEATH RATES PER 1000 OF POPULATION FOR THE YEAR 1933.



Annual Mortality Rate = 15·1 per 1000

Looking at the quarterly death returns, which were, 1st quarter 19·4 per 1000, 2nd quarter 11·8, 3rd quarter 10·5 and 4th quarter 13·7, it may be noted that the first quarter was above and the other three quarters below the annual average. Compared with the previous year the quarterly death return is higher in the first and second quarters but lower in the third and fourth.

WARD DEATHS.

TABLE SHOWING THE WARD DISTRIBUTION OF DEATHS, INCLUDING DEATHS OF CITIZENS OUTWITH THE CITY, DURING 1933.

DISTRICT.	Males.	Females.	Total.
Ward 1, ...	44	45	89
Ward 2, ...	47	50	97
Ward 3, ...	60	59	119
Ward 4, ...	30	37	67
Ward 5, ...	35	66	101
Ward 6, ...	25	29	54
Total, ...	241	286	527

The figures given exhibit, however, no true relative mortality between the different Wards, because the population is different in each.

The figures of the 1931 Census as regards Ward distribution being now available, I have arrived at an estimate of the Ward population, which I believe will give a fairly true index.

	Est. Pop.	Death Rate.	1932.
Ward 1,	5475	16·2 per 1000.	14 per 1000.
Ward 2,	6514	14·8 ,,	10·6 ,,
Ward 3,	6290	18·9 ,,	11·9 ,,
Ward 4,	5364	12·4 ,,	11·8 ,,
Ward 5,	7412	13·6 ,,	19 ,,
Ward 6,	3737	14·5 ,,	14·5 ,,

As compared with 1932 it will be noted that there has been an increased mortality in all Wards, excepting Wards 5 and 6. The respective increases were as follows:—Ward 1, 2·2 per 1000; Ward 2, 4·2 per 1000; Ward 3, 7 per 1000; Ward 4, ·6 per 1000. Ward 5 had a decrease of 5·4 per 1000, while Ward 6 was the same as the previous year. It will be noted that Ward 4 has the lowest death rate of the year. In the previous two years Ward 2 had the honour of being lowest.

TABLE SHOWING THE MORTALITY AT THE DIFFERENT AGE PERIODS IN THE VARIOUS WARDS FOR THE YEAR 1933.

AGE.	Ward I.	Ward II.	Ward III.	Ward IV.	Ward V.	Ward VI.	Total.
Under 1 year, ...	11	11	12	5	6	1	46
1—5 years (Infant period), ...	5	2	..	4	3	...	14
5—15 years (School period), ...	1	3	3	2	3	...	12
15—25 years (Adolescent period), . .	2	3	2	...	1	3	11
25—45 years (Mature period), ...	11	12	12	8	15	5	63
45—65 years (Late-mature period), ...	26	18	34	23	15	13	129
65 and upwards (Post-mature period),...	33	48	56	25	58	32	252
Total, ...	89	97	119	67	101	54	527

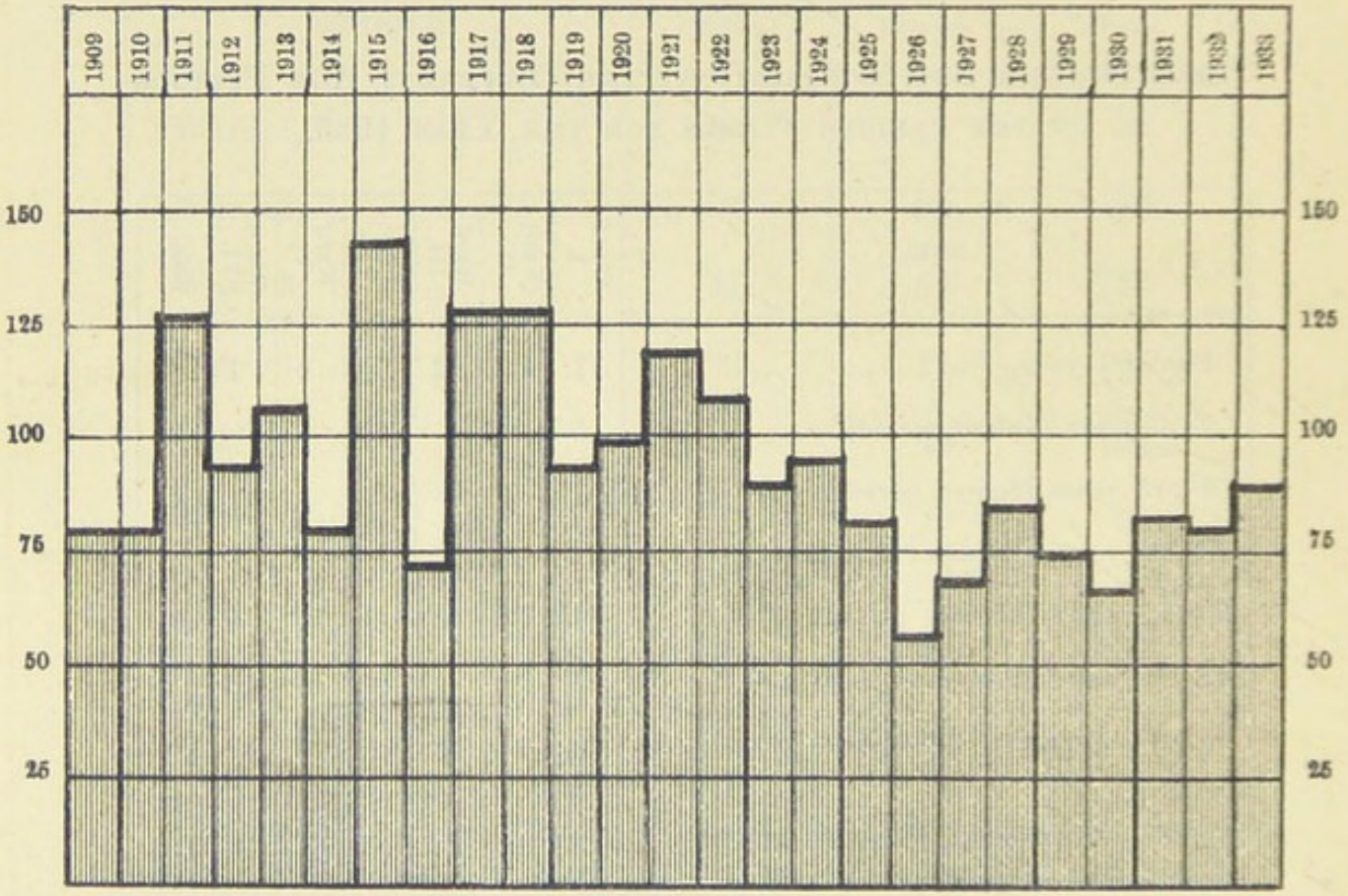
INFANTILE DEATHS.

The number of infants who died under one year including three outwith the Burgh was 46, so that the infantile death rate, or proportion of deaths of infants under one year to the registered births, is 89 per 1000 births, and is equal to 8·7 per cent. of the total deaths, as compared with 81 per 1000 births in 1932. Last year the number of infantile deaths was 43, or 8·5 per cent. of the total deaths.

In reviewing the deaths of infants for the past 25 years, as can perhaps best be done by examining the following chart, it will be noted that on eighteen occasions the infantile death rate per 1000

births has been under the 100, the lowest recorded being 54 in 1926; on three occasions between 100 and 125, and on four occasions between 125 and 150. It is pleasing to record that during the past eleven years the infantile death rate has never reached the 100.

CHART SHOWING THE INFANTILE DEATH RATE PER 1000 BIRTHS DURING THE PAST TWENTY-FIVE YEARS.



As has been done now for several years, a printed card with instruction on "The Care, Feeding, and Clothing for Infants" is given by the Registrar to the person registering the birth of a child where no medical man has been in attendance. This card, which is supplied with a hook, so as to be easily hung on the wall, is willingly given to anyone interested in the welfare of infants.

Having always considered this portion of the death returns as very important, I have in previous years given a detailed account of these infantile deaths, and the following table exhibits in a concise manner the causes and periods of infantile deaths belonging to the City.

INFANTILE MORTALITY FOR THE YEAR 1933.

Including deaths without, but belonging to, the Burgh.

CAUSES.	Under 1 day	2 days	3 days	4 days	5 days	6 days	7 days	Total under a week	Under 2 weeks	3 weeks	4 weeks	Total under 1 month	Under 2 months	3 months	4 months	5 months	6 months	7 months	8 months	9 months	10 months	11 months	Under 12 months	Total.
Premature Birth	5	..	...	...	...	...	...	5	2	2	...	9	3	...	...	...	...	...	...	...	...	..	...	12
Congenital Malformations	2	...	...	..	...	...	1	3	1	...	...	4	...	...	...		...	..	...	...	...	...	1	5
Debility, Malnutrition	1	...	1	...	...	...	...	2	2	...	...	4	1	2	..	...	1	...	1	...	..	..	...	9
Convulsions	...	...	1	1	...	...	...	2	...	...	...	2	...	...		...	...	...	.	...	...	...	...	2
Diarrhœa, Gastritis, Enteritis, &c.	..	...	..	...	...	...	...	...	...	...	...	...	...	1	..	1	...	...	1		...	...	...	3
Zymotic Diseases: Whooping Cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	.	...	.	...	...	...	...	..	...
Zymotic Diseases: Measles	...	...	...	...	...	...	...	...	...	...	...	...	...		..	...	...	..	...		...	...	..	..
Zymotic Diseases: Septicæmia	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	.	.	...	...	..	.	...	...
Zymotic Diseases: Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	..	...	...	..	1	..	...	...	2
Respiratory Diseases	...	...	...	...	...	.	...	...	...	...	...	...	..	1	3	..	...	1	1	1	2	1	...	10
Tubercular Diseases	...	...	..	...	...	...	...	...	..	...	..	...	..	...	...	..	..	...	...	...	...	..	.	...
Nervous Diseases	...	...	...	...	...	...	...	...	...	...	..	...	...	..		.	..		...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	...	...	...		. .	.	...	...	...	..	..	...	.	...	...	.	...
Overlain (Suffocation)	...	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	..	..	...	...	..	...	...
Burns or Scalds	...	...	.	..	...	...	...	...	...	..	...	...	...	...	...	...	...	.	...	...	...	...	...	...
Other Causes	...	...	...	..	...	..	..	...	1	1	...	2	..	..	1	...	...	...	...	..	...	...	...	3
TOTAL	8	...	2	1	..	...	1	12	6	3	..	21	5	4	4	1	1	1	3	2	2	1	1	46

The total number of deaths on the *first* day was 8. This is 6 more than the number of last year. As a rule, of the deaths during the first week the majority occur on the first day, and this is fully borne out this year.

The number of deaths within the *first* week was 12, being 1 less than that of last year at this period. This means that, of all the children who died under one year of age, nearly every fourth one died during the first week of infancy.

The cause of this percentage of deaths within the first week will be gathered from a consideration of the diseases which occasioned the deaths, many of the causes no doubt being attributed to maternal conditions.

During the *second* week there is a decline, though not so marked as in previous years—nine deaths being recorded at this period. As a rule, each succeeding week during the first month shows a decline as compared with the week before, thus in the third week there were only three, and in the fourth week none.

The number of deaths within the first month was 21, showing a decrease of 1 as compared with last year, and is equivalent to 47 per cent. of the total infantile deaths, a lower percentage than in the previous year, viz., 51 per cent.

As a result largely of the great number of deaths during the first and second weeks, viz. 18, the deaths during the first month are greatly in excess of any succeeding month, being four times the number of any succeeding month. In previous years this was also the case.

The large percentage of infantile deaths during the first month is easily explained by glancing at the *causes* of death, where it will be seen that Premature Birth accounted for 42 per cent., and Congenital Debility for 18 per cent. of all deaths at this early period. This is below the percentage of last year. If to these cases there be added the cases which died as the result of congenital malformations at birth, we find that of the infants dying during the *first* month no less than 80 per cent. were attributable to one or other of these causes.

In the **second** month many of the weaklings who had survived a month succumb at this period. In this month, and succeeding months, debility and malnutrition continue as a cause of death, while diseases of the digestive and respiratory systems occupy a very prominent place. What must be particularly observed was that respiratory diseases were responsible for no less than 10 deaths of infants at this period—truly, if not an appalling number, at least an appalling average, for we find that just on 43 per cent. of the deaths of infants between one and twelve months were the result of chest troubles. One pictures in one's mind that many of those deaths were preventable. It is a serious error to think that children have great power of resisting cold. The clothing of an infant should be enough to keep it warm in all seasons; more and warmer garments in the winter than in summer, and the winter clothing should be put on early in the autumn and continued until late in the spring, and so made as to cover the upper part of chest and neck, so as not to leave these delicate parts exposed to cold blasts. A child must have fresh air to breathe, but there is no need to subject the child to draughts or sudden chills, and a tender infant should never be out after sunset. I fully recognise that is the ideal and practically unattainable. Nevertheless it is our duty to strive for the ideal. In this matter of fresh air, my thoughts turn to the Picture Houses, where frequently babies are to be seen. Here again my sympathy goes with many mothers. It is perhaps her only diversion from domestic worries, and certainly better than gossiping at the close mouth or frequenting the "pub."

So long as baby keeps asleep it gets no thought from the audience, but let its voice be heard and at once there are murmurs, especially among the male sex, "This is no place for an infant."

Certainly not the place for an infant, not on account of the disturbance it may have caused, but because of the irritating smoky and hot atmosphere it has to inhale. I would like if mother could manage to go to the afternoon matinee instead of the evening performance, or that she could make arrangements with a neighbour to attend to baby in her absence if Daddy can't or won't, and in large towns I can see it quite feasible to admit babies to a Creche while mother has a pleasant hour.

As regards the houses in which the infantile deaths occurred, it may be mentioned that 4 took place in the South Street, 3 in Pomarium and High Street, 2 in Cross Street and Darnhall Drive, and the remainder in different parts of the City.

As regards occupations of Parents, the most prominent was that of railway employees, followed by that of labourers. There were two cases of domestic servants. In former reports one had to deal with a fair number of deaths of infants whose mothers were servants and whose infants had been farmed out.

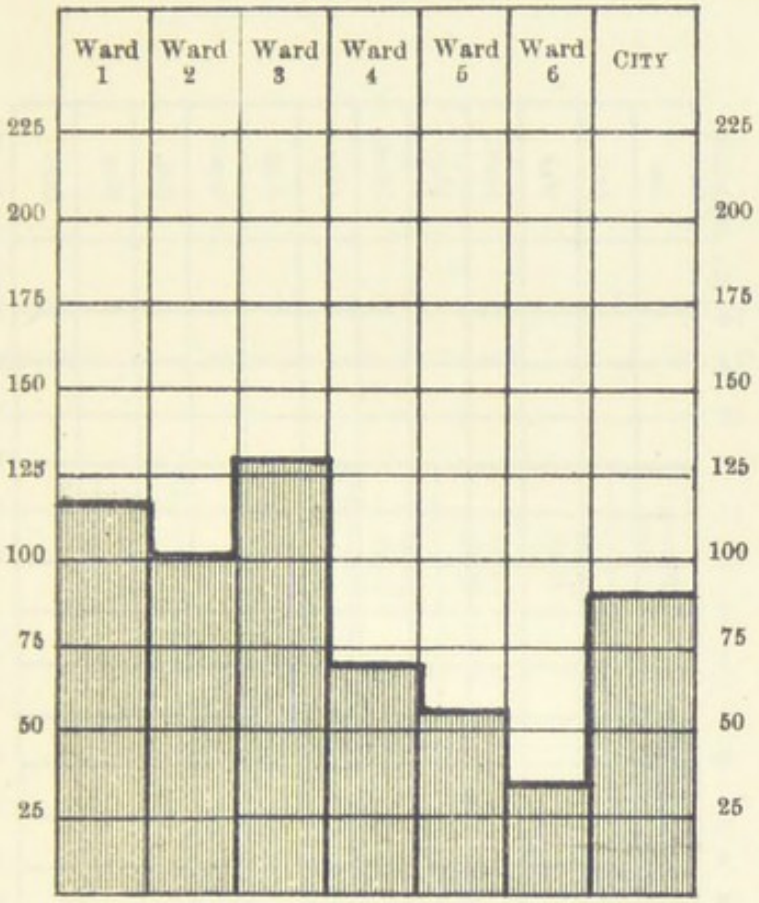
Another point may be noted, viz., that the death rate among the illegitimate is, as might be expected, considerably higher than among the legitimate. The number of legitimate births during the year was 478. Of these, 44 died—a percentage of 9 per cent. The illegitimate births were 54, with a death roll of 7, being equivalent to 13 per cent. Such figures would indicate two things, either that the class of parents of illegitimate children is of a very low order from a health point of view, or what is much more likely—is that the illegitimate child does not receive the kindly consideration and care which a legitimate child gets. It is only fair to say, however, that this illegitimate percentage is a great improvement on the previous year, when it reached 20 per cent.

Considering these infantile deaths from a Ward point of view, and in relation to the births in each Ward, we find that

					1932.
Ward	1	has an infantile death rate of	115	per 1000 births	111
,,	2	,,	101	,,	25
,,	3	,,	130	,,	72
,,	4	,,	69	,,	25
,,	5	,,	55	,,	138
,,	6	,,	36	,,	85

the infantile death rate for the whole City being 89 per 1000 births.

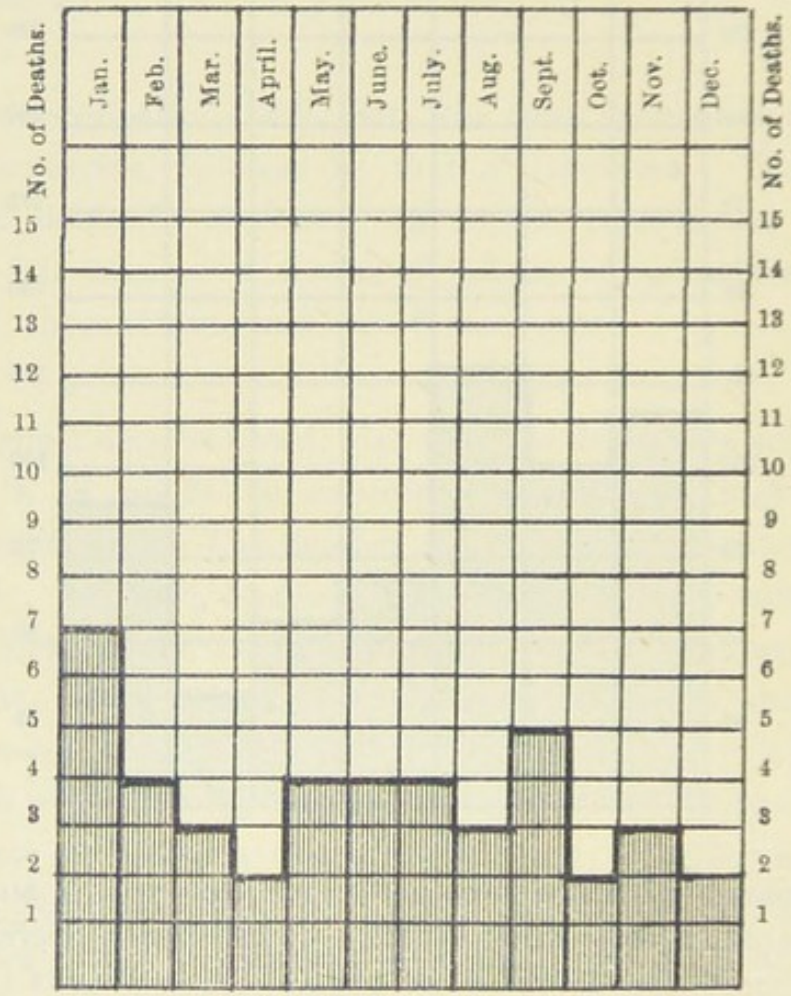
CHART SHOWING THE INFANTILE DEATH RATE PER 1000 BIRTHS IN THE VARIOUS WARDS AND CITY.



Compared with the previous year, Wards 2, 3 and 4 show a considerable increase while Wards 5 and 6 show a decrease, Ward 1 being almost the same as in 1932. Three Wards (1, 2 and 3) exceeded the 100, while Wards 5 and 6 were the lowest, both exhibiting so small a death rate as 55 and 36 per 1000 births respectively.

The following chart is interesting as showing how the infantile deaths vary throughout the year. In six months, viz., January, February, May, June, July and September, the number was above the monthly average, while in the remaining months it was below. The greatest monthly number was in January, viz., 7, followed by September with 5. In the months of April, October and December only two deaths were recorded. It is interesting to note that the the first quarter of the year was responsible for 32 per cent. of the total deaths, as compared with 16 per cent. in the last quarter. In fact, the last quarter was the lowest in the year, the figures being: 1st quarter—32; 2nd quarter—23; 3rd quarter—28; 4th quarter—16.

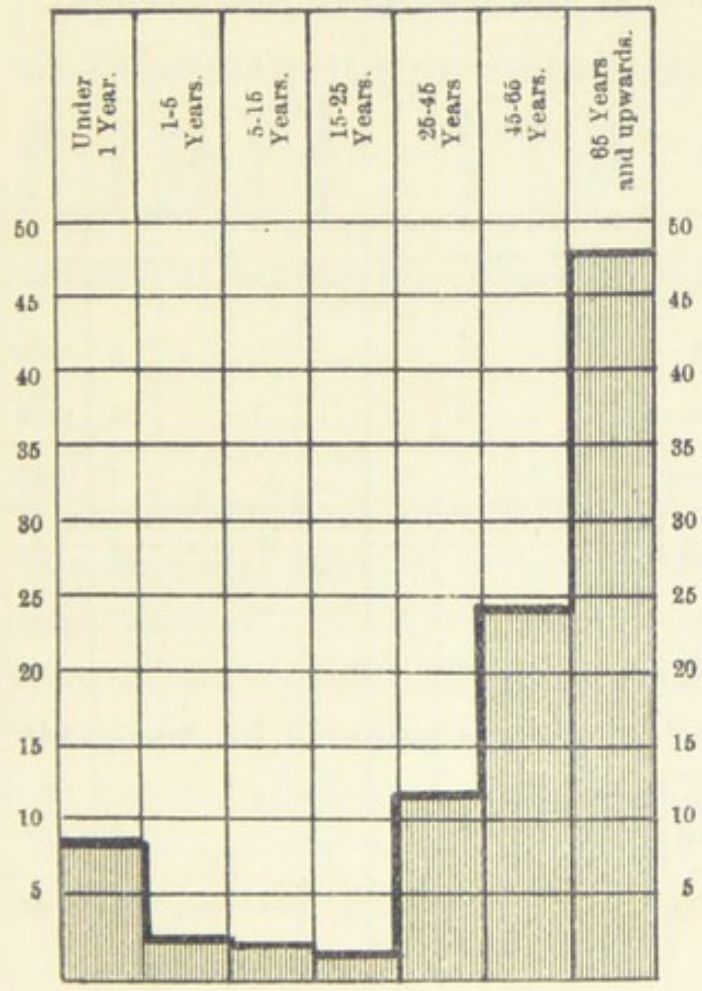
CHART SHOWING SEASONAL INFANTILE MORTALITY DURING 1933.



OTHER AGE PERIODS.

Including the deaths of citizens outwith the Burgh the deaths of children between 1 and 5 years were 14, being equivalent to 2·6 per cent. of the total deaths; between 5 and 15 years (school period) 12 or 2·2 per cent.; between 15 and 25 years (adolescent period) 11 or 2 per cent.; between 25 and 45 years (early mature period) 63 or 12 per cent.; between 45 and 65 years (late mature period) 129 or 24·4 per cent.; and at 65 years and upwards (post mature period) 252 or 47·8 per cent. Compared with last year the percentage of deaths at the post-mature period has shown a slight decrease, when it was 49·3 per cent. Of these post-mature deaths 59 were between 65 and 70 years, 120 between 70 and 80 years, 62 between 80 and 90 years, and 10 between 90 and 100 years, the oldest age recorded during the year being 95 years.

CHART SHOWING THE MORTALITY AT THE DIFFERENT AGE PERIODS AS PERCENTAGE OF THE TOTAL DEATHS.



CAUSES OF DEATH.

(1.) ZYMOTIC DISEASES.

The number of deaths ascribed to zymotic causes, including those from septic causes—Septicæmia, Pyæmia, Puerperal Fever, and Erysipelas—and those from Diarrhœa, Gastritis, and Gastro-Enteritis, as well as those from Venereal disease, was 32, which is equivalent to a death rate of ·94 per 1000 persons living.

TABLE SHOWING THE MORTALITY FROM PRINCIPAL ZYMOTIC DISEASES AT THE DIFFERENT AGE PERIODS.

DISEASE.	Under 1 Year.	1-5 Years.	5-15 Years.	15-25 Years.	25-45 Years.	45-65 Years.	65 and upwards.	Total.	Death Rate per 1000.	1932 Total.	1932 Death Rate per 1000.
Chickenpox	...	...	...	...	..	...	...	...	...	...	...
Erysipelas -	2	...	...	...	...	...	1	3	·086	1	.028
Diphtheria -	...	1	4	2	...	1	...	8	·229	4	·114
Scarlet Fever	...	1	...	...	...	...	...	1	·028	1	·028
Cerebro-Spinal Fever	...	..	...	...	...	...	...	...	...	...	...
Measles -	...	...	...	...	...	...	...	...	...	2	·057
Whooping Cough	...	...	...	...	...	...	...	...	...	2	·057
Influenza -	...	...	...	..	3	5	4	12	·344	7	·201
Diarrhœa, including Gastritis and Enteritis	3	1	1	...	...	...	...	5	·143	9	·258
Venereal Diseases	...	...	...	...	...	...	...	...	...	2	·057
Epidemic Encephalitis	...	...	...	...	1	...	..	1	·028	1	·028
Puerperal Fever	..	...	...	...	1	...	...	1	·028	2	·057
Septicæmia -	...	...	...	...	...	...	1	1	·028	2	·057
Total -	5	3	5	2	5	6	6	32	·94		
1932 -	8	6	5	...	4	4	5	32	·94	...	...

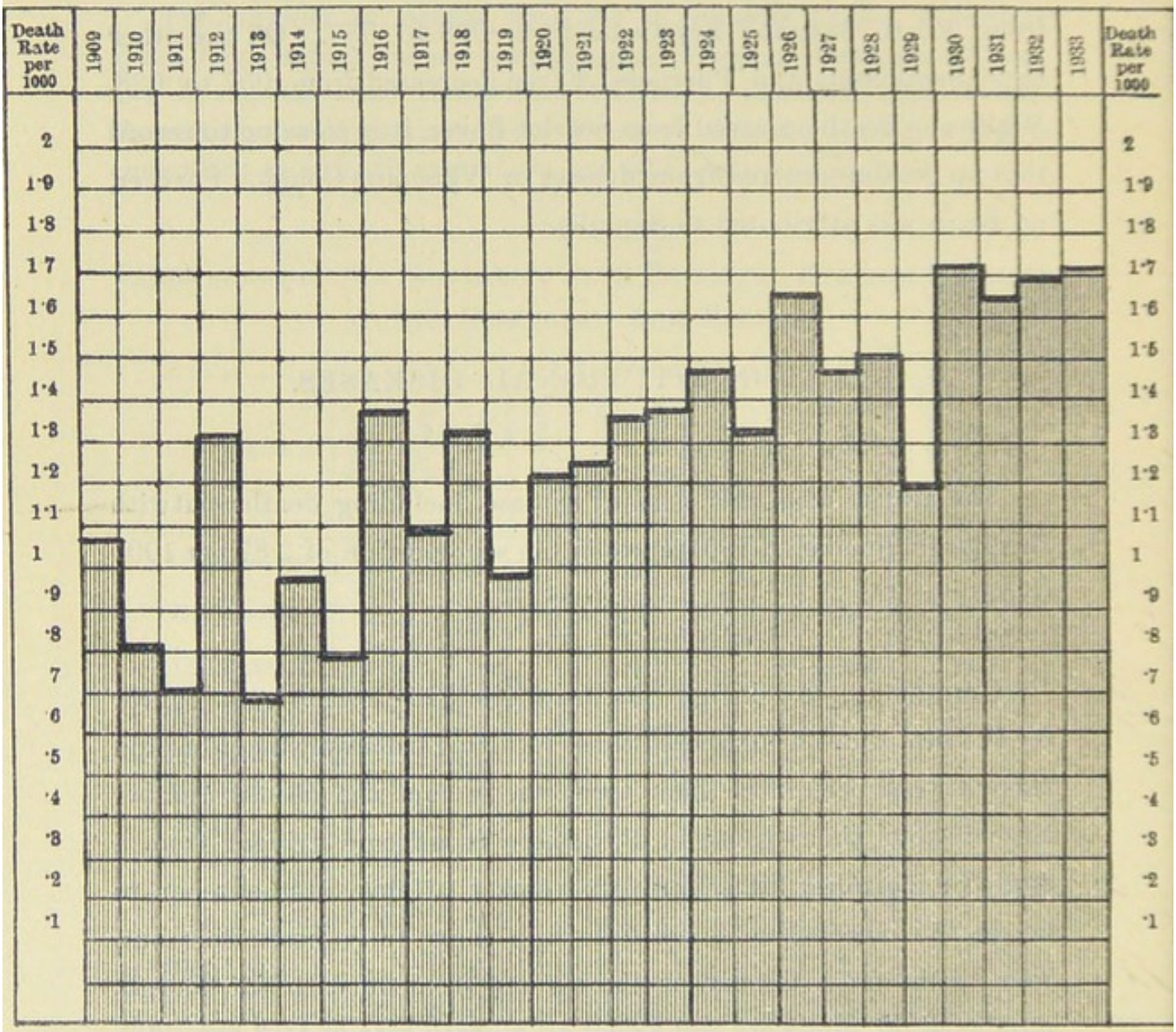
From the foregoing it will be seen that there has been no change in the Zymotic death rate. Increases have, however, occurred in the following diseases—Diphtheria from ·114 to ·229, Influenza from ·201 to ·344, and Erysipelas from ·028 to ·086. On the other hand Septicæmia and Puerperal Fever decreased from ·057 to ·028. While one death occurred from Scarlet Fever, it is pleasing to record that no deaths occurred from Measles or Whooping Cough. Further, no death was attributed to Syphilis.

(2.) CONSTITUTIONAL DISEASES.

The deaths from this class of disease, including deaths outwith the Burgh, numbered 100, representing a proportion of 2·87 per 1000 living.

Cancer is the principal disease. In 1912 deaths from Cancer for the first time outnumbered those resulting from Consumption, and this year has been more than repeated, in fact the deaths number close on four times those of Phthisis. It appears evident from a study of mortality tables for past years that this disease tends to be on the increase, and the following chart fully bears this out. The deaths from Cancer, including one from outwith the Burgh, numbered 60, and were equivalent to a death rate of 1·72 per 1000, as compared with 1·69 per 1000, in 1932.

CHART SHOWING THE DEATH RATE FROM CANCER OR MALIGNANT DISEASE DURING THE PAST TWENTY-FIVE YEARS.



Phthisis, or tuberculosis of the lungs, which used to be classed as a constitutional disease, has been a notifiable disease since 1912. During the year, including 2 outwith the city, 16 deaths occurred from this cause. Three occurred between 15 and 25 years, 6 between 25 and 45 years, 6 between 45 and 65 years, and one above 65 years. This is 5 more than in the previous year, and based on the estimated population of 34,792, is equivalent to a death rate of ·459 per 1000, as compared with ·315 in 1932.

The percentage of deaths to total deaths was 3, and the death rate as stated was equivalent to ·459 per 1000 persons living. Compared with the corresponding figures of 1900, the occasion of my first report, viz., 9·2 percentage to total deaths and a death rate of 1·9 per 1000, it will be evident, especially after a glance at the following chart, that the factors which made this disease to be classed as the "white scourge" are slowly but surely being got under control.

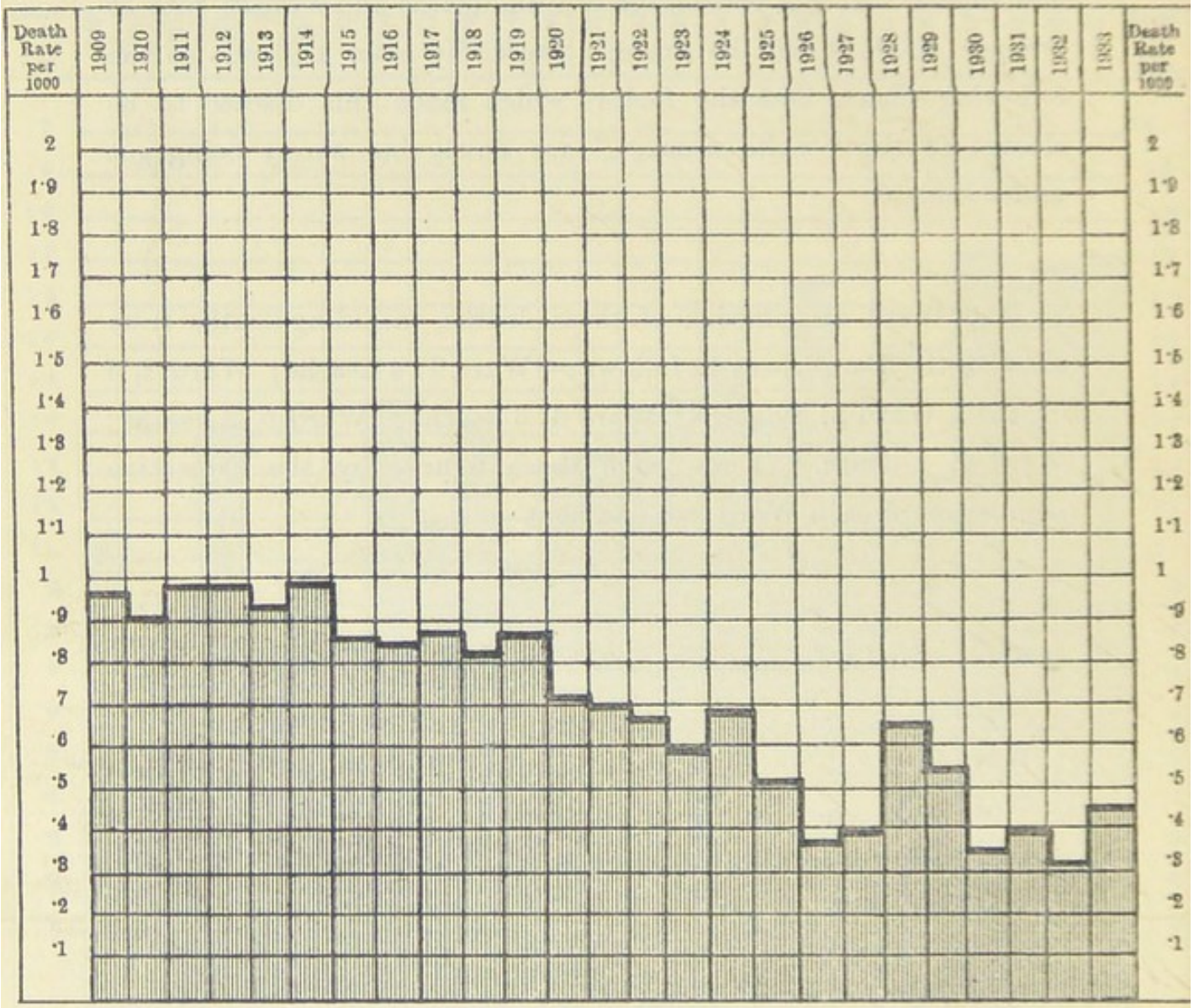
The Ward distribution of these deaths, including deaths from outwith the Burgh, was as follows:—Ward 1, 4 deaths; Ward 2, 3 deaths; Ward 3, 2 deaths; Ward 4, 3 deaths; Ward 5, 2 deaths; Ward 6, 1 death. If we judge these figures by the respective population of each Ward, we find that—

						1932.
Ward 1 has a consumptive death rate of				·73	per 1000.	·46
Ward 2	,,	,,	,,	·46	,,	·28
Ward 3	,,	,,	,,	·31	,,	·18
Ward 4	,,	,,	,,	·55	,,	·18
Ward 5	,,	,,	,,	·26	,,	·42
Ward 6	,,	,,	,,	·26	,,	—

If all forms of tuberculosis are considered, the figures for the Wards in their numerical order are ·77, ·69, ·18, ·18, ·56, and ·53 per 1000.

A glance at the following chart will show how satisfactory has been the decline during the past years, although this year shows a slight increase over the previous year.

Chart Showing the Death Rate from Phthisis during the past Twenty-Five Years.



In 1920 an important administrative change occurred with regard to the treatment of insured persons suffering from tuberculosis. Formerly it fell to the Local Insurance Committee to provide treatment for insured phthisical patients, but in that year the duty was placed on the Local Authority. This implies the provision of institutional treatment or domiciliary treatment, and the payment of medicines incurred under the treatment of their own doctor at home. The Local Authority are now responsible for the care of all forms of tuberculosis.

(3.) LOCAL DISEASES.

The number of deaths registered under this class was 299. These causes give a death rate of 8·5 per 1000, as compared with 7·8 in 1932. No deaths were attributed to diseases of the lymphatic system, or organs of parturition, but three occurred from disease of an organ of special sense, viz. :—the middle ear.

As has been the case in previous years, deaths from nervous, respiratory and circulatory causes are the most prominent.

As regards respiratory troubles, Bronchitis is the commonest, followed by Broncho-Pneumonia and Pneumonia. 9 deaths of infants, 6 deaths of children between 1 and 5 years of age, and 20 deaths of persons over 65 years of age occurred from pulmonary trouble. The total number of deaths was 74, being 15 more than in the previous year.

Attention has already been drawn to the number of infantile deaths from respiratory disease, and when we add to that number the number of those dying between the age of one and five years, we have a total of 15—a figure 7 more than last year, and 4 more than in 1931. It appears to give proof of carelessness or ignorance on the part of parents that 19 per cent. of infantile deaths and 35 per cent. of deaths between 1 and 5 years should result from Respiratory trouble. The respective percentages last year were 14 and 15.

Nervous diseases account for 67 deaths. No less than 37 deaths took place from apoplexy, and of these the great majority occurred in people over 60 years of age ; in fact, no less than 26 occurred in persons over 65. As regards diseases of the Circulatory System, 29 deaths were attributed to heart disease and 4 to syncope, and a large number to disease of the arteries.

(4). VIOLENCE.

The number of deaths attributed to "violent" causes during the year was 21, being 6 more than in 1932. One was due to a railway vehicle, while 4 were the result of a motor accident, or 3 more than in 1932. Drowning was the cause in no less than 6 instances, while 5 deaths arose as the result of fall, &c. No death occurred in an infant from overlying, and no case of burns or scalds took place. There was 1 case of narcotic poisoning, 2 cases of coal gas poisoning, and 2 cases of Lysol poisoning.

The cases attributed to suicide were 1 less than last year and numbered 6, the same number as in 1931.

Of these 21 "violent" deaths, 1 occurred outwith the Burgh.

SUMMARY OF DEATHS (INCLUDING DEATHS OF CITIZENS OUTWITH THE CITY).

	1933	1932
I. SPECIFIC FEBRILE OR ZYMOTIC DISEASES—		
1. Miasmatic Diseases	22	17
2. Diarrhœal (Enteritis, etc.)	1	9
3. Malarial	—	—
4. Zoogeneous	—	—
5. Venereal	—	2
6. Septic	5	5
II. PARASITIC DISEASES	—	—
III. DIETETIC DISEASES	—	1
IV. CONSTITUTIONAL DISEASES ..	100	94
V. DEVELOPMENTAL DISEASES ...	59	57
VI. LOCAL DISEASES—		
1. Diseases of Nervous System ...	67	61
2. Diseases of Organs of Special Sense ...	3	1
3. Diseases of Circulatory System ...	108	125
4. Diseases of Respiratory System ...	74	59
5. Diseases of Digestive System ...	28	20
6. Diseases of Lymphatic System and Ductless Glands	—	—
7. Diseases of Urinary System ..	15	19
8. Diseases of Organs of Generation ...	1	2
9. Diseases of Organs of Parturition ...	—	1
10. Diseases of Locomotary System ...	—	—
11. Diseases of Integumentary System ...	3	—
VII. VIOLENCE—		
1. Accident or Negligence	15	8
2. Suicide	6	7
VIII. ILL-DEFINED OR NON-SPECIFIED CAUSES	20	15
Total	527	503

NOTIFIABLE INFECTIOUS DISEASE.

The total number of notifiable diseases recorded during the year 1933 was 635, as compared with an average of 417 in the previous ten years, and being a decrease of 12 as compared with 1932.

TABLE SHOWING THE WARD DISTRIBUTION OF CASES NOTIFIED DURING THE YEAR 1933, WITH NUMBER OF CASES TREATED IN HOSPITAL.

NATURE OF DISEASE.	WARD 1.		WARD 2.		WARD 3.		WARD 4.		WARD 5.		WARD 6.		Treated in Hospital	Treated in Home	Total
	Under 5 years	5 years & over	Under 5 years	5 years & over	Under 5 years	5 years & over	Under 5 years	5 years & over	Under 5 years	5 years & over	Under 5 years	5 years & over			
Chickenpox, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever, ...	..	...	..	...	...	...	...	2	...	...	...	...	2	...	2
Ophthalmia Neonatorum,	1	...	...	..	...	...	...	...	...	...	...	...	...	1	1
Pneumonia, ...	...	10	...	8	...	7	1	9	1	7	2	3	26	22	48
Scarlet Fever, ...	19	35	18	59	14	51	11	56	15	46	8	32	300	64	364
Diphtheria, ...	3	27	2	23	2	15	15	21	2	15	4	5	123	11	134
Erysipelas, ...	1	4	...	...	...	9	...	5	...	6	...	2	6	21	27
Phthisis, ...	...	4	...	4	...	12	...	6	...	4	...	1	16	15	31
Tuberculosis other than Phthisis,	1	...	1	8	...	3	3	3	1	3	1	...	15	9	24
Encephalitis Lethargica	...	...	...	..	..	...	...	...	...	..	...	...	...	...	...
Puerperal Fever, ...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	2
Puerperal Pyrexia,	...	...	...	..	...	...	..	...	...	...	...	...	...	...	...
CerebroSpinal Fever,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery, ...	...	1	...	...	...	..	...	...	...	...	...	1	1	1	2
	25	81	21	104	16	97	30	102	19	81	15	44	491	144	635
TOTAL, ...	106		125		113		132		100		59				

As compared with the previous year there have been 12 less cases notified.

I am glad to report that there has been no recurrence of Small-pox or Typhus Fever. It is over thirty years since there was a case of the latter disease in Perth, and then it was a case of a tramp from Glasgow. Nor has a case of Sleeping Sickness or of Cerebro-Spinal Fever been notified, although one case of the former died during the year, while only two cases of Typhoid Fever were reported during the year. Of cases of Puerperal Fever, there were two intimated.

The average monthly number of cases was 53, being exceeded on three occasions, these occurring mainly in the first and last quarters of the year. The largest number of cases was reported in January and February (the result of the large number of cases of Scarlet Fever and Diphtheria during this period) the number for these months being 94 and 71 respectively. The smallest number occurred in August, when only 24 cases of infectious disease were notified, followed by 28 and 37 in July and September. The percentage of cases during the various quarters of the year were—1st quarter, 36 per cent.; 2nd quarter, 23 per cent.; 3rd quarter, 14 per cent.; 4th quarter, 26 per cent.

As regards the age period, 133 were under 5 years of age, and 502 above that period. Last year the number affected at the infant period was 21 per cent. of the total. This year the percentage has decreased, having fallen to 20 per cent. Of the infant cases 69 per cent. were Scarlet Fever, and 22 per cent. Diphtheria.

The number of these notifiable cases, including one or two cases in the Infirmary, treated in Hospital or Sanatorium was 491, or 77 per cent. of the total cases, as compared with 62 per cent. in the previous year.

With reference to the Ward Distribution of these Infectious Diseases, if we consider (which is the proper way) the cases as so many per 1000 of the population of each Ward (or better still, were that possible, as so many per 1000 of the young people in each Ward) we find that Ward 5 with 13·4 per 1000 stands for the year as the Ward freest from infectious trouble, while Ward 4, with 24·6 per 1000, was the most affected.

The figures for the various Wards are :—

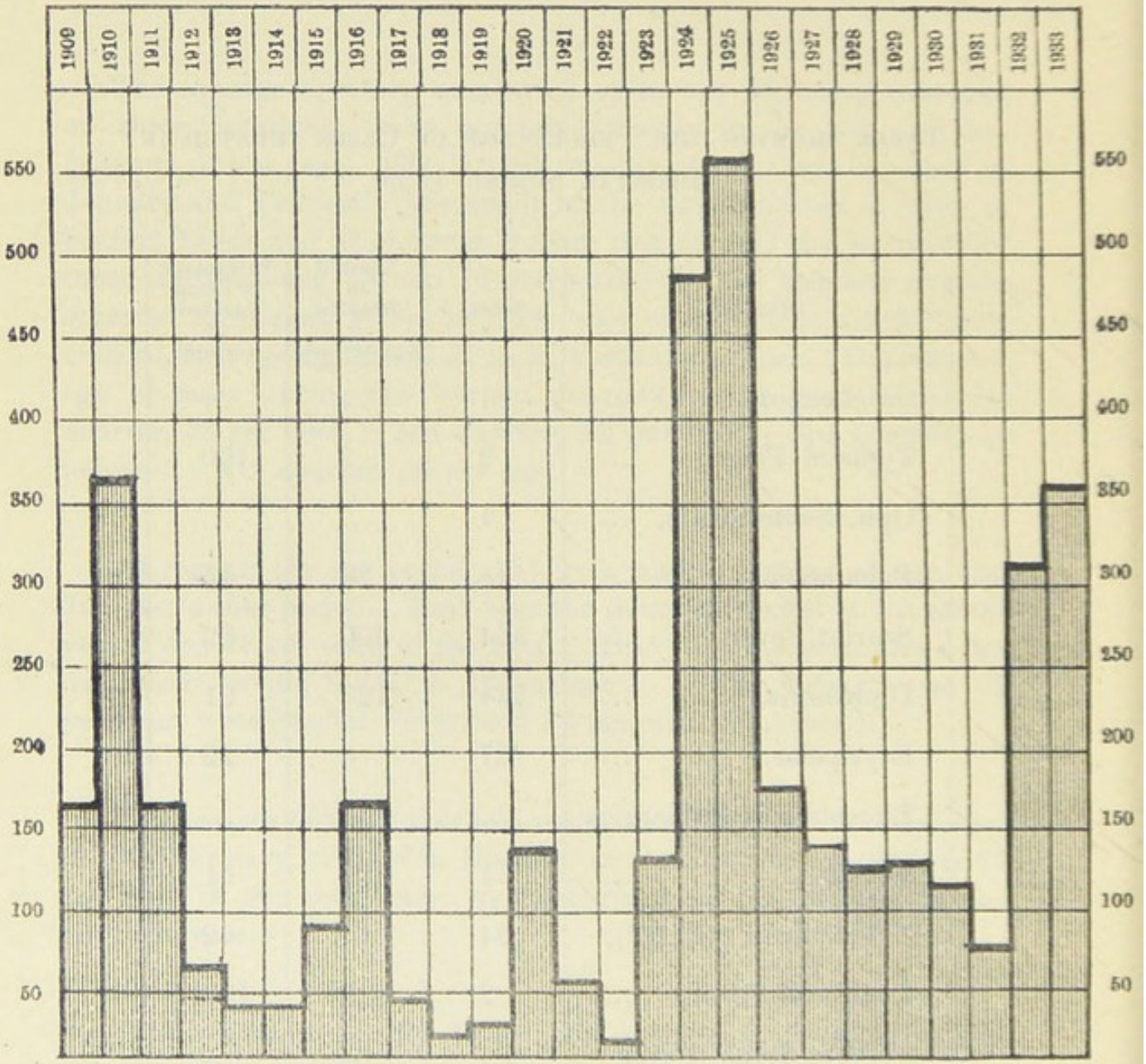
					1932
Ward 1	=	19·3 per	1000 of	estimated population,	21·1
Ward 2	=	19·1	,,	,, ,,	18·9
Ward 3	=	17·9	,,	,, ,,	17·4
Ward 4	=	24·6	,,	,, ,,	18·7
Ward 5	=	13·4	,,	,, ,,	17·2
Ward 6	=	16	,,	,, ,,	16·6

Table showing the Percentage of Cases treated in Hospital during 1933.

DISEASE.	Total.	Treated in Hospital or Sanatorium.	Percentage of Cases treated in Hospital.
Chickenpox, ...	...	...	...
Typhoid Fever, ...	2	2	100
Oph. Neonatorum, ...	1	...	...
Pneumonia, ...	48	26	45
Scarlet Fever, ...	364	300	82
Diphtheria, ...	134	123	91
Erysipelas, ...	27	6	22
Encephalitis Lethargica	...	...	...
Phthisis, ...	31	16	51
Tuberculosis (other than Phthisis),	24	15	62
Puerperal Fever, ...	2	2	100
Cerebro Spinal Fever	...	...	...
Dysentery	2	1	50
Total, ...	635	491	77

SCARLET FEVER.

CHART SHOWING THE NUMBER OF CASES OF SCARLET FEVER NOTIFIED DURING THE PAST TWENTY-FIVE YEARS.



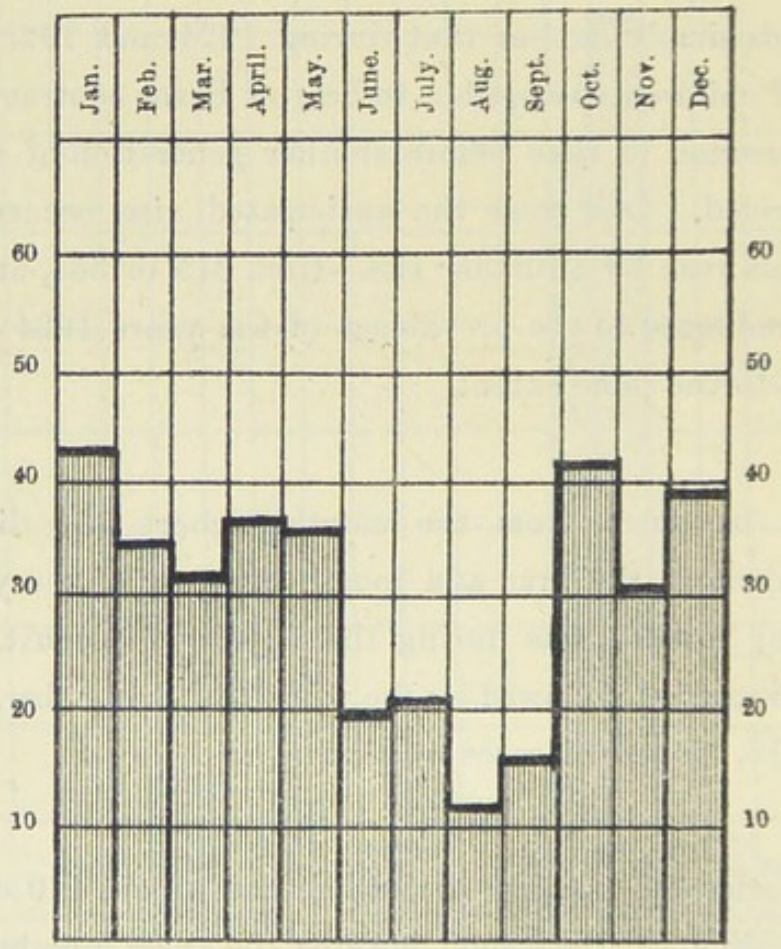
A glance at the chart recording the cases during the past twenty-five years will clearly show the tendency of this disease to lie more or less quiescent for some years and then manifest itself.

Thus in the years 1910, 1916, 1920, 1924 and 1925 there was a great increase above the average, followed, as was to be expected, by a considerable decline in the intervening years. The most marked period of prevalence was in the years 1924 and 1925—in the former year there being 495 cases and in the latter a record for the City of 563 cases. In the following year the number fell, viz., to 172, and continued to decline till 1931, when 75 cases were reported. It is evident from an examination of the chart that every five years or thereabout there is likely to be an outbreak of Scarlet Fever. This simply implies that during 1924 and 1925 the great majority of children susceptible to Scarlet Fever contracted it, and it was a question of time before another generation of susceptible persons arrived. Last year the anticipated rise occurred, to be followed this year by a further rise—from 315 to 364, and bearing a close resemblance to the prevalence of the years 1924 and 1925, though not to the same extent.

It will be noted from the monthly chart, the disease was most prevalent in the first and fourth quarters of the year. The lowest point reached was during the month of August, when 12 cases were recorded, followed by the months of September, June and July with 16, 20 and 21 cases respectively.

During the first quarter of the year there were 110 cases or 30 per cent., while in the second quarter the cases numbered 93 or 25 per cent. The third quarter, with its 49 cases, was the lowest, and was equivalent to 13 per cent., while the fourth quarter with 112 had 30 per cent. of the total cases. The greatest number in any one month occurred in January, when 43 cases, or 16 per cent. of the total, were notified. This was followed by the months of October with 42, and December, when there were 39 cases.

CHART SHOWING THE NUMBER OF CASES OF SCARLET FEVER DURING THE YEAR 1933.



As regards the sex, 205 cases occurred among females and 159 among males; while as regards the age period, 92 occurred among children under 5 years of age, or 25 per cent. This is a higher percentage than the previous year, when it stood at 22 per cent. As regards the other age periods, 211 or 57 per cent. occurred between 5 and 15 years, 34 or 9 per cent. between 15 and 25 years, and 23 or 6 per cent. between 25 and 45 years, while 4 cases occurred in persons over 45 years, the oldest being 58.

As regards the Ward Distribution, Ward 5 was the lowest with 8·2 per 1000, followed by Ward 1 with 9·8 per 1000. Ward 4, followed by Ward 3, had the highest. The figures relating to the various Wards for 1933, with comparison for 1932, are as under:—

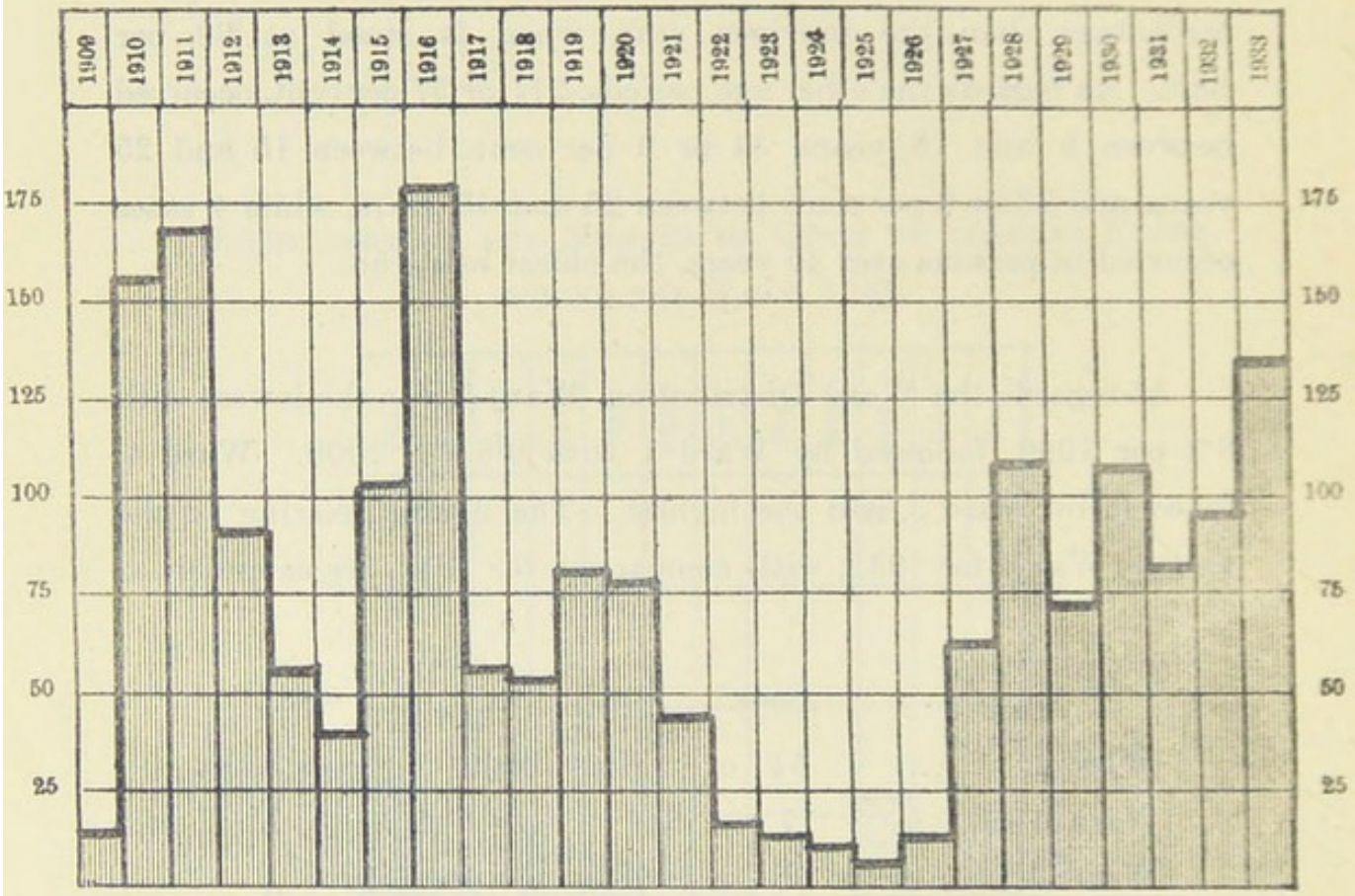
		Cases.		1932.
Ward 1	...	54	or 9·8 per 1000,	11·9 per 1000.
Ward 2	...	77	or 11·8 ,,	10·3 ,,
Ward 3	...	65	or 10·3 ,,	6·1 ,,
Ward 4	...	67	or 12·4 ,,	9·7 ,,
Ward 5	...	61	or 8·2 ,,	7·3 ,,
Ward 6	...	40	or 10·7 ,,	7·8 ,,
		364		

The number removed to Hospital was 300, or 82 per cent. of the whole. In the previous year the percentage was 83.

Although there were several cases in which the type of fever was virulent, with a corresponding degree of complications, it is pleasing to report that only one death resulted from this cause throughout the year. As a matter of fact this is only the second death which has occurred in Perth since 1928.

DIPHTHERIA.

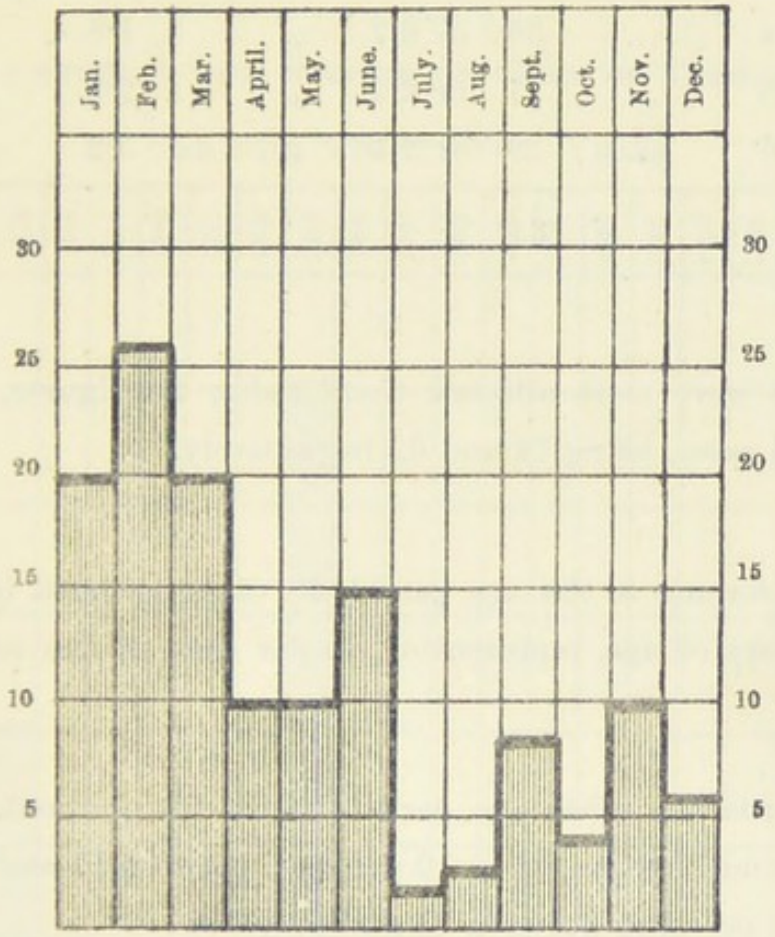
CHART SHOWING THE NUMBER OF CASES OF DIPHTHERIA DURING THE PAST TWENTY-FIVE YEARS.



As is evident from the foregoing chart, Diphtheria was epidemic in the City during the years 1910-1911, and again in 1915-1916. Since the latter year there was, with the exception of 1919 and 1920, a continuous decline, reaching in 1925 a number which was the lowest yet recorded, viz., 11. In 1926 the number showed a slight increase, viz., 17. Since then there has been a maintained increase, in part the result of bacteriological examination affording a means of diagnosing cases which otherwise might have escaped detection. This year the number of cases reported was 134 as compared with 93 in the previous year.

The average monthly notification was 11. During the last six months of the year the average monthly number was only 5, whereas in the first half of the year 101 cases—a monthly average of 16, or 75 per cent. of the total—were reported. The maximum monthly notification, viz. 26, occurred in February. In other words it may be said Diphtheria was prevalent in the City during the last quarter of 1932 and the first half of 1933.

CHART SHOWING THE NUMBER OF CASES OF DIPHTHERIA DURING THE YEAR 1933.



Most of the cases occurred during the first quarter of the year, when 66 cases were reported. The largest number of cases occurred in the month of February, with 26 cases, followed by January and March with 20 cases. No month escaped, but the lowest number of cases occurred in July and August with 2 and 3 respectively.

As regards the Ward Distribution, Ward 5 was the lowest with 2·2 per 1000, followed by Ward 6 with 2·4 per 1000. Ward 4 had the highest. The figures relating to the various Wards for 1933 are as follows :—

		Cases.		1932.
Ward 1	...	30	or 5·4 per 1000.	3·1 per 1000.
Ward 2	...	25	or 3·8 ,,	3·1 ,,
Ward 3	...	17	or 2·7 ,,	1·6 ,,
Ward 4	...	36	or 6·7 ,,	1·8 ,,
Ward 5	...	17	or 2·2 ,,	2·9 ,,
Ward 6	...	9	or 2·4 ,,	3·2 ,,
		134		

Females were more affected than males, the figures, out of a total of 134 cases, being 72 and 62 respectively.

With reference to the age period, 28 cases occurred in children under 5 years of age, representing 20 per cent. of the total cases.

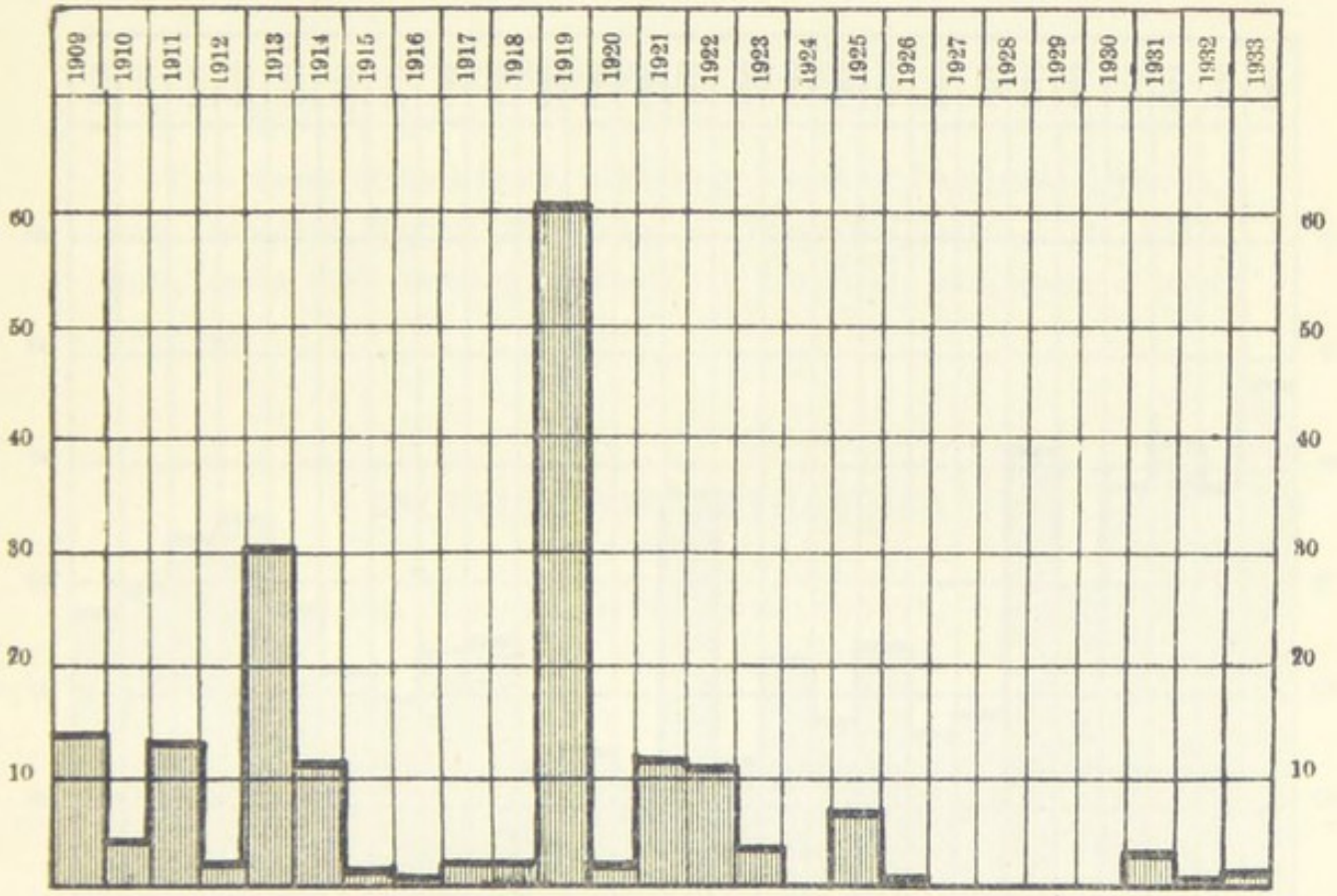
As regards the other age periods, 80 or 59 per cent. occurred between 5 and 15 years, 14 or 10 per cent. between 15 and 25 years, and 12 or 8 per cent. between 25 and 45 years.

Eight deaths occurred from this disease during the year, one taking place between 1 and 5 years, four between 5 and 15 years, two between 15 and 25 years, and one between 45 and 65 years of age. Last year deaths numbered four.

This brings out the percentage of deaths to notifications as 5·9, and shows a somewhat higher mortality, and comparing with 4·3 in 1932 and 3·6 in 1931. The number removed to the Isolation Hospital was 123, or 91 per cent, as compared with 89 in the previous year.

TYPHOID FEVER.

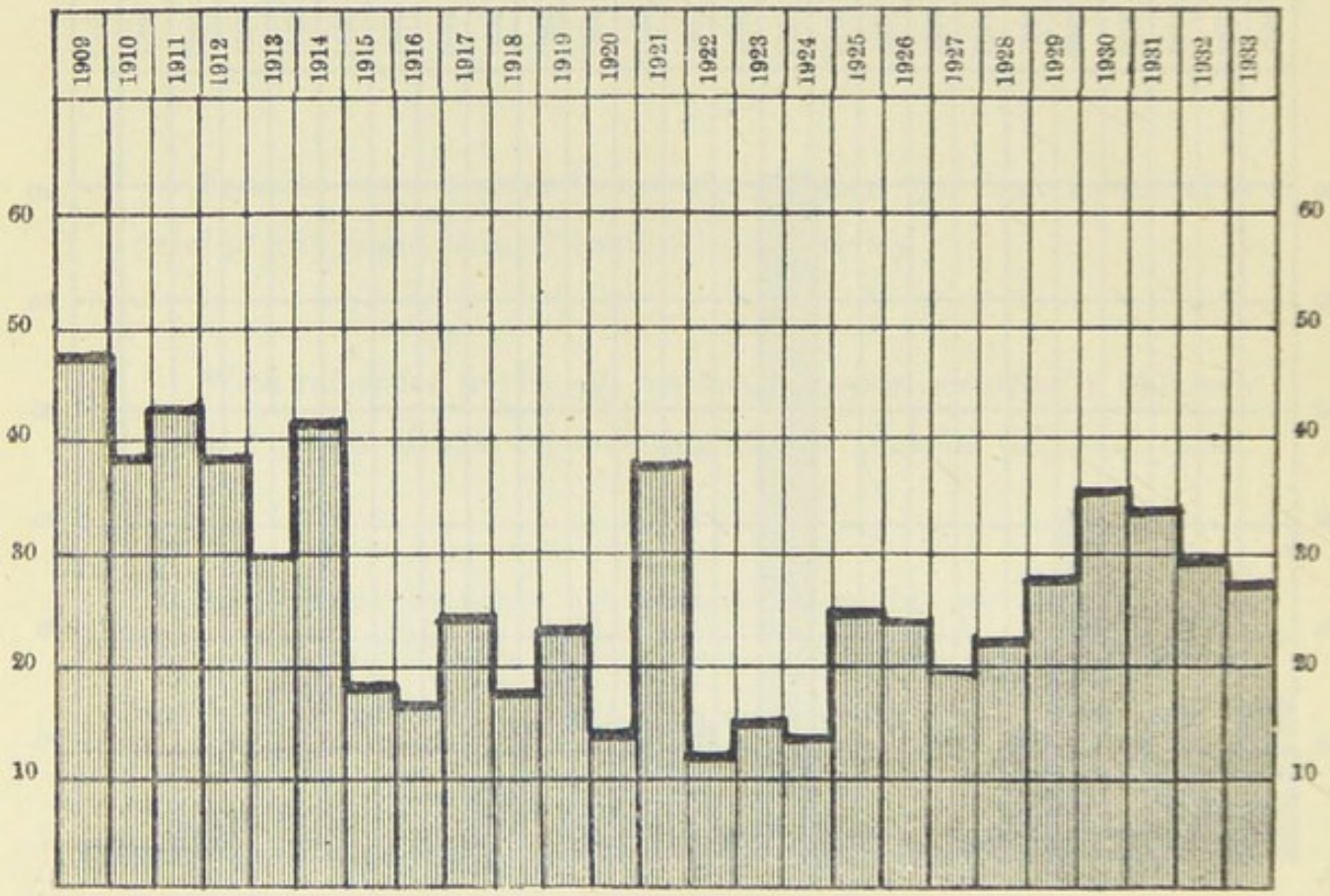
CHART SHOWING THE NUMBER OF CASES OF TYPHOID DURING THE PAST TWENTY-FIVE YEARS.



Two cases of Typhoid Fever occurred during the year, as compared with one in the previous year. In fact during the past eight years there have been only seven cases. It was not possible to trace the source of infection of these cases, which occurred in the months of June and July, and an examination of the City's water supply proved satisfactory.

ERYSIPELAS.

CHART SHOWING THE NUMBER OF CASES OF ERYSIPELAS DURING THE PAST TWENTY-FIVE YEARS.



This disease showed a slight decrease during the year, 27 cases as compared with 30 in 1932, being notified. As is usual with the disease, the great majority of the cases were among people well up in years, 10 occurring in persons from 25 to 45 years of age, 7 from 45 to 65 years, and 4 over 65 years, the oldest age being 78 years. Two cases occurred in infants.

It is only under exceptional circumstances that such cases are removed to Hospital—such, for instance, as residing in a caravan or lodging-house, or where it is impossible for the affected person to get the attention necessary. No case is removed for fear of the disease affecting others—apart from surgical or maternity cases. Six cases were treated in Hospital, representing 22 per cent. of the total cases.

PUERPERAL FEVER.

Two cases of this fever, including 1 case of Puerperal Pyrexia, were reported during the year, as compared with 5 in 1932. Both cases were treated at the City Hospital, and made a good recovery.

ENCEPHALITIS LETHARGICA.

No case of this disease occurred during the year.

CEREBRO-SPINAL FEVER, DYSENTERY, INFECTIVE JAUNDICE and MALARIA.

Of the above diseases, two cases of dysentery were reported.

SMALLPOX.

No case of this disease occurred during the year, and it is now several years since this disease was present in the city. On only two occasions during the past thirty-five years has it occurred in Perth.

CITY HOSPITAL, EDINBURGH ROAD, PERTH.

Return of Patients for the Year 1933.

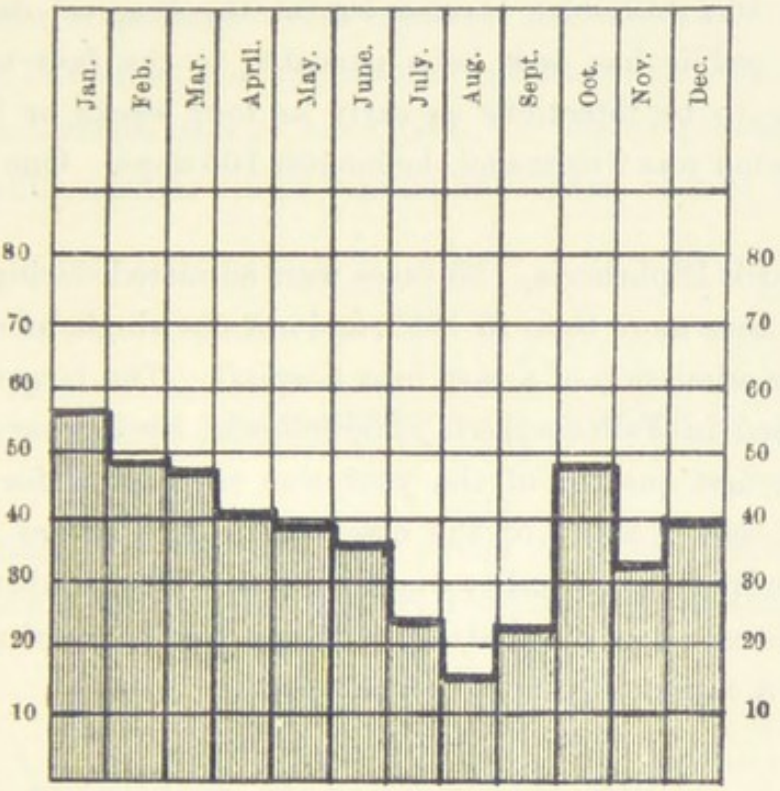
DISEASE.	In Hospital at end of 1932.	Admitted	Discharged.	Died.	Remaining in Hospital.	Age of Patients Admitted.	
						Under 5 years.	Over 5 years.
Scarlet Fever ...	50	300	320	1	29	71	229
Diphtheria ...	12	123	124	7	4	24	99
Typhoid Fever	...	2	2	..	...	...	2
Erysipelas ...	1	7	8	...	...	1	6
Puerperal Fever	...	2	2	...	...	...	2
Whooping Cough	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	..
Ophth. Neon. ...	...	...	...	...	...	...	..
Phthisis ...	...	9	4	3	2	...	9
Tuberculosis ...	...	3	1	1	1	...	3
Mumps ...	...	2	2	...	...	...	2
Venereal ...	...	1	1	...	...	...	1
Dysentery ...	...	1	1	...	...	...	1
Total Zymotic Cases	63	450	465	12	36	96	354

The total number of admissions during the year 1933 was 450, as compared with 393 in the previous year; and the number admitted since the opening of the Hospital on 30th October, 1906, is 6011.

There have thus been 57 more cases admitted than in 1932. The greatest number ever admitted in one year was 488, and this occurred in 1925, closely followed in 1924 with 471.

The average monthly number admitted was 37, but there was considerable variation in the numbers throughout the year. Thus the average monthly number admitted during the first quarter of the year was 50, second quarter 38, third quarter 20, and fourth quarter 40. The greatest number admitted in any one month was 56 in the month of January, and the least number was in August viz., 15.

CHART SHOWING THE MONTHLY ADMISSION OF CASES FOR THE YEAR 1933.



The number of Scarlet Fever cases was 300, and is 37 more than in 1932.

The average stay in Hospital of the Scarlet Fever cases was less than in the previous year, viz., 29 days. The detention in Hospital over four weeks was in nearly all instances the result of ear or nose discharges, of which there were a considerable number.

In 1919 the average stay in Hospital was 35 days, previous to which it was 6 weeks. In 1920 = 32 days, 1921 = 28 days, 1922 = 24 days, 1923 = 23 days, 1924 = 32 days, 1925, 1926, 1927 = 37 days, 1928 = 32 days, 1929 = 31 days, 1930, 1931 and 1932 = 33 days, while this year it is 29 days.

Of the 319 discharged cases—1 was in a period under a week; 2, 1—2 weeks; 3, 2—3 weeks; 22, 3—4 weeks; 213, 4—5 weeks; 39, 5—6 weeks; 16, 6—7 weeks; 11, 7—8 weeks; 6, 8—9 weeks; 3, 9—10 weeks; 1, 10—11 weeks; 1, 11—12 weeks; and three over 13 weeks.

From figures like these, it is evident that the period of stay in hospital is an unfixed quantity, and that the popular view of six weeks detention as both a minimum and maximum period necessary for isolation is an erroneous one. Every case must be judged by itself. By the procedure carried out at the hospital during past years, the public has now been educated to the fact that many cases cease to be infectious as early as four weeks or less. The shortest period was 9 days and the longest 105 days. One case died.

As regards Diphtheria, 123 cases were admitted during the year. This is 35 cases more than in 1932, and not one single month passed without the admission of a case into hospital. The largest number was admitted in February, viz., 25, followed by January with 20. In fact, the first quarter of the year was responsible for 61 cases, or 57 per cent. Many of the cases were of a severe type, yet, notwithstanding, the mortality was fairly low. The number of deaths from this disease was 7, two dying within a few hours of admission, and giving a case mortality of 5·6 per cent.

Erysipelas accounted for 7 cases and Puerperal Fever for 2. These figures are more in the case of the former, but one less in the latter than in 1932. In view of the decision of the Royal Infirmary not to treat these cases in future, it is anticipated that those figures will increase, more particularly as Puerperal Pyrexia is now notifiable.

The number of tubercular cases was nine less than that of the previous year. Nine cases of Phthisis and 3 cases of Tuberculosis were admitted. Most of the former were advanced cases and 3 died, while of the latter 1 died.

The total number of deaths in the Hospital from all diseases during the year was 12, 7 from Diphtheria, 1 from Scarlet Fever, and 4 from tubercular diseases, giving a mortality of 2·6 per cent. In the previous year deaths numbered 13, representing a 3·3 per cent. case mortality.

CITY HOSPITAL.

The exterior surfaces of the Laundry, Administrative Block and Treatment Pavilions, and the interior surfaces of several rooms in the Administrative Blocks have been, or are in process of being painted, while several minor repairs have been carried out during the year.

SMALLPOX HOSPITAL—SHORE.

The drainage system has been partly renewed, and a few small repairs have been executed on this Hospital during the past year.

PUBLIC HEALTH ASSISTANCE.

The work of the Home continues on the same lines as the previous year. In my Report of 1931 I suggested the appointment of a Dental Surgeon whose services could be requisitioned when required. This suggestion has been given effect to, and Mr. Edwards, Dental Surgeon, was appointed—the scale of fees being those applicable to National Health Insurance.

Negotiations are at present in progress for further accommodation for sick poor of Counties of Perth and Kinross.

I would, however, repeat a hope that the time may not be far distant when the Sick Wards will be transferred from Bertha Home and provision made outside its gates.

BERTHA HOME.

The following is the Report of the Visiting Medical Officer:—

A. The sufficiency of the accommodation provided for the various classes of inmates is ample; the inmates are medically inspected as required, and ordinary inmates admitted to sick wards when necessary.

B. Dietary.—The dietary of the inmates both in the house and sick wards is good and ample, quality and cooking good, and due attention is paid to sufficient variation.

C. Nursing.—The nursing staff and their accommodation is quite satisfactory. During the year the services of the night nurse, added during 1930, have been continued.

D. Medicine.—The supply of medicines and Medical Appliances is satisfactory.

E. Equipment.—The equipment of the sick wards with hot and cold water, screens, chairs, bed-rests, etc., is quite good and requires no alteration meantime.

F. Bathing.—The bathing of the sick and infirm cases is carried out under the supervision of the nurses weekly, cases not able to be bathed in the bathrooms are sponge bathed in bed.

G. The heating and ventilation of the sick wards are both satisfactory.

H. The Sanitary arrangements of the Poorhouse are quite good.

I. No suggestions as to any alteration of the sick wards at present.

J. Cases of Itch, and offensive cases are isolated in the small wards at the gate, known as "the Lodge," and treated there. Cases of tuberculosis are dealt with by the Medical Officer of Health, and any cases of infectious disease which may occur are passed on to that department of the Local Authority.

K. Cases of venereal disease are passed on to the local V.D. Department at Perth Royal Infirmary.

L. Cases requiring operation are admitted to the Perth Royal Infirmary.

M. Operable cases of cancer are sent to the Royal Infirmary, advanced cases are treated in the wards, or, if offensive, are isolated in the Lodge.

N. All obstetric cases are carefully examined on admission and are kept under supervision until labour comes on, when the case is transferred to the Maternity Wards of the Perth Royal Infirmary under an arrangement made in 1931, except in the case of precipitate labour.

O. Children and young persons are treated with the same care as older patients, due regard being paid to their helplessness and their dependence for careful supervision of their clothing and feeding, and observation of changes in their physical or mental condition.

P. Types of Cases dealt with.—Senility forms the largest group, various Cardiac conditions rank about second. Bronchitis and Asthma form another group. There are a few cases of Epilepsy, Carcinoma, acute Cerebral Hæmorrhage, and Paralysis following Cerebral Hæmorrhage. Rheumatism *per se* does not bulk largely. Pneumonia and Pleurisy occur.

J. CAIRNS CHRISTIE.

Return of Patients in the Sick Wards.

	In Wards at end of last Year.	Admitted during Year.	Discharged.	Died.	Remaining in Wards at end of Year.
Male, -	25	70	45	33	17
Female,	27	58	39	21	25
Total, -	52	128	84	54	42

Return of Out-Door Medical Assistance.

Remaining on List at end of last Year.	Added during Year.	Recovered	Died.	Remaining on List at end of Year.	Consultations.	Visits.
53	385	368	2	68	733	359

Return by Nurse for the Year 1933.

Initial Visits, ...	766
Revisits	1040
Total, ...	1806

HOSPITAL and AMBULANCE FACILITIES.

Royal Infirmary (Voluntary),
162 beds of which 29 private beds and 34 in Children's Ward.
22 Maternity beds and 20 cots.

184

Hillside Home (60). Sanatorium (24). ... ... 84 beds
St. Johnstone Nursing Home (Private). ... ... 14 beds
Craigie Nursing Home (Private). ... ... 10 beds
Home for Babies, Melville St. (Voluntary). ... ... 8 cots

City Hospital (Infectious Diseases).

	Beds.	Cots.		
Scarlet Fever	34	8	=	42
Diphtheria	10	8	=	18
Typhoid	6	0	=	6
Observation	4	0	=	4
Convalescent	12	0	=	12
	66	16	=	82

Smallpox Hospital (including cots). ... ... 22 beds
Bertha Home (P.H.A.). Sick Wards ... = 50 beds

With reference to the treatment of Tuberculosis, cases requiring active treatment are dealt with at the Royal Infirmary. Other cases are provided for in one or other of the following Institutions. Noranside Sanatorium, Glenlomond Sanatorium, Hillside Home, City Hospital and Bertha Home.

The out-patient departments provided by the Local Authority are in connection with Child Welfare, and Ante-natal, Post-natal and Tuberculosis consultations are held at the Centre every Tuesday and Thursday afternoons.

Ambulance Facilities.

For non-infectious and accident cases the St. Andrew's Ambulance Association provides two Motor Ambulances, while for the conveyance of infectious cases a Motor Ambulance is always in readiness at the Fire Station.

MATERNITY AND CHILD WELFARE CENTRE.

Committee.

President—Mrs. Howman.
Vice-President—Miss Maxtone Graham.
Hon. Secretary—Miss M'Nab.
Hon. Treasurer—Mrs. Vass.

Lady Georgina Home Drummond.
Mrs. Lindsay.
Mrs. J. Ritchie.
Mrs. Thomson.
Mrs. Falconer.
Mrs. M'Innes.
Miss Wilkinson.
Mrs. Scott Pearce.
Mrs. Ross.
Mrs. Dempster.
Mrs. Mowat Wilson.
Mrs. Little.
Mrs. J. Wood.
Mrs. Walmesley.
Mrs. Jamieson.

Voluntary Workers.

Miss Buchan. | Mrs. Cargill. | Misses Brand.

The Centre has now been in working for 16½ years, and it is pleasing to record another year of progress in this branch of Health Work. There can be no doubt that the results of health visiting are splendid; even if they do not bear fruit at the moment they

will certainly do so in the next few years. There is no desire to relieve parents of the responsibility for the care of their children, but as the mothers become better instructed, and as they leave some of their ignorance and antiquated ideas behind, so will there be a reduction in the Infant Mortality.

The most important factor in the health of the infant is, not the surroundings of the infant or the exact character of the milk, as the intelligent care of the mother. This intelligent care includes many things, such for example as cleanliness as regards the feeding bottles, the milk, the quantity of food given, suitable clothing, fresh air, &c.

Ignorance and lack of intelligence, then, are two of the great evils which we have to contend against, and the experience of the Centre is that mothers are gradually becoming more willing to change from their old ways of feeding and managing their infants than they used to be. So far is this the case, that mothers, attending the Centre with their second babies, are much more alive as to how to look after them than they were when they came with their first baby.

Some would have us believe that mothers, like animals, have the instinct of how to bring up their infants, but anyone with experience of the work knows too well—to put it mildly—the want of knowledge, not only of the "new" mother, but often of the mother of many.

That the mothers appreciate the efforts of the Committee of management is fully borne out by the attendance during the past year. Ten years ago these averaged 265 per month, as compared with 633 per month this year and 557 the previous year. This continued success is in great measure due to the Lady Voluntary Workers and the Health Visitors, who continue to be a tower of strength to the Institution. Perth is fortunate in its Ladies' Committee, of which Mrs. Howman, Edendale, is President, and Miss M'Nab, Secretary, and whose members not only take a keen personal interest in the movement, but put that interest to much practical good.

The Sewing Class, which was begun late in 1919, has continued to be one of the most successful branches of the Centre's work. The attendance of mothers on these afternoons has been very gratifying.

They have not only learnt to make cast-off garments into useful baby articles, but to make most serviceable articles out of most unlikely things. The ladies responsible for the conducting of this class were Mrs. Cargill, Westfield, and Misses Gellatly, Rose Crescent, to whom a mead of thanks is due. The garments cut out during the year numbered 150. The class meets on Wednesday, afternoon and evening, from October to March.

Seven years ago a "Baby Basket" scheme was inaugurated by the Ladies' Committee on behalf of necessitous cases. These are given gratis, and means the giving of woollies—two to three garments constituting a basket. During the past year 234 garments were given.

Another important feature which has continued to meet with success is the Savings Bank. This branch is under the able superintendence of Mrs. Vass, Benview, Mrs. Ritchie and Miss Smart, Rockbank, and Miss McNab, Fitzroy Terrace. Anything from a penny upwards is received, and the mother is free to take any or all whenever she desires. The number of depositors during the year was 205, being an increase of 35 over the previous year, and the sum deposited £29 11s. 10d. Money was withdrawn to the extent of £13 19s. 6d. In all instances the money was withdrawn, especially in May and November, for payment towards rent and taxes or to meet doctors' expenses, or to make purchases of clothing, boots, etc.

A Needlework Guild in connection with the Centre, of which Mrs. Thomson, Magdalene Bank, is Convener, has rendered most valuable work, and a work highly appreciated by the mothers. Thanks are also due to many of the Church Work Parties and friends who contributed many serviceable articles of clothing.

The number of depositors in the first year was 66, and the number on the roll at the end of 1933 was 205. The following is a record of the year's work :—

Balance at 31st December, 1932, ...	£18	19	3
804 Deposits lodged during 1933, ...	29	11	10
	£48	11	1
33 Withdrawals during 1933, ...	13	19	6
Balance at 31st December, 1933, ...	£34	11	7

Of this balance, there had been placed to the Savings Bank Central Fund (baby bank) the sum of £31 6s. 3d. to which has to be added interest of £6 0s. 2d. When baby's bank account reaches £1, this is placed into a personal Savings Bank Book. This book is kept at the Centre until the child reaches school age. During the year, for the third time since the Centre opened, no personal Savings Bank Book was opened. This was entirely to be attributed to unemployment, which hit the bank very badly, but to the mother's credit, unless circumstances made it absolutely essential, baby's bank book remained untouched, and even then a shilling was left in order to keep the bank account open.

The average attendance of mothers and babies at the Centre was 633 per month, as compared with 557 in 1932, and an average of 425 in the previous five years, while the attendances at the Sewing Class held from October to March numbered 125. The attendance was less this year by 108 owing to circumstances rendering it impossible to hold the classes during the last three months of the year.

The number of medical consultations at the Centre during 1933 was 377, as compared with 439 in 1932. The variety of illnesses can best be gathered from an examination of the statistics given later in the report. The number of vaccinations done was 50, as compared with 59 in the previous year.

On February 15th, a most successful tea party to the mothers, toddlers and babies attending the Centre was arranged by the Ladies' Committee. The attendance exceeded 400, and the function was much enjoyed. Several members of the Ladies' Committee, along with friends, contributed in a large measure towards the success of the function, while special mention must be made of Miss Smith and her juvenile girl dancers, and Miss Stirling, Miss Hogarth, Mrs. Scott-Pearce, Mrs. Innes, Mrs. Bruce, H.M. Prison, and Mrs. Bruce, Murthly, who were responsible for the decoration of the platform and the Christmas tree.

On 26th July, Lady Georgina Drummond once more showed her kindness by inviting the mothers and babies to the grounds at Hamilton House, and mothers, toddlers and babies to the number of 400 were present. Fortunately nature was in its kindest mood, and all spent a happy afternoon.

The last day of October was a memorable one in the annals of Child Welfare in the City. It marked the opening by Lord Provost Hunter of the new Child Welfare Centre gifted by Mr. William Watson, La Quinta, Scone. The inadequacy of the existing premises in Princes Street to cope with the ever extending work had long been apparent, and Mr. Watson's generous action in providing a sum of £2,500 for the construction of a new Centre came as a boon to the mothers and children of the city.

One cannot but feel a pang of regret at leaving the old Centre, where Child Welfare was started and where much valuable work was accomplished, but there were many occasions when its capacity was overtaxed, as can be realized when it is stated that one afternoon the attendance of mothers was over 90.

The premises, which are fully equipped on a modern basis, have been attractively designed and, in addition to facilitating the work, greatly improve the amenity of the district.

The new Centre provides a large waiting hall with lavatory accommodation, nurses' room, committee room, doctor's room, kitchen and heating chamber. The front of the building faces south with an open verandah extending along that side as well as at the entrance. The sizes of the rooms are as follows:—Waiting Hall, 28′ 0″ × 20′ 0″; Nurses' Room, 14′ 0″ × 12′ 0″; Doctor's Room and Committee Room, both 14′ 0″ × 10′ 0″; Kitchen, 10′ 0″ × 9′ 0″.

A plaque bearing the following inscription has been placed on the wall in the waiting room:—"William Watson Maternity and Child Welfare Centre, presented to the city of Perth by William Watson, Esq., La Quinta, Scone, in memory of his mother, Jean Watson. Opened by Lord Provost Thomas Hunter, J.P., 31st October, 1933."

The work, which had been executed under the supervision of Mr. Thomas M'Laren, the burgh surveyor, who also prepared the plans, was carried out by the following contractors:—Mason and brick work, Messrs M. Kerrigan & Son, Atholl Street; joiner work, Messrs D. S. & J. Anderson, Victoria Street; plumber work and heating, Messrs. A. M'Leish & Sons, Mill Street; electric lighting, Messrs. M'Cowan & Guild, High Street; glazier work, Messrs. P. & T. M'Leod, St. John's Place; slater work, Mr. James Menzies, High

Street; and painter work, Messrs. Bruce & King, Gowrie Street. Mr. J. Nairne Campbell was quantity measurer, and Mr. J. M'Gregor was master of works.

The work of Child Welfare has now got so firmly established in Perth that though, in view of the possible extension of the Burgh Boundaries, the suggestion may be somewhat premature, I would make a recommendation for the opening of a Branch in Bridgend District, and the appointment of another Health Visitor. Apart from another Branch, the services of another nurse would be welcome.

MIDWIVES (SCOTLAND) ACT, 1915.

(1) *List of the Midwives* (with their Names in alphabetical order, Enrolment Numbers and Addresses) who have up to 31st January, 1934, given notice under Section 18 of their intention to practice in the District.

Reg. No.	Name.	Address.
5455	Christina Cameron,	Station Hotel Garage.
804	Hannah B. Clarke,	33 Scott Street.
5182	Margaret Dickson,	2 Robertson's Buildings
4323	Margaret M'Gregor Doig,	2 Florence Place.
1898	Elizabeth Laing,	20 Market Street.
578	Isabella H. Mackay,	Braehead, Jeanfield.
2479	Annie Robertson,	18 Watergate.
3175	Margaret Williamson,	30 South Street.
6148	Catherine Whytock,	58 Scott Street.

(2) Births in Area or District.

Total Number of Births during 1933.	Total Number of Deaths of new-born children (within ten days) during 1933.	Actual Number of Births attended by Midwives during 1933.	Actual Number of Deaths of new-born children (within ten days) occurring in the practice of Midwives during 1933.	Actual Number of Cases not attended by a Doctor or Midwife during 1933.	
				Births.	Deaths.
512.	15.	51.	—	—	—

(3) Cases of Ophthalmia Neonatorum.

Total Number of Cases during 1933.	Actual Number of Cases occurring in the practice of Midwives during 1933.	Actual Number of Cases occurring where confinement not attended by a Doctor or Midwife during 1933.
1.	—	—

(4) Cases of Puerperal Sepsis.

Total Number of Cases during 1933.	Total Number of Deaths during 1933.	Actual Number of Cases occurring in the practice of Midwives during 1933.	Actual Number of Deaths occurring in the practice of Midwives during 1933.	Actual Number of Cases occurring where confinement not attended by a Doctor or Midwife during 1933.	
				Cases.	Deaths.
2.	1.	1.	—	—	—

(5) Cases of Still-birth (Dead Born).

Total Number of Cases during 1933.	Actual Number of Cases occurring in the practice of Midwives during 1933.
33.	1.

(6) **Cases of Emergency.**—The number of Cases of Emergency to which medical practitioners have been called in under Section 22 of the Act during 1933 was 5. In two cases it was owing to hæmorrhage, in two to uterine inertia and in one to prematurity of infant.

(7) **General Remarks.**—There is nothing special to record other than that the facilities now afforded at the Royal Infirmary to maternity cases has led to a decreased employment of Midwives the number of Midwives on the roll being only 9. During the year it was not necessary to take any action in connection with any breach of the Regulations. Emergency cases numbered 5 as compared with 2 in 1932.

STATISTICS RELATING TO MATERNITY SERVICE AND CHILD WELFARE.

Infant Mortality.

(*a*) No. of deaths ... 46 (*b*) Rate per 1000 births = 89

(*c*) Age Groups—

Under 1 week	12
1 week and under 4 weeks, ...	9
4 weeks and under 3 months	9
3 months and under 6 months	6
6 months and under 12 months	10

(*d*) Causes of Death—

Congenital Malformations	5	Enteritis	3
Whooping Cough ...	—	Premature Birth ...	12
Measles	—	Atrophy, Debility ...	9
Convulsions	2	Overlain	—
Bronchial Pneumonia	5	Erysipelas	2
Pneumonia	—	Other Causes	4
Bronchitis	4		

Infantile Mortality is referred to in greater detail on page 13 of the Report.

Births.

(*a*) No. registered—Legitimate, 458 ; Illegitimate, 54.

(*b*) No. notified, 687.

(1) Doctor, 636 ; (2) Midwife, 51 ; (3) No Attendant, —

(*c*) No. of Still Births, 33.

Maternal Mortality.

(*a*) No. of deaths from Miscarriage or Child Birth ... ... —

(*b*) No. of deaths from Puerperal Sepsis 1

Home Visitation.

	Number visited.	Total Visits
(*a*) Infants	573	3927
(*b*) Children (1-5 years) ...	736	1265
(*c*) Expectant Mothers	156	304
Total ...	1465	5496

Ante-Natal Consultations.

Clinics held twice weekly on Tuesday and Thursday, 3 to 4·30 p.m

(*a*) No. of attendances	19
(*b*) No. of first attendances	16
(*c*) Conditions found—	
Bad Teeth, Anæmia, Cellulitis, Neuralgia ...	1
Varicose Veins, Enlarged Glands, Dyspepsia	2
Pregnancy	4

Post-Natal Consultations.

No. of attendances	10

Child Welfare Consultations.

(*a*) No. of attendances under 1 year	3972
,, ,, over 1 year	1456
(*b*) No. of first attendances under 1 year ...	268
,, ,, over 1 year ...	21
(*c*) Illnesses recorded—	
Bronchitis	13
Injuries	12
Hernia	14
Tongue-tied	7
Skin Diseases	31
Diarrhœa, Enteritis	18
Phymosis	9
Eye Diseases	10
Debility	9
Worms	10
Ear Diseases	8
Enlarged Glands	11

Suppurating Navel	3
Boils	13
Urticaria, ...	7
Rickets, ...	6
Constipation, Tinea, Syphilis, of each ...	4
Chickenpox, Whooping Cough, Scabies, Nævus, Tuberculosis, Adenoids, of each	3
Hydrocephalus, Heart Disease, Convulsions, of each	2
Foreign body, Oph. Neonatorum, Flat Feet, Rhinitis, of each	1

Ultra Violet Light Clinic.

(Royal Infirmary).

No. of attendances	3693
No. of new cases	171

Note of Conditions—Rickets, Tuberculosis, Marasmus, Skin Diseases, Pulmonary Diseases, Alopecia.

Day Nursery.

No. of attendances	2325

Charges—6d. per day; if two, 5d. each; if three 4d.

Income	£226 18 0
Expenditure	£302 15 1
Payments made by parents ...	£43 4 3

Food and Milk.

Gross cost £32 14 10 Sums recovered £6 19 0

No milk substitutes given.

Measles.

No. of deaths	—
No. treated in Hospital	—

Whooping Cough.

No. of deaths	—
No. treated in Hospital	—

Ophthalmia Neonatorum.

No. of cases notified by Doctor	1
No. of cases notified by Midwife	—
No. treated in Hospital	—
Appreciable loss of vision	—

Maternity Hospital.

(Royal Infirmary).

(1) Ante-Natal cases—

No of cases at Clinic	226
No. of cases treated	29

Statement of conditions found—

Conditions found	Cases	Result
Albuminuria of Pregnancy ..	15	successful
Accidental Hæmorrhage ...	2	,,
Hyperemesis Gravidarum ...	9	8 1 died
Placenta Prævia	2	,,
Pyelitis	1	,,

(2) Abortions and Miscarriages—

No. of cases—Abortion ...	1	
Miscarriages ...	1	
Results		successful

(3) Normal confinements—

(*a*) Total No. (1) With Medical assistance ...	—
(2) Without ,, ,, ...	350
(*b*) No. of deaths	—

(4) Abnormal or complicated confinements—

No. of cases	72

Conditions found	Cases	Result
Inertia and Prolonged Labour	55	successful
Placenta Prævia ...	4	,,
Trans. Presentation ...	1	,,
Breech ,, ...	9	,,
Contracted Pelvis ...	2	,,
Accid. Hæm. ..	1	,,
No. of Deaths	—	

(5) Receipts from Patients £1087 15 3

(6)	No. of infants born—	
	Alive	394
	Still	29
	No. of twins born—	
	Alive	3
	Still	1
(7)	No. of deaths of infants within a week ...	14
(8)	No. of cases of puerperal fever	—
	Removed from Institution	—

Educational.

Sewing meetings held weekly from October to March. The number of attendances was 125.

V.D. CENTRE.

The Centre was opened in May, 1923. It is a one storey brick building, and has been erected adjacent to the Out-Patient Department of the Infirmary. Its accommodation consists of (1) Office, (2) Waiting Room, (3) Treatment Room, (4) Rest Room, and (5) Irrigation Room.

It acts as an Out-Patient Clinic, no provision being made for resident cases, and is for the use of both City and County, and the times for consultation are :—

COUNTY PATIENTS :—Women—Monday, 3 to 4 p.m.
Men—Thursday, 3 to 4 p.m.

CITY PATIENTS :—Women—Monday, 6 to 7 p.m.
Men—Thursday, 6 to 7 p.m.

The following is a record of the work done :—

VENEREAL DISEASES REPORT.

THE FOLLOWING IS A RECORD OF THE WORK BY DR. TROTTER FOR THE YEAR 1933, AT THE PERTH ROYAL INFIRMARY.

	SYPHILIS.		GONORRHŒA.		SOFT CHANCRE		MIXED INFECTIONS.		CONDITIONS OTHER THAN VENEREAL.		TOTAL.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F
Number of New Cases, ...	29	18	61	12	—	—	—	—	8	2	30	17
Number of persons who ceased to attend the Centre—												
(*a*) before completing the course,	2	2	1	—	—	—	—	—	—	—	3	2
(*b*) after completing, but before final tests	2	5	5	1	—	—	—	—	—	—	7	6
Number of persons transferred to other Treatment Centres after treatment, ...	4	2	5	1	—	—	—	—	—	—	9	3
Number of persons discharged from the Centre, ...	26	13	46	9	—	—	—	—	8	2	80	24
Number of persons who, at the end of the year, were under treatment or observation, ...	16	10	13	4	—	—	—	—	—	—	29	14
Number of attendances—												
(*a*) Individual attention of Med. Off.	724	320	420	92	—	—	—	—	16	4	1160	416
(*b*) Intermediate attention *e.g.* Irrigation	—	—	936	194	—	—	—	—	—	—	936	194
Total attendances	724	320	1356	286	—	—	—	—	16	4	2096	610

Area in which patient resided :—	City Area.	County Area.	Other Scottish Areas.	TOTAL.
Number of persons from each area dealt with during the year for the first time :—				
(*a*) Syphilis, ...	33	14	—	47
(*b*) Gonorrhœa, ...	60	13	—	73
(*c*) Soft Chancre, ...	—	—	—	—
(*d*) Mixed Infections, ...	—	—	—	—
(*e*) Conditions other than Venereal, ...	8	2	—	10
Total, ...	101	29	—	130
Total number of attendances at Out-patient Department, ...	2318	388	—	2706
Number of doses of Salvarsan substitutes,	600	120	—	720

Age of persons treated.	Syphilis.		Gonorrhœa.		Mixed Infections.		TOTAL.		Cases of Congenital Syphilis.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
(*a*) Under 1 year,	1	—	—	—	—	—	1	—	1	—
(*b*) 1 and under 5 years,	1	—	—	—	—	—	1	—	1	—
(*c*) 5 ,, ,, 15 ,,	—	3	—	—	—	—	—	3	—	3
(*d*) 15 ,, ,, 25 ,,	5	5	16	9	—	—	21	14	3	2
(*e*) 25 years and upwards,	22	10	45	3	—	—	67	13	—	—
Totals,	29	18	61	12	—	—	90	30	5	5
In 1932,	23	11	57	15	—	—	80	26	—	—

FACTORIES AND WORKSHOPS.

Many inspections were made during the year of the Factories and Workshops, including the Bakehouses, and some improvements effected. In 11 cases attention was directed to want of cleanliness, and to inefficient or defective sanitary accommodation or other nuisances, and these were remedied.

Speaking generally, it must be said that the management of the Factories and Workshops is conducted in a manner whereby the interests of the workers in matters relating to their general health are well looked after, and I feel sure that Perth will compare favourably with any city in the kingdom.

There are three underground bakehouses in the Burgh; and in accordance with the Factory and Workshops Act of 1901 these were granted Certificates by the Local Authority, the requirements of the Act being fulfilled in all respects.

As certifying Factory Surgeon, I examined for fitness for employment in factory or workshop, a total of 114 young persons, or 41 less than the previous year. Of these 17 were males, and 107 were females. This shows as compared with the previous year a decrease of males employed of 17, and a decrease of females of 14. The figures for 1932 were 34 males and 121 females. All must have attained the age of 14 before being allowed to work.

During the year three were rejected as unfit for work, all being due to uncleanliness in connection with the hair, and all occurring in females.

When I took over the inspection of new factory hands the number whom I used to reject annually was in the neighbourhood of 20, and in looking over past records I find that during the past 5 years the average number rejected on account of a verminous condition has been 3, as compared with an average of 15 in the previous 5 years. It will be granted that this is a marked improvement, and, as the previous year showed only two cases, I was hopeful that 1933 would record no case of rejection because of uncleanliness. And there is no reason why this should not be so.

The condition is one confined to girls and while one must attribute the improved condition of recent years, in large part, to the cropping of the hair, it is also to be recognised that parents are more fully alive to the welfare of their children. When it does occur it shows want of care and disregard for the most elementary laws of health. While the parent must accept the responsibility, one cannot overlook the fact that these girls have reached an age, and received an education as should make them take an interest in their own welfare, and view with horror any evidence of uncleanliness in the shape of vermin.

Poverty, bad housing, bad sanitation, it can be safely said render cleanliness a condition more difficult to obtain, but they certainly are not a bar. On the other hand one occasionally comes across a case of vermin infection where insanitary conditions do not exist.

All such cases are subject to re-examination before being allowed to work. Some parents think the penalty of their children not being allowed to work too severe for the crime, but a little reflection will show how unfair it would be to the other employees. And when all is said and done the cure is easy.

1. Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspector.

Premises. (1)	Number of	
	Inspections. (2)	Written Notices. (3)
Factories (including Factory Laundries) -	12	—
Workshops (including Workshop Laundries)	110	11
Workplaces (other than Outworkers' premises)	2	—
Total - -	124	11

2. Defects found in Factories, Workshops and Workplaces.

Particulars (1)	Number of Defects. Found. (2)	Remedied. (3)	Referred to H.M Insp.
Nuisances under the Public Health Acts—			
Want of Cleanliness - -	2	2	—
Want of Drainage of Floors -	1	1	—
Other Nuisances - - -	6	6	—
Sanitary Accommodation—			
Insufficient - - - -	1	1	—
Unsuitable or Defective -	1	1	—
Not separate for sexes -	—	—	—
Total - -	11	11	—

HOUSING.

The following statement has been kindly furnished by the Sanitary Inspector.

There are three problems in connection with Housing which have to be considered, and in their order of importance I think they should be placed as follows :—(*a*) The Re-housing of tenants in unfit property, (*b*) The Abatement of Overcrowding, and (*c*) The Provision of Houses to meet the needs of a growing population.

(*a*) In my last report I mentioned that there were about 200 houses unfit for human habitation. These houses exist in all parts of the Burgh, and the Town Council has agreed to proceed at once with a scheme of 214 houses to deal with the problem. A commencement should be made to these during the spring, and apart from houses, which are allowed through lack of attention to get into a state of disrepair, this should meet the demands under this heading for some time.

(*b*) I mentioned in my last report that overcrowding had been relieved to certain extent, by the allocation of 62 houses in the Edinburgh Road Scheme for this purpose. These houses were let at £21 and £25 respectively for three and four roomed houses, and the difficulty was, that many of those who most needed the extra accommodation, were the least able to pay for it. By declaring improvement areas a subsidy of £2 10/- per unit of overcrowding, can be obtained, but if a serious effort is to be made to deal with overcrowding, it would seem to be advisable to give a unit grant for rehousing persons in overcrowded houses, irrespective of whether the houses were in an improvement area or not. This would certainly permit the local authority to provide accommodation at a rent which in most cases would be within the capacity of the tenant to pay, and would relieve houses otherwise quite suitable for the general requirements of the City. If such a scheme were possible, I believe the local authority would provide another 150 houses for this purpose, and this would to a very great extent solve the difficulty.

(*c*) It does not appear to be at all likely that houses for letting to the working classes will be provided by private enterprise, and I cannot see how a local authority can do it without increasing to an alarming extent their commitments for housing. If it is possible to provide 150 houses for overcrowding, this will set free a corresponding number of houses for the ordinary demands of the city. One must also bear in mind the state of industry, and in the meantime it is doubtful what our ultimate needs may be, but if we can be assured of 364 houses within the next two years, this will go a long way to meet the immediate demands.

Thirty-five houses have been built privately :—

7	-	3	apartment houses.
14	-	4	,, ,,
14	-	5	or over ,,

WATER SUPPLY.

Perth, in addition to supplying water to its own inhabitants, also provides water for the district of Scone.

The number of reservoirs in service is five, Viewlands No. 1 (830,000 gallons), Viewlands No. 2 (12,500,000), Muirhall (1,800,000), and two at Burghmuir (each 2,000,000). The total

capacity of these reservoirs is 19,000,000 gallons, and this, with a daily supply (for trade and domestic purposes) of about 2,500,000 gallons, indicates a storage of seven and a half days' supply.

The following statement is taken from the Annual Report of the Water Manager, for 1933 :—

The total quantity of water pumped in 1933 was 944,840,000 gallons, being an increase of 29,955,000 gallons, as compared with the previous year.

The water supply by meter was 221,658,000 gallons, as compared with 204,186,000 in 1932. This shows an increase of 17,472,000 gallons. In addition, 36,000,000 gallons for trade and other domestic purposes are supplied by agreement.

The quantity of water used at the Swimming Baths was 3,531,000 gallons, an increase of 459,000 gallons as compared with 1932.

In other words a total of over 683,182,000 gallons of water have been used for domestic purposes, public services, flushing mains and losses by bursts and leakages. This implies a daily supply of 1,871,726 gallons, and, based on a population of 37,000, gives a daily supply per head of 50·58 gallons. This is nearly one gallon per head per day more than in 1932. Last year was 49·6 gallons.

During the year 44 routine samples of water were submitted to Professor Tulloch for bacteriological examination. As the individual reports on these samples do not lend themselves to a short and non-technical summary, Dr. Tulloch has again kindly furnished me with a general report on the year's results.

As will be seen from this report, the result of these examinations has been extremely satisfactory.

The extraordinary efficiency of the Woody Island Filters during 1933 is to be attributed to the low level of the river, since, as I have shown elsewhere, when the river is at normal level the quality of the water yielded by the filters leaves little to be desired, and it is only during flood conditions that the additional safeguards of chlorination and storage are required to ensure absolute safety.

The control of the sterilization has been further increased by the

installation in May 1933, of additional equipment for the Chloramine Process.

Owing again to the low level of the river, the colour of the water supplied to the town has been exceptionally good. The average of daily measurements made throughout the year was 16 m.m. on Burgess' Scale, as compared with 27 m.m. in 1932. This is about one-half that of Loch Katrine or London water. The month showing the highest average was January, with 29 m.m. or little more than the average for the whole of 1932, while August had an average of only 8 m.m., a colour which could hardly be distinguished in a tumbler from that of distilled water.

The average level of the river at the Water House during 1933 was 3′ 9″, being 6″ less than in 1932.

The minimum level was 2′ 6″ on August 26th, a level which was also very closely approached during the first week of July. The maximum level was 12′ 6″ on January 3rd.

The temperature of the river water reached 70°F in the first week in July, and touched freezing point on three days at the end of January.

During the first week of July the temperature of the water in the reservoirs ranged from 70° to 75°F.

We have again had the pleasure of welcoming a number of doctors who were taking the Public Health Course at Glasgow University, and who come, under the leadership of Dr. Alex. G. Mearns, to see how the process of chlorination is applied to the purification of water.

REPORT OF WATER SUPPLY AT WOODY ISLAND.

by Prof. Tulloch.

During the year 1933 I have made regular bacteriological examinations of the Water Supply of the City of Perth, at intervals of approximately one month.

Three samples were investigated on each occasion, namely,

(1) A sample taken after Filtration but before Chlorination.
(2) The same, but immediately after Chlorination.
(3) A sample taken from the Distribution System.

From observations made previously of the raw river water, the first would give a general indication of the efficiency of the filters. The second would control the chlorination, ensuring that this was adequate without being excessive, while the third would show the state of the water as distributed.

1. Filtered Water before Chlorination.

The examination of the samples of this kind showed that throughout 1933 the filters were functioning well, and indeed were very efficient.

Of the twelve samples scrutinized for the presence of colon bacilli,

(1) Six samples failed to show its presence, even in 100 c.cs.
(2) Two showed its presence in 100 c.cs., but not in 10 c.cs.
(3) Three showed its presence in 10 c.cs., but not in 1 c.c.
(4) Only on one occasion was it detected in less than 10 c.cs.

This single occasion, when the colon bacillary content was high—April 4th, 1933—appears to have been due to a mere accident of distribution of colon bacilli in the sample, as the total count of bacteria on that occasion was low and the state of the river was normal.

That the filters were, if anything, more efficient than during the previous year is shown by the following.

Number of Samples showing B. Coli in Different Quantities of Filtered Water before Chlorination.

	Not present in 100 c.c.	Present in 100 c.c. but not in 10 c.c.	Present in 10 c.c. but not in 1 c.c.	Present in 1 c.c.	Present ·1 c.c.
1932	4	4	2	1	1
1933	6	2	3	1	—

On determining the ratio of numbers of bacteria developing at 22°C to those developing at 37°C, a satisfactory state of affairs is

seen to exist except on one occasion—16th September, 1933. On this occasion the number developing at 37°C was higher than at 22°C, but on no occasion was the total count at either temperature excessive. The average count at 22°C was 18·1, and at 37°C 6·25 per c.c., as compared with 68 and 15 for 1932.

A point of some interest is that in May the filter in Moncreiffe Island was in use during two days to allow of pipe scraping operations being carried out in connection with Woody Island supply.

Opportunity was taken to determine how this filter was acting and the following is a summary of the finding.

	Colon Bacilli in			Total Count 22°C.	Total Count 37°C.
	100 c.c.	10 c.c.	1 c.c.		
Raw River Water.	Present	Present	Absent	600	100
Filtered	Absent	Absent	Absent	10	50

This filter, which has been in use for approximately a century, is remarkably efficient.

2. Chlorinated Filtered Water.

That the degree of chlorination was adequate is shown very definitely by the fact that in no sample of chlorinated water investigated during 1933 was bacillus coli demonstrated even in 100 c.c.

It must be emphasised, however, that although adequate chlorination is essential, it is equally important that it be not excessive.

During the year under consideration on no occasion was the degree of chlorination excessive, as is shown by the fact that a few bacteria—for the most part spore bearing baccilli associated with vegetable matter—survived the treatment on all occasions, the average count being 1·5 colonies per c.c. at 22°C, and 7·2 colonies at 37°C.

This indicates that the degree of chlorination has been accurately adjusted to the requirements.

3. Distribution Area.

In 1933 as in 1932 the examination of the water as distributed corroborates the opinion expressed in the previous section, which dealt with the filtered water immediately after chlorination.

The number of samples examined were sixteen, there being a duplicate sample on 6th June, and three additional samples on 16th September.

The water, as distributed, is of a high standard of purity, as is shown by the fact that in fourteen instances bacillus coli was not present even in 100 c.c., and on the other two occasions, although found in 100 c.c., is absent from 10 c.c.

With regard to the total counts of micro-organisms in the water as distributed, there was one occasion—February 11th—on which a high count was obtained, but in all the other samples the counts were consistently low.

These findings indicate that the filtration, to which the water is subjected, assists greatly in its purification, while the degree of chlorination, while sufficient to render the supply safe, is not excessive.

Every care is apparently taken to ensure a margin of safety without undue addition of chlorine.

(Signed) WILLIAM J. TULLOCH.

VACCINATION (SCOTLAND) ACT, 1907.

Return of Statutory Declarations of Conscientious Objection delivered to the Registrar.

It will be noted from the table given below how, for a period of years, advantage was taken of the Conscientious Objection to vaccination, reaching a maximum in 1917 with a percentage of 34·8 unvaccinated. From that date the percentage gradually declined until 1920 to 21·2, but from that time to 1925 steadily

increased. A decline set in for the next few years, but since 1931 the percentage has gradually risen to reach near to the record of 1917. I would like to see this percentage reduced to the figure of 1907, as I fear the greater the accumulation of unvaccinated children, the greater will be the epidemic should Smallpox get a foothold in the city. Notwithstanding, so far as I can gather, Perth compares most favourably with other Towns.

Year.	No. of Births Registered.	No. of Unvaccinated.	Percentage of Unvaccinated.
1907	802	3	·3
1908	794	57	7·1
1909	805	92	11·4
1910	786	148	18·8
1911	760	163	21·4
1912	791	184	23·2
1913	711	209	29·3
1914	727	194	26·6
1915	644	213	33·0
1916	685	229	33·4
1917	516	180	34·8
1918	477	119	25·0
1919	614	144	23·4
1920	844	180	21·2
1921	646	145	22·4
1922	691	164	23·7
1923	704	174	24·7
1924	632	155	24·5
1925	597	124	20·7
1926	695	153	22·0
1927	638	123	19·2
1928	731	123	16·8
1929	665	121	18·1
1930	698	134	19·1
1931	760	180	23·6
1932	691	182	26·3
1933	696	194	27·9
Total	18,800	4087	21·7

SLAUGHTER-HOUSE.

The Slaughter House was visited by me on one or two occasions during the year in order to ascertain the general sanitary conditions, and it can be reported that the premises were kept in satisfactory order.

The number of animals slaughtered in 1933 was—

Cattle,	4327,	of which	32	were wholly unfit and		30	partially.
Sheep,	21,377,	,,	53	,,	,,	9	,,
Pigs,	2447,	,,	3	,,	,,	3	,,
Calves,	115,	,,	2	,,	,,	—	,,

The weight of the condemned material was—Beef, 22,162 lbs.; Mutton, 2,137 lbs.; Pork, 678 lbs.; Veal, 469 lbs.

During the year Mr. Brown, V.S., who was appointed for the purposes of Section 43 of the Public Health (Scotland) Act, 1897, was called by the Superintendent on several occasions. The following table gives a summary of the diseases and number of animals, either partially or wholly unfit for food.

	Cattle	Sheep.	Pig.	Calf.
Tuberculosis	39	—	3	2
Septic Conditions	—	3	1	—
Decomposition	1	20	—	—
Emaciation	—	—	—	—
Bruising	16	6	2	—
Pleurisy	—	4	—	—
Pneumonia	—	3	—	—
Dropsy	4	23	—	—
Other Conditions	2	3	—	—
Total	62	62	6	2