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## REPORT

RELATING TO THE REGISTRATION OF

# BIRTHS, MARRIAGES AND DEATHS

IN THE

## PROVINCE OF ONTARIO

FOR THE

YEAR ENDING 31st DECEMBER,

1898.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY OF ONTARIO.





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THE LEGISLATIVE ASSEMBLY OF ONTARIO.



SOOS I I SAM

OFFICE OF THE REGISTRAR-GENERAL FOR ONTABIO,

TORONTO, January 2nd, 1900.

To Sir OLIVER MOWAT, K.O.M.G.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

In compliance with the Statute in that behalf, the undersigned respectfully presents to Your Honour the Annual Report of Births, Marriages and Deaths for the year ending 31st December, 1898.

Respectfully submitted,

J. R. STRATTON,
Registrar General.



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To the Hon. J. R. STRATTON,

Registrar-General of the Province of Ontario.

SIR,—I have the honor herewith to lay before you for your consideration, the twenty-ninth Annual Report regarding Births, Marriages and Deaths in the Province of Ontario, it being for the year 1898.

#### Population.

The population adopted as the basis of calculation for the tables of this report, is that based upon the Canada census of 1891. It is based upon the arbitrary assumption that there has been an average increase per annum of one per cent. during each year since this period, the increase being dependent upon the difference between the births and deaths recorded during any year. The population adopted for the report of 1897, obtained by the addition of one per cent. to the population as given for each of the counties and territorial districts, was 2,257,378; hence the estimated population for 1898 is 2,279,929.

That there may be actually a smaller population in the Province than is obtained by this arbitrary method of calculation, is gathered from the fact that the total recorded increase of births over deaths is 20,229, or 0.89 of one per cent. On the other hand there is good ground for the belief that the number of recorded births does not represent the total births which have actually occurred. Apart from imperfect registration, careful examination of the records reveals the fact that a notable number of still-births are recorded only amongst the deaths. Thus as will be seen from the following table, which shows the total still births in the 13 cities of the Province, recorded as deaths, of the total 433 still-births, only 201 were recorded as births by the Division-Registrars in their returns to the Registrar General, or 232 still-births were unrecorded as births.

Still-Births in Cities in 1898, showing the number recorded in Death Schedules as compared with Birth Schedules ·

Cities.	Death Schedules.	Birth Schedules.	Per Cent.
Guelph St. Thomas Stratford . St. Catharines	8	10 5 0 5	100 83°
Windsor	20 4	18 4	90 100
Chatham &	25	$egin{array}{c} 10 \ 25 \ 3 \end{array}$	100 100 25
Kingston Ottawa Hamilton	14 75	12 15 35	85 20 67
Toronto	183	59	32

By comparing the total still-births 433 in cities, with the total births in cities 9,343, inclusive of all still-births however registered, it is found that the percentage to the whole of still-births is 4.63. If the proportion of still-births bears the same ratio in all municipalities other than cities and are unrecorded as births in the same proportion, then the increase of births in the Province will be 2.5 per cent, added to the total 46,599 recorded births, giving a total of 47,553, or an actual increase of 954. That the neglect to record still-births in births has not, however, prevailed in rural municipalities to the same extent as in cities is gathered from the following table:

Table showing Still-Births by Counties, as recorded under Deaths and under Births, 1898.

Counties.	Total Births, 1898,	Total still-births including infants who died under one day old recorded under Deaths.	Still-births re- corded under Births.	Still-births not recorded un- der Births.
Algoma Brant Bruce Carleton Dufferin Elgin Essex Frontenac Grey Haldimand Halton Haiburton Hastings Huron Kent Lambton Lanark Leeds and Grenville Lennox and Addington Lincoln Middlesex Muskoka Norfolk Northumberland and Durham Nipissing Ontario Oxford Peel Perth Peterborough Prescott and Russell Prince Edward Parry Sound Rainy River Renfrew Simcoe Stormont Dundas and Glengarry Thunder Bay Victoria Waterloo Welland Waterloo Welland Wellington Wellington Wentworth York	\$17 702 1,310 2,183 449 763 1,607 919 1,426 403 410 222 1,202 1,278 1,313 1,170 1,743 1,062 467 560 0,615 601 651 1,218 897 854 1,073 408 999 831 1,623 305 680 235 1,357 1,744 1,338 254 729 1,151 656 1,197 1,678 5,509	14 56 35 109 10 13 45 22 23 3 9 3 18 25 59 26 15 7 7 26 24 9 10 28 11 25 37 20 29 28 3 11 25 3 4 9 10 10 10 10 10 10 10 10 10 10	13 31 32 92 7 10 38 19 22 2 9 3 16 21 43 19 14 6 7 19 15 9 27 9 23 34 11 0 29 24 28 28 28 6 32 25 8 21 47 77	15 25 3 17 3 7 3 1 1 0 0 2 4 16 7 1 1 0 0 2 4 16 7 1 1 0 0 1 0 1 0 0 1 0 0 0 1 0 0 0 0 0
Totals	46,599	1,228	928	300

#### Births.

The total births recorded in 1898 were 46,599, as compared with 47,323 in 1897, showing a decrease of 724 for the year. The rate calculated per 1,000 is 20.4, or a decline of 0.5 per 1,000 for 1897. The variations as regards increases and decreases are set forth in table 1 of this report (page 28). The distribution of the increases and decreases by counties is a matter of much interest as indicating both the effects of movements of populations and variations in their social status; as also the degree of thoroughness with which returns are made and collected. In examining the returns there is seen a total increase in the cities of 174 births over 1897, but a notable decrease appears in the towns, amounting to 174. The counties in which increases and decreases are recorded are set forth in table 1, page 28. Those showing an increase are chiefly those in which, the growing cities are situated. Thus, Carleton shows an increase of 95, Essex has 42, Middlesex 50, Wellington 52, and Wentworth 151. Those showing the more notable

decreases are the counties very largely agricultural. Thus, Bruce shows a decrease of 157, Grey 55, Kent 89, Lambton 61, Leeds and Grenville 60, Ontario 49, Peterborough 59, Renfrew 169.

Such would seem to be the natural results of influences which have been operative for years, due to the change of occupations of the population of a district; but on closer examination into the facts, other elements are found to enter in, which in some instances argue strongly against so satisfactory an explanation. Thus York shows a decrease of 40, although Toronto is situated therein. Brant shows a decrease of 69, with Brantford a rapidly growing city, while Waterloo, a county with an unusual number of growing, manufacturing towns, shows a decrease of 44.

In order that the primary question of completeness of returns may be to some extent determined, a circular was sent to all Division Registrars on January 25th, 1899,

containing the following paragraph:

"The Registrar-General is desirous of obtaining information as to how many Division-Registrars receive the fees for their work as Division-Registrars, as defined under Section 36 of the Act, and how many have the fees commuted by receiving as Municipal Clerk only a salary for which they are expected to do all the work laid upon the Clerk under the Statutes. I shall, therefore, take it as a favor if you will send a card stating in which manner you are paid, as it is desirable that this work should be paid for specially in order that the time necessary for obtaining complete returns may be given to it."

Replies were received from 329 Division-Registrars, and the results of the replies are set down in the following table:

County.	Cities.			Town	s and Vil	llages.	Townships.		
	Total.	Yes.	No	Total.	Yes.	No.	Total.	Yes.	No.
Leeds and Grenvilla Lennox and Addington. Lincoln. Middlesex Muskoka Norfolk Northumberland & D. Nipissing Ontario Oxford Peel Perth Peterboro' Pressott and Russell. Prince Edward Parry Sound Rainy River Renfrew Simcoe Stormont, D. and G. Thunder Bay Victoria Waterloo Welland Wellington Wentworth		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 110 3 5 7 16 4 5 9 8 6 5 8 8 8 9 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Yes.  3 1 5 1 1 1 5 1 1 2 2 3 3 5 5 2 1 1 1 4 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	40 5 16 10 6 7 17 16 10 10 10 18 17 10 10 13 15 10 8 15 16 17 10 10 11 10 10 11 10 11 10 10	7 7 3 10 3 2 2 8 8 5 4 4 6 2 2 3 5 7 7 6 7 7 1 9 7 2 5 6 6 3 3 9	1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
York	1		1	13 '			10	3	*******

The percentage of cities making returns is 100 and two only of the 13 registrars are

not paid specially for their work.

The percentage of the towns and villages making returns is 46 per cent., and of this number 86 per cent. report they are paid fees, while the balance, 14 per cent., have their fees commuted.

The percentage of townships making returns, excluding those in the Territorial Districts, many of which are unorganized, is 44 per cent., while of these 92 per cent. report that they receive the fees in accordance with the statutory provision, 8 per cent.

only, not receiving the fee.

It is difficult to form any accurate idea of what the proportion of those who receive fees is, in the municipalities not reported upon. It is a fair inference, however, that where a Division Registrar has neglected to make a reply to a circular dealing with so important a matter, he is not always of the class most careful in his attention to this registration work. The fact, however, that the Division-Registrar is paid for every registration, in addition to the fact that in all township municipalities, the assessors are required to collect information regarding births and deaths during the year, further makes it a fair inference that the returns from these municipalities where the salary is not commuted, are more nearly complete than in the large centres.

It is quite evident, however, from the replies given in some instances, that where the salary of a town or city clerk has gradually grown to what may be called a living wage, the tendency appears to be to commute salaries no matter what extra duties are imposed upon the clerks by the Legislature. In order to in some degree accurately estimate the effect of these influences upon the returns, but especially upon the birth rate, since it is the collection of birth returns which demands persistent endeavors on the part of the Division Registrars, the following table is prepared of births in cities during the

last 10 years.

Table showing Number of Births in Cities in Ontario from 1889 to 1898. (From Assessors' Returns).

	Pop. 1889	Pop. 1858	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898
Toronto	139,452	186,517	4,946		4,739	4,436		4,210	4,131	4,246	4,078	4,122
Hamilton	44,299	51,011	1,130	1,036	1,176	752	1,109	1,028	1,086	1,128	969	1,102
Ottawa	41,000	55,386	1,726	1,908	802	729	1,089	864	888	1,198	1,273	1,349
London	26,786	38,575	568	516	605	616	604	573	574	599	552	627
Kingston	18 284	18,350	633	511	453	432	423	297	295	335	356	354
Brantford	13,384	18,009	349	330	331	350	349	314		340	408	387
St. Thomas	10,408	11,156	264	204	228	216	240	228	205	220	221	158
Guelph	10,413	10,892	262	204	235	237	249	240	228	240	259	246
St. Catharines	10.080	10,274	146	141	131	144	126	152	130	159	200	158
Belleville	10,105	10,183	213	185	157	154	146	142	148	143	151	169
Stratford	9,401	10,369	202	204	197	165	176	178	174	159	134	159
Windsor	9.041	11,331	240	181	269	252	303	256	243	257	237	229
Chatham	8,278	8,923	140	116	151	139	147	161	110	165	199	151
Total for each year	350,934	440,979	10 819	10,410	9,474	8,622	9,114	8,634	8,582	9,189	9,687	9,211

The broad fact is set forth in this table showing that over a period of ten years in a population estimated in the census year 1891 at 407,058 (or 395,229 by municipal returns), and during which ten year period the yearly municipal enumeration has shown an increase of 17.37 per cent., there has been an absolute decrease of births in the 13 cities from 10,819 in 1889 to 9,211 in 1898, or a difference of 1,608. Some of the cities show such marked variations in different years as in the case of Ottawa in 1889 and 1890, that it is evident some irregularity of registration from the normal existed.

Had the rate of increase of registrations from 1889 to 1898 been the same as that in population for the same period, 12,709 births would have been registered in 1898 instead of 9,211. If, however, the figures for different cities be examined it is apparent that no variation in the average yearly increase of population adequately explains such discrepancies as appear from year to year. While in two or three instances cities show an actual decrease in population of one or two hundred, yet the returns of births — as in

the case of Kingston — show such marked variations that we can only conclude that imperfect registration can account for such discrepancies. An enquiry into the particulars regarding the several cities gives us certain information of interest. Thus in Ottawa, Kingston, Brantford, Chatham, and St. Thomas, the Division Registrar has been changed during this period with results which in one or two instances may be seen in the returns. The tables show that in 11 instances the Division Registrars (Municipal Clerks) are paid specially for each return, and it may be supposed that their returns would be complete. That they are not so may be fairly inferred from the notable differences in different cities where populations have increased during the period.

Thus St. Thomas with an increase during the ten years of 613, shows a decline in the birth rate of 106 in the period: that is, the rate was 67 per cent higher in 1889 than in 1898. Again Kingston with a practically stationary population, has 279 of a decrease in 1898 as compared with 1889, the rate being 79 per cent higher in 1889 than in 1898.

In both these cities the Division-Registrar has changed during the period. other cities where the Registrars have not changed, St. Catharines and Stratford, the returns show no notable variations from year to year, yet the rate throughout the whole period is so much below the general average that only one conclusion is possible, viz; that a chronic neglect to obtain complete returns is apparent. Thus in St. Catharines there were but two years in the ten year period during which the deaths did exceed the births, these two being the first two years under the new Act, that of 1896, however, there is no better illustration of defective registration of births than in the city No change has taken place in the occupant of the office of Division-Registrar during this ten year period, and the population has increased by 47,065, according to the municipal returns. In spite of this fact, however, the births show an absolute decrease of 824, or there were 20 per cent more births reported in 1889 than in 1898. If, however, the population according to municipal returns be taken into the calculation, viz: an increase from 139,452 in 1889, to 186, 517 in 1898, then had the rate in 1889 been maintained, there would have been 6615 births registered in 1898. In other words a relative decrease of 64 per cent has occurred in the birth rate of Toronto during the last ten years.

Such then is the situation of the statistics of births in our cities three years after the passage by the Legislature of the Act of 1896, which provides that Division-Registrars "shall use all available means to obtain the necessary information hereinafter required in this Act," and shall be paid 20c. for each return by the municipality; which further states that the parent or guardian of every child born in this Province, "or if there is no such person, then the nurse or midwife present at the birth" shall within thirty days from the date of the birth give notice to the Division-Registrar of such birth; while the Act further provides, "It shall be the duty of every qualified medical practitioner attending at the birth of any child born within this Province, to give notice thereof forthwith to the Division Registrar of the division in which the child was born."

Further comment on these results seems unnecessary. Until the Registrar-General is supplied by the city municipalities with returns approaching completeness, it is useless to attempt to draw any conclusions as to the causes of decreasing birth rates, or for the public to expect to find in the future in the Registrar-Generals Department records of returns which have never been made. What this means, may be gathered from the fact that during 1899 there were 321 searches for births said to have occurred within the previous 30 years since the Registration Act was passed. Of these 321 searches, 96 were found not to be on record. It seems therefore, in case this number of searches of births occurring over this 30 year period should represent a fair average of registration, that a percentage of omissions amounting to 30 per cent has occurred throughout the period.

The remedy for this existing state of affairs is clearly indicated in the results of present methods. Wherever adequate payment for the work done, exists, the returns are relatively complete; and no payment to a city clerk of a single salary covering all duties laid upon him, has ever served to create in him such enthusiasm for collecting statistics as to make his returns complete. The authority which the Registrar-General of England exercises, of filling vacancies or replacing a Division-Registrar when his work has proved to be incomplete and unsatisfactory, seems to be demanded by the situation as it has been illustrated in the preceding study.

#### Marriages.

The total marriages recorded in 1898 in 777 municipalities and returned to the Registrar-General, were 15,375 as compared with 15,293 in 1897. This gives a marriage rate of 6.7 for the Province, or 0.1 less per 1,000 population than in 1897, its rate having been 6.8. Of the counties, 17 show an increase, while 26 show a decrease as compared with 22 which showed an increase in 1897. There seems to have been no general rule governing the increases and decreases as compared with the previous year. Thus, Carleton in 1897, showed a decrease of 19, and in 1898 an increase of 1; Essex, in 1897, showed a decrease of 52, and in 1898 an increase of 147. This latter rate of course, as mentioned in previous reports, is largely influenced by marriages of persons from the United States. An interesting series of increases is seen in a group of counties in Eastern Ontario, viz., Lanark, 51; Lennox and Addington, 17; Peterborough, 32; Prescott and Russell, 60; and Stormont and Glengarry, 20. An equally important group of decreases is seen in Western Ontario, viz, in Elgin, 36; Kent, 12; Lambton, 23; Middlesex, 69; Norfolk, 33; Oxford, 10; Lincoln, 38 and Welland, 20. Thus, with the single exception of Brant, with the small increase of 29, every county in the double tier of counties along Lake Erie, showed a decrease in the marriage rate amounting to a total of 261. A similar but less notable decline in the rate is seen to have occurred in Huron, with 63; in Bruce, 9, and in Sincoe, 11.

This decline, especially in the Lake Eric counties, seems to be general in regard to marriages; these having hitherto been assumed to be fairly well returned, and to be still more complete, since the amendment to the Marriage Act in 1897, requiring license issuers to forward to the Registrar General copies of all licenses issued by them. No explanation of this uniform decrease, except on the supposition of alterations in the movement of populations, especially in rural districts, and therewith a variation in the age period of the resident inhabitants seems possible. The variation in the population of districts by age periods, has been frequently referred to in the reports of the Registrar-General of England, as affecting directly the marriage as well as the birth and death rates. In addition to this, however, it would appear that this decline in the marriage rate in Ontario is associated with a distinct tendency to delay marriage. As was

stated in the Report for 1897 :-

"Taken in conjunction with the following table of percentages of marriages in the several life periods by counties, this table affords evidence similar to that in other countries, that there is a distinct tendency to delay marriage; which means, necessarily that the proportion of marriageable persons in any community decreases with each semi-decade, and bears a close relationship to the question of a decreasing birth-rate."

Marriages in Cities.—The total marriages recorded in 1898 in the thirteen cities of Ontario, with a population of 441,360 was 4589, or a total of 381 over 1897. The increases occurred principally in Toronto, with 195; Ottawa, with 118; and Windsor, with 90. Several cities showed a decrease, London having 30; Kingston, 40; St. Thomas, 7; Guelph, 23, and St. Catharines, 22. If these increases and decreases be compared with the population increase in 10 years, as shown in the table of births in cities on page 30, it will be seen that the cities with a decreased marriage rate, are cities with a practically stationary population during the period, and hence the law regarding age distribution of population becomes applicable as possibly explaining such decreases. There is reason, however, to believe that the causes which have been shown to produce defective birth returns, have been operative to some extent in the case of marriages as well. Thus. London which showed a decrease of marriages in 1897 of 177, shows a further decrease of 30 in 1898; but by a recently received return for 1899, it shows an increase over 1898 of 71, or a total of 360 marriages for the year. It is interesting to note that the Registrar of London received for the first time fees for the work done in 1899.

As in former Reports it will be noted that the marriage rate in cities, as seen in table 2, is high as compared with the general rate, it being 10.3 per 1,000. If the anomalous rate in Windsor be separated from the balance of the cities, the marriage rate in cities may be considered as 9.0. While it is true that this rate should properly be further reduced by a percentage of non-residents who have gone to be married in neighboring cities, there is, however, as seen in all growing populations, the tendency for the

marriage rate to be higher in cities than in the more stationary rural districts and villages. Apart from these causes for variations from the average rate, there is the question of completeness of returns. An illustration, that of London, has been given of how every class of persons responsible for making returns is lax in reporting, in proportion to the indifference of the registrar; hence we are unable to believe that all clergymen systematically make returns of marriages celebrated by them. This supposition is proven by the results of a prolonged search for records of marriages for which licenses returned by the Registrar-General, were granted in 1897. The Registrar-General received during the year 12,153 marriage license cards from the various issuers and deputy issuers throughout the Province. After allowing a delay of six months so that all clergymen, registrars and issuers might send in their respective returns, a comparison was made of the licenses with the lists of marriages returned, with the result that 1,980 were found not to have been recorded in the municipalities where the licenses were The Registrar-General thereupon issued a circular letter to each Division Registrar, giving the names of persons for whom a marriage license had been issued, but whose names did not appear in the marriage returns, and asked that enquiry and a reply regarding the matter be promptly made.

Much correspondence with license issuers, clergymen and others, resulted from this circular, explaining in many instances why certain marriages had not been returned. A common reply from clergymen was that the matter had been overlooked or forgotten; in a few instances the reply was that the lady had changed her mind before the ceremony was performed; while a still commoner reply was that the license was issued in one

municipality, while the marriage had been celebrated in another.

It was a fairly satisfactory result of such a tedious search that the Registrar-General should have succeeded in obtaining 490 marriages, the recording of which would not have otherwise occurred. This amounted to 3 per cent. of the total marriages recorded. The work for 1898 is yet incomplete, but as a result of enquiries in nine counties, with the despatch of 104 letters respecting 248 marriages, 40 replies have been received regarding 72 marriages. To show how difficult it is to obtain complete statistics of this character, it may be mentioned that 35 returns of marriage licenses issued were made to the department from Frontenac in 1898 for which no corresponding marriages are found on record. These omissions occurred in nine municipalities; letters were sent to the registrars of each. Only three replies, covering eight marriages, were received, resulting in three marriages having been found recorded in some other municipality.

DISTRIBUTION OF MARRIAGES.—The distribution of marriages by months becomes a matter of some interest in connection with accuracy of returns. In 1898 as in other years, the month of December shows a large number of marriages to have taken place, being one-tenth of the total for the year. As the Act gives thirty days as the time for making a return, it is plain that a certain number of marriages celebrated in 1898 would be registered in 1899. The month of June, 1898, as in 1897, has fallen to second place. June returning the highest number of marriages in any month, it being 1,741:

while May, as in several past years, returns 897, or the lowest in the year.

The relative number of persons by denominations who were married in 1898 will be found in table 8. This relative number is practically the same as for many years past.

#### Deaths.

The total number of deaths recorded in Ontario in 1898 was 26,370, as compared with 27,633 in 1897, being a decrease of 1,263. On a basis of population seen in table 1 this gives a death-rate of 11.5 per 1,000 or a reduction of 0.7 per 1,000 as compared with 1897. Of the 44 counties 12 only show an increase, while 32 show a decrease. Of those showing any notable increase, we have Perth with 77, Wentworth 87, Peterborough 30, Grey 35, and Dufferin 31. Of the decreases the principal are York with 300, of which 256 occurred in Toronto, Renfrew 145, Prescott and Russell 139, Huron 89, Bruce 67, Middlesex 63, Norfolk 52, and Stormont, Dundas and Glengarry 95.

There is reason to believe that the death returns are in a large measure complete, wing to the stringent laws against burial without a permit. It is gratifying to know that there is no county showing a great increase. Some instances may exist of an in-

crease due to improved registration, but a close examination of the table of deaths from different diseases may serve to explain an abnormal increase, owing to there having been

an outbreak, as of diphtheria during the year.

The death-rate must be considered as showing an extremely satisfactory condition of the public health, especially in the matter of preventable diseases. That it is especially to this class of diseases that the reduction is due is seen in the fact that while in 1897 the death rate from small-pox, scarlatina, diphtheria, measles, whooping cough and typhoid caused 6 per cent. of the total deaths, this rate in 1898 was reduced to 5 per cent. of the total deaths. Or while the total reduction of deaths was 0.45 per 1,000 in 1898 as compared with 1897, the reduction caused by the decrease in preventable diseases is shown to have been 22 per cent. of this reduction, while in 1897 this class produced but 6 per cent. of the total reduction.

The distribution of deaths by Counties in 1898, as regards the rate per 1,000, shows much the same condition as in the several past years. Thus of the group of counties along Lake Huron and on the central plateau, viz — Bruce, Grey, Wellington, Halton and Perth,—all but Perth show a death-rate below 10 per 1,000. Further, it may be stated that the counties of Lincoln and Welland, with their clay lands and lower levels, again show a higher rate, but with a definite decline of 1.9 and 1.5 respectively per 1,000. The St. Lawrence counties of Stormont, Dundas and Glengarry, Leeds and Grenville similarly maintain their higher rate. They, however, likewise show a reduction of 14 in the first, while the latter is practically the same as in 1897. The seemingly high death rates in Algoma, Nipissing and Thunder Bay, as referred to in 1897, are accounted for by the irregular distribution of the recently increased mining population, shifting from year to year.

DEATHS IN CITIES —In table 2 on page 30 will be found the death-rate for cities. The total deaths for 1898 was 6,894, as compared with 7,177 in 1897 and gave a death rate from all causes of 15.6, or a decrease of 0.8 per 1,000. Inasmuch as the population increases of the cities for the past decade, according to municipal returns, was 25.6 per cent., or 2,5 per cent. of an increase per annum, this reduction of the death-rate is gratifying. Four cities show a slight increase, viz —Hamilton with 73, London with 15, Guelph with 25, St. Catharines with 7, and Stratford with 17; while 8 cities show a decrease, these being Toronto 256, Ottawa 21, Kingston 6, Brantford 29, St. Thomas 40, Belleville 38, Windsor 11, Chatham 19. These results compare favorably with the progress made in the cities of other progressive countries. The following are the death rates for certain other cities in 1898:

Montreal         Halifax       14.5         St. John       12.1         Winnipeg       12.1         Vancouver       11.5         Leeds, Eng       19.5	" ; ;	London, Eng. 18.7 per 1,000  Manchester, Eng. 21.9  Boston, Mars. 20.6  Lowell, 20.4  Providence, R.I. 19 9  Pittsburg, Pa. 16.5  "
Leeds, Eng		Pittsburg, Pa
Glasgow, Scot	2 "	Rochester, N.Y
Edinburgh, Scot		Albany, N.Y

DEATHS BY CLASSES OF DISEASE.—In the adoption of the Bertillon system of classification of diseases, we are able to make for the first time a comparison with Michigan the only other State or Province which has published its returns for 1898, according to this classification. A comparison with a State situated geographically so similarly to Ontaric, as Michigan is, with a climate and soil so alike, and a population composed of much the same elements, distributed as regard urban and rural populations in much the same percentage, is of extreme interest and importance. The population for Michigan in 1898, is given at 2,353,855 calculated on an arbitrary basis, which, if applied in Ontario, would bring the two populations to very nearly the same number.

The total deaths recorded in Michigan for 1898 were 29,474, giving an average death

rate of 12.52 per 1,000.

Regarding the several groups, that of Communicable Diseases, including all those-except tuberculosis, dealt with under the Public Health Act is of interest. The total in Ontario is 1,709, while the group in Michigan gives a total of 2,015, or 0.85 compared

with 0.75 per 1,000 in Ontario. The succeeding group of other general diseases which which includes tuberculosis, gives 5,213 in Ontario as compared with 5,166 in Michigan. This is to some degree due to the inclusion of all deaths from marasmus, atrophy and anaemia, under one year of age, with tuberculosis in the Ontario returns. This total amounted to 311.

Of Diseases of the Nervous System, Michigan shews 3,963, as compared with

3,197, or a difference of .28 per 1,000.

Of Diseases of Circulation, Ontario shows 1,851, as compared with 2,540 in Michi-

gan, or 0.81 as compared with 1.07.

Of the Diseases of the Respiratory System, the Ontario returns show 2,715 as compared with 3,236 or less by 0.18 per 1,000.

Of the Diseases of the Digestive System, Ontario gives 2,820 as compared with

4.106, a very notable difference in favor of Ontario, it being 0.51 per 1,000.

Of Diseases of the Genito-urinary class, the deaths in Ontario were 840 as compared with 1,452 in Michigan, or a difference of 0.24 per 1,000.

Of Diseases of the Puerperal class, the totals in Ontario were 245 as compared with

387 in Michigan, or more than one third less.

Of the group which includes malformations, diseases of infants and diseases of old

age, the total in Ontario is 5,745 as compared with 1,960 in Michigan.

In this respect the Michigan returns show a noted improvement over the Ontario returns, and indicate a much greater accuracy in the return of causes of deaths, and hence of the classification of disease under the several special classes. In the Ontario returns, 2,915 of the total under this class occur under one year, and 2,763 over 70 years; while in Michigan, but 1,171 are given under one year, and 657 under senile debility.

It may further be stated that the notable difference in Diseases of Circulation in these reports may be due to heart failure in the Ontario returns occurring in persons over 70 having been placed in the class of diseases of old age. Under the division of violence, including suicides and accidents the Ontario returns give 1,091 as compared with 1,677.

Under the final classes of Causes ill-defined, Ontario has 850 as compared with 1,347

in Michigan.

DEATHS FROM SPECIAL DISEASES.—The diseases of the Communicable Class of greatest interest are given in the following comparative table.

Table of Deaths from Communicable Diseases.

Year.	County.	Smallpox.	Scarlatina.	Diphtheria.	Measles.	Whooping-	Typhoid.	Malaria.
1897	Ontario Ontario Michigan New Jersey New York Minnesota	1 27	169 222 91 203 815 31	976 634 456 1,382 4,310 182	80 115 131 156 860 Not returned	167 126 282 321 850 Notreturned	355 405 499 478 1,325 255	38 25 73 132 400 Not returned

Compared with other areas of the continent in northern latitudes, that of the two land areas largely enclosed by the Great Lakes viz., Ontario and Michigan, are seen to compare most favorably with the States of the Atlantic seaboard, as will be seen from the death-rates in New Jersey and New York. That the decline in the death-rate is not accidental but is due largely to the decline of communicable diseases—measles and whooping cough—is seen in remarks already made regarding deaths by counties.

The influence of climate and habits of life upon the mortality from communicable diseases is interesting, as seen in comparing deaths in Ontario with those in Scotland, the Argentine Republic, Cape Colony, and Jamaica. The population of the Argentine is distributed over 230,000 square miles, with an urban population of 362,082, and a rura population of 559,095. Adopting the census population of 1890 for calculation in the

Agentine the following table is given.

#### Comparative Table of Deaths in Different Countries.

MARKET PARTY.	Smallpox. Whooping cough.		Diphtheria and croup.	Typhoid.	Tubercu- losis.	Anthrax.
Ontario		0 05 0.43	$0.27 \\ 0.63$	0.17	1.4 0.94	
Argentine Republic 1898	0.3	0.2	0 3	0.5	(Phthisisonly,)	36 cases.
Cape Colony1898 Jamaica1898		$0.8 \\ 0.18$	0.3	0.5	$\frac{1.6}{1.6}$	* * * * * * * * * * * * * * * * * * * *

In the latter two countries the distinction between the coloured population and the

whites is of great importance in estimating the relative healthfulness of climate.

MEASLES AND WHOOPING COUGH—Measles show a mortality of 115, as compared with 80 in 1897; while whooping cough has decreased from 163 to 126. The type of both diseases would seem to be essentially mild as compared with that in Great Britain, where the rate in the great towns of Scotland was for measles and whooping cough respectively in 1897, 0.339 and 0.43 per 1,000.

DIPHTHERIA.—The total deaths from diphtheria and croup in 1898 were 634, as compared with 976 in 1897. There is no disease in which the progress of Preventive medicine has been more marked than in diphtheria during the past ten years. The following table of deaths in Ontario in successive years is illustrative:—

#### Table showing Deaths from Diphtheria and Croup in Ontario.

1887	1,786	1893	1,044
1888	1,489	1894	1,075
1889	1,101	1895	
1890	893	1896	925
1891	955	1897	976
1892	890	1898	634

The remarkable falling off so pronounced in 1898 must doubtless be due to various influences, amongst which primarily may be placed the greatly increased knowledge amongst the people of its extremely contagious character, and the greater activity of the Local Boards of Health in suppressing outbreaks; secondly, to the seasonal influences peculiar to the year 1898; but especially to the greatly increased use by physicians of antitoxin, both in a curative and a preventive way. Comparisons with other states and countries have been made in previous tables, but the following reductions in deaths since 1884 in the various cities will especially illustrate the decrease due to the last cause, since the use of antitoxin in America only began with 1895, while in France and Germany it was much used in 1894:—

City.	1894.	1895.	1896.	1897.	1893.
New York. Boston Chicago	2.258 817 841	1,634 588 1,775	1,555 516 955	1,377 411 702	992 170 622
Paris, France Cities of Massachusetts, including Boston (pop. 1,611,780)	1,109 1,376	421 1,484	444 1,348	298 1,107	259 507
Berlin, Germany. London, Eng Toronto	1,361 2,670 110	934 2,316 147	515 2,683 132	507 2,263 161	008 1,772 63
Hamilton Ottawa London	72 124 48	11 78 9	14 41 10	19 44 20	22 32 11
Kingston Brantford St. Thomas	5 10	26 18 8	21 10 19	12 8 12	3 2 3
Chatham	12	5	4	1	2

Tuberculosis.—This disease shows a total of 3,291, as compared with 3,154 in 1897

or a death rate per 1,000 of 1.4.

As was stated in the report of 1897, the total deaths had then for the first time exceeded 3,000, and it was pointed out that a certain increase had been caused by placing atrophy and other wasting diseases of infancy under tuberculosis. The total deaths from tuberculosis or any of these found in the special tables under 10 years, is 587, so that there seems no doubt but that the total deaths from tuberculosis have increased. Indeed the monthly returns for 1899 gave for phthisis alone, 2,315 for a population of 97 per cent. of the whole Province.

Deaths from Consumption by age periods, Counties, 1898.

Counties.			-									
Brant — 20 21 10 6 8 5 5 4 2 3 3 41 Bruce — 42 40 11 12 22 19 3 6 6 3 82 Caşkton — 99 105 32 29 67 42 13 11 9 1 204 Dufferin — 14 14 5 1 10 4 3 2 2 1 2 1 28 Elgin — 28 30 6 8 17 8 6 9 2 1 58 Essex — 27 48 12 10 19 9 14 7 3 1 75 Frontenac — 44 48 8 6 6 23 26 13 6 8 2 29 Grey — 39 51 10 8 28 23 9 8 4 — 90 Haldimand — 9 16 2 5 3 4 5 2 3 1 25 Halton — 12 12 6 6 1 10 2 3 — 1 1 24 Halibutton — 4 3 1 — 2 4 — 7 Hastings — 32 46 8 12 18 12 12 6 6 6 4 78 Huron — 33 45 15 6 22 16 7 5 5 1 77 Kent — 40 48 10 14 26 20 10 3 3 2 2 88 Lambton — 32 50 6 3 19 13 10 4 4 3 6 62 Lanark — 30 31 8 4 23 9 5 7 2 3 61 Laeds and Grenville — 63 69 20 20 33 24 14 15 3 3 132 Lennox and Addington — 19 19 7 5 12 7 3 3 3 1 25 Muskoka — 10 9 3 2 6 6 1 1 10 2 2 3 — 1 38 Lincoln — 25 22 6 4 11 13 5 2 4 2 47 Middlesex — 69 66 28 17 34 19 14 13 7 3 135 Muskoka — 10 9 3 2 6 6 6 1 1 10 2 2 3 — 1 38 Mistoka — 10 13 23 8 3 9 9 7 7 2 2 3 61 Mistoka — 10 13 23 8 3 9 9 7 7 2 2 3 61 Mistoka — 10 13 23 8 3 9 9 7 7 2 2 3 61 Mistoka — 10 13 23 8 3 9 9 7 7 2 2 3 61 Mistoka — 10 13 23 8 3 9 9 7 7 2 2 3 61 Mistoka — 10 13 22 8 6 6 6 1 1 1 1 1 2 2 2 2 36 Northumberland & Durham — 47 50 21 7 7 80 18 12 6 6 5 2 2 2 6 Reth — 50 46 17 5 5 12 7 7 8 5 5 2 2 3 6 Rustoka — 10 13 22 8 8 3 9 9 7 7 1 9 6 Rottoka — 10 13 22 8 8 3 9 9 7 1 1 9 6 7 8 2 3 8 Rottoka — 10 13 22 8 8 3 9 9 7 2 2 2 2 3 6 Rottoka — 10 13 22 3 8 8 3 9 9 7 2 2 2 2 3 6 Rottoka — 10 13 22 3 8 8 3 9 9 7 2 2 2 2 3 6 Rottoka — 10 14 1 5 4 5 5 5 2 2 2 6 Rottoka — 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Counties.	Males.	Females.		10-19	20-29	30-39	[40-48	50-59	60-69		Totals.
	Brant Bruce Capleton Dufferin Elgin Essex Frontenac Grey Haldimand Halton Haliburton Hastings Huron Kent Lambton Lanark Leeds and Grenville Lennox and Addington Lincoln Middlesex Muskoka Nipissing Norfolk Northumberland & Durham Ontario Oxford Parry Sound Peel ferth Peterboro Prescott and Russell Prince Edward Rainy River Renfrew Simcoe Stormont, D. and G. Thunder Bay Victoria Welland Waterloo Wellington Wentworth	14 20 42 99 14 28 27 44 39 91 12 43 30 32 30 30 31 99 25 69 10 11 33 47 30 37 15 16 41 43 47 47 47 47 47 47 47 47 47 47 47 47 47	13 21 40 105 14 30 48 48 51 16 12 3 46 45 48 30 31 19 22 66 9 9 13 23 50 37 35 50 37 37 32 46 46 32 46 46 32 46 48 48 48 48 48 48 48 48 48 48 48 48 48	10 11 32 5 6 12 8 10 2 6 8 15 10 6 8 20 7 7 6 8 8 20 7 7 6 8 8 21 11 9 6 8 8 11 9 11 9 11 9 11 9 11 9 11	6 129 1 8 100 6 8 5 1 12 6 14 20 5 4 4 17 7 7 7 4 4 4 5 8 8 5 5 2 17 13 14 1 10 6 6 5 7 13 5 3	8 22 67 100 117 119 23 288 3 100 18 22 266 119 23 33 112 111 34 4 6 5 9 30 119 224 4 4 3 10 366 39 3 11 5 5 12 17 34 123	5 19 42 4 8 8 9 26 23 4 2 2 12 16 20 13 19 9 24 7 7 13 19 6 1 15 15 15 15 15 15 15 15 15 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	13 13 13 14 13 13 15 14 11 12 12 13 14 14 14 11 12 13 14 14 15 16 17 10 10 10 10 10 10 10 10 10 10	26 111 29 766 88 22 133 22 133 22 133 55 44 33 99 13 22 35 55 54 35 55 55 56 57 57 57 57 57 57 57 57 57 57 57 57 57	369223384431 6534423 223282175421 2775421	3 3 1 1 1 1 1 2 2 3 3 3 3 1 2 2 3 3 3 1 2 3 3 4 4 3 4 4 5 5 8	27 41 82 204 28 58 75 92 90 25 24 7 7 88 62 61 135 19 23 38 47 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

The distribution of the disease by counties illustrates a peculiarity of phthisis, viz., that it shows, owing to its widespread and chronic character, both the great permanency of local conditions, such as undrained soils and old houses where previous cases have been, as well as the continued residence of the same families in the old-settled fertile agricultural sections of the Province, members of which may have

previously have died of the disease. This may be illustrated by the following table, giving the deaths for ten years in the County of Huron, in which the numbers of persons dying, having the same family name are set by number.

Total deaths in Huron County from Tuberculosis in 1889-1898-633.

Total family names occurring more than once, 115 or 18.1 per cent.

Total persons dying whose names are those which occurred more than once, 208 or 47 per cent.

Total times repeated names occur on average, 2.6.

Family names repeated :-

60 names twice.
25 " three.
10 " four.
2 " five.
6 " six.
1 " eight.
1 " nine.

This is evidence next in value to an actual house to house census, such as that made in New York City in 1886; a kind of evidence of supreme value in estimating the causes of the increase of the disease.

That it is in the more newly settled areas of the Province that the lower mortality prevails, due probably to the causes indicated above, is seen roughly in the following table giving by census years the mortality in several groups of counties in the Province.

Table showing deaths from Tuberculosis in certain Counties in 1871 and 1898, with Population, illustrating periods of permanent settlement.

County.	Year.	Population.	Death rate.
Brant  Welland  Leeds and Grenville  Prince Edward  Huron  Bruce  Simcoe  Waterloo  Oxford  Middlesex  Norfolk	1871 1898 1871 1898 1871 1898 1871 1898 1871 1898 1871 1898 1871 1898 1871 1898 1871 1898 1871 1898	32,259 39,109 25,761 32,369 57,918 65,339 20,336 20,£65 66,165 91,£64 48,515 69,328 61,248 76 974 40,251 54,168 48,247 53,493 82,595 109,447 30,763 33,256	1.0 1.0 1.5 1.1 1.22 2.0 1.0 1.2 0.54 1.0 0.20 1.2 0.40 1.4 1.5 1 0 0.93 1.35 0.6 1 25 1.20 1.10

Deaths in Cities.—The total deaths in the cities from tuberculosis are seen in the following table to have increased in absolute numbers during the ten year period by 40 per cent. Whether this represents an actual increase depends, however, on the relative completeness of returns in the earlier years of the period, with the inclusion of deaths under one year in the returns for 1898. An additional allowance must be made for an increased population, estimated at 25.6 per cent in the ten years.

Deaths from Tuberculosis by Cities, 1889 to 1898.

	1889.	1890.	1891.	1892.	1893,	1894.	1895.	1896.	1897.	1898.
Toronto	303	387	480	477	512	442	430	442	467	483
Hamilton	80	88	90	73	88	80	104	100	83	109
Ottawa	102	106	53	80	111	98	91	109	134	148
London	27	38	52	43	42	54	51	61	52	64
Kingston	51	39	42	39	35	33	27	41	54	45
Brantford	18	15	22	26	32	19	26	31	25	23
St. Thomas	11	12	15	13	9	12	15	19	17	13
Guelph	11	8	10	16	23	17	15	15	14	21 21
So. Catharines.	26	27	12	27	18	23	21	17	15	21
Belleville	25	16	14	25	17	13	24	11	20	15
Stratford	15	16	8	9	11	16	8	12	13	19
Windsor	16	16	28	13	17	21	21	21	17	23
Chatham	16	22	17	11	14	13	7	18	12	14
Total	701	790	792	85 <b>2</b>	929	841	840	897	923	998

There certainly has been no decrease in Ontario such as has marked the cities of Great Britain during the past thirty years, which have made in spite of their enormous populations, such great advances in the problem of the housing of the poorer classes. As yet no systematic steps have been taken by local boards in the cities of Ontario to maintain a supervision of houses where consumptives are resident, nor to disinfect the premises after death.

DEATHS FROM TUBERCULOSIS BY OCCUPATIONS.—An attempt has been made to classify, with all the accuracy possible, the deaths from consumption by occupations in counties. (See table 16, p. 48).

The table is of further interest as showing the distribution of population in different counties varying greatly in its proportions in urban and rural districts. A glance at the table makes it at once plain that a number of occupations, or persons in certain social

positions in life, supply a large proportion of the deaths.

That there are notable variations in the distribution of population as regards both age and sex in different municipalities, may be illustrated by the following, showing the number of deaths by age and sex in Huron county in 1898. The returns show 72 deaths due to tuberculosis, and arranged as above, they are:

The first notable fact here seen is that there are practically two deaths of females for every one male. Further, the preponderance of females beginning in the 10-14 year period, is maintained until 'child-bearing has practically ceased at 40 years. Making due allowance for the migration from a county largely rural of a portion of the male population, there would seem, however, to exist some other specially potent cause, such as more constant indoor life, possib'y in an already infected house, to account for this relatively great preponderance of female deaths. In table 16 it will be further seen that the second largest total is that of farmers, 354— the largest being that of housewives, 693. If from the class of housewives we select an equal number of deaths of females as cf males belonging to the farming class, we have 708, or more than 21 per cent. of the total deaths are farmers or farmers' wives. Hence, taking a probable estimate of the number of farmers and farmers' wives in Ontario, the rate in this class stands high, being probably nearly 1.5 per 1,000. Under the class children, there are 471 deaths, and allowing for a propertion of those with occupations not given, this will include those set down in the table according to ages as dying up to ten years, or 587 in all. The next highest class is that of laborers, the deaths being 193. Under the heading of spinsters is necessarily classed a large number of women of marriageable age; since in the table by ages the total deaths between 20 and 40 are 1,494, which includes persons of both sexes, married and single. A further proportion are included in the period between 15 and 20 years. The next highest class is servants, being 51, most of whom are naturally females. Of the large class uncer the heading of clerks, there appear 45 deaths, which is, however, almost equalled by students, their number being 42.

portionately to their total number, the deaths in this class with sedentary lives

would appear highest of all.

Amongst the occupations of those showing relatively the highest mortality, are those of school teachers and painters. The total teachers in the public and separate schools of Ontario was in 1899, 9,209, so that the death rate is 2.17 per 1,000. Remembering the chronic nature of this disease and the fact that many teachers continue at their duty for months while in failing health, we see that such a mortality has a direct bearing upon the health of the school children.

The figures are not available regarding the total printers employed in Ontario, but the fact would appear that 20 of a mortality is very large compared with most other occupations for the number employed. Perhaps, however, the mortality amongst barbers is even greater proportionately to the number employed, there being 16 in all. The fact of this class, like teachers, coming into close contact with other persons, and handling cutting tools which may be infected from sputum, while, as often is the case, many abrasions of the skin are made by them, becomes so important a matter as would seem to demand some method of dealing with the danger.

Tabular Statement of Returns and of Correspondence in 1899.

Receipt of schedules containing Annual Records and certi-
ficates for same
27 District Registrars.
Returns for 1898, indexed and compared Births, 46,599
Marriages, 30,750
Deaths, 26,370
Receipt and filing of Marriage Licenses
Issued to Division Registrars:
Blanks for returns, Forms A, B, C
Form B (Burial Permits)
Form D (For Licenses)
Blanks for Cemetery Returns 194,500
Permits, by letter, to register Marriages, not received in former years137 M, 58 D, 2
Permits, by letter, to register Marriages, not received in former years137 \ M, 58
(D, 2
Application for Searches of Records for Births
Marriages 113
Deaths 377
Certificates issued for Record—Births
Marriages 74
Deaths
Total fees received for 755 searches\$188.75
400 certificates\$200.00
Registration in Supplementary Index of returns not previously recorded
in their proper year Births, 1,253
Marriages, 305
Deaths, 56
Comparison of Marriage License Returns received with Marriages recorded by
local registrars
Marriages (for which license was issued) not found in the municipality where
license was issued
found registered in other municipality. 1,490
of persons (3 per cent. of whole) found by correspondence 980
Number of letters received and filed in 1899
" written, sent out and filed
Comparison (not previously made at time of indexing) of indexes with Schedules
for parts of 1889-1890
All of which is respectfully submitted.
PETER H. BRYCE,
FEIER H. BRICE,

Deputy Registrar-General.

#### Inspector's Report.

TORONTO, January 2nd, 1900.

TO THE HONOURABLE J. R. STRATTON

Registrar General of Ontario:

SIR,—I have the honor to report that during the past year I visited for purposes of inspection the Division Registrars of municipalities within the counties and districts of Algoma, Frontenac, Halton, Hastings, Huron, Lennox, Lincoln, Leeds & Grenville, Middlesex, Muskoka, Northumberland & Durham, Nipissing, Parry Sound, Thunder Bay, Rainy River, Peel, Perth, Simcoe, Stormont, Wentworth and York. The following summary of a number of places visited will give a fair idea of how the Registration Act is carried

into effect throughout the Province.

In the City of London I find the physicians make scarcely any pretence of registering births, and few of them even obtain the cards necessary for the purpose from the Division Registrar. The returns are almost invariably made personally by some member of the household, and it is clear that many births take place which are not reported at all. In marriages the returns appear to be pretty complete, as the clergymen of the city as a rule are very careful in making their reports. As to deaths, the Division Registrar assures me he is satisfied he gets practically all the returns, but the death rate is so low that I

question very much whether his opinion is correct.

The physicians are fairly good in sending reports of deaths to the Division Registrar, but scarcely ever to the Medical Health Officer, as the Act calls upon them to do. takers claim to be very careful in refusing to bury without the necessary permit, but some caretakers of cemeteries will inter the body without even asking for the burial permit. London is typical of a great many municipalities in Ontario. The registers are well kept, the records are sent to this Department in excellent form and at regular stated intervals, and the Registrar is most anxious to have his returns as full as possible not only for the credit of the thing but that the fees may bring him a larger gratuity, but yet it is a self evident fact that the returns are not nearly complete. We now take the city of Stratford, and here I regret to say I cannot even compliment the Registrar upon the mechanical portion of his work, as his returns are not sent in until long after the close of each year; while as to births, which were recorded in 1898 as 159, I found by an actual canvass among the medical practitioners that they amounted to at least 90 more, and consequently the low birth rate of 15 per 1,000 as shown in the schedule was increased to at least 24. Here again the physicians have in the past given no help to the Registrar, but all of them have agreed to endeavor to carry out the Act in the future. Next year's report will tell how these promises have been kept. I am pleased to be able to state that, from information received from the undertakers, I find the number of deaths recorded are pretty nearly correct, which fact goes to prove that Stratford must be a very healthy city.

In St. Catharines we find the same trouble in regard to birth records, few of the physicians making any returns whatever, while I have every reason to believe that the death returns are as complete as they can be made. The Registrar is a most painstaking official, and yet we have the anomaly of his returns showing frequently a larger

number of deaths than births.

In Hamilton, although the physicians again fail to make returns of births to any great extent, we find the birth rate to be a fairly large one, and in fact all the records seem to be pretty complete, as the Registrar appears to have the citizens well in hand in this respect, and they seem to have got into the right swing.

In Kingston the deaths appear to be very complete, but it is quite evident the births are not nearly all recorded, and here again a great many of the physicians appear to be utterly oblivious of the fact that upon them devolves the duty of making returns. The

Division Registrar however reports a great improvement in this respect.

In the Town of Cornwall registration matters appear to be on a very satisfactory basis, and I am convinced the records are practically perfect, the ratio being high both in

births and deaths. Of course there being a considerable French-Canadian element among the population will account to some extent for this, but the Division Registrar has given a great deal of attention to the work, and has imbued all classes of the community, even the physicians, with the idea that the Registration Act is a reality and that its provisions should be carried out as fully as possible, and consequently his returns are thoroughly reliable.

In Brockville much the same result is obtained by the same means. The Division Registrar uses every means in his power to get complete returns, and his earnest endea-

vors in this respect meet with a ready response.

In these last two towns the physicians render very great assistance to the Registrars, and consequently much fuller returns are obtained. In the neighboring town of Gananoque the reverse is the case, and the almost inevitable result follows: viz, much smaller returns.

We will now take a few towns in the north-western and northern districts of old Ontario, beginning with Goderich, where the Division Registrar states that "the Doctors do not report births," and the result is the returns are very low, being only 14 per 1,000 population. On the contrary they are particular in making death returns, and we find the ratio in this respect has increased in two years from 7.5 to 11.5. In Clinton much the same state of affairs exist, and the birth rate is stationary at 16 per 1,000 while the death rate is 11.5.

In Blyth the birth rate has fallen from 20 in 1896 to 10 in 1898, the death

rate having in the meantime gone up from 8.5 to 10.

In Orillia town again we have the old story of no birth returns from physicians, and a decrease from 17.5 to 14 is recorded in two years, the death returns being

much smaller than they should be as well.

In the rural municipalities, even to a greater extent than in the towns, much depends upon the individuality of the Division Registrar whether the returns are to be large or small, consequently the discrepancies between the different returns are very noticeable. In Pittsburgh township the birth rate is fairly high, being above 24 per 1000, while in Kingston township, immediately adjoining, the records show only 12.5. It seems scarcely possible that such a great difference should actually exist where the circumstances are so nearly alike. The death rate is practically the same in each municipality, being 14 in Kingston and 14.5 in Pittsburgh, which I should judge in both cases is pretty nearly correct.

In Caledon township the birth rate is low, being only 16 per thousand, though the Division Registrar thinks he gets nearly all the records; but his death returns show only 6.5 per 1,000, which is probably not one half of the actual occurrences. The fact of there being seven burying grounds in the township without caretakers probably accounts for many burials taking place without permits being obtained. This shows one of the

many difficulties in the way of complete registration returns.

In Huron county East Wawanosh township shows the birth records to be 32.5 per 1000 in 1896 and 28 in 1898, while Morris township only claims 18.5 in the former year and 14 in the latter, evidently away under the actual reality. The deaths in both cases show an average of about 10 5, which, after careful enquiry, I am inclined to accept as about correct, as the returns from all the townships in that part of the country indi-

cate a low death rate throughout the district.

In the newly settled parts of the Province known as New Ontario the returns are considerably higher than in the older sections, especially in respect to the birth records; but I have no reason to think that it is on account of more complete registration. Wherever the French-Canadian element is much in evidence, and this is the case throughout Nipissing, Algoma, Thunder Bay and Rainy River Districts, the birth rate is invariably large. A few instances will suffice to show the truth of this statement. In Balfour township for 1898 the births returns showed 60 per thousand, in Hallam 50, in Salter and Wray 50, in Nairn and Hyman 60, in Rayside 40, in Bonfield 50, in Caldwell 50, in Fevris 50, in Mattawa 50, in McKim 50, in North Bay 50, in Papineau 40, in Springer 50, in Sturgeon Falls 50, and in Sudbury 50. Were it not for these high figures and the returns from Essex and Prescott and Russell counties the birth rate of the Province would indeed appear very small. Among the other municipalities in

spected were the following, viz: Toronto, Cobourg, Port Hope, Belleville, Napanee, Hope Township, North Fredericksburgh, Brampton, Sault Ste. Marie, Wingham, Orillia Township, Oro, Gravenhurst, Machar, Lount, Laurier, Port Arthur, Fort William, Oliver, McIrvine, Alberton, Rat Portage, Keewatin, Turnberry, Wroxeter, Day Mills, Neebing, Schrieber, Mikado Mine, Regina Mine, Wabigoon, Dryden, Van Horne, Burlington, Toronto Junction, Weston, North Toronto and Etobicoke.

The following table shewing the birth and death returns from a few municipalities in each county of the Province, for the years 1893, '96 and '98 is well worthy of perusal as the eccentricities apparent upon its face, give a pretty fair indication that a great improvement must be made before our vital statistics can be looked upon as at all

reliable.

<u> </u>	Bir	ths per 1,0	000.	Dea	Deaths per 1,000				
	1893.	1896.	1898.	1893.	1896.	1898.			
Brant.—Oakland	19.	14.	10.	20.	4.	10.			
Brantford	22.5	20.5	23,	15.5	16.	13.			
BRUCE.—Eastnor Tp	33.	45.	31.	5.5	17.	6.5			
Walkerton	23.	21.	12.	145	10.	12.			
Paisley	24.5	15.	8.	13.5	10.	5.			
CARLETON.—Gloucester	38.	36.	33.	21.	17.5	21.			
Gower, North	6.5	13.	9.	2.5	7.5	12.5			
Huntley	9.	31.	21.	3.	11.	9.			
Hintonburg	_	54.	50.	_	25.	20.			
Dufferin.—Garafraxa, E	34.	20.	17.	11.	10.	8.			
Orangeville	10.5.	12.	9.5	13.	9.	8.5			
Shelbourne	23.	21.	25.	9.	15.	16.			
ELGIN.—Dorchester, S	24.	23.5	18.	16.	8.5	9.			
Dunwich	11.	11.	19.	5.5	8 5	16.			
Aldborough	18.	18.	18.	9.5	7.	8.5			
Essex.—Rochester	45.	46.	37.	16.	23.	17.			
Windsor	30. 15.	$\begin{array}{c} 22.5 \\ 17. \end{array}$	19.	18.5 6.	14.5 12.	11.			
Essex FRONTENAC.—Bedford	19. 33.	20.5	17.5 33.	15.	18.5	11.5			
	18.	$\frac{20.5}{12.5}$	12.	6.5	12.5	14.			
Kingston Storrington	13.5	25.	8.	8.	12.5	9.			
Grey.—Derby	27.	20.	25.	20.	14.	16.			
Proton	33.	28	32.	13.	8.	10.5			
Collingwood Tp	13.	8.5	11.	4.5	8.5	10.5			
HALDIMAND.—Rainham	27.	25.	25.	7.5	10.	15.			
Dunn	20.	15.	14.5	7.5	1.	20.			
Cayuga	28.	22.	15.	20.	9.	6.			
HALTON.—Milton	30.	25.	20.5	10.	16.	13.			
Georgetown	14.5	22.	18.	8.	10.	13.			
Oakville	22.5	15 5	20.5	11.	12.5	10.5			
HASTINGS Madoc	8.	12.	8.	2,5	5.	3.			
Monteagle	37.	40.	38.	7.	11.	9 5			
Belleville	14.	13.5	16 5	15.	15.	15.5			
Deseronto	26.	23.	35 5	10.	9.	12.5			
HURON.—Hullett	26.	24.	22.	13.	8.	10.			
Ashfield	24.	25	16.	5.5	10.	10.			
Goderich	14.	135	14.	5.5	7.5	11.5			
Kent.—Dover	36.	38.	36.	11.	10.5	14.5			
Chatham	8 5	195	21.	4.5	9.6	11.5			
Blenheim	25.	22.5	14.5	19.	9.	16.5			

1	Bir	ths per 1,	000	Des	000.	
	1893.	1896.	1898.	1893.	1896.	1898.
Lambton.—Euphemia			1898.  19. 20.5 18. 21. 19. 7.5 21. 16. 20.5 30. 14. 12.5 38. 15. 17.5 18. 26.5 13.5 29. 17. 33.5 13. 21.5 41. 30. 14.5 23. 18.5 16.5 12. 20. 19.5 18. 52. 25. 35. 23.			
PRINCE EDWARD.—Athol Sophiasburgh	12.5 34. 27. 16.	21. 40. 17.5 22.	32.5 22. 16. 21.	5. 7.5 12. 7.	9.5 5. 17.5 17.5	15. 12. 11.5 11.
Marysburgh, N. RENFREW.—Hagarty Annpior Westmeath SINCOE.—Medonte Essa Adjala STORMONT.—Winchester	15.5 40.5 18. 17. 34. 8. 7. 30.	17.5 21.5 49. 19. 31.5 14. 4. 31.5	10. 22.5 38. 15. 33. 7.5 12.5 25.	15. 17.5 9.5 17.5 9. 3.5 6. 13.	7.5 6.5 16 5 3. 7.5 7.5 4.	10. 8. 13.5 5.5 7. 8.5 7. 11.
Lancaster Cornwall Ircquois	7. 24. 4.	18.5 36. 10.	13. 30. 8 5	2 5 17. 5.	6. 17.5 5.	8.5 19. 20.

				1				
	Bir	ths per 1,	000.	Deaths per 1,000.				
	1893.	1896.	1898.	1893.	1896.	1893.		
VICTORIA.—Mariposa	26.	25.	28.5	14.	17.5	14.		
Emily	5.5	11.	12.	8.5	13.	10.5		
WELLAND.—Bertie	29.	20.	18.	7.5	8.5	12.		
Pelham	14,5	18.5	15.	11.	11.	13.		
Welland	22.5	15.	16.5	13.	6 5	145		
WATERLOO Woolwich	35.	. 30.	29.	9.	13.	7.5		
Dumfries, N	21.5	21.	.20.	65 *	7.	8.5		
Berlin	$28 \ 5$	22.5	24.	13.5	135	13.5		
Galt	23.	18	15.5	105	9 5	13.		
WELLINGTON-Garafraxa, W	28.	26 5	38.	13.5	7.	10.5		
Arthur	16.	10.	10.	3.	11.	7.		
Luther, W	21 5	29.	23 5	8.5	2.5	8.		
WENTWORTH, -Ancaster	25.	26.	23.	16.	11.5	11.5		
Hamilton · · · ·	23.5	22.5	22.	15.	14.5	15.		
Flamborough, E	22.5	26.	20.	10 5	7.	12.		
YORK.—Etobicoke	29.	25.5	21.	18.5	16	19.		
Richmond Hill	8.	16	20.	2.	14.	9.5		
Aurora	19.	115	14.5	10.	105	10.		
Whitchurch	24.	25.	22.	10.	8.	5.		
4								

I include no returns from any of the outlying districts in the foregoing summary, but confine myself to those portions of the Province where the Registration Act has been in force for a period of nearly a third of a century, and yet we find within the past six or seven years such a glorious irregularity attached to these returns that they are practically rendered useless as a basis of calculation. The birthrate, it will be seen, runs from 54 per thousand to actually nothing, while the death rate shows 26 as the highest and 1 as the lowest. Of course no fair comparison can be made between what might be termed the "extreme sections" of the Province as both the births and deaths actually taking place are much greater in some places than in others, but in the following municipalities a retrograde movement to an alarming extent seems to have set in. In Nepean township the recorded death rate has fallen from 26 to 10; in Paisley village the birthrate from 24.5 to 8, the death rate from 13.5 to 5; in Walkerton town the birthrate from 23 to 12; in Eastnor township the birth rate from 45 to 31, the deathrate from 17 to 5.5; in Oakland township the birth rate from 19 to 10, the deathrate from 20 to 10; in Sterrington township the birth rate from 25 to 8; in Cayuga village the birthrate from 28 to 15, the death rate from 20 to 6; in Watford town the birthrate from 32 to 18, the deathrate from 21 to 8; in Blenheim town the birth rate from 25 to 14.5, the death rate from 19 to 9; in Ashfield township the birth rate from 25 to 16; in Turnberry township the deathrate from 16 5 to 8; in Lanark township the deathrate from 19 to 9; in Streetsville village the birth rate from 25 to 12; in Oxford North township the death rate from 15 to 7.5; in Westmeath township the death rate from 17.5 to 3; in Bertie township the birth rate from 29 to 18; in Hagarty township the birth rate from 40.5 to 21.5, the death rate from 17.5 to 6.5; in Athol township the birth rate from 27 to 16; in Galt town the birth rate from 23 to 15.5; in Arthur village the birth rate from 16 to 10; in Etobicoke township the birth rate from 29 to 21. In a few instances I am pleased to say a steady improvement is noticeable, but on the whole what strikes the observer most forcibly is the great uncertainty which pervades the returns from year to year, they may be pretty nearly correct or they may be so far astray that "he who runs may read" how wide of the mark they actually are. The birth rate of old Ontario is certainly a low one at best, but from careful observation I am inclined to think that fully 25 per cent, may be added to the recorded returns throughout the whole Province in order to make them approximately correct. As to death returns in many localities they are so nearly complete that probably

an addition of fifteen per cent, to the total number received by the Department would bring the records up to the actual reality. In regard to marriage returns I have little complaint to make as it would appear they are pretty fully recorded in every section of the Province. After an experience of nearly four years with the amended Registration Act I regret to say that the hopes expressed in my report of 1896 "that before the closing years of this century the vital statistics of Ontario will be very reliable and pretty near complete" has by no means been gratified. For a couple of years immediately succeeding the passing of the amended act a great improvement was noticeable in nearly every respect, so that I felt satisfied the problem of complete registration was shortly about to be solved. But the efforts of the Division Registrars as far as quantity is concerned seems to have been of a spasmodic nature, as the returns which in 1897 reached high water mark fell off lamentably, excepting in marriages; in the following year, and from present indications I fear that when all the schedules are received for 1899 a still further shrinkage will be noticeable in the birthrate. To a certain extent this is accounted for by the fact that for some little time after the passing of the amended act there was a tendency to register births and deaths which had occurred some years previously and had not been registered up to that time, but this would not mean one half of the decrease shown in 1898. would seem that the very fact of the publicity given to the question of vital statistics by the discussion upon the amendments to the act had for a time a most beneficial effect, and had awakened the people to the necessity of making returns, but alas that awakening was of short duration and they appear to have fallen into a still deeper sleep. As far as the derical work is concerned I am pleased to note a steady improvement on the part of the Division Registrars and comparatively few schedules have now to be sent back for correction.

In looking for reasons for the defective registration of births and deaths several very cogent ones present themselves. In the first place we know that "what is every-body's business is nobody's business," and when the ordinary citizen learns the number of people who are called upon to see that the proper registration is made he is apt to decide to "leave it to the other fellow." As a matter of fact householders have frequently told me that they thought that the doctor was sure to make the return, while physicians, almost to a man, feel certain the record will be made by the householder.

In marriages the clergyman alone is made responsible for the proper information being given, and these records are certainly by all odds the most satisfactory obtained by

the department.

It is probably necessary that more than one party should be called upon to see that births and deaths are registered, but at the same time that very fact is certainly one of the obstacles in the way of complete returns. Then we find that the quarter from which we can and should receive the greatest assistance is practically of no use to us whatever.

It is with regret that year after year I have been forced to report that the physicians scarcely give any assistance to the Division Regis rars in regard to birth and death Whatever the profession as a body may understand of the Act it is clear that individually very few medical practitioners feel themselves bound by any of its provisions. After nearly four years existence of the section making it imperative for "every qualified medical practitioner attending at the birth of any child born within this Province to give notice forthwith thereof to the Registrar of the Division in which the child was born," We find it is observed chiefly in its breach, and many doctors are not aware to day that such a section is in the Act. An equally strong paragraph relating to their duties in connection with the registration of deaths is also ignored to a great extent throughout Referring to the physicians in this connection in my report of 1891 I then stated: "I regret to say that as a rule they simply do not do their duty, and when such an intelligent and highly educated class fails to carry out the law it can scarcely be expected that 'the masses' will comply with it in every respect." What was true then is unfortunately almost equally true to day. Educating the profession to do work in which they take such little interest makes slow progress in Ontario.

We will now consider the position of the Division Registrar which as the Act provides is filled by the Clerk of each municipality. I desire to again place on record my opinion that as a rule these efficials are active and intelligent men who are painstaking

and energetic in their capacity as Municipal Clerks, but they are with few exceptions very much underpaid for the work they are called upon to do. It is surprising to learn even in comparatively wealthy municipalities how meagre their salary really is, while in many of the smaller townships they receive a mere pittance for work that certainly is of considerable importance. Under these circumstances these gentlemen do not feel very much like devoting time or attention to the duty of collecting vital statistics. In cities and towns their time is principally taken up with their municipal work, while in townships the area is so great which they have to attend to that it is a most difficult matter to secure complete returns. Then again, the work connected with the Registration Act is of an ex officio nature; the registrar is not appointed by this Department, and consequently there is a feeling among many of them that they cannot be held responsible for work which is outside of their regular duties.

Taking all these matters in consideration is it any wonder we find that so many Division Registrars are quite satisfied with the returns that come to them in the ordinary course of events, and think they have done their full duty when they record these returns and send their schedules to this department once every six months. The Registrar General may not be satisfied with the extent of the returns made, but what is he to do? The Division Registrar states he has used "all available means to obtain the necessary information," as called upon to do by the Act. He cannot be expected to go to any great expense in obtaining such information and his statement that he "has used all available means" must be accepted. He is a municipal clerk, not a government official. Were he the latter, while the returns might yet be far from complete, they certainly would not display the great discrepancies shown in the table of comparisons attached to this report.

I have the honor to be, Sir,

Your obedient servant,

R. B. HAMILTON,

Inspector.

TABLE 1.

Table showing the total number of Births, Marriages and Deaths in each County in 1898.

oof jon.		Deaths.	4118.00.00.00.00.00.00.10.11.0
Ratio to 1,000 of the population.	definition of the second	Marriages.	
Ratio the F		Births.	20.00000000000000000000000000000000000
	ttion 1897.	Бестеяве,	151 233 201 105 1163 1163 1163 1163 1163 1163 1163 116
Totals.	Variation from 1897.	Тпстеяве,	22 32 16 16 16 16 16 16 16 16 16 16 16 16 16
Ĭ	*868	I ni rədmnM	1, 282 2, 282 2, 282 2, 282 2, 282 2, 282 3, 468 4, 494 4, 494
	ation 1897.	Бестеляе,	66 23 53 53 53 53 53 53 53 53 53 53 53 53 53
Deaths.	Variation from 1897.	Increase.	31. 31. 31. 32. 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
ğ	.868	I ni rədmu <b>N</b>	25 1,050 1,050 1,050 1,009 1,00 1,00
χģ	ation 1897.	Бестеаве.	10 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Marriages	Variation from 1897.	Increase.	22 22 22 22 22 22 22 22 22 22 22 22 22
Maı	*868	I ni rədmuN	195 261 370 661 153 153 117 117 117 117 118 118 118 118 118 118
	ation 1897.	<b>Decresse.</b>	88 88 100 100 100 100 100 100 100 100 10
Births.	Variation from 1897.	Іпстеяяе.	36 42 42 50 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
B	*868	31 ni rədmuN	817 1,310 2,183 4183 4183 1,607 1,607 1,123 1,17
	. •u	Populatio	17, 810 39, 109 88, 228 88, 228 88, 228 89, 228 109, 417 109, 417 109, 417 109, 417 109, 417 109, 417 109, 417 117, 782 109, 417 109, 417 10
	Counties		ligona frant frant frant france arleton franterin frontenac frey frontenac frey frontenac frey fraldimand faltourton frey frey frey frey frey frey frey frey

-		_	_	_	-	_			_	-	_						 	-
13.6	9.2	10.8	12.7	13.6	11.0	26.1	9.6	11.3	11.3	16.4	10.8	10.2	12.9	6.0	13.0	11.8	11.5	
7.6	4.3	6.7	6.9	7.7	0.9	22.6	6.9	7.0	5.8	12.5	6.3	5.7	7.8	5.6	2 9	8.9	6.7	
43.0	15.3	18.0	21.9	35.6	15.0	52.1	27.4	22.8	17.8	43.6	20.5	21.2	19.9	18 7 1	19.8	18.2	20.4	
102	00			27	43		327	9	147			110	09			66	2,750	
		133	8			47				21	41			-	255		845	
1,016	692	1,974	1,574	2,599	652	456	2,189	3,160	2,620	423	1,338	2,014	1,339	2,149	3,348	11,139	88,344	
16				139		_			95		:	31	44	333	:	300	1,575	
:	20	22	30	:	:	-	:	:	:	:	20				87		312	
215	245	601	481	623	224	119	490	872	847	96	385	554	425	593	1,104	3,571	26,370	
35	27				20	:	13	11	:	:	-	35	20	18			713	
:		29	32	09	:	40	:		20	50		:			17	241	795	
121	116	374	262	353	123	102	342	544	435	73	224	309	258	359	266	2,069	15,375	
51	:	11	59	:	13	:	169	:	72	:		44	:		:	40	1,378	
	14	•		22	:	36	:	27		ဆို	37		4	52	151	•	654	
089	408	666	831	1,623	305	235	1,357	1,744	1,338	254	729	1,151	656	1,197	1,678	5,509	46,599	
15,794	26,687	55,498	37,889	45,566	20,265	4,508	49,370	76,974	74,836	5,836	35,401	54,169	32,869	63,782	84,617	301,250	 2,279,929	
Parry Sound	Peel	Perth	Peterborough	Prescott and Russell	Prince Edward	Rainy River	Renfrew	Simcoe	Stormont, Dundas and Glengarry	Thunder Bay	Victoria	Waterloo	Welland	Wellington	Wentworth	York	Totals	

TABLE 2.

Table showing the total number of Births, Marriages and Deaths in each City in 1898.

	1000 tion.		Deaths.	14.3	14.2	25.7	14.2	17.1	16.0	10.5	14.0	16.9	14.0	11.8	14.2	14.6	15 6
-	to pula		маттіадев.	8.4	8.2	12.6	8.6	7.5	11.1	8.4	9.9	6.7	10.2	8.2	63.6	13.6	10.3
-	Ratio of Po		Births.	20.6	6.02	28.4	18.8	17.1	28.2	14.2	21.6	16.0	15.9	15.6	9.02	15.5	20.6
0		atien 1897.	Бестеляе.	17	:	:	-	48	35	110	П	22	14	:	:	90	342
	Totals.	Variation from 1897	Increase.	•	228	174	99	:	:	:	:	:		81	17		614
	Ē		Number in 1898.	8,684	2,285	3,168	1,390	862	758	369	480	391	427	363	1,092	425	20,694
		Variation rom 1897.	Бестеаве.	256	:	21	•	9	29	40	:	:	38	:	11	19	420
	Deaths.	Variation from 1897	Increase.		73	:	15	:	:	:	25	2	•	17	:		137
1	A		Mumber in 1898.	2,866	749	1,221	474	353	219	117	159	167	149	120	158	142	6,894
	σ'n	ation 1897.	Dестеаяе.		:	:	30	40	:	<b>!~</b>	23	22		:			122
	Marriages.	Variation from 1897.	Increase.	195	22	119	•	:	15			:	9	39	06	17	503
	Ma		Mumber in .8981	1,696	434	598	289	155	152	94	75	99	109	84	202	132	4,589
		ation 1897.	<b>Decrease</b> ,				:	67	21	63	13	43	:		∞	48	197
	Births.	Variation from 1897.	Increase.	44	133	92	22	:	:	•	:	:	18	25	:	:	371
	Д		Number in 1898.	4,122	1,102	1,349	627	354	387	158	246	158	169	159	229	151	9,111
		·uo	Populati	199,917	52,562	47,382	33,273	20,668	13,682	11,120	11,303	9,837	10,639	10,191	11,074	9,712	411,360
			Gities.	Toronto	Hamilton	Ottawa	London	Kingston	Brantford	St. Thomas	Guelph.	St. Catharines	Belleville	Stratford	Windsor	Chatham	Total

Table showing the total number of Births, Marriages and Deaths in each Town in 1898. TABLE 3.

<del></del>						
de tante material de	1000 tion.		Deaths.	255441155 F C E E E E E E E E E E E E E E E E E E	13.4	
	Ratio to 100C of Population.		Martiages.	688657677777777777777777777777777777777	10.3	
	Rati of P		Births.	4.628.41.821.921.928.83.82.92.92.92.92.92.92.92.92.92.92.92.92.92	21.2	
		tion 1897.	Decrease.	01-04-18	469	
	Totals.	Variation from 1897	Increase.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	202	
	Ţ		Number in 1898,	223 24173 2636 2636 2636 2636 2636 2636 2636 26	6,677	Table 12
		ation 1897.	Бестеляе.	4	182	from
	Deaths	Variation from 1897.	.esseronI	20 20 20 20 10 11 11 11 11 11 11 11 11 11 11 11 11	132	omitte
	Ã		ni redmu <b>V</b> 1898.	0312814128188188188188149188188188188188181881	1,991	nas been
	σġ	ation 1897.	Decrease.	80 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	172	totals
	Marriages	Variation from 1897.	Increase.	111 141 171 111 12 20 20 20 20 20 20 20 20 20 20 20 20 20	131	ароме
-	Mar		Number in \$881.		1,537	ed in the
1		tion 1897.	Decrease.	## 0 1 424411	311	includ
-	Births.	Variation from 1897.	Increase.	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	137	Orignal
-	Д		Number in 1898.	28828	3,148	The Town of L'Orignal included in the above totals has been omitted from
-		.noi	Populat	0.000000000000000000000000000000000000	148,621	The To
		Towns.		Barrie Brockville Brain Brachidge Brampton Coboung Coyuga Goderrich Lindsay L'Organ Nilton Nitten Nistara Falls North Bay Orangeville Own Sound Parry Sound Petry Lorgan Rat Portage Sarnia. Waltand. Waltand.	Total	

TABLE 4.

Illegitimate Births, Twins and Triplets in the Province.

	Illegitimate Births.	Ratio to 1,000	N	N
No.	Proportion to whole number of births.	births.	of twins.	Number of cases of triplets.
678	One to every 68 births	14.5	306	7

TABLE 5.

Births in the Province in 1898, showing the Proportion of Male to Female Births.

Sex.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October,	November.	December.	Total.
Males	1,975	1,863	2,196	2,081	2,008	1,930	2,090	2,157	2,115	1,932	1,725	1,824	23,896
Females	1,853	1,819	2,120	1,962	1,958	1,834	1,936	2,122	2,030	1,741	1,591	1,737	22,703
Total	3,828	3,682	4,316	4,043	3,966	3,764	4,026	4,279	4,145	3,673	3,316	3,561	46,599
Male births to													
100 female births	106.5	102.4	103.6	106.0	102.6	105.2	107.9	101.6	104.1	110.9	108.4	105.0	105.2

TABLE 6.
Order of Births by Months in the Province.

Months.	Males.	Months.	Females.	Months.	Total males and females.
March	2,196	August	2,122	March	4,316
August	2,157	March	2,120	August	4,279
September	2,115	September	2,030	September	4,145
July	2,030	April	1,962	April	4,043
April	2,081	May	1,958	July	4,026
May	2,008	July	1,936	May	3,966
January	1,975	January	1,853	January	3,828
October	1,932	June	1,834	June	3,764
June	1,930	February	1,819	February	3,682
February	1,863	October	1,741	October	3,673
December	1,824	December	1,737	December	3,561
November	1,725	November	1,591	November	3,316
Total	23,896	Total	22,703	Total	46,599

TABLE 7.

Marriages by Months in the Province,

Months.	1897.	Months.	1898.	Quarters.	1897.	Quarters.	1898.
December	1,896	June	1,741		4,733		4,455
June	1,682	December	1,532		3,577	Quarter ending June 30	3,835
September	1,633	October	1,488		3,522		3,550
November	1,453	September	1,483	Quarter ending Mar. 31	3,437	Quarter ending Mar. 31	3,531
October	1,384	November	1,435	Date not given	24	Date not given	4,
March	1,227	March	1,204				
January	1,147	April	1,197				
February	1,063	January	1,173				
April	989	February	1,154				
July	968	August	1,145	-			
August	921	July	922				
May	906	May	897	-			
No date given	24	No date given.	4		•		
Total	15,293	Total	15,375	Total	15,293	Total	15,378

TABLE 8. Marriages by Denominations in the Province.

Denominations.	'Nnumber of persons married.	Per cent. of whole.	Proportion to the whole number of persons married.
Methodists	10,382	33.8	2.9
Presbyterians	6,400	20.8	4.8
Church of England	4,902	16.0	6.2
Roman Catholics	4,657	15.1	6.6
Baptists	1,908	6.2	16.1
Lutherans	723	2.3	42.5
Congregationalists	271	.9	113.4
Evangelical Association	157	.5	195.8
Mennonites	127	.4	242.1
Quakers	32	.1	960.9
Other denominations	853	2.8	36.0
No denominations given	338	1.1	91.0
Tctal	30,750	100.0	

TABLE 9. , wing the Death rate per 1,000 of Population in each County of the

Showing the Death rate per 1,000 of Population in each County of the Province for ten years.

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Counties.	1889.	1890.	1891.	1892.	1893.	1894.	1895	1896.	1897.	1898.	Average rate for
Algoma Brant Bruce Carleton Dufferin Elgin Essex Frontenac Grey Haldimand Halton Haliburton Hasiings Huron Kent Lambton Lanark Leeds and Grenville Lennox and Addington Lincoln Middlesex Muskoka Norfolk Northumberland and Durham Nipissing Ontario Oxford Peel Perth Peterborough Prince Edward Parry Sound Rainy River Renfrew Simcoe Stormont, Dundas and Glengarry Thunder Bay Victoria	12.7 7.4 18.2 9.7 9.2 12.1 15.9 7.0 8.6 9.5 8.6 9.5 8.4 11.4 10.4 10.9 9.2 8.3 10.6 14.3 10.1	12.3 7.1 18.4 10.0 9.9 12.5 15.7 7.3 6.7 8.9 10.6 7.4 8.3 9.1 8.8 7.3 11.6 8.1 9.9 11.1 7.8 8.2 11.4 11.3 11.3 11.3 11.3	10.5 8.3 8.9 10.8 9.2 12.0 13.7 7.4 8.2 9.3 8.0 8.3 8.4 8.1 10.1 10.9 10.1 10.1 10.1 10.1 10.1 10	11.4 8.3 13.6 9.6 9.1 12.2 14.5 7.7 10.3 9.2 8.9 8.5 8.7 4 7.2 1.0 9.5 10.1 11.4 7.5 9.1 11.2 9.1 12.9 11.5 12.9 11.5 12.9 11.5 12.9 13.6 13.6 13.6 13.6 13.6 13.6 13.6 13.6	11.3 8.3 15.5 8.9 9.9 11.9 12.4 7.7 6.6 9.0 8.6 9.0 11.4 17.6 8.2 7.0 11.4 10.1 10.3 10.9 8.1 10.3 10.9 8.1 10.8 11.9 8.1 10.8 10.8 10.8 10.8 10.8 10.8 10.8	10.4 8.7 16.9 7.3 8.5 11.6 17.8 9.5 8.7 8.2 7.9 7.4 9.3 8.0 8.9 10.2 13.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	12.1 7.9 17.7 7.9 10.2 12.0 11.2 8.1 8.9 10.7 9.2 7.6 6.8 13.1 9.6  9.2 9.9 9.0 10.4 11.7 9.7 10.7 9.8 10.7 9.9 10.7 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8	12.3 9.7 17.9 8.0 10.1 12.6 13.3 9.7 7.7 9.2 12.4 11.2 8.3 9.8 8.6 10.2 10.9 9.4 12.2 11.3 9.4 12.1 13.3 9.4 13.3 9.4 13.3 9.4 10.2 11.3 9.4 11.3 11.3 11.3 11.3 11.3 11.3 11.3 9.4 11.3	15.9 12.2 9.7 20.3 8.4 11.0 12.9 9.5 10.5 10.5 11.7 10.8 11.8 11.8 12.6 11.4 10.5 11.4 10.5 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11	14.0 11.2 8 6 19.8 9.6 10.2 12.3 13.9 9.8 9.8 9.5 10.8 9.7 11.6 9.7 11.3 12.6 11.0 11.0 11.0 11.0 11.0 11.3 11.3 11.5 11.3 1	11.6  8.4 16.7 9.0 9.7 12.2 8.6 9.1 9.7 9.8 8.8 8.8 9.4 10.1 10.0 10.0 10.9 8.2 8.9 11.4 11.5
Waterloo. Welland Wellington. Wentworth. York	11.1 11.1 10.0 15.1 19.0	11.9 9.4 9.2 14.4 16.3	11.6 12.4 10.1 13.2 15.9	10.5 10.5 10.6 11.7 16.4	9.9 11.1 9.8 13.1 16.1	9.9 9.5 10.3 12.5 13.1	10.1 11.0 9 5 12.7 13.2	10.1 12.1 9 5 13.2 12.4	10.9 14.4 9.9 12.1 12.9	10.8 10.2 12.9 9.3 13.0 11.8	10.6 11.4 9.8 13.1 14.7
Average rate	10.7	11.1	10.2	10.7	10.6	10.3	10.1	10.9	12.2	11.5	10.8

Owing to the changing of territorial boundaries in Algoma, Nipissing, Muskoka and Parry Sound, they have been inserted in this table for 1897 and 1898 only.

TABLE 10.

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TABLE No. 11.

Recapitulation by Classes of Diseases by Cities, 1898.

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TABLE No. 12.

Recapitulation by Classes of Diseases by Towns, 1898.

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	Social condition	.bəir	yıvı		18	118	99	65	53	66	25	11	:	:	87	- 23	16	50		210
	00	gle.	BuiS		97	156	105	22	74	143	7		1	61	234	63	37	10		068
		.betated.	JoN		11	18	10	9	ಣ	4		:	:	:	ಣ	:	12	7.0		13
	Nativity.	eign.	For		12	111	65	<del>1</del> 9	59	33	88	2	2	:	144	1	27	15		573
	Nat	ada.	Can		111	294	159	86	110	177	33	11	-	က	268	9	20	35		1341
		stated.	Not				:	:		:	:	:	:	:	П	:	***************************************	:		I
	Sex.	ายโดเ	L'en		64	229	110	73	85	121	28	13	1	:	196	ಬ	17	26		896
-	02	*6*	Mal		20	194	124	88	90	93	44	:	67	ಾ	218	4	7.5	26	-	1023
		Cause of Death.		I Communicable (Enidemic)	diseases	II. Other general diseases	and organs of sense	ten ten	system	System	urinary system	III. Puerperal diseases	cellular tissue	Diseases of the focomotor system	infancy, diseases of old	XII. Suicide	KIII. Accident	XIV. Ill-defined causes		Totals
				-		III	IV	4 >				HI.	4	i i		XII.	CIII.	XIV		

TABLE

## TOTAL DEATHS BY INDIVIDUAL

			de .e	m-		1,000			v									1		
Services -	Algoma.	Brant.	Bruce.	Carleton.	Dufferin.	Elgin.	Essex.	Frontenac.	Grey.	Haldimand.	Halton.	Haliburton.	Hastings.	Huron.	Kent.	Lambton.	Janark.	Leeds & Grenville.	Lennox & Addington.	Lincoln,
Typhoid fever Smallpox Measles Scarlet fever Whooping cough Diphtheria and croup. Influenza Other epidemic diseases. Pyaemia and septicaemia Malarial fever Tuberculosis and scrofula Syphilis. Cancer. Rheumatism and gout. Diabetes. Other general diseases. Alcoholism, acute & ch'ic. Encephalitis Simple meningitis. Epidemic cerebro-spinal meningitis. Congestion and hemorr- hage of the brain. Paralysis without speci- fied cause. Insanity. Epilersy. Conv'lsions (n't puerperal) Other nervous diseases. Angina Pectoris. Diseases of the Arteries, Atheroma, Aneurism, et' Other Diseases of the Cir- culatory System Acute Bronchitis. Broncho-pneumonia. Pneumonia Pleuisy. Cong t'n of the Lungs (in- clud'g pulmonary apop) Asthma and Emphysema Ot'er Dis'ases of the Sto- mach (Cancer excepted) Infantile Diarrhea and Gastro-enteritis, (Chol- era Infantum) Diarrhea and Enteritis (not infantile). Dysentry He nia and Intestinal ob- structions.	1	12 · · · · · · · · · · · · · · · · · · ·	13 · 1 3 · 2 1 6 · 82 · · 6 · 82 · · 6 · 1 4 4 7 · · 1 3 5 19 1 12 2 12 12 5 · · · 3 28 1 1 7 2 6 6 2 2 28 1 9 1 · · · · 3	25 :	3	5 2 7 2 2 15 6 10 13 4 4 9 2 2 8 1 1 16 1 17 1 3 2 2 2 11 3 2 2 2	8 · · · · 3 5 8 8 11 1 8 8 · · · · · · · · · · · · ·	24 5666 12 1.10 230 54 51 19 33 8 15 32 2 3 3 18 2 2 7 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	11 1 2 8 8 11 10 24 90 8 7 11 28 3 2 2 11 1 1 43 1 15 5 2 3 2 3 2 3 3 8 2 2 2 11	6 · · · · · · · · · · · · · · · · · · ·	6 2 1 6 1 4 1 3 11 1 1 2 4 1 1 2 2 1 1 1 1 2 2 1 1	H113	12 · · · · · · · · · · · · · · · · · · ·	9 · 2 7 4 7 7 3 1 5 5 1 1 1 3 6 6 · · · · 31 2 1 8 1 3 1 6 4 2 2 · · · · · · · · 5 5 1 1 1 3 6 6 · · · · · · · · · · · · · · · · ·	11 · · · · 12 4 4 36 6 6 · · · · · · · · · · · · · · · ·	13	2  5 9 11 1 3 11	12 .56671 152 .19 132 .34866 2 .8866 5 .273 3 .122 472 2472 2472 1210 4321	5	8 114 1 7 47 166 2 24 2 6 12 1 28 8 2 30 1 11 9 9 7 32 1 5 15 9
Dysentery He minand Intestinal obstructions.	1	3	3	3	3	1 2	3 2	3	5	2			3	3		2	1	3	2	4

No. 13.
DISEASES BY COUNTIES IN 1898.

	2 ***.	3-																						
Middlesox	Muskoka.	Norfolk.	Northum'd & Durh'm.	Nipissing.	Ontario.	Oxford.	Peel.	Perth.	Peterborough.	Prescott & Russell.	Prince Edward.	Parry Sound.	Rainy River.	Renfrew.	Simcoe.	Stormont, D. &- G.	Thunder Bay.	Victoria.	Waterloo.	Welland.	Wellington.	Wentworth.	York.	Totals.
22 24 24 22 23 5 2 23 4 135  51 2 7 4 1	3 .:1 .:5 2 .:2 .:9 .:6 .:	6 2 1 4 4 4 36 1 1 16 4 5 15 15	13 . 8 5 3 9 6 . 18 1 97 1 37 6 2 2 1 5 7	4 2 1 4 15 3 3 3 3	$\frac{7}{3}$	13  8 4 8 5  12 1 72  15 7 21 1  2 3	2 2 2 6 2 35 19	6 2 15 1 11 3 1 14 96 32 1 6 4 48	11 1 1 2 6 3 1 6 3 6 9  18 6 4 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5 11 3 3 31 6 2 8  7 4 2  13 6	3  2 7  24 1 13 1  2 6	2 3 5 32  3  2 1	15 1 2 1 5 15 12 2 15	ii 48 i2 1	8 4 2 11 6 25 1 105 27 6 2 2 6 1	10 8 4 23 13 4 1 17 116  28 5 6 6 5		11 7 6 7 4 1 50 9 3 3 1 5	12 3 7 1 21 5  13  29 6 4 4 1	6  2 2 3 3 3  10 1 36  23 1 2 3 3  6 1	2 34 56 20 67 38 4 1 1 24 1	10 	39 30 84 422  64 4 554 8 156 15 17 19 27 42	405  115 222 126 634 192 25 3,291 14 975 140 157 112 17 198 214
2	1	2	3	1	5	5	1	5	2	5	1	1		3	3	4	1	5	1	6	2	14	37	190
<b>3</b> 9	3	12	24 5	1	23 1	22 2	8	25 2	18	6	2 3	9	2	6	24	13 1	3	5	31	17	20	48 6	131 17	771 65
42 6 5 25 2 1 3 68 1	3  5 1  13 1	17 2 12  2 15 3	38  4 20 5 2 3 33 3	1 12  8	5 1 13 3 1 1 34 2	31 1 15 3 3 1 31 2	6 1 6 1 10 1	14 1 1 14 1  5 27	10 3 16 1 1 1 21	14 2 12 1 1 	7 1 1  10	1 1 1 13 1 1 2 11	3  3	6  7 11 1  1 14 1	26 9 18 1  4 37 1	26 1 3 17 5 2 3 32	1  7  5	8  3 12 2 1  18	7  17 1 1 2 26 3	33  2 19 1  20	24 20 3  3 34	33 14 3 21 4 2 3 60 3	78 18 21 116 10 1 17 194 2	825 71 101 686 76 23 68 1,260 46
1	1		1		1		• •	1	1	1		1				2				2	1		6	29
24 10 9 2 51 3	1 11 1 10 9	10 6 3 3 23 1	20 12 9 8 66 3	1 8 1 16 1	7 7 2 4 26	5 1 3 3 52 1	12 2  4 17 1	14 9 1 6 33 3	8 9 1 20	5 9 1 33	6 1 4 14 1	5 1  3	3 2  2 10 1	6 11 3 1 24	14 29 5 7 59 3	16 8 4 2 61 3	1 5 2 7 1	7 7 2 1 16 1	7 15 6 6 25 3	12 10 3 3 19	13 8 4 5 37 4	8 22 8 20 85 2	30 55 24 49 167 5	425 398 168 208 1,512 70
10 3	1	1 3	15 4	2	5 3	5 1		4 7	2 2	6 3	1	2 1		5 1	3	11 5		5 1	6 3	7 1	5	7 6	20 17	223 109
1 1		1 1	·. 1	1 	1 	3	1		1	1 1				i		1				1	1	4 1	4	27 23
10	2	1	5	1	9	5	2	2	5	3	2	2	••	2	6	3	3	4	1	6	3	5	22	193
37	4	14				15	4				7	12	8	42	41	47	4	18	24	17	22	40	226	1,325
17 5	5	7 2		6	6° 3	9	2	8 4	9	13	4	1		8	19 5	10 6		6	4 2	7	4.	7 2	15 10	347 10 <b>1</b>
8	2	t,	6		2	4	1	3	3		1	1			5	• 6		3	8		7	3	10	131

TABLE No. 13.
TOTAL DEATHS BY INDIVIDUAL

															LLI			.,,			
	<u></u>	Algoma.	Brant.	Bruce,	Carleton.	Jufferin.	Elgin.	Евяех.	Frontenac.	Grev.	Haldimand.	Halton.	Haliburton.	Hastings.	Huron.	Kent.	Lamhton.	Lanark.	Leeds & Grenville.	Lennox & Addington.	Lincoln.
	Oth'r Diseas's of the Int'st Diseases of the Liver Peritonitis (n't puer peral) Iliac absc's (typhlitis, peri-		1 6 4	6	12				4 3 6	1 13 8	 4 1	 6 1	• •	ii 6	·	-1 6 8	 8 4	7 5	1 5 3	6	
stem.	typhlitis, appendicitis. Acute Nephritis Bright's Disease Other Diseases of the Kid-	3		3	5			1 2 13	5 1 16	5	1 ·:	3	i	5 1 21	4 3 8	2 1 13	4 5 14	3 1 8	3 3 28	6	1 '6
Diseases of Urinary System.	neys and Adnexa Vesical Calculi Diseases of the Bladder Diseases of the Male Gen-	i	1 4	2 6	9		1 5	 4 3	3 3	1 1 5	: :00	2		i	1 2 3	1 2		i	5	i	6
ses of Ur	ital Organs.  Metritis.  Oth'r Dis'es of the Uterus Ovarian Cysts and other				1 1 1	i		 1	• •	1	• •	• •			i	1 	i	i 1	1	• •	
	Ovarian Tumors Other diseases of the Female Genital Organs. Puerperal Septicaemia. Puerperal Albuminuria	3	2	··i	1 4	• •	··· 1	3	• •	2	··i	• •		3	2 1	•••	•••	i	i		··i
Puerperal Diseases.	and Convulsions	2	1	6	••••	3	3	1 6	3	7	1 2	2	3	5	4	5	1 2	4	••		1 2
	Breast			i	5	i	• •	i	i	• •	1			2	2		3	2	2	i	'i
Dis. of Dis. of Loco. of motion. Skin	Pott's Disease		23	27	110	5	ii	i 38	17	2	•••	8		3	1	95		12			17
Malforma- tions.	Still-Births Congenital Debility and Malformations Other Diseases of Infancy Senile decay	35	29 2 59	46 2 85	119 138 4 118	14	10 20  75	74 1	17 37 116	15 52 3 103	11 31	15 1 29	8	5 43 2 84	14 47 2 95	25 44 2 72	15 43 2 69	31 61	38 1 98	28	15 28 37
Suicide.	By Cutting Throat Poison. Strangulation Gas Poisoning		i	1 2		i	,	1 2 	i	1 1	2	1			`i 		• •	1	1 1	1 1	•••
·χ	Drowning   Firearms.   Poison   Fractures & Dislocations   Gunshot.		2 7 1	1 1 7	1 1 12	3	8	1 12	1 i2	1 1 17	8	1 2 1	1	3 2 3 7	1 15 2	2 14	5 11	2	2 8 3	4	2 6
Accidents.	Lightning	5	6	5	10 2		4	12	8	4	1 2		i	1 8	3	8	6	6	7	2	5
	Railways Burns and Scalds Frozen to Death Strangulation	5 4	6 1 1	ii	7 3  2 8	1	4 3  7	3 1	2 1	3 1	1 1 4	2		15 2 3	12	7 6 	3 2 8	10	6	1 1 13	1 1 5
Defined Causes.	TumoraOther I l-Defined Causes	8	2 6 2	7 4	11	5 4	6	7 6 24 1	10 4	6 13	3	1	1	10 5 9	13 5 6	11 8	10	11 6 1	12 1	5 2	3 1
	Totals	250	110	301 1	1,650	230	±77 <sub>1</sub> 7	737	705 7	754 2	248 2	223 0	35 6	89	358 7	731	575 3	365 8	323 3	02 4	05

-Concluded.

DISEASES BY COUNTIES IN 1898.

ı																									
1	Middlesex.	Muskoka.	Norfolk.	Northum'd & Durh'm.	Nipiesing.	Ontario.	Oxford.	Peel.	Perth.	Peterhorough.	A K H   Prescott & Russell.	Prince Edward.	Parry Sound.	Rainy River.	Renfrew.	Simcoe.	Stormont, D. & G.	Thunder Bav.	Victoria.	Waterloo.	Welland.	Wellington.	Wentworth.	York.	Totals.
	15	4	9,3	16 5	i			·· 2 2		1 8 2	1 2 4	7	2	••	5 3	3 10 8	6 2	•••	6 5	1 6 5	8 4	1 5 9	10 12	32 59	29 285 234
	5 1 19		1 2 6	1 3 20		2 1 5	7 2 9	2 1 1	3 12	3 1 10	1 1 2	2 4	1 2	2 ··· 2	1 1 5	5 1 23	6 1 19	1 1 4	6	5 1 16	2 1 14	9 1 9	7 6 35	19 23 86	150 80 520
	1 5	1	2 2	5		6	1 4	 1	· · · · · · · · · · · · · · · · · · ·	 1 3	i	3	 1	1	2	6	4		2	. 1	·i	3	 2 6	3 11 28	7 42 150
	- 2 1 1	i	i	1			• •	• •	1		i	• •	• •		 1	i		• •		i	• •				7 12 5
	3				٠,	1											2				• •	1	,	4	12
	<sub>i</sub>			·i		2	3 2	. 1	2		i		4		·	i	2	i	i	i	2	2	$\frac{\cdots}{2}$		5 58
	2	2		1		4	2			1	2	1	1			2	1				1		4	13	53
	5	2		1	4	3	5	2	2	3	2		2		11	1	7		3	4		5	2	10	134
	···í	i	3	i		3	2	i	3	2	2			• •		2	4			i	i	3	2	12	66
	1 1			2		• •	·· i				1			• •					i	··· 1		i	1 3 1	1 2	8 5 14
	20		4	19	ii	19	31	3	12	25	is	i	6	6	iė	34	28	5	24	17	7	14	63	$\begin{array}{c} 1 \\ 210 \end{array}$	961
	58 1 133	18 2 19	18	63 134	49 10	28 1 53	39 3 65	11 41	27	- 1	136 15 51	10 33	23 1 8	8	60	46 114	57 1 94	9	29 43	32 62	27 37	51 56	79 4 86	259 3 213	1,950 54 2,780 6 29 33
	2	• •		··· i		•••	2	2	i		i	i			i	1 3				2	i	1 2	1 1	1 10 3	6 29 33
	4	• •	i  6	i	1	· · ·			i	6	ij	3			2 6	3 15	1	6		i	*.  8	1 1	3	1 3	11 12 42 408 33 7 225 8
	34 1 2 6	4		9 1 1	6 2	7	16	3	1 7 1	3	3	7	4 1	5	::	1	21	1	5	9		9 2	15 2	34	408 33 <b>7</b>
	6	5	2	5	6	5	2		2	7	era.	6	7	3	11	9	8	1	3	4	5	3	7	13 3	
-	6	3	2	i3 1	2	1 1 1	1 3	3	1	3	1 2	2	1	2	3	1 2	9 6	5	i	2	1 2	4 2	3 6	18 15	156 87
	3	j				1								::		i	1	• •	7 2		::	i		4	14 18
	.8 2 3 14 16 11 2	3 1 4	5 1	8 10 5	4 3 17 2	5	8 10 7	3 2 2	4 8 7	8 4 5	8 6 18	4 4 4	2 2 8	3 2		11 11 14	10 7 8		2 2	6 3	2 2	5 4 2	2 8 7	10 35 13 3	87 14 18 280 238 302 10
],	000	196	3 <b>4</b> 8	877	259	5 <b>0</b> 3	615	245	601	481	323	224	215	119	490	872	347	96	385	554	125	593	1,104	3,571	26,370

TABLE No. 14.

Total Deaths by Individual Diseases in Cities in 1898.

Other diseases of the stomach (Cancer excepted)	Total Deaths by				1010	- Cas	05 1	0			109	<del>.</del>			
Typhoid Fever   32	General diseases.	Toronto.	Hamilton.	Ottawa.	London.	Kingston.	Brantford.		Guelph.	St. Catharines.	Belleville.	Stratford.	Windsor.	Chatham.	Totals.
Typhoid Fever   32   7   20   12   11   9   1   4   2   1   1   4   104	I.—COMMUNICABLE (EPIDEMIC)														
Smallpox   Smallpox	DISEASES.	90	7	00	10	11	ó	4			6		-	3	104
Measles		32		20	12		9	1		4	2	1	1	4	104
Whooping Cough	Measles											1			
Diphtheria and Croup						••••	2	••••	2						
Influenza	Diphtheria and Croup							1 3				3		2	
II	Influenza	18	1	8		1	3	1					1		
Pyaemia and Septicaemia   58   13   14   11   4   2   2   5   5   2   2   1   4   123		• • • •		1	1	• • • •						• • • •	• • • •	• • • •	2
Tuberculosis and Scordula	Pyaemia and Septicaemia		13	14		4	2	2	5	5	2	2	1	4	
Syphilis	Malarial Fever		100	149	_	45	92	12	91		15	10	93	14	
Cancer   129   31   29   16   20   2   1   18   2   4   12   3   7   274		7			04	40	20	10		21	10	10	20		
Diabetes	Cancer			29	16								3		
Other general diseases				6	4			3					i		
Alcoholism, Acute and Chronic LOCAL DISEASES, HI.—Disease of Nervous System AND Organs of Sense.  Encephalitis.  20 5 4 3 3 3 3 3 1 1 1 2 1 46 Simple Meningitis 35 4 21 9 2 7 1 1 1 2 2 2 3 89 Epidemic Cerebro-spinal Meningitis Congestion and Hemorrhage of the Brain	Other general diseases	12	3	5	2	3			2						30
HIL_DISEASE OF NERVOUS SYSTEM		1	1	• • • •	1	1					1			• • • •	₽-
AND ORGANS OF SENSE.   20	III.—DISEASE OF NERVOUS SYSTEM						=			1					
Simple Meningitis	AND ORGANS OF SENSE.	000		١.,						١.					40
Epidemic Cerebro-spinal Meningitis. 28   12   9   1   5   2     1   1   1   3   1   65   Congestion and Hemorrhage of the Brain. 106   32   22   24   6   7   1   10   1   4   3   2   2   22   Softening of the Brain. 14   4   2   1     1   1   1   3   2   2   22   Distening of the Brain. 14   4   2   1     1   1   1   1   3   2   2   22   Distantity   17   18   18   1   1   1   1   1   1   2   1   Insanity   17   4   3   1   1   1   1   1   1   2   1   Epilepsy   17   4   3   1   1   1   1   1   1   1   2   Other nervous diseases. 6   6   3   4   2   1   1   1   1   1   1   1   1   1						3						2	1 2		
Brain													3		
Softening of the Brain	Congestion and Hemorrhage of the	100	90	90	0.4		1 7		10			9		1 9	990
Paralysis without specific cause.	Softening of the Brain						1	1	1	7) <u>1</u>	4	1 1			
Epilepsy Convulsions (not puerperal). 90 17 78 14 13 . 1	Paralysis without specific cause	57	13			18		4 7	2	2 6	3	ī	5		
Convulsions (not puerperal)													• • • •	1	
TV.—DISEASES OF CIRCULATORY SYSTEM.							2	4			3		5		
System	Other nervous diseases	6	3				1								18
Pericarditis															100
Endocarditis		1		2	1						ι]	l			
Angina Pectoris	Endocarditis					. 3									
Diseases of the Arteries, Atheroma, Aneurism, etc   1													10		
Other diseases of the Circulatory System         22         6         10         7         8         3         4         3         9         1         1         74           V.—DISEASES OF THE RESPIRATORY SYSTEM.         43         17         36         4         6         4         6         1         2         1         120           Chronic Bronchitis         19         7         4         3         4         2         1         4         3         1         48           Broncho-pneumonia         41         16         19          1         4         3         1         4         4           Pneumonia         132         53         50         25         26         19         11         6         11         13         5         10         7         368           Pleurisy         3         2         1         1          1         1         8         6         10         7         368         7         1         1         1         1         3         2         1         1         3         2         1         1         3         2         1         1         4 <td>Diseases of the Arteries, Atheroma,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td></td> <td>i</td> <td></td> <td></td> <td></td>	Diseases of the Arteries, Atheroma,									1		i			
V.—DISEASES OF THE RESPIRATORY SYSTEM.   22	Aneurism, etc	1 5		]						$\cdot   \cdot \cdot  $	-   -		. ]		8
V.—DISEASES OF THE RESPIRATORY SYSTEM.	System	23	2 6	10	) 7	7 8	3 :	3	4	. :	3			1	74
Acute Bronchitis	V.—DISEASES OF THE RESPIRATORY														-
Chronic Bronchitis.		4	1 17	3	3	1	R			4	6	1 4	2 .		120
Pneumonia	Chronic Bronchitis		9 7	7	4 :				2	1	4	3	,	1	48
Pleurisy															
Congestion of the Lungs (including pulmonary apoplexy)							0) 1			-	1	.]	1	. ]	8
Asthma and Emphysema	Congestion of the Lungs (including		İ												1
Color of the Stomach	pulmonary apoplexy)					b			2		1	21	i	1	
System	Other diseases of the Respiratory	, 1	1					1	.	1			1		
SYSTEM.   4	System			1	1		.						•   • • •		2 4
Ulser of the Stomach Other diseases of the stomach (Cancer excepted) Infantile Diarrhea and Gastro-enteritis, ("Choler Infantum") Diarrhea and Eateritis (not infantile) Dysentery Hernia and Intestinal obstructions Other diseases of the Intestines  4 19 3 3 2 3 3 2 1 1 2 39 468 3 3 2 2 1 1 3 37 0 37 0 37 0 37 0 37 0 38 0 38 0 38															
excepted     19   3   3   2   3   3     2     1   1   2   39	Uleer of the Stomach		4						.1		1				. 5
Infantile Diarrhee, and Gastro-enteritis, ("Choler a Infantum")   182   30   158   17   15   11   6   10   6   8   3   12   10   468			9	31	3	2	3	3			2		11	1	2 39
ritis, ("Choler & Infantum")		-	İ		1	-		1						1	
Dysentery       3       1       2       2       3       1       3       1       2       2       3       1       3       1       2       1       3       1       2       1       2       3       3       1       2       1       2       3       3       1       2       1       2       3       3       1       2       1       2       3       3       1       2       1       2       3       3       1       2       1       2       3       3       1       2       1       2       3       3       1       2       1       2       3       3       3       1       2       1       2       3       3       3       1       2       1       2       3       3       3       3       1       2       1       2       3       3       3       3       1       2       1       2       3       3       3       3       1       2       2       3       3       3       1       2       2       3       3       3       1       2       3       3       3       3       3       3       3	ritis, ("Cholera Infantum")	.   18							6 1					- 1	OM
Hernia and Intestinal obstructions       9       2       2       5       3       1       3       1       2       1       2       3         Other diseases of the Intestines       1       6       4       1       2       2       14							3	3		2	2		1	1	3 13
Dunct disc wes 't this intensities.	Hernia and Intestinal obstructions.	.	9	2		5				3	1		1		2 31
Diseases of the Liver						7			9			2	2		
	Diseases of the Liver	. 1 2	101	* } \	.01	6.1	41	*1	41.	]	1	2			. 1 05

TABLE No. 14 .- Continued;

			1			1								
General diseases.	Toronto.	Hamilton.	Ottawa.	London.	Kingston.	Brantford.	St. Thomas.	Guelph.	St. Catharines.	Belleville.	Stratford.	Windsor.	Chatham.	Totals.
Peritonitis (not puerperal)	49	9	14	2	5	3		3	4	1		1	2	93
Iliac abscess (typhlitis, perityphlitis,	16	6	5	3	3	٠,								45
appendicitis)	16	0	3	0	3	. 2	1	4	1	3	1	• • • •	• • • •	40
URINARY SYSTEM.			1			,								
Acute Nephritis	22 70			9	1 9	3	····i	4	9	7	,		····2	147
Bright's Disease Other diseases of the Kidneys and				i			1					1		111
Adnexa Vesical Calculi	9	2	1	• • • •		••••	• • • • •		• • • •	1	. 11.	1	••••	17
Diseases of the Bladder	19			i	3	4			3				2	
Diseases of the male Genital Organs.				2										3
MetritisOther diseases of the Uterus	i		1 1			• • • •								3
Ovarian Cysts and other Ovarian			1				Į							'
Tumors Other diseases of the female Genital	3	• • • •	1	2		• • • •	• • • •	1	1		• • • • •		• • • •	. 8
Organs													:.	
VIII.—PUERPERAL DISEASES. Puerperal Septicaemia	9		3	1					1				1	8
Puerperal Albuminuria and Convul-	2			1	••••	• • • •		• • • • •	1	• • • •		• • •	1	G
sions	8	4				• • • •		• • • •					2	14
Other accidents of Pregnancy sudden death	10	2					1		2		. 1	1	1	18
Puerperal Disease of the Breast	• • • •													
IX.—DISEASES OF THE SKIN AND CELLULAR TISSUE.														
Erysipelas	9		3	• • • •	1			2		1				16
Other diseases of the Skin and its														2
Adnexa (Cancer excepted) X.—DISEASES OF THE LOCOMOTOR	1			- ^	• • • • •	• • • • •			• • • •	• • • •				Δ
System.														
Pott's Disease	2	3					• • • •		• • • •	• • • •		· · · i	• • • •	5
Amputation (for unspecified disease).	1													î
XI.—MALFORMATIONS, DISEASES OF														
INFANCY, DISEASES OF OLD AGE. Still-Births	187	52	86	11	13	13	6	4	9	2	7	18	11	419
Congenital Debility and Malforma-	807	52	109	0.4	<b>1</b> 3	00		10	3 10	-		10		400
Other diseases of Infancy	207	92 4			10	22	0	13	15	1	3	16		493
Senile decay	152	48				18	16	8	8	15	18	6	12	442
Poison	8	1	1									1		11
Strangulation	ĭ	1				]						1		3
Gas Poisoning		• • •	•••			••••							• • • •	
Firearms	1	1	1					1		1			i	5
XIII.—Accidents.	3				- 1					1	-		İ	
Strangulation	25	13	6	25	6	4	$\frac{\cdots}{2}$	···i	11	1	4	2	2	92
Gunshot	1	1												3
Lightning	10	4	7	4	4	3	····i	2	3				4	1 43
Electric Cars	3	ī	· 1	1	4								]	6
Railways	3	$\frac{\cdots}{2}$	6	4	···i	3	3			5	• • • •	4		34
Burns and Scalds	15	5		2		ĭ	1			1		3		31
Homicide	4	• • • •		2										6
Poison	3			3										6
XIV.—ILL-DEFINED CAUSES.	E	0	6	7		1			4					90
Tumors	30	2	8	5	5	1	$\frac{4}{1}$		1	1	1			30 56
Other Ill-defined causes	11	4	11	5	1	1	2		1	2	3			41
Lockjaw.		1	1	1					1					4
m . i	866	0	21	-	භ	G	1	C	1	G	0	œ	C.S	70
Total	2,8	749	1,22	47	353	219	117	159	167	149	120	10.8	142	6,894
														-

TABLE Total Deaths by Individual

							TO	tai	Dea	tns	ру	Ind:	vid	uai
General Diseases.	Barrie.	Berlin.	Bracebridge.	Brockville.	Brampton.	Cayuga.	Cobourg	Cornwall.	Goderich.	Lindsay.	L'Orignal.	Milton.	Napanee.	Niagara Falls.
I.—COMMUNICABLE (EPIDEMIC)														
DISEASES.	_								 2					
1. Typhoid Fever 2. Smallpox	1	1	1	2	$\frac{2}{\cdots}$	• • • •		3	1	5		• • • •	• • •	1
3. Measles										2				
4. Scarlet Fever	: • • •	••••		1					2			••••	• • • •	••••
5. Whooping Cough 6. Diphtheria and Croup 7. Influenza		13		5			1	2		1		1	i	1
7. Influenza	1	1		1			• • • •			••••		• • • •	• • • •	• • • •
11.—OTHER GENERAL DISEASES.	1	1												
1. Pyeamia and Septicaemia 2. Malarial Fever		_	• • • •	3	2	1	2	1		1		• • • •	1	2
3. Tuberculosis and Scrofula	1 13	-10	4	26	10	i	6		5	11	1	7	8	3
4. Syphilis	1	i		8				9	$\frac{1}{2}$	$\begin{bmatrix} \dots \\ 3 \end{bmatrix}$		····i	····i	
5. Caucer 6. Rheumatism and Gout	1	1	1	l	2	1	2							
7. Diabetes	1	1	1	1	1		1						• • • •	••••
9. Alcoholism, Acute and Chronic					1		1							
LOCAL DISEASES.														
III.—DISEASES OF NERVOUS SYSTEM AND ORGANS OF SENSE.												i		
1. Encephalitis		1		1					· · · ;	2			1	
2. Simple Meningitis	-	2		1 2			2		1			1	1.00.	
4. Congestion and Hemorrhage of	f			1	1			1	1	i				1
the Brain			1	7	2		1		3 2			3	5	
<ul><li>5. Softening of the Brain</li><li>6. Paralysis without specified cause.</li></ul>								3	i	1		i	1 4	3
6. Paralysis without specified cause. 7. Insanity	1 2	2					1							
8. Epilepsy 9. Convulsions (not puerperal) 10. Other Nervous Diseases		1				1	4		l  5		2 1			4
10. Other Nervous Diseases					2		1	i	i					
IV.—DISEASES OF CIRCULATORY SYSTEM.			i		1									
1 Paricarditia				1				. 1	ι]					
2. Endocarditis		2	2 2	1	9	3		3	4	i			(	2
4. Angina Pectoris		ĭ				ί		Ĺ		i				
5. Diseases of the Arteries, Atheroma Aneurism, etc	,			1										
6. Other Diseases of the Circulator	Vi	1	1	1		.								
V.—DISEASES OF THE RESPIRATORY	•	2		-	1 :	2		2	1	1	1	.		2 1
SYSTEM.								İ						
1. Acute Bronchitis			$\begin{vmatrix} 3 \\ 1 \end{vmatrix} \dots$	1	3			i	$2 \dots$	i	2		::::	2 1
3. Broncho-pneumonia					4	3				3				1 1
4. Paeumonia	- 1	9	3	3 1	0	•	1		3		$0 \dots$		L	$\begin{bmatrix} 2 \\ 1 \end{bmatrix}$
6. Congestion of the Lungs (includin	g							_	]	1				0 1
pulmonary apoplexy)			1	.				$\begin{bmatrix} 1 \\ 1 \end{bmatrix} \dots$	1					2 1
7. Astama and Emphysema	У	1		1	1			-		1	1	1	1	
SystemVI.—DISEASES OF THE DIGESTIVE						1								
System.									1					
1. U'cer of the Stomach		• •   • • •												
2. Other Diseases of the Stomac (Cancer exc-pted)										1				. 1
3. Infantile Diarrhœa and Gastr	3-	E	C	1	101					2	6	1		1 1
enteritis ("Cholera Infantum") 4. Diarrhœa and Enteritis (not infa		5	6	1 1	10	1				4	3	1	1	1
tile)			1	1				2	2		1			
5. Dysentery			1	i	2	1		1	1		3			.1

15.Diseases by Towns in 1898.

North Bay.	Orangeville.	Owen Sound.	Parry Sound.	Peterborough.	Pembroke.	Perth.	Picton.	Port Arthur.	Rat Portage.	Sarnia.	Sault Ste. Marie.	Simcoe.	Toronto Junc-	Walkerton.	Welland.	Whitby.	Woodstock.	Total.
1	. 1	4	2	2 7	4		1		12	5			1				2	EN
*				i	i				1									57
• • • • • •		4			1				2				1					5 9 14 41
1				2		1		1 1	1	2		1	4					41
	1	5		0							 			1				1
5	5	1	4	$\begin{array}{c c} 2\\1\\29\end{array}$	11	4	2		4	4		2	1 1	1	2		5	48
				8		9	1	6	10	5	8	5	8	4	3	4	11	267
1	i				1	3		1	1	3		····i	2	1	1	4	3	267 1 69 9 9 12 3
				i			i		2	1	1 		1					9
,		ļ									• • • • •	1						3
				1	2		-											
•••••		4		$\frac{1}{2}$			2	$\begin{bmatrix} 1 \\ \cdots \end{bmatrix}$	1	1	• • • • • •		1	·	1		2	14 21
		2			2			1				2		2	1		1	15
			1	5	3	1	' ' ' ' ' ' '	3	2		1	1		2	1		2	
	4	5		3	1	2	2	1	1	3	3	2	2 3	3	3		1 2	5 54
4		i	3	2 5	2 3				$\frac{\dots}{2}$	5	• • • • • •		• • • • • •		•.• • •			58 5 54 3 6 50 7
		1		0 1	• • • •						• • • • • •		4		1		2	50 7
		1	1															
••••	i	13	3	11	1 5		$\frac{1}{2}$	$\frac{1}{2}$	3	1		2	i	i	• • • •			3 3 108 5
·····			-		• • • •		• • • •			î					1	1	12	108 5
		••••	1	2		1		• • • •		,				• • • •				4
* * * * * * *	3		••••	3	••••	1	4	1	2	1		2	• • • •	••••	2		1	32
• • • • •			• • • .	3		1		3	2	4	1	1	2		i	1		0.4
1		1							····· <sub>1</sub>	• • • •	1			1		1	1	10
		••••		6	1	1	3	2	1	4		2	i			3	1 1 12	34 10 16 95
1	;				1				1	1	2	1				1	2	10
	1				••••	• • • • •		••••	•••••			• • • •				••••	1	3
							• • • •	••••	• • • • • •	••••	• • • • • •	1		••••	• • • •	• • • •		2
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•••. ,	• • • •	••••		2				3										7
2	• • •			4	Б	1	1		7	4	4	5	11	1	3	2	3	113
1		1		2					1	1			1	3			1	
	1	···i		1							1			1				18 6 12
																	'	

## TABLE

														<u> </u>
General Diseases.	Barrie.	Berlin.	Bracebridge.	Brockville.	Brampton.	Cayuga.	Cobourg.	Cornwall.	Goderich.	Lindsay.	L'Orignal.	Milton.	Napanee.	Niagara Falls
VI.—DISEASES OF THE DIGESTIVE										1			-	
SYSTEM.—Continued. 7. Other Diseases of the Intestines 8. Diseases of the Liver 9. Peritonitis (not puerperal) 10. Iliac abscess (typhlitis, perityphli-	1 i			1			2		i 1	i 1	• • • •	i		3 1 2
tis, appendicitis)VII.—DISEASES OF THE GENITO- URINARY SYSTEM.	1	1	1											
1. Acute Nephritis 2. Bright's Disease 3. Other Diseases of the Kidneys and Adnexa				5		l 				i				
4. Vesical Calculi 5. Diseases of the Bladder				i			···i					• • • •		
Q Other Diseases of the Uterus				1	1	,								
VIII.—PURPPERAL DISEASES.  1. Puerperal Septicaemia													 	
Other accidents of Pregnancy sudden death     Puerperal Disease of the Breast.							1							
1X.—DISEASES OF THE SKIN AND CRLULAR TISSUE. 1. Erysipelas					. 1									
A.—DISEASES OF THE HOCOMOTOR		1	1											
1. Pott's Disease 2. Diseases of Bones and Joints 3. Amputation (for unspecified Disease)		1		1		1								
XI.—MALFORMATIONS, DISEASES OF INFANCY, DISEASES OF OLD AGE.			3			2		]	l	. 4				1
2. Congenital Debility and Malformations	1	1		3 13		2				1	100		4	7
4. Senile Decay	1 1	-1	1	3 1	1	1	. 18		1	7 10		1		
XII.—SUICIDE.  1. Poison 2. Strangulation 3. Gas Poisoning						-								
4. Drowning		.		-				.		.			1	
X (II.—ACCIDENT.  1. Poison 2. Fractures and Dislocations 3. Gunshot					2			i		1	2			1
4. Drowning 5. Electric Cars 6. Ricycles	: :::	1			1				-					
7. Railways 8. Burns and Scalds 9. Hanging	:	1	i	i	5	i		1	2					
XIV.—ILL-DEFINED CAUSES.  1. Dropsy	.		3		1				2		2			5
3. Other Ill-Defined Causes	80	1	$\frac{2}{3}$ $\frac{1}{2}$	-1		- -	$\frac{1}{7} \left  \frac{\dots}{9} \right $	1 11	-i	2 90	4	18	-1	45
Total	100			1			1		1	1		1	1	-

15.—Continued.

				<del> </del>								-						
North Bay.	Orangeville,	Owen Sound.	Parry Sound.	Peterborough.	Pembroke.	Perth.	Picton.	Port Arthur.	Rat Portage.	Sarnia,	Sault Ste. Mario.	Simcoe.	Toronto Junction.	Walkerton.	Welland.	Whitby.	Woodsteck.	Total.
									)									
		$\begin{bmatrix} 1\\2\\1 \end{bmatrix}$	1 1	$\begin{array}{c c} & 1 \\ 2 \\ 2 \end{array}$	1 2		····i			$\frac{\cdot\cdot\cdot}{2}$							4	3 22 17
••••	1	1			1					$\begin{array}{c c} 2 \\ 1 \end{array}$			2				4 1	
•••••			1	1				1	1	2	2		 			• • • •	1	16
	2				1 3		2	1 3									2 3	8
• • • • •	- 2	2		3	3	••••	2	3	1	2		1	1	1		2	3	8 54
	1	••••		1												• • • •		2 5
	1	•••	••								•••••	••••		• • • •	· · · · ·	••	1	5
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			1		1						• • • • •	• • • •	•••••	• • • •		• • • •		
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• • • • •						 						1	 		1			3
		-						 										
• • • • •		1								1							i	3
1		7	2	9				3	5	7	4		6	1	,			
7		9	3	8	7	6	2	5	6	7	8	1	8	1	1 2		6	73
3	4	16		10	4	4	10	····i		9	3	4	2	7	3	5 6	9	157 1 185
		1											1				1	103
					• • • •													
		1				• • • •						1						$\frac{2}{1}$
							2					• • • •	• • • •	1			• • • • •	
1		1	1	2	1			3	5	3	2	1	·····i	1	1			3 31
1		3		3	1	1	2		3	1								25
						$\frac{1}{2}$	. 1	1	2	i			1			···i		2
									1	i	i	1	1					3 25 1 2 16 7
••••						2	1						1	2	1		1	
• • • • • •		····i		2 1			2		- 2 1	2				1			1	18 21 13
31	29	123	33	15.4	66	43	53			90		40				35	105	1,991
-		1																

TABLE

## Deaths from Consumption in

Counties.	Agents.	Artists	Architets.	Bakers.	barber.	Butchers.	Isanter ders.	Bookkeepers.	, rookbinders.	1 Brack mittis.	Frekmakers.		Builders and contractors.	Carpenters.	Cabir etmakers.	Coopers.	I Cooks.	Chemists and druggists.	i Cierzymen.	t arnage and wa gonmakers.	Cerks.	Cheesemakers.	Cigarmakers.	Commercial travellers.	Children under 10 years old.
Algoma Brant Bruce Carleton Dufferin Egin Essex Frontenac Grey Haldimand Halionron Hastings Huron Kent Lambton Lanark Leeds an i Grenville Lennox an i Addington Linco'n Middlesex Murkoka Norfolk Northumberland and Durham Nipissing Ontario Oxford Peel Perth Peterborough Prescott and Russell Prince Edward Parry Sound Rainy River Renfrew Stormont, Dundas and Glengarry Simcoe Thunder Bay Victoria Wellington Wellington Wentworth York	1			1	2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		3	1	2	1			111111111111111111111111111111111111111	1			1		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 2 1 1 1 2 1 2 2 2 1 3 2 1 4 1 1 4	1	1		2 10 12 33 5 4 4 13 5 8 8 6 5 1 1 4 4 8 9 8 8 6 5 11 7 7 4 0 11 1 3 3 6 8 8 3 6 6 21 1 1 4 9
Total's		5	1 5	2 6	16	7		3 14	3	12	2 3	2 1	1	21	1	3	3 1	4	4	1 7	45	1	3	7	471

No. 16.

Ontario by Occupations in 1898.

Dentists.	Dressmakers.	Engineers.	Electricians.	Engravers.	Editors.	Farmers.	Furriers.	Factory hands.	Gardeners.	Gentlemen.	Hunters and fishermen.	Housewives.	Harnessrakers and Saddlers.	Hotelkeepers.	Labourers.	Lumbermen.	Lawyers.	Liverymen.	Masons.	Machinists.	Merchants.	Mechanics.	Milliners.	Milkmen.	Manufacturers.	Millers.	Moulders.	Musicians.	Nurses.	Nuns.	Painters.	Pedlars.	Physicians.	Plasterers.	Plumbers.	Printers.	Photographere.
i			11			6 4 4 166 166 77 6 6 18 5 3 2 14 4 9 9 111 11 1 9 9 177 166 17 16		2	1	1 1 1 1 1 2 7	1	2225 772225 775225 2312100 1 5 255225 21515 16630 66111 18221 14410 9 10 3 32 225 1 8 17721 74	i i i i i i i i i i i i i i i i i i i	3	4 3 4 4 13 7 11 1 7 3 3 5 5 2 2 2 2 4 7 7 1 1 2 2 3 3 5 1 1 2 2 1 3 1 1 2 3 3 4 4 7 7 8 1 1 1 2 3 3 4 4 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8		1 1 1	i	1		1 . 1 2 1 1 1	1 1 1 2 1 1 2 1 1	1	22	1 2	i i i i i i i i i i i i i i i i i i i	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1	i	11 11 11 11 11 11 11 11 11 11 11 11 11	1 2	1	1	i	i	3	i
2	21	5	2	2	2	354	2	4	2	21	1	693	3	8	193	4	7	2	5	12	30	11	6	2	5	4	5	5	2	7 1	17	5	2	2	4	20	2

TABLE No. 16.—Concluded.

## Deaths from Consumption in Ontario by Occupations in 1898.

=	Counties.		Public officials.	Policemen.	Railroad employees.	Servants.	Students.	Stonecutters.	Shoemakers.	Sarlors.	Seamstresses.	School teachers.	Spinsters,	Tailors.	Tinsmiths.	Teamsters.	Telegraph operators.	Telephone operators.	Tanners and curriers.	Volunteers, soldiers and pensioners.	Undertakers.	Veterinary surgeons.	Watchmakers and jewellers.	Weavers.	No occupation given.
Bruce Carleton Dufferin Elgin Essex Frontenac Grey Haldimand Haliburton Halton Hastings Huron Kent Lambton Lanark Lincoln Middlesex Muskoka Norfolk Northumberls Nipissing Ontario Oxford Peel Perth Peterborough Prescott and Prince Edwar Parry Sound Rainy River Renfrew Stormont, Du Simcoe Thunder Bay Victoria Welland Wellington Wellington Wellington	enville Addington and and Di Russelld	urham	i i i i i i i i i i i i i i i i i i i	1 1 1 1	1 1 1		1 7	2		1		1	22 28 8277 11 11 19  14 45 33  14  11  11  11 	1 · · · · · · · · · · · · · · · · · · ·	111	2	i ::::::::::::::::::::::::::::::::::::	i i	i i i i i i i i i i i i i i i i i i i	· · · · · · · · · · · · · · · · · · ·	i.	1	1		2 6 7 26 7 8 17 28 27 7 8 13 14 32 9 4 4 32 5 7 7 19 5 6 3 4 11 23 9 1 7 9 5 5 11 116 ——
Totals.	,	,	 7	3	12	51	12	11	9	9	14	20	131	12	3	10	3	2	2	1	1	1	6	3	666



