

## **Annual report of the Department of Public Health, Province of Alberta.**

### **Contributors**

Alberta. Department of Public Health.

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ANNUAL REPORT  
 OF THE  
**Department of Public Health**  
 PROVINCE OF ALBERTA  
 INCLUDING  
**Vital Statistics Branch**  
**1946**

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PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

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EDMONTON  
 PRINTED BY A. SHNITKA, KING'S PRINTER  
 1948

RBB | 36(n)





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ANNUAL REPORT

OF THE

**Department of Public Health**

PROVINCE OF ALBERTA

INCLUDING

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**1946**

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Edmonton, December 22, 1947.

TO HIS HONOUR,

J. C. BOWEN,

*Lieutenant Governor of the Province of Alberta.*

SIR:

I have the honour to transmit herewith, the Annual Report of the Department of Public Health for the year 1946.

I have the honour to be, Sir,

Your obedient servant,

WALLACE WARREN CROSS,  
*Minister of Health.*

Washington, December 22, 1941

Mr. J. C. Brown  
U. S. Treasury

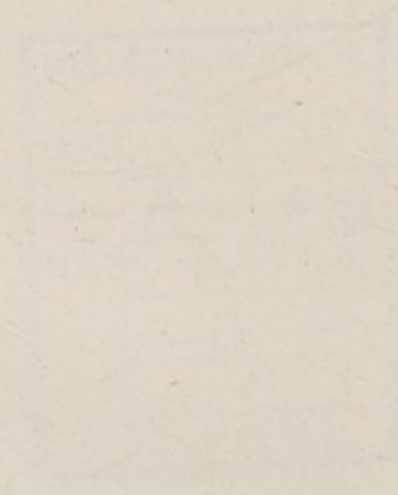
Department of the Treasury, Division of Taxation

I have the honor to transmit herewith the Annual Report of the Department of Public Health for the year 1940.

I have the honor to be, Sir,

Very obediently yours,

Walter W. Frost, Chief  
Division of Public Health



December 22, 1947.

TO THE HONOURABLE DR. W. W. CROSS,  
*Minister of Health,*

Administration Building, Edmonton, Alberta.

SIR:

I have the honour to submit herewith, the Twenty-Eighth Annual Report of the Department of Health.

I have the honour to be, Sir,

Your obedient servant,

MALCOLM R. BOW, B.A., M.D., C.M., D.P.H.,  
*Deputy Minister.*



January 25, 1911

To Mr. L. C. ...  
Director of Health

Administration Building, ...

I have the honor to ...  
Annual Report of the Department of Health

I have the honor to ...

Your obedient servant

Walter H. ...  
Deputy ...

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TWENTY-EIGHTH ANNUAL REPORT OF THE  
PROVINCIAL DEPARTMENT OF PUBLIC HEALTH  
INCLUDING THE VITAL STATISTICS BRANCH

THE DEPARTMENT

*Divisions:*

1. Communicable Diseases.
2. Public Health Education.
3. Hospital Inspection.
4. Laboratory.
5. Entomology.
6. Public Health Nursing.
7. Municipal Hospitals.
8. Social Hygiene.
9. Sanitary Engineering and Sanitation.
10. Dental Services.
11. Cancer Services.
12. Mental Health.
13. Institutions: Provincial Mental Hospital, Ponoka.  
Provincial Auxiliary Hospital, Claresholm.  
Provincial Auxiliary Hospital, Raymond.  
Provincial Mental Institute, Oliver.  
Provincial Training School, Red Deer.
14. Tuberculosis Control and the Central Alberta Sanatorium,  
Calgary.
15. Vital Statistics.

A Report giving a summary of the work of each of these Divisions is included herewith.

PROVINCIAL BOARD OF HEALTH

Seven meetings of the Provincial Board of Health were held during the year.

REGULATIONS PASSED DURING THE YEAR

O.C. 129-46—Regulations Governing Dairy Farms, Milk Plants, Fluid Milk and Table Cream amended.

O.C. 193-46—Regulations Governing Nuisances and General Sanitation Nuisances.

O.C. 1988-46—Regulations covering the Use of Hydrocyanic Gas amended.

LEGISLATION PASSED DURING THE YEAR

*Alberta Health Insurance Act, 1946 (Chap. 3).*

This is a new Act authorizing the setting up of health insurance districts which will furnish to the residents various medical and hospital services as the same are organized from time to time.

Section 3 provides for the appointment of a Director of Health Insurance and other necessary officers and clerks.

Section 4 sets out the services one or more of which may be furnished from time to time as conditions warrant. To prevent duplication exceptions are made in the case of medical, etc., services



received under The Workmen's Compensation Act and the Tuberculosis Act. In subsection (2) of Section 4 are set out the persons qualified to receive benefits under the Act, namely, adults who have paid the prescribed annual fee and who reside in a health insurance district and have resided twelve months in the Province, also the dependents of adults and persons (such as indigents) on whose behalf the fee has been paid and for whom a municipality is responsible. Who are adults is to be determined by Order in Council under paragraph (a) of section 2 and paragraph (d) of section 5 (1).

Section 5 confers on the Minister, with the approval of the Lieutenant Governor in Council, various powers connected with the administration of the Act including the appointment of an Advisory Committee, the making of agreements with municipalities, the fixing of an annual fee for adults and the age when residents become liable for the fee, the making of agreements with physicians, hospitals, etc., the making of agreements with the Government of Canada as to the application of the grants which may be made by that Government to the Province for health services, the appointment of referees, etc., to settle disputes, and various other matters of detail. In the same section, the Minister, with the approval of the Lieutenant Governor in Council, is authorized to make regulations dealing with matters of procedure in making and keeping a register of adults, etc.

Section 6 deals with the establishment of health insurance districts, the preparation of a scheme by the Director, the advertising of same, and its submission to a vote of the qualified residents of the district and the procedure to be adopted in taking the vote.

Section 7 gives the qualifications of voters and the form of the ballot and directions as to voting, etc., and provides that sixty per cent of those voting are required to vote for the scheme to ratify it. Subsection (9) of section 7 provides that where a scheme after ratification is expanded as by services being provided additional to those in the original scheme, this expansion of the scheme shall be submitted to the voters.

Section 8 provides for a vote being taken in an area proposed to be added to a health insurance district which vote will require a sixty per cent vote in the area to authorize its addition.

By section 9 it is provided that where a scheme has been rejected by the voters, after the expiration of three months, any area may be detached or added and a second vote taken on the scheme.

Section 10 (1) declares who are entitled to vote at a vote taken under section 8 or 9 and subsection (2) provides an oath which may be administered to any person presenting himself as a voter at any vote taken under the Act.

Section 11 deals with the disestablishment of a district before and after a vote has been taken. Subsection (2) authorizes the Director with the approval of the Minister in certain circumstances to disestablish a district after it has been in operation for two years. Subsection (3) authorizes a vote after a district has been in operation for a year on the petition of twenty-five per cent of adults residing in the district and entitled to the benefits of the Act. A sixty per cent vote is required to disestablish the district under this subsection.



Section 12 provides the procedure to be taken after a scheme has been ratified by the voters. A census is to be taken at the instance of the Director of each municipality included in whole or in part in the health insurance district of all persons residing in each municipality who are entitled to the benefits of the Act under section 4, the census to distinguish between adults and others; on completion the appropriate portion of the census is to be sent to each municipality concerned, and the secretary of each is required to prepare a register of the adults and dependents in the municipality. Provision is also made for the amendment of the register from year to year.

Section 13 provides for the payment by the municipality to the Minister annually of a sum obtained by multiplying the number of adults whose names appear on the list and register by the amount of the annual fee fixed by the scheme, such payment to be after the first year in quarterly instalments and if they remain unpaid after they fall due, they become debts to the Minister recoverable by action. If paid when due, the municipality is to retain three per cent of the amount due as compensation for the service rendered. Subsection (4) of section 13 provides that adults entitled to the benefits of the Act become indebted to the municipality in which they reside for the annual fee as fixed under the Act, which, in the case of persons on the assessment roll, may be added to the taxes, and in all cases, the amount becomes a debt due to the municipality recoverable by action.

Section 14 deals with the setting up of an account in the Treasury Department for each health insurance district and with the investment of any surplus funds of the district.

Section 15 provides that the Director or any person appointed by him to make any investigation relating to the setting up or administration of a health insurance district shall have the powers given under The Public Inquiries Act set out in the section.

Section 16 enacts a penal clause as to giving false information to a municipality or to the Director or any other official of the district or as to withholding information on an investigation under the Act.

Section 17 provides penalties for failure to provide adequate services without lawful excuse by persons who have made agreements with the Minister for such services.

Section 18 protects such persons from civil action where failure to provide services is due to inability to obtain equipment, etc.

Subsection (2) of section 19 provides that where a scheme or other proposal is ratified by the voters, the cost of taking the vote shall be paid out of the funds of the health insurance district but otherwise out of the general organization grant.

This Act comes into force on Proclamation.

*Public Health Act Amendment Act (Chap. 49).*

Section 1 of this Act adds two new paragraphs to subsection (1) of section 7 of the Act and authorizes the Provincial Board of Health, with the approval of the Lieutenant Governor in Council, to make regulations relating to the matters contained in the new paragraphs, dealing with the fees and working conditions, etc., of student nurses.



Section 2 of this Act introduces a new section 15b which is intended to remedy a situation which exists or may exist in certain coal mining towns, where there is a practice of dumping coal dust, etc., in the neighbourhood of dwellings.

The purpose of the new section is to give the Provincial Board of Health authority to require the company to remove the material dump to a point where the residents of the dwellings will not be injuriously affected.

This Act came into force on March 27th, 1946.

*Municipal Hospitals Act Amendment Act (Chap. 50).*

Section 1 of this Act amends section 11 of the above Act which section deals with the scheme to be submitted to the voters by the Provisional Board of a municipal hospital district. The amendment adds a new clause (iii) to paragraph (a) of subsection (1) of the section. That paragraph sets out various provisions, one of which must be included in a scheme. The amendment adds another alternative which authorizes the scheme to include two or more of the plans set out in clauses (i) and (ii) and a statement to the effect that if the scheme is ratified by the voters the Board will determine from time to time the plan to be adopted, subject to the terms of any agreement which the Board may have made with the governing body of a hospital situate in the area of the hospital district.

Section 17 of the Act which is amended by section 2 of this Act deals with the poll for a hospital site, where the Board directs a vote to be taken. The amendment is intended to clarify the section by providing that the vote on the site shall be advertised at the same time as and as part of the hospital scheme.

Section 3 of this Act strikes out unnecessary words in section 18.

Section 4 of this Act amends section 26 of the Act in several respects. Subsection (5) now provides that if "a majority which is less than two-thirds of those voting vote in favour of the scheme" the Board may borrow a sufficient sum to defray the expenses. The amendment strikes out the words "a majority which is" in order to make it clear that the Board will have this power where those voting in favour of the scheme do not constitute a majority but also provides that the borrowing shall be subject to the approval of the Minister. Subsection (6) of section 26 is struck out and substituted by a new subsection (6). The effect of the change is to make it clear that a scheme or amended scheme which has not received the approval of two-thirds of the voters may, with the approval of the Minister, be re-submitted in its original or amended form although less than a majority of the voters had voted in support of the original scheme. The new subsection (8) added to section 26 enables the Minister, even after a favourable vote on the scheme, to disestablish the district when the Board so requests before the district has commenced operating a hospital or providing hospital services for the ratepayers.

Section 5 of this Act amends section 27 of the Act by the addition of the words "and may vary the number of members of the Board accordingly." That section authorizes the Minister, prior to the submission of an amended scheme to detach territory from the District. The amendment enables him to vary the number of Board members accordingly.



Section 6 of this Act adds a new section 27a to the Act. A Board has difficulty sometimes in procuring a site for the hospital, either because an agreement as to price cannot be reached or the owner of the land desired as a site declines to sell. The provisions contained in the new section appear in somewhat similar form in various Acts, such as The Public Works Act, The Town and Village Act, and The Municipal District Act. Provision is made for filing a plan of the land required, in the Land Titles Office which will vest title in the Board subject to payment of compensation. The Board is then required to serve notice on the owner of the compensation offered, and the owner, if dissatisfied with the offer, shall so state within thirty days and shall state the amount claimed, etc. The Board shall then consider the claim and notify the owner of its decision and if this is not acceptable, the claimant may have the matter brought to arbitration and the provisions of The Arbitration Act shall apply to the proceedings.

Section 28 of the Act, which is amended by section 7 of this Act, deals with the proceedings after disallowance or rejection of a hospital scheme and in particular provides for the distribution among the contributing councils of the expenses of the Board in taking the vote on the scheme, etc. The amendment to subsection (1) by inserting the words "or after" after the word "before," cures an omission in the Act and enables the Board to take the necessary proceedings upon disestablishment of the district before or after a vote is taken. Subsection (3) of section 28 which is also amended provides for the continued existence of a Board, after disestablishment of a district to enable it to clear up the distribution of expenses. The amendment extends this provision to cases coming under the new subsection (8) of section 26, that is, where the district is disestablished after the voters have approved the scheme.

Section 58 of the Act deals with the dissolution of an operating district upon application by the Board and the contributing councils. The amendment made by section 8 of this Act limits the right to make this application to districts which have been operating and providing hospital services for not less than six months.

Section 74 of the Act amended by Section 9 of this Act deals with cases where a minimum hospital tax is provided by a hospital scheme and provides that where a ratepayer is assessed in respect of more than one parcel of land in the hospital district, he can credit all the taxes on the minimum tax which shall be paid in the area of which he is a resident. The purpose of the amendment is to extend this privilege to ratepayers who do not reside in the hospital district who may select the area in which the minimum tax is to be paid and produce tax notices from other areas.

The Order in Council validated by section 10 of this Act provided, subject to validation, for the amendments made by section 4 of this Act relating to cases where a majority of the voters have not voted in favour of a scheme.

This Act came into force on March 27th, 1946.

*Solemnization of Marriage Act Amendment Act (Chapter 66).*

This Act adds a proviso to subsection (3) of section 14 of the Act. That subsection requires the production of a doctor's certificate to the effect that he has taken a specimen of blood for a syphilis test from the applicant for the license, etc. The amend-



ment authorizes the acceptance of the certificate of a Provincial District Nurse in lieu of the doctor's certificate in cases where the applicant lives in a remote district far from a physician.

This Act came into force on March 27th, 1946.

## DEPARTMENT OF PUBLIC HEALTH

## REVENUE AND EXPENDITURE FOR THE FISCAL YEAR ENDED MARCH 31st, 1947

	Salaries	Expenses	Revenue
601. Administration (General) .....	\$ 3,712.00	\$ 221.58	\$ .....
602. Administration (General) .....	18,760.72	1,527.31	55.27
616. Administration (Chiropractic Act) .....	.....	.....	60.00
618. Administration (Postage) .....	.....	2,358.10	.....
636. Administration (Election of Rep. Municipal Hospital Boards) .....	.....	153.63	.....
603. Grants to Approved Hospitals .....	.....	629,634.85	.....
603. Expenses Hospital Inspection .....	5,234.72	1,159.95	204.00
605. Communicable Diseases .....	2,604.98	37,836.15	1,364.90
605. Sanitary Engineering .....	9,297.01	4,060.36	3,147.25
606. Public Health Nursing .....	65,054.67	19,151.85	13,542.78
607. Vital Statistics .....	37,142.32	7,549.65	92,606.04
608. Municipal Hospitals .....	3,613.31	1,630.00	.....
609. Insulin .....	.....	10,927.23	.....
610. Social Hygiene .....	25,613.80	16,366.49	.....
611. Grants to Orphanages .....	.....	4,712.50	.....
619. Grants to University Hospital .....	.....	20,000.00	.....
621. Travelling Clinic .....	.....	.....	.....
622. Mental Hygiene .....	5,398.87	7,056.19	.....
626. Grants to University Lab. ....	.....	4,750.00	.....
631. Poliomyelitis .....	756.90	23,107.85	.....
633. Cancer Treatment & Prevention .....	21,733.30	146,144.26	.....
637. Maternity Hospital Service .....	1,188.67	743,394.92	.....
638. Civil Service Nurse .....	1,986.29	654.03	.....
639. Public Health Education .....	4,108.78	2,879.39	.....
640. Control of Insect Borne Diseases .....	5,353.59	6,735.98	.....
641. Grants to Health Units .....	.....	53,716.54	.....
<b>Institutions</b>			
612-1. } Prov. Mental Institute, Oliver .....	293,091.40	145,558.17	112,632.83
613-2. } .....	.....	.....	.....
612-2. } Prov. Training School, Red Deer ..	115,581.26	50,890.14	60,815.68
612-3. } .....	.....	.....	.....
613-1. } Prov. Mental Hospital, Ponoka .....	433,438.29	253,559.31	220,998.38
612-4. } Auxilliary Hospital, Claresholm ....	19,022.18	15,569.09	8,957.50
612-5. } Auxilliary Hospital, Raymond .....	22,559.72	14,193.76	6,202.83
604. } Tuberculosis Control and Central ..	.....	.....	.....
604-C } Alberta Sanatorium, Calgary .....	219,882.73	311,305.32	99,260.52
	<u>\$1,315,135.51</u>	<u>\$2,536,804.60</u>	<u>\$ 619,847.98</u>
Total Expenditure Public Health Department .....			\$3,851,940.11
Less: Public Health Revenue .....			619,847.98
Net Expenditure, Department of Public Health .....			<u>\$3,232,092.13</u>

## VITAL STATISTICS

Vital Statistics registered during the year were as follows:

Births .....	22,184
Marriages .....	9,478
Deaths .....	6,601

In all cases in which rates are shown, these are based on a population of 803,330. In the following table, the number of births and the birth rate, the number of marriages and the marriage rate, and the number of deaths and the death rate are shown for each of the years from 1941 to 1946:

Year	No. of Births	Birth Rate	No. of Marriages	Marriages Rate	No. of Deaths	Death Rate
1941 .....	17,308	21.70	8,470	10.70	6,385	8.10
1942 .....	18,317	22.70	9,037	11.20	6,091	7.50
1943 .....	19,290	24.30	7,771	9.80	6,524	8.20
1944 .....	19,372	23.70	7,299	8.90	6,320	7.70
1945 .....	19,939	24.10	7,310	8.80	6,454	7.80
1946 .....	22,184	27.63	9,478	11.80	6,601	8.21

The birth rate for 1946 is 27.6 as compared with 24.1 for 1945. The marriage rate for 1946 is 11.8 as compared with 8.8 in 1945. The death rate for 1946 is 8.2 as compared with 7.8 in 1945.



*General Health Conditions.*

The deaths of 6,601 persons were registered in Alberta in 1946. Of this number, 4,049 were males and 2,552 females. There were 147 more deaths registered than in the previous year. There were 362 deaths from Pneumonia in 1946, a decrease of 5 as compared with the previous year, and 89 deaths from Influenza, an increase of 31 as compared with the previous year. Deaths from Pulmonary Tuberculosis numbered 233 in 1946 as compared with 200 the previous year. The chief cause of death is heart disease, 1,721 deaths having been registered as due to this cause, giving a rate of 214.3 per 100,000 population, as compared with the rate of 199.0 per 100,000 population for the previous year. Deaths from Cancer registered in 1946 number 860, a rate of 107.1 per 100,000 population, as compared with 830 deaths from this cause and a rate of 100.5 in 1945. Deaths from violence, excluding suicide number 450 as compared with 472 for 1945. The respective rates being 56.0 and 57.2.

The infantile mortality rate for 1946 is 43, the same rate as for the previous year. Special reference to the infantile death rate will be found in another section of this report.

The maternal mortality rate for 1946 is 1.44 as compared with 2.04 for 1945. Further reference to the maternal mortality rate will be found in another section of this report.

Nineteen deaths were reported as due to Whooping Cough in 1946, as compared with 43 deaths from this cause in 1945. Of these 19 deaths, 10 were infants under one year of age. While there was a material reduction in the number of deaths from this cause in 1946, I wish to again point out, that Whooping Cough is a serious disease. If all children, particular those under two years of age were immunized, deaths from this cause could be still further reduced. The vaccine required for this purpose is provided free of charge by the Department to physicians and local health authorities.

There were 5,449 cases of Measles, with 8 deaths and 357 cases of Rubella with no deaths reported in 1946. There was a marked increase in the incidence of measles in 1946 as compared with the previous year, when 1,472 cases were reported. Detailed information concerning cases of Measles and Rubella reported will be found in the report of the Communicable Disease Division.

The combined death rate (deaths per 100,000 population) for Diphtheria, Scarlet Fever, Measles and Whooping Cough is 4.3 as compared with 7.1, the rate for 1945.

There were 48 cases of Diphtheria, with 7 deaths reported in 1946 as compared with 53 cases, and 9 deaths during the previous year. Of the 48 cases reported in 1946, 24 were reported by cities, 6 by towns and villages, and 18 by rural districts. The death rate for Diphtheria in 1946 was .87 as compared with 1.1 for 1945. Since Diphtheria is an entirely preventable disease, there should not be a single death from this cause. The Department furnishes toxoid for the immunization of children, free of charge to physicians, local health authorities, and local school authorities. Protection should be provided in early childhood and such reinforcement of immunity given as may be found necessary during school life. If such a procedure were carried out in all sections of the Province, Diphtheria would practically disappear. There are still several areas



in the Province in which little has been done by local authorities to immunize pre-school and school children against Diphtheria.

In 1946, 1,625 children in outlying districts were immunized against Diphtheria by one of the Health Inspectors on the staff, part of whose time is devoted to this work.

No cases of Smallpox were reported in 1946. Surveys made by the Department indicate that there are many areas in the Province in which not more than one-third of the pre-school and school children have been vaccinated against Smallpox. From the standpoint of public health, this constitutes a dangerous situation. Should Smallpox develop in such a community, the disease would spread with great rapidity and should such an out-break be of the malignant type, the results would be tragic. Children should be vaccinated against Smallpox within the first six months of life. Vaccination should be repeated at the time the child enters school and need not again be done unless on exposure to the disease in after-life. Smallpox vaccine is provided free of charge by the Department, to physicians, local boards of health, and local school authorities.

In 1946, 1,682 persons in outlying areas were vaccinated against Smallpox by the Health Inspector in charge of this work.

In 1946, 482 cases of Scarlet Fever with 1 death were reported, as compared with 1,358 cases and one death in 1945. As these statistics indicate, there was a marked decline in the number of cases of Scarlet Fever reported in 1946.

The following is a summary of the cases reported in 1946:

Under 1 year .....	11
1 to 4 years .....	106
5 to 14 years .....	245
15 to 19 years .....	41
20 years or over .....	69
Age not stated .....	10
<b>Total</b> .....	<b>482</b>
Cases reported by cities .....	287
Cases reported by towns and villages .....	77
Cases reported by rural districts .....	118

There were 9 cases of Typhoid Fever and 4 cases of Paratyphoid Fever reported in 1946 as compared with 20 cases and 5 cases respectively in 1945. Not a single death from Typhoid Fever occurred in 1946. One death was reported as due to Paratyphoid Fever.

The supervision and control of Typhoid Carriers is a matter of vital importance to the public health, and the full co-operation of local health authorities is essential, not only in the investigation of sources of infection, but also in the supervision and control of Typhoid Carriers. Constant vigilance in the supervision of local water, milk and food supplies is essential. In this connection, it should be emphasized that the pasteurization of milk and milk products carried out under proper supervision, has proved an effective means of safe-guarding such products. Pasteurization provides protection not only against Typhoid Fever, but also against other milk borne diseases.

#### *Division of Entomology.*

This Division deals with epidemiological problems associated with insect-borne diseases. A considerable amount of the time of the Division was devoted to Sylvatic Plague, Spotted Fever, and



Tularaemia investigations. A survey was also carried out in regard to the migration of rats in Western Canada and in the Western United States.

In connection with the survey, re Rocky Mountain Spotted Fever in 1946, 2,226 drag ticks were taken in 34 collections and 187 host ticks collected. There were no positive reports submitted on the specimens collected in 1946.

Five hundred and seventy-nine persons in the Redcliffe District, 368 persons in the Manyberries District and 84 persons in the Thelma District were vaccinated against Rocky Mountain Spotted Fever.

During the Sylvatic Plague survey, a total of 323 collections consisting of 3,061 animals, mostly ground squirrels were made. These animals yielded 5,729 fleas, and 57 tissue specimens. No positive reports for plague infection were submitted on these specimens.

Educational work in regard to the prevention and control of insect-borne diseases was carried on along the same general lines as in previous years, through moving picture films, lectures and the distribution of literature.

The assistance of the Department of National Health and Welfare in providing the laboratory service which is essential in this work, is gratefully acknowledged. More detailed information regarding the work of the Division of Entomology will be found in the report of this Division.

#### *Poliomyelitis.*

In 1946, 78 cases of Poliomyelitis were reported, and 8 deaths occurred from this cause. The majority of the cases reported, occurred in the northern part of the Province.

Under the provision made for free treatment of patients suffering from paralysis due to poliomyelitis, 53 patients were admitted to the University Hospital, Edmonton, and 3 to the Junior Red Cross Hospital in Calgary.

Assistance was extended by the Department to enable 17 patients to complete academic and secretarial courses and to take vocational training.

#### *Influenza and Pneumonia.*

In 1946, 89 deaths occurred from Influenza as compared with 58 deaths from this cause in 1945. Three hundred and sixty-two deaths occurred from Pneumonia in 1946 as compared with 367 in 1945.

With early diagnosis and prompt treatment by physicians with the new drugs now available, a further reduction in the present death rate from Pneumonia can be effected.

#### *Tuberculosis.*

During 1946, 302 deaths were reported from Tuberculosis as compared with 263 deaths in 1945. Of these 302 deaths, 156 were deaths of Indians. The death rate for all forms of Tuberculosis in 1946 (including Indians) is 37. Excluding deaths of Indians, the death rate is 18 (per 100,000 population) as compared with 15.4 in 1945.



*Diseases of the Heart and Circulatory System.*

Diseases of the heart accounted for 1,721 deaths in 1946, as compared with 1,643 in 1945. These 1,721 deaths represent 26 per cent of the deaths from all causes reported for the year, giving a death rate of 214.3 (per 100,000 population) as compared with 199 in 1945.

Diseases of the arteries were reported as the cause of 102 deaths in 1946, as compared with 138 in 1945. There has, in recent years, been a steady increase in the number of deaths reported due to diseases of the heart and circulatory system. The ageing of our population, as mentioned in previous reports, is a factor in this increase. Among these deaths are many which could be classed as preventable. Periodic medical examinations of children, as well as adults, would reveal many of these heart conditions in the early stages, when effective measures might be taken to deal with them. Early recognition and the prompt attention of skilled physicians would prevent much disability due to diseases of the heart and would prolong many lives.

*Cancer.*

Eight hundred and sixty deaths were registered as due to Cancer in 1946, as compared with 830 during the previous year. The death rate from Cancer in 1946 is 107.1 (per 100,000 population) as compared with 100.5 in 1945. Cancer occupies second place in the list of causes of death, and in 1946 accounted for 13 per cent of the total deaths registered in the Province. Early recognition and prompt and effective treatment of Cancer by competent physicians, would save many lives.

The importance of educational work in regard to Cancer, cannot be over-emphasized. Educational work has been carried on by the Division of Cancer Services of the Department in co-operation with the Alberta Branch of the Canadian Society for the control of Cancer and the Alberta Division of the Canadian Medical Association.

The Diagnostic Clinics, one in Edmonton and the other in Calgary, were kept busy throughout the year. In addition to the free diagnostic services provided by these Clinics, free X-ray and radium treatment, as well as free surgical treatment were authorized for such patients, as, in the opinion of the Clinic Staff, would be likely to benefit by such treatment. Hospital care is provided by the Department free of charge, where, in the opinion of the Cancer Clinic, admission of a patient to hospital is necessary in order to establish the diagnosis. Free hospitalization is provided for a period up to, but not exceeding, fourteen days.

The following is a brief summary of the work done by the Diagnostic Clinics in 1946:

Edmonton Clinic:		
Examinations of new patients .....	1,382	
Re-examinations .....	1,534	
		2,916
CALGARY CLINIC:		
Examinations of new patients .....	876	
Re-examinations .....	496	
		1,372
Total of both Clinics .....		4,288

Of the new patients examined at the Clinics, 49 per cent were found to be suffering from Cancer. There were 1,034 patients referred for X-ray diagnosis, 874 patients were given radium or



X-ray treatment, and 1,025 patients were referred for surgical treatment.

#### *Deaths Due to Violence.*

Deaths reported as due to violence (excluding suicides) numbered 456 in 1946, as compared with 472 in 1945, representing 6.8 per cent of the total deaths registered in the Province for the year and giving a death rate of 56.7 (per 100,000 population) as compared with 57.2 in 1945.

There were 100 suicides in 1946, as compared with 76 in 1945.

Highway accidents accounted for 97 deaths, of which 90 were due to motor vehicle accidents. These statistics indicate that highway accidents constitute an important cause of death, to say nothing of the serious injuries suffered and the great expense involved in hospital and medical care for a large number of persons.

There were 31 deaths reported from drowning in 1946, as compared with 37 in 1945. There is a great need for a continued programme of education in this field. Each year, a number of deaths are reported as a result of the destruction of homes by fire, in some cases, with parents absent from the home and children left to their own devices. There were 18 deaths due to conflagration in 1946.

In the following table the deaths due to violence are classified:

Suicides .....	100	Hunger or thirst .....	1
Homicides .....	6	Excessive cold .....	5
Railway accidents excluding motor vehicles .....	15	Excessive heat .....	1
Motor vehicles accidents .....	90	Lightning .....	1
Street Car and other transport accidents .....	7	Food poisoning .....	1
Water Transport .....	11	Accidental absorption of poisonous gas .....	9
Air Transport .....	8	Acute accidental poisoning of solids or liquids .....	7
Accidents in mine and sand quarries .....	13	Conflagration .....	18
Agriculture and forestry .....	35	Accidental burns (conflagration excepted) .....	31
Other accidents involving machinery .....	9	Accidents due to electric currents .....	2
Accidental mechanical suffocation .....	11	Other accidents .....	39
Accidental drowning .....	31	Legal executions .....	5
Accidental injury by firearms .....	18		
Accidental injury by cutting or piercing instruments .....			556
Accidental injury by fall or crushing .....	81		
Injury by animals .....	3		

#### *Infantile Mortality.*

There were 945 deaths of children under one year of age registered in 1946, as compared with 862 such deaths in 1945, an increase of 83 deaths. The infantile mortality rate for 1946 is 43, the same rate as for 1945.

Of the 945 deaths of children under one year of age in 1946, 575 or 60.8 per cent occurred within the first month of life, of which number, 453 occurred within the first week and 272 on the first day of life. In the expansion of our preventive health services and through the organization of additional Full-Time District Health Units, lies the solution of this problem. In Districts in which Full-Time Rural Health Units have been in operation for a number of years, it is found that the infantile death rate falls to approximately the same level as that for the cities of the Province with full-time public health services. The Department proposes to increase the number of District Health Units in the Province as rapidly as the medical and nursing personnel required to provide this service can be recruited. An analysis of infantile deaths will be found in the report of the Bureau of Vital Statistics.



*Maternal Mortality.*

The maternal death rate (deaths per 100,000 living births) in 1946 is 1.44, as compared with 2.4 in 1945. The average maternal death rate for the past 5 years is 2.2. The rate for 1946 (1.44) is the lowest ever recorded. The next lowest rate, namely, 1.6 occurred in 1944.

The following are the chief causes of maternal deaths registered in 1946:

Abortion with mention of infection .....	3
Abortion without mention of infection .....	2
Ectopic gestation .....	4
Haemorrhage of pregnancy, death prior to delivery .....	1
Toxaemia of pregnancy, death prior to delivery .....	1
Other diseases and accidents of pregnancy, death prior to delivery .....	2
Haemorrhage of childbirth and puerperium .....	5
Infection during childbirth and the puerperium .....	4
Puerperal toxaeemias following delivery .....	6
Other accidents of childbirth .....	2
Other and unspecified conditions of childbirth and the puerperal state .....	3
Total .....	32

The progressive reduction in the maternal mortality rate in recent years is very gratifying. We can look forward with every confidence to further reductions in our maternal and infant death rates, as we go forward with the expansion of full-time preventive health services in the rural and urban districts. Of the births registered in the Province in 1946, 91.5 per cent occurred in approved hospitals.

*Full-Time Rural Health Units.*

The work of the eight Rural Health Units, namely, Red Deer, Foothills, Stettler, Rosebud, Lamont, Edmonton Rural, Holden and Two Hills, has been conducted along the same general lines as in recent years. Owing to the shortage of Medical Officers of Health, largely due to war service, and the impossibility of obtaining or finding suitable replacements, it has been necessary to continue the part-time service of local medical officers of health in six of the District Health Units. Frequent changes and shortages in the staff of public health nurses have created difficult problems for the District Boards of Health of the various Health Units. The eight Health Units established, with one public health nurse in charge of the service in each Unit, have continued to function. The continued shortage of public health nurses has made it impossible to increase the number of nurses in the latter Health Units. The activities of Full-Time District Health Units include the prevention and control of communicable diseases, child and maternal hygiene, mental hygiene, school hygiene, health education, the supervision of water and milk supplies, food inspection, general sanitation, records and statistics, etc.

*Health Education.*

Health Education work is carried on through the publication of bulletins, articles in the press and by means of lectures, radio talks, movies, health exhibits and demonstrations. Thirty-two Departmental bulletins and pamphlets and approximately 130 publications issued by various organizations are distributed by the Department. More than 250,000 bulletins and pamphlets were distributed during the year and a large number of lectures were given by the Supervisor of health educational work.



Health educational services are also carried on by the various Divisions of the Department.

#### *Nutrition.*

As in previous years, there has been a great demand for literature on nutrition. Much of this material has been made available to the Department by the Nutrition Division of the Department of National Health and Welfare, and this material has been found of great value. An effort is being made to extend the educational service in this field and to assist the various Health Units in carrying on an effective nutrition programme.

#### *Public Health Nursing.*

There are 40 nurses on the staff of the Department (not including public health nurses serving in District Health Units). One of these is in charge of the Child Hygiene Clinic serving the Edmonton District, one in charge of the Child Hygiene Clinic serving the Calgary District, one in charge of the Clinic serving the Medicine Hat and Redcliffe Districts, and one in charge of the Clinic serving the Drumheller District. One nurse serves the Municipal District of Norma and the Town of Vegreville. There are 35 District Nurses stationed in outlying districts remote from medical and hospital facilities.

There were 702 child hygiene clinics held in Edmonton, Calgary, Bowness, Medicine Hat, Redcliffe, Drumheller and Vegreville, with a total attendance of 25,241 infants and pre-school children.

A summary of the work of our District Nurses is shown in the following table:

Treatment Consultations .....	20,003
Miscellaneous P. H. Consultations .....	7,449
Antepartum Consultations .....	1,937
Postpartum Consultations .....	624
Infant and Pre-School Consultations .....	4,033
Miscellaneous P. H. Home Visits .....	1,863
Treatment Home Visits .....	4,678
Communicable Disease Home Visits .....	486
Maternal Welfare Home Visits .....	652
Infant and Pre-school P.H. Home Visits .....	899
Deliveries .....	148
Abortions .....	61
Cases sent to Hospital or Doctor .....	1,375
Deaths (under 1 year) .....	10
Deaths (Over 1 year) .....	45
Cases Communicable Diseases Reported .....	809
Pieces P.H. Literature Distributed .....	5,646
<b>IMMUNIZATIONS:</b>	
Diphtheria Toxoid .....	4,641
Scarlet Fever Toxin .....	6,979
Smallpox Vaccine .....	2,093
Whooping Cough Vaccine .....	3,747
Typhoid Fever Vaccine .....	34
	17,494

Many difficult problems have arisen due to the shortage of public health nurses, but excellent service has been given by the members of the public health nursing staff in their respective fields.

#### *Travelling Clinics.*

As it was not possible to obtain the medical, dental and nursing staff required to operate the travelling clinic, this service was not sent out in 1946.



*Social Hygiene.*

Seven clinics were conducted by the Division of Social Hygiene, one in each of the three large cities and one each at High Prairie, McLennan, Peace River, and the Slave Lake District. In addition, a clinic is held in each of the Provincial Gaols at Lethbridge and Fort Saskatchewan. New cases under treatment in all clinics during 1946 were as follows:

Syphilis—209, Gonorrhoea—1,479, making a total of 1,688.

Education work in connection with venereal disease control was carried on along the same lines as in previous years. The employment of additional personnel has enabled the Division to expand the field work and to develop a more intensified follow-up programme.

Approximately 85 per cent of the alleged sources of infection have been traced and, where necessary, given treatment.

The feature of the work of the Social Hygiene Division in 1946 was a serological survey of the Indian and Metis population in the hinterland, in and around the Lesser Slave Lake area. As a result of this survey covering several thousand persons, 150 syphilitic persons were brought to light, about one-half of whom were Indians and the other half, Metis and Whites. In co-operation with the Indian Affairs Branch of the Department of National Health and Welfare, a plan was worked out under which arrangements were made for the intensified treatment of the above mentioned patients. A camp was established on the west shore of Lesser Slave Lake on the out-skirts of the Town of Grouard. Some 50 tents were used to house the patients and arrangements were made by the Indian Affairs Branch to provide transportation to the camp and food for the patients under treatment.

The medical supervision and nursing service required for the treatment of these patients was a contribution of the Social Hygiene Division of the Department. The co-operation of the patients in connection with the treatment was excellent.

This project demonstrated that such an activity has an important educational value. Before the camp had been in operation many days, persons who had been missed in the original survey began to come in voluntarily for blood tests. As a result of this influx, the project had to be continued for an additional two weeks in order to take care of these patients.

The Department sustained a very severe loss during the year in the death of Mrs. Hilda W. Tainton, who, for more than twenty years, was responsible for the investigation and follow-up of cases and contacts. Mrs. Tainton gave outstanding service to the Province and was recognized as one of the most efficient workers in this field, on the continent.

*Provincial Laboratory.*

The staff of the Provincial Laboratory made 176,417 examinations in 1946, an increase of 30,000 examinations as compared with the previous year. The rapidly expanding work of the Provincial Laboratory, has made the provision of increased laboratory accommodation an urgent matter. Additional temporary accommodation has been provided by the erection of huts opposite the Medical Building and plans are being made for the erection of a new Provincial Laboratory building.

The work of the Provincial Laboratory includes examinations of water, ice, sewage, milk, food, various examinations in connection



with communicable disease control, examinations of pathological material submitted by hospitals, medico-legal examinations and many others.

The Provincial Laboratory serves as a centre for the distribution of vaccines and sera which are furnished by the Department for the prevention and treatment of communicable diseases.

The estimated value of the work done by the Laboratory in 1946 on the basis of minimum charges only, is \$258,559.10.

All public health laboratory service is provided free of charge excepting only, examinations involving highly specialized time-consuming procedures.

#### *Sanitary Engineering and Sanitation.*

Plans and specifications submitted to the Provincial Board of Health for waterworks, sewerage and sewage disposal plants were examined and, where approved, certificates issued for the same, as required under the provisions of the Public Health Act.

During the year, 2,248 reports of analyses of water, ice, and milk samples were received from the Director of the Provincial Laboratory and the necessary steps taken to deal with matters which required attention.

The work of the Plumbing Inspector has been carried on as in previous years. Plumbing fixtures installed in the Province during the year under the inspection of Local Boards of Health and the Provincial Board of Health, have been as follows:

Water Closets .....	7,283	Sinks .....	6,036
Lavatory Basins .....	6,762	Septic Tanks .....	272
Laundry Tubs .....	277	Miscellaneous Fixtures .....	778
Baths and Showers .....	5,299		

Each year in this report, attention is directed to the responsibility of local municipal authorities, for the safety of public water supplies. Water from streams, irrigation ditches and other such sources is unsafe. Any municipal authority which permits the use of such water for human consumption is practically certain, sooner or later to experience a serious outbreak of water-borne disease.

It is also important to call the attention of municipal authorities to their responsibility for the control of milk supplies. Municipalities which permit the sale of unsafe milk are inviting serious trouble. It is encouraging to note that an increasing number of municipalities are passing by-laws under which pasteurization of their milk supplies is required.

There were 150 complaints and requests for investigations received from various municipalities and referred to the Sanitary Inspectors for attention. Twenty-eight inspections of lumber, tie, saw-mill and mining camps were made during the year. As we expand our district health unit services, the Sanitary Inspectors staff will be in a position to provide general sanitary inspection service for all towns, villages and rural areas, included in these health units.

#### *Dental Hygiene.*

Owing to the acute shortage of dentists, it has been impossible to provide dental services in outlying districts by means of Traveling Clinics. Every effort has been made to provide essential dental services in the various institutions, with the dental staff it has been



possible to secure. A full-time dentist is to be appointed to the staff of the Provincial Mental Institute, at Oliver as soon as one can be secured.

A report of the dental work of the various institutions will be found in the reports of these institutions.

#### *Hospital Inspection.*

In 1946, 100 approved hospitals received the Government Grant under the provisions of the Hospitals Act, 92 private hospitals (largely Nursing Homes and Baby Shelters) were licensed under The Private Hospitals Act.

The total number of operations reported by hospitals in 1946 was 58,080.

On the basis of returns received from 100 approved hospitals, the total bed capacity, including cribs was, 5,125 and the total bed complement 5,365. There were in addition, 1,015 bassinets.

On the basis of a population of 803,330 (1946 census), there was one hospital bed available (including cribs and bassinets) for every 126 of our population, or 7.9 beds per 1,000 population. Excluding bassinets, there was one hospital bed available for every 131 of our population, or 6.7 beds per 1,000 population.

Construction of additions to the following hospitals were undertaken in 1946: Holy Cross Hospital, Calgary; Providence Hospital, Camrose; Royal Alexandra Hospital, Edmonton—wing for chronic and incurable cases; Battle River Hospital, Notikewin; General Hospital (Maternity Pavilion), Medicine Hat; St. Joseph's Hospital, Edmonton—new hospital for chronic and incurable cases; Consort Municipal Hospital.

There were 38 municipal hospitals in operation in 1946 providing accommodation for 1,334 patients. During the year, 37,571 patients received treatment through these 38 municipal hospitals.

The acute shortage of nurses to which reference was made in previous years, has continued, and has resulted in very difficult staff problems for the hospitals, especially the smaller hospitals.

The steady rise in the costs of hospital construction, equipment and supplies have also been difficult problems for hospital boards. Great credit is due to the various hospital authorities for the manner in which they have discharged their responsibilities under these difficult conditions.

#### *Division of Tuberculosis Control.*

The number of treatment beds available for Tuberculosis in 1946 is the same as for 1945, namely 500. Patient days for all sanatoria for 1946 total 131,010, as compared with 143,351 in 1945.

During the year, the Tuberculosis Division provided diagnostic service for 98,633 people, including those examined by the Mobile X-ray units.

There were 1,051 new cases of Tuberculosis reported in 1946. Of these, 46.3 per cent were considered active, 51.7 per cent inactive, and 1.9 per cent non-pulmonary.

Excluding Indian patients, 868 new cases of active and inactive pulmonary Tuberculosis were reported and classified as follows:

Minimal .....	453	52 %
Moderately advanced .....	242	28.9%
Far advanced .....	80	9.2%
Pleurisy .....	8	9 %
Primary .....	85	9.8%



There were 399 new patients admitted to the sanatoria in 1946. Medical examinations totalling 5,905 were made by the medical staff of the Tuberculosis Division in 1946. Seven Tuberculosis clinic centres were in operation.

At the request of the Indian Affairs Branch of the Federal Government, 1,063 school children were X-rayed and those who showed abnormal X-ray films were examined. By this means, 36 new cases of Tuberculosis were found. The Department has co-operated in every way possible with the Indian Affairs Branch of the Federal Government in making diagnostic and treatment services available to Indian patients, and the Department has been reimbursed by the Federal Authorities for these services. With the two mobile X-ray units operating, the number of X-ray examinations in 1946 was 102,710. The Department wishes to express its sincere appreciation to the Alberta Tuberculosis Association for their generous assistance in making these two completely equipped mobile x-ray units available. They have proved of great value in the campaign against Tuberculosis.

The Alberta Tuberculosis Association has carried on its programme of rehabilitation as in previous years. Through the assistance extended by the Association, a number of persons have received training both in academic and vocational work and many have subsequently obtained remunerative employment. This is a most constructive programme, the benefits of which are becoming more and more apparent.

#### *Mental Health Division.*

On January 1st, 1946, there were 3,169 patients in all the Mental Institutions and on December 31st, 3,142 patients, a decrease of 27 patients. The rate of hospitalized mental patients to general population has increased from 156 per 100,000 population in 1921 to 391 in 1946.

There were 504 patients with psychoses, 63 patients without psychoses, and 45 mental defectives admitted to the Provincial Mental Hospital, at Ponoka; 328 patients with psychoses, 97 patients without psychoses and 1 mental defective discharged; 74 deaths occurred during the year of which number, 48 were deaths of male patients and 26 of female patients.

There were 70 patients transferred from the Mental Hospital at Ponoka to other mental institutions, including 31 male patients and 19 female patients transferred to the Provincial Mental Institute, Oliver, 12 female patients transferred to the Claresholm Auxiliary Mental Hospital, and 2 male patients and 6 female patients transferred to the Provincial Training School for Mental Defectives at Red Deer.

There were 1,210 patients in the Provincial Mental Institute at Oliver at the beginning of 1946 and the same number in this Institution at the end of the year. During the year, 74 patients with psychoses, 25 patients without psychoses and 4 mental defectives were admitted; 55 with psychoses were discharged; 54 deaths of patients with psychoses occurred during the year. Of the 103 patients admitted to Oliver in 1946, 52 were patients transferred from the Provincial Mental Hospital at Ponoka and the Provincial Training School at Red Deer.

In the Auxiliary Mental Hospital at Claresholm, there were 96 female patients on January 1st, 1946 and 96 at the end of the



year. During the year, 13 patients were admitted, 1 discharged, 6 transferred to other hospitals and 2 deaths occurred.

In the Auxiliary Mental Hospital at Raymond, there were 117 female patients in residence on January 1st, 1946 and 114 at the end of the year. During the year, 1 patient was admitted who was transferred from the Provincial Mental Hospital at Ponoka. No patients were discharged and 4 deaths occurred.

During the year, 32 patients were admitted to the Training School for Mental Defectives, at Red Deer, 21 were discharged, 5 transferred, and 3 deaths occurred. There were 269 patients in residence at the beginning of the year and 272 at the end of the year. A survey in regard to the provision of additional accommodation for psychotic patients and mental defectives, and the most effective way of taking care of this need, is being carried out.

The construction of additional buildings at Ponoka, Oliver and Red Deer is planned to get underway in the spring of 1947.

#### *Guidance Clinics.*

Guidance Clinics were conducted at the following centres in 1946: Edmonton, Calgary, Lamont, Wainwright, Red Deer, High River, and the Edmonton Rural Health Unit.

Patients are referred to the Guidance Clinics by local authorities, school authorities, physicians, magistrates, child welfare and other social agencies. Parents frequently visit these clinics for the purpose of obtaining information and advice in regard to mental hygiene problems with which they are concerned in the home and community. The Department plans on the extension of this service through the organization of Travelling Guidance Clinics providing the additional staff of psychiatrists, psychologists and trained social workers can be recruited, and expects to set-up the first Travelling Guidance Clinic in 1947 to serve the southern part of the Province, with headquarters in Calgary. It is estimated that 5 such units will be required to make this service available throughout the Province.

This Province has pioneered in the field of mental health, this service having been first organized in 1929. The establishment of the Travelling Guidance Clinics will enable us to develop an effective, preventive, mental programme.

Our staff of psychiatrists and social workers have given outstanding service throughout the difficult war years and during the post-war period.

During the year, 86 Guidance Clinics were conducted, 300 new cases were presented and 800 follow-up cases have been dealt with. Since the inception of this service in 1929, 6,000 cases have been examined.

#### *Eugenics Board.*

The work of the Eugenics Board is carried on under authority of The Sexual Sterilization Act. Seven meetings of the Board were held in 1946. During the year, 107 cases were presented to the Board. Since The Sexual Sterilization Act was proclaimed in 1929, 2,273 cases have been presented to the Board. During 1946, 24 male cases and 31 female cases were sterilized. The total number of cases operated on to the end of December, 1946, is 1,059—423 male and 636 female. All operations are performed at the Provincial Mental Hospital at Ponoka.



The Department wishes to express its appreciation of the careful attention given by the members of the Eugenics Board, the honorary surgeons and the staff of the various provincial mental institutions and Guidance Clinics in the discharge of the duties for which they are responsible.

Detailed information concerning the activities of the Institutions, Guidance Clinics and Eugenics Board will be found in the reports of these services.

#### *Board of Visitors.*

The Board of Visitors, composed of Dr. J. M. MacEachran, Dr. E. L. Pope, Dr. E. G. Mason and Mrs. J. W. Field, visited the following Institutions during the second week of September, 1946; Provincial Mental Institute, Oliver; Provincial Mental Hospital, Ponoka; Provincial Training School for Mental Defectives, Red Deer; Provincial Auxiliary Mental Hospital, Claresholm; Provincial Auxiliary Mental Hospital, Raymond; and Central Alberta Sanatorium, Calgary.

A comprehensive report has been prepared by the Board on their visits to these Institutions. The Department desires to express to the members of the Board of Visitors, its sincere appreciation of the splendid service they have rendered.

#### *General Administration.*

A statement of revenue and expenditure for the year ending March 31st, 1947, will be found on page 14 of this report. An analysis of this statement shows that the total expenditure for all activities of the Department was \$3,851,940.11. The total revenue was \$619,847.98. The net expenditure of the Department was \$3,232,092.13. The sum of \$1,363,463.00 was expended for the maintenance and operation of the mental institutions coming under the administration of the Department. The sum of \$531,188.00 was expended in the maintenance and operation of the Central Alberta Sanatorium at Calgary, in providing hospital accommodation for tuberculosis patients in Edmonton and other hospitals, and in providing other diagnostic and treatment services for tuberculosis patients. The sum of \$629,634.85 was expended in grants to approved hospitals. The sum of \$743,394.92 was expended in providing free maternity hospitalization; \$167,877.50 was expended in providing cancer diagnostic and treatment services; \$84,206.52 in providing public health and district nursing services; \$53,716.54 in grants to full-time district health units; \$41,980.29 in venereal disease prevention and control. Expenditures for the various other activities of the Department are listed in the above mentioned statement of revenue and expenditure.

In concluding this summary of the activities of the Department for the year, 1946, I desire to express my sincere appreciation of the fine co-operation and excellent service rendered by the Directors and members of the staff of all Divisions including the Superintendents of our Provincial Institutions and the members of institutional staffs.

Respectfully submitted,

MALCOLM R. BOW, B.A., M.D., C.M., D.P.H.,

*Deputy Minister of Health.*



## Communicable Disease Division

(A. SOMERVILLE, B.A., M.D., D.P.H., *Director*)

The Communicable Disease Division is responsible for the control procedures for all communicable diseases excepting tuberculosis and venereal diseases—each of which operate as separate divisions of the Department of Health. Current reports are issued each week to local health officers and to the Dominion Bureau of Vital Statistics. In the unorganized parts of the Province this division is responsible for communicable disease control and carries out this responsibility sometimes with the help of Provincial District Nurses, sometimes by using medical doctors in the vicinity and sometimes by direct action from this division. In these outlying portions of the Province an inoculating programme is carried out by the Provincial Nurses and by a special Provincial Health Inspector. The report of the latter indicates that the following work was done:

Number inoculated against Diphtheria .....	1,625
Number inoculated against Whooping Cough .....	694
Number vaccinated against Smallpox .....	1,682
Diphtheria Reaction Tests .....	539
Places Visited .....	67
Lectures Given .....	24

A special inoculating programme for protection against Rocky Mountain Spotted Fever is carried out in the south-eastern corner of the Province, a more detailed report of which can be found in the report of the Provincial Entomologist.

### TYPHOID FEVER

(Cases 9, Deaths 0)

The nine cases of typhoid reported this year were all isolated cases except two which appeared in Banff Park. Most of our cases now come from carriers directly through food and single cases usually make it very difficult to find the carrier. Two of this year's cases had been drinking river water at a time which suggests that as the source of infection. One of these was a few miles below Edmonton and the other a few miles below Drumheller. A third case had also been drinking river water from the river at Bow Island. Two cases apparently got their infection outside the Province. Another case was that of a young boy whose father was found to be a carrier—the only one found this year and it was cleared up by the removal of the gallbladder. The source of infection in the other three cases was not identified.

This is the first year in the history of the Province that there have been no deaths from Typhoid.

There were four cases of Paratyphoid B reported, one of whom has remained as a carrier and one died.

There are 18 known typhoid carriers in the Province and two Paratyphoid B carriers as at December 31, 1946.



**PULMONARY TUBERCULOSIS**

(Cases 1,076, Deaths 233)

The tuberculosis death rate in Alberta is steadily improving but it is still the most serious communicable disease in the Province. Because of the travelling x-ray units operated by the Department of Health and the other activities of the Tuberculosis Division more cases are being found. These cases are spread over the entire Province with a slightly higher incidence in the northern part. Further information is available in the report of the Tuberculosis Division.

**WHOOPING COUGH**

(Cases 308, Deaths 19)

The year 1946 was one of low incidence in Alberta and the rate this year is the lowest in the history of the Province. This low rate is very unusual as this is the first time in the history of the Province that the case rate for whooping cough has remained below 100 cases per 100,000 for three years in succession. It has on several occasions been below for two years but never before for three years. Thirteen out of the nineteen deaths were among Indians. That is 70 per cent of the deaths were among 2.5 per cent of Alberta's population.

**MEASLES**

(Cases 5,449, Deaths 8)

The year 1946 was very definitely an epidemic year for measles although the death rate did not go up as much as the number of cases. Measles is always a serious disease for babies.

**ACUTE ANTERIOR POLIOMYELITIS**

(Cases 78, Deaths 8)

The year 1946 was another epidemic year in Alberta though the epidemic was a relatively small one. The cases were widely scattered over the entire province.

One of these cases was an Indian. This is the first time in the history of this Province that a case of polio has been reported in an Indian. According to the report of the Indian agent this was a full blooded Indian living in the ordinary Indian way. To consider why Indians do not usually get polio is an interesting speculation.

**SCARLET FEVER**

(Cases 482, Deaths 1)

The number of cases this year gives the lowest case rate in the history of the Province. With only a single death we also have the lowest mortality rate ever recorded. In fact, the mortality rate has been falling since 1937.

**SMALLPOX**

(Cases 0, Deaths 0)

Three years without any cases of smallpox and probably no true cases for the past seven years is certainly a good record. It is however almost certainly mainly a question of luck as the vaccination rate is not high except in the cities and in the rural health units.



**DIPHTHERIA**  
(Cases 48, Deaths 7)

For a disease which is highly preventable 48 cases is far too many. This is about the average for the past five years though the deaths are slightly below the average of that period. Six diphtheria carriers were discovered.

TABLE 1  
COMMUNICABLE DISEASE CASES AS REPORTED FOR 1945 AND 1946

	1945	1946		1945	1946
Actinomycosis .....	3	.....	Rocky Mtn. Spotted Fever .....	.....	.....
Anthrax .....	.....	.....	Rubella .....	632	357
Acute Anterior Poliomyelitis ..	19	78	Scarlet Fever .....	1,358	482
Chickenpox .....	3,120	2,159	Smallpox .....	.....	.....
Diphtheria .....	53	48	Tetanus .....	.....	.....
Diphtheria Carriers .....	12	6	T.B. Meningitis .....	.....	.....
Encephalitis .....	2	9	Tuberculosis—Pulmonary .....	1,032	1,041
Erysipelas .....	8	6	Tuberculosis, Non-pulmonary ..	32	35
Measles .....	1,472	5,449	Trachoma .....	3	.....
Meningococcal Meningitis .....	13	10	Tularaemia .....	.....	.....
Mumps .....	3,988	2,093	Typhoid Fever .....	37	9
Ophthalmia Neonatorum .....	.....	.....	Undulant Fever .....	13	49
Paratyphoid Fever .....	5	4	Whooping Cough .....	694	308

TABLE 2  
TOTAL DEATHS DUE TO COMMUNICABLE DISEASES IN THE PROVINCE OF ALBERTA FOR 1945 AND 1946

	1945	1946		1945	1946
Acute Anterior Poliomyelitis ..	.....	8	Paratyphoid .....	.....	1
Chickenpox .....	2	.....	Pneumonia (all forms) .....	367	362
Diphtheria .....	9	7	Rubella .....	.....	.....
Dysentery .....	.....	1	Scarlet Fever .....	1	1
Encephalitis Lethargica .....	8	4	Smallpox .....	.....	.....
Erysipelas .....	2	.....	Tuberculosis, Pulmonary .....	200	233
Influenza (all forms) .....	58	89	Tuberculosis (all other forms) ..	63	69
Measles .....	6	8	Typhoid Fever .....	2	.....
Meningococcal Meningitis .....	3	.....	Undulant Fever .....	.....	1
Mumps .....	.....	.....	Whooping Cough .....	43	19

TABLE 3  
DEATHS DUE TO COMMUNICABLE DISEASES IN THE CITIES OF EDMONTON AND CALGARY FOR 1945 AND 1946

	Edmonton		Calgary	
	1945	1946	1945	1946
Acute Anterior Poliomyelitis ..	.....	.....	.....	2
Chickenpox .....	.....	.....	.....	.....
Diphtheria .....	.....	.....	.....	1
Dysentery .....	.....	.....	.....	1
Encephalitis .....	1	1	.....	1
Erysipelas .....	.....	.....	1	.....
Influenza( all forms) .....	1	6	1	3
Measles .....	.....	1	1	.....
Meningococcal Meningitis .....	.....	.....	2	.....
Mumps .....	.....	.....	.....	.....
Pneumonia (all forms) .....	42	47	40	34
Scarlet Fever .....	.....	.....	.....	.....
Smallpox .....	.....	.....	.....	.....
Tuberculosis, Pulmonary .....	28	22	13	19
Tuberculosis (all other forms) ..	2	9	3	3
Typhoid Fever .....	1	.....	.....	.....
Whooping Cough .....	1	.....	.....	.....

TABLE 4  
DEATHS DUE TO COMMUNICABLE DISEASES IN THE SMALLER CITIES, TOWNS, VILLAGES AND RURAL DISTRICTS FOR THE YEARS 1945 AND 1946

	1945	1946		1945	1946
Acute Anterior Poliomyelitis ..	.....	6	Mumps .....	1	.....
Chickenpox .....	2	.....	Pneumonia (all forms) .....	285	281
Diphtheria .....	9	6	Scarlet Fever .....	1	1
Dysentery .....	4	.....	Smallpox .....	.....	.....
Encephalitis .....	7	2	Tuberculosis, Pulmonary .....	159	192
Erysipelas .....	1	4	Tuberculosis (all other forms) ..	58	57
Influenza (all forms) .....	56	80	Typhoid Fever .....	1	.....
Measles .....	5	7	Undulant Fever .....	.....	.....
Meningococcal Meningitis .....	1	.....	Whooping Cough .....	42	19

TABLE 5  
DEATHS DUE TO COMMUNICABLE DISEASES AMONG INDIANS IN THE  
PROVINCE FOR 1945 AND 1946

	1945	1946		1945	1946
Acute Anterior Poliomyelitis ..	.....	.....	Mumps .....	.....	.....
Diphtheria .....	3	2	Pneumonia (all forms) .....	90	91
Encephalitis .....	.....	.....	Scarlet Fever .....	.....	.....
Erysipelas .....	.....	.....	Tuberculosis, Pulmonary .....	102	113
Influenza (all forms) .....	4	22	Tuberculosis (all other forms) .....	34	43
Measles .....	1	3	Typhoid Fever .....	.....	.....
Meningococcal Meningitis .....	.....	.....	Whooping Cough .....	36	13

TABLE 6

	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate	Case Fatality Rate
Acute Anterior Poliomyelitis .....	78	8	9.7	1.0	10.1
Cerebro-Spinal Meningitis .....	10	.....	1.2	.....	.....
Chickenpox .....	2,159	.....	268.0	.....	.....
Diphtheria .....	48	7	5.9	0.9	14.6
Diphtheria Carriers .....	6	.....	0.7	.....	.....
Encephalitis .....	9	4	1.1	0.5	.....
Erysipelas .....	6	.....	0.7	.....	.....
Influenza .....	N.R.	89	.....	11.0	.....
Mumps .....	2,093	.....	259.0	.....	.....
Measles .....	5,449	8	565.0	1.0	0.1
Pneumonia (all forms) .....	N.R.	362	.....	45.0	.....
Pulmonary Tuberculosis .....	1,041	233	129.8	27.8	.....
Pulmonary Tuberculosis (Indians excepted) ..	.....	193	.....	24.5	.....
Non-Pulmonary Tuberculosis .....	35	69	4.3	8.5	.....
Non-Pulmonary Tuberculosis (Indians ex- cepted) .....	.....	49	.....	6.1	.....
Smallpox .....	.....	.....	.....	.....	.....
Scarlet Fever .....	482	1	59.8	0.1	0.2
Typhoid Fever .....	9	.....	1.1	.....	.....
Paratyphoid Fever B .....	4	.....	0.5	.....	.....
Whooping Cough .....	308	19	38.3	2.3	6.1
Rubella .....	78	.....	9.8	.....	.....
Undulant Fever .....	49	1	6.1	0.1	.....

N.R.—Not reported or incompletely reported.



## DEPARTMENT OF PUBLIC HEALTH

INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES  
FOR THE 10-YEAR PERIOD 1936-1946

## DIPHTHERIA

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
1936	772,782	47	9	6.0	1.0
1937	778,000	30	10	3.86	1.28
1938	783,000	74	18	9.40	2.3
1939	789,000	36	7	4.5	0.9
1940	795,000	52	12	6.42	1.5
1941	796,169	31	6	3.9	0.8
1942	805,152	58	11	7.3	1.4
1943	792,000	46	11	5.8	1.4
1944	818,000	57	5	7.2	0.6
1945	826,000	53	9	6.4	1.1
1946	803,330	48	7	5.9	0.9

## TYPHOID FEVER

1936	772,782	111	20	14.4	2.6
1937	778,000	34	4	4.37	.51
1938	783,000	77	11	9.8	1.40
1939	789,000	44	6	5.6	.70
1940	795,000	36	3	4.5	.40
1941	796,169	33	5	4.1	.60
1942	805,152	18	1	2.3	.10
1943	792,000	11	1	1.4	0.1
1944	818,000	101	8	12.4	1.0
1945	826,000	20	2	2.4	0.2
1946	803,330	9	.....	1.1	.....

## ACUTE ANTERIOR POLIOMYELITIS

1936	772,782	18	1	2.3	0.1
1937	778,000	169	13	21.72	1.67
1938	783,000	105	15	13.4	1.9
1939	789,000	24	5	3.0	0.6
1940	795,000	.....	4	.....	.....
1941	796,169	167	8	20.9	1.0
1942	805,152	8	.....	1.0	.....
1943	792,000	24	.....	3.0	.....
1944	818,000	107	1	13.3	0.1
1945	826,000	19	.....	2.3	.....
1946	803,330	78	8	9.70	1.00

## WHOOPING COUGH

1936	772,782	1,793	73	232.0	9.0
1937	778,000	658	49	84.57	6.3
1938	783,000	310	30	39.6	3.8
1939	789,000	2,080	33	263.6	4.2
1940	795,000	1,158	55	45.7	7.0
1941	796,169	364	23	19.8	2.9
1942	805,152	1,131	12	141.0	1.5
1943	792,000	1,520	12	191.0	1.5
1944	818,000	757	42	94.5	5.7
1945	826,000	694	43	84.4	5.2
1946	803,330	308	19	38.3	2.3

## SCARLET FEVER

1936	772,782	2,729	23	353.0	3.0
1937	778,000	2,123	24	272.9	3.08
1938	783,000	1,452	25	185.0	3.2
1939	789,000	1,113	19	141.0	2.4
1940	795,000	779	9	98.0	1.1
1941	796,169	792	6	101.0	0.8
1942	805,152	2,265	11	286.0	1.4
1943	792,000	1,676	7	208.0	0.9
1944	818,000	2,615	9	327.0	1.1
1945	826,000	1,358	1	164.0	0.1
1946	803,330	482	1	59.8	0.1

## SMALLPOX

1936	772,782	56	1	7.0	0.1
1937	778,000	57	1	7.3	0.1
1938	783,000	34	.....	4.3	.....
1939	789,000	45	.....	5.7	.....
1940	795,000	.....	.....	.....	.....
1941	796,169	1	.....	0.1	.....
1942	805,152	1	.....	0.1	.....
1943	792,000	2	.....	.....	.....
1944	818,000	.....	.....	.....	.....
1945	826,000	.....	.....	.....	.....
1946	803,330	.....	.....	.....	.....

CLASS OF COMMUNICABLE DISEASES REPORTED IN 1946  
WHOOPING COUGH

1946	Sex		MONTHS												AGES					TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over		Not Stated
			9	5	4	22	5	8	2	6	2	5	1	3	4	6	7	5	3		
Cities:	9	9	4	8	8	22	17	5	6	2	5	1	3	4	18	42	29	3	1	18	
Calgary	46	47	1	4	1	3	1	3	1	1	1	1	1	1	1	2	8	1	1	93	
Edmonton	7	3	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	10	
Lethbridge	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Red Deer	24	27	1	1	1	3	13	14	8	5	3	2	1	6	21	24	1	2	1	51	
Towns and Villages	72	63	5	2	8	11	11	38	11	20	9	10	2	8	18	40	75	2	2	135	
Rural Districts																					
Totals	159	149	10	12	24	40	36	60	31	30	21	18	13	13	48	112	142	5	1	308	

CHICKENPOX

1946	Sex		MONTHS												AGES					TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over		Not Stated
			155	174	8	7	9	12	18	9	8	24	28	68	59	59	3	83	227		
Cities:	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Calgary	472	481	78	61	45	57	42	61	65	40	47	111	154	192	41	259	573	24	46	10	
Drumheller	8	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	8	1	1	1	
Edmonton	8	7	2	1	1	1	1	1	1	1	1	1	1	1	1	4	9	1	1	1	
Lethbridge	7	3	1	1	1	1	1	1	1	1	1	1	1	1	1	4	10	1	1	1	
Medicine Hat	156	166	30	10	30	18	2	17	26	7	21	54	62	45	3	44	217	18	8	32	
Red Deer	264	253	98	48	22	15	38	54	29	9	18	67	74	45	7	73	377	32	15	13	
Towns and Villages																					
Rural Districts																					
Totals	1071	1088	244	129	106	103	102	142	132	82	114	307	356	342	55	465	1422	78	84	55	

RUBELLA

1946	Sex		MONTHS												AGES					TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over		Not Stated
			7	9	1	1	1	3	2	1	8	5	5	1	2 <th>8</th> <th>8</th> <th>8</th> <th>8</th> <th>8</th> <th>16</th>	8	8	8	8		
Cities:	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Calgary	61	130	8	17	19	43	28	24	8	5	5	12	5	17	1	48	101	15	25	1	
Drumheller	7	5	2	2	2	3	1	1	1	1	1	1	1	1	1	4	6	1	1	1	
Edmonton	30	28	3	5	5	1	13	9	1	1	3	5	5	8	8	9	32	6	1	2	
Red Deer	34	44	10	3	14	20	8	2	2	4	4	6	6	3	4	18	42	3	5	6	
Towns and Villages																					
Rural Districts																					
Totals	141	216	22	27	41	72	51	36	11	7	17	25	19	29	14	88	190	24	32	9	



DIPHtheria

1946	Sex		MONTHS												AGES					TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over		Not Stated
			3	2	2	1	1	2	1	1	3	1	2	1	1	1	1	2	1		
City:	15	2	2	2	1	1	2	1	3	1	1	2	2	1	1	1	4	1	2	11	3
Edmonton	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lethbridge	3	3	1	1	1	1	1	1	1	1	1	2	2	2	1	2	1	1	1	1	1
Medicine Hat	8	10	1	1	1	1	1	2	1	1	1	1	10	1	1	8	6	6	1	4	4
Towns and Villages	30	18	4	4	1	1	3	3	9	3	4	4	13	2	2	16	10	10	20	20	20
Rural Districts																					
Totals																					

DIPHtheria CARRIERS

Cities:	Male	Female	Total
Edmonton	2	1	3
Towns and Villages	1	2	3
Rural Districts	2	1	3
Totals	3	3	6

MEASLES

1946	Sex		MONTHS												AGES					TOTAL	
	Male	Female	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1	1-4	5-14	15-19	20-over		Not Stated
City:	314	278	22	9	43	30	21	5	18	44	22	74	78	226	12	147	405	18	10	10	
Calgary	4	4	13	9	54	166	525	875	506	78	20	26	179	138	89	1108	1272	31	66	23	
Drumheller	1276	1313	15	3	7	12	36	35	2	3	1	1	23	85	1	23	85	4	1	114	
Edmonton	59	55	15	3	7	12	36	35	2	3	1	1	23	85	1	23	85	4	1	114	
Lethbridge	9	21	18	3	7	12	36	35	2	3	1	1	23	85	1	23	85	4	1	114	
Medicine Hat	9	18	18	3	7	12	36	35	2	3	1	1	23	85	1	23	85	4	1	114	
Red Deer	9	18	18	3	7	12	36	35	2	3	1	1	23	85	1	23	85	4	1	114	
Wetaskiwin	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Towns and Villages	391	394	6	22	45	70	48	84	94	22	5	36	130	223	19	190	511	36	13	16	
Rural Districts	672	635	14	10	22	69	185	136	73	65	81	148	162	342	37	314	734	93	44	85	
Totals	2730	2719	70	53	174	354	820	1145	694	221	137	290	554	937	163	1811	3025	185	140	125	

MUMPS

Cities:	37	39	7	1	4	2	4	5	3	16	8	10	16	9	47	6	14	76
Calgary	670	729	181	131	168	196	166	121	85	59	63	87	58	6	222	96	219	1399
Edmonton	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Lethbridge	16	21	5	4	9	16	1	1	1	1	1	2	19	3	19	8	5	37
Medicine Hat	92	72	36	29	19	14	9	5	7	7	12	5	19	1	20	108	16	164
Red Deer	220	189	55	41	53	81	54	37	9	5	5	29	28	1	42	221	53	409
Wetaskiwin																		
Towns and Villages	1036	1057	284	209	254	310	235	165	99	74	91	137	104	8	296	1227	181	2093
Rural Districts																		
Totals																		

POLIOMYELITIS

Cities:	2	4	1	1	1	1	1	2	1	2	2	2	2	2	2	4	6
Calgary	6	2	1	1	1	1	1	2	2	4	1	1	1	1	1	1	8
Edmonton	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
Medicine Hat	6	3	1	1	1	1	1	1	1	2	3	2	2	2	2	3	9
Wetaskiwin	7	11	1	1	1	1	1	3	2	8	4	4	4	1	10	3	18
Towns and Villages	17	17	1	1	1	1	1	1	2	13	10	4	1	3	20	6	34
Rural Districts																	
Totals	40	38	1	2	2	2	6	8	30	20	4	2	3	8	41	12	78

SCARLET FEVER

Cities:	42	32	14	9	10	2	4	10	4	2	5	11	3	4	20	5	10	74
Calgary	2	3	1	1	1	1	1	1	1	1	2	2	1	1	2	5	5	5
Drumheller	88	108	22	17	29	24	28	16	15	8	7	12	11	2	40	14	34	196
Edmonton	1	4	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	5
Lethbridge	2	2	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	4
Red Deer	3	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3
Wetaskiwin	30	47	25	6	4	2	8	9	1	9	4	2	4	3	17	41	7	77
Towns and Villages	53	65	36	13	11	4	6	12	9	10	4	1	5	2	28	59	12	118
Rural Districts																		
Totals	221	261	98	48	59	33	47	47	30	29	16	21	33	11	106	245	41	482

NON-PULMONARY TUBERCULOSIS

Cities:	6	5	1	1	1	1	1	3	2	1	1	2	1	1	1	1	1	11
Calgary	7	3	1	2	2	2	2	2	1	2	2	2	2	1	1	4	3	10
Edmonton	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
Towns and Villages	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
Rural Districts																		
Totals	23	12	2	4	2	1	4	4	4	1	4	1	5	3	1	5	21	35



PULMONARY TUBERCULOSIS

1946	Sex	MONTHS												AGES					TOTAL						
		Male		Female		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	0-1		1-4	5-14	15-19	20-over	Not Stated	
Cities:																									
Calgary	94	83	4	12	13	14	8	12	15	7	16	12	28	36	1	6	11	3	127	29			177		
Drumheller	3	5																							8
Edmonton	117	57	15	9	18	11	21	21	20	7	10	11	17	14		3	4	13	137	17			174		
Lethbridge	7	7					3	3			2		3	1		1									14
Medicine Hat	7	14	3	2	2	3	2	2	1	2		1	2	3			1								21
Red Deer	6	5	1	2	1		2	2	1	1				2						1	9	1			11
Wetaskiwin	3	1					1	1						2							3	1			4
Towns and Villages	140	88	16	26	15	12	21	43	20	17	24	12	11	11	1	3	14	18	166	26			228		
Rural Districts	200	204	23	19	25	13	30	44	9	17	18	25	162	19	1	5	85	23	261	29			404		
Totals	577	464	62	71	76	53	86	129	66	51	70	64	223	90	3	18	116	58	736	110			1041		

UNDULANT FEVER

Cities:																									
Calgary	13	18											13	14	4								24	7	31
Drumheller	1																					1			1
Edmonton	1	3					2			1												2	2		4
Lethbridge		1																							1
Towns and Villages	5	2							1		3	1	1	1								1	4	2	7
Rural Districts	4	1					1		2			1										3	3	2	5
Totals	24	25		2	2		1	2	3	14	3	16	5	1							1	3	34	11	49

VARIOUS OTHER DISEASES

ERYSIPELAS

Towns and Villages		1																								1
Rural Districts	1	4			2			1	2														3			5
Totals	1	5			2			1	2													3				6

ENCEPHALITIS

City of Edmonton	5	2	1	1	3	1	1	1	2	5	7
Rural Districts	2				1	1			2	2	2
Totals	7	2	1	1	3	2	2	2	7	7	9

MALARIA

Rural Districts	1	1								1	1
-----------------	---	---	--	--	--	--	--	--	--	---	---

MENINGITIS

City of Edmonton	3	1	1			1			1	2	3
Towns and Villages	1	1				1			1	2	2
Rural Districts	4	1	1	2		1			2	1	5
Totals	5	5	1	1	3	1	1	1	2	2	10

PARATYPHOID FEVER

City of Edmonton	1	1				1				1	1
Towns and Villages	1	2	1			1			1	1	2
Rural Districts											
Totals	1	3	1			1	2	1	1	1	4

TYPHOID FEVER

Cities:	1	1									1
Medicine Hat	4				1				1	1	4
Towns and Villages	2	2	2	1		1			1	1	4
Rural Districts											
Totals	7	2	1	2	1	1	1	1	3	2	9



## Health Education

(C. C. Evoy, B.Sc., *Supervisor*)

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The programme of the Division of Health Education has expanded during the past year to an almost unmanageable extent—to a point, in fact, where it has been impossible with the present staff limitations to do a satisfactory job in every field. This is a good and promising sign—a sign which indicates the awakening of the public to the vital need for more “education for health.” It is expected that the staff situation will be improved in the coming year with the addition of a full-time assistant to the supervisor. There will then be two health educators to handle the volume of work rather than one full time person assisted by another on a half-time basis only, as has been the case during the past two years.

One example of the expansion of service is that shown in the circulation of health films. The film library of the division now contains approximately 85 films, 72 of which are owned by the division and 11 of which are on extended loan from the National Film Board. These are all in constant demand for public showing by public health personnel as well as school and community groups throughout the province. They are also kept in circulation in the National Film Board’s rural circuits, the latter alone providing a coverage of approximately 50,000 persons for health film showings. Direction of the film library is in itself a large job. It entails constant previewing of new films in order that the Alberta public may be provided with the most effective health films possible. It also requires a continuous channelling and re-channelling of films from the Health Education office to every part of the province, while the demand upon the library has increased to the extent that it has become necessary to require persons or organizations desiring films to reserve them two weeks ahead of time.

The radio information service has likewise expanded. Radio health spots for daily use are now sent out every week to nine radio stations in the province while the weekly fifteen minute programmes have been continued as in other years. The latter, however, instead of being broadcast by one radio station only, as previously, are now carried by stations in the north, south and central sections of the province. An effort has also been made to increase their popular appeal by use of dramatized and dialogued script in place of the former uninterrupted fifteen minute talks.

The literature and information service has continued on a gradually increasing scale. Bulletins circulated to the public include 144 different publications and, in all, approximately 173,000 copies of these were distributed during the past year. To keep this material up-to-date is in itself no mean part of the Division’s work.

The lecture service has been continued also, although the increasing demand from other fields has necessitated its limitation. It has not been possible to fill all single requests for health talks but several itineraries were arranged in the central portion of the province and a total of 80 talks, usually accompanied by film show-



ings, were given during the year. These covered a total audience of approximately 10,538 persons.

The Edmonton Exhibition again monopolized a considerable portion of the Division's attention during the latter part of June and the first part of July. Aside from the work entailed in the preparation of posters and exhibits illustrating the services of each of the Department's fourteen divisions, the staff of the Health Education Division remained on duty throughout the entire week of the Exhibition, explaining the exhibits and showing films on health. It was estimated that from 300 to 500 persons per day passed through the Health Exhibit Room, asking questions, examining the displays and viewing the films.

In addition to the above concentrated effort at education through exhibits, the Division has endeavored to keep channelling effective display and poster material to the public health personnel in all parts of the province throughout the year.

Articles on health and health services available in the province were again prepared at intervals during the year for various magazines and bulletins. A monthly article was supplied for publication in the Alberta Teachers' Association Magazine and in order that the rest of the Dominion should be kept cognizant of public health advancement in Alberta, regular news items have been sent to the Canadian Public Health Journal. A forty-eight page illustrated booklet on the services available to the public through the Department of Health was also prepared and plans have been made for a wide distribution of it both inside and outside the boundaries of the province.

A large stride was made, too, in the expansion and perfection of the filing system within the division. This was a particularly urgent need as, for sometime in the past, a constant stream of health material from all over the world has poured into the Health Education Office. In addition there is a continuous daily in-coming stream of heterogeneous material which must be culled and filed, as well as a total of no less than fifty publications from various states and provinces which arrive regularly, either monthly or weekly, in the offices of the Health Education Division, all to be filed and many containing articles worthy of indexing.

In conclusion, the Division would like to express thanks to all those both within and without the Department who have aided in the furtherance of its programme. Of the outside agencies which have given assistance, special thanks have been merited by the National Film Board of Canada for its assistance in the distribution of health films and to the Publicity Bureau of the Provincial Government for its aid in the production and distribution of radio programmes.



## Report of the Provincial Laboratory

(R. M. SHAW, *Director*)

Contrary to expectations that work in the laboratory would diminish with the cessation of hostilities and the conclusion of demobilization, the number of specimens received and examined considerably increased. Examinations made numbered 176, 417 compared with 146, 593 in 1945, an increase of 20 per cent.

The greatest advances were made in surgical pathology 20 per cent, routine bacteriology and the various tests for venereal disease control. With respect to the latter, some tests formerly done only when asked for by the physician are now made routinely as a result of a request from the Dominion Council of Venereal Disease Control endorsed by the Dominion Council of Health. Such tests include a special Kahn procedure to estimate quantitatively the reactivity of positive sera and quantitative complement-fixation tests on cerebrospinal fluids. Since these laboratory examinations offered more aid in the diagnosis of difficult cases and in the evaluation of the effects of treatment, all Provincial Laboratories agreed to give the service routinely.

The advances in medical science frequently make it necessary for laboratories to extend their services in order that the new discoveries may be used to the greatest advantage. As examples, may be cited the need frequently to determine whether a particular infection is likely to respond to treatment with one or other of the new antibiotics penicillin or streptomycin. Further, when such drugs are being used, it may be desirable to know the blood levels reached and maintained during their administration. Such tests come within the scope of the bacteriologist and are being asked for more and more frequently.

The discovery, in 1940, of the Rh factor in human red blood cells and the demonstration of its importance as a cause of reaction in blood transfusions and of certain abnormalities of pregnancy and of the newborn, have shown the need for more extensive blood testing and the necessity for more careful selection of blood donors for transfusions particularly for girls and young women. Since October, 1946, the Provincial Laboratory has undertaken to give service in this respect and now performs five hundred tests per month although only 622 tests were made in the last three months of the year under report.

The usual investigations were made with respect to acute infections and a new Table No. 9 gives some indication of the work done on typhoid fever and related diseases.

The large number of students who entered the university subsequent to demobilization brought about a state of overcrowding in the lower floors of the east wing of the Medical Building and made it necessary to seek new quarters for a part of the staff of the Provincial Laboratory. An army hut was secured and established on the south side of 89th Avenue immediately in front of the Medical Building. This was occupied in October, 1946, and gave three thousand square feet of floor space. Into it were moved the



routine clinical and part of the public health section of bacteriology, the section doing serological tests for syphilis, the section on mycology and of course the ancillary services for wash-up and sterilization. Such a move entailed the securing of new expensive equipment, much of which duplicated that used in the main building but which could not be transferred because it was still required in the teaching services and to serve the section of the laboratory still remaining in the old location. The Department of Veterans' Affairs kindly loaned some equipment until new became available.

The division of the laboratory into two parts required an increase in staff and created some administrative difficulties but on the whole was beneficial and permitted the maintenance of a satisfactory service to the public as well as easing the overcrowding in the teaching departments.

In May, 1946, the Dominion Department of Health called the second meeting of Directors of Provincial Laboratories in Ottawa. Dr. Gibbons, Chief of the Laboratory of Hygiene, occupied the chair. The aim of these meetings is to bring about a standardization of methods and uniformity of reporting results by Provincial Laboratories across Canada. The Dominion Department also is desirous to co-operate much more fully than in the past through the Laboratory of Hygiene. During the past three years reagents for serological tests for syphilis have been prepared and distributed without charge to all Provincial Laboratories. Co-operation in the typing of freshly isolated strains of streptococci and diphtheria bacilli is also offered and accepted. Some steps have also been made in providing diagnostic aid in virus diseases, problems which as yet most Provincial Laboratories have no facilities, staff or equipment to undertake.

During the spring of 1946 we were considerably disturbed by the resignation of an unusually high percentage of our technical staff. Some of these members had five to nine years' continuous service and equivalently experienced personnel were not available for replacement. New members selected from among recent graduates of the University have laboured diligently and have made great headway in filling the vacancies made by last year's resignations.

It is a pleasure to record that all members, both new and old, have given cheerful and faithful service throughout the year.



TABLE 1

## WORK PERFORMED IN THE PROVINCIAL LABORATORY DURING THE YEAR 1946

	Total, 1945	Total, 1946	Increase	Decrease
Sputum Examinations .....	579	768	189	.....
Diphtheria and Haemolytic Streptococci .....	2,292	1,788	.....	504
Typhoid Fever .....	640	881	241	.....
Milk .....	1,003	912	.....	91
Water .....	2,487	3,188	701	.....
Guinea Pig Inoculations .....	899	911	12	.....
Miscellaneous Examinations .....	4,816	5,685	869	.....
Plasma Cultures .....	873	150	.....	723
Mother's Milk .....	1	.....	.....	1
Urinalysis .....	61	34	.....	27
Medico-Legal Examinations (Blood, seminal, etc.) .....	8	9	1	.....
Cerebro-Spinal Fluids for the Wassermann Test .....	2,803	3,097	294	.....
Bloods for Quantitative Kahn test .....	.....	1,556	1,556	.....
Bloods for the Wassermann Test .....	7,839	9,221	1,382	.....
Bloods for the Standard Kahn Test .....	7,639	8,697	1,058	.....
Bloods for the Presumptive Kahn Test .....	77,739	99,009	21,270	.....
Smears for the Gonococcus .....	21,469	17,577	.....	3,892
Cultures for Gonococcus .....	.....	5,289	5,289	.....
Van Den Bergh Determinations .....	385	288	.....	97
Bloods for Rh factor .....	.....	622	622	.....
Pathological Histological Material .....	7,394	9,321	1,927	.....
Blood Smear Examinations .....	159	154	.....	5
Post-mortem Examinations .....	273	280	7	.....
Ascheim Zondek Examinations .....	307	383	76	.....
Comparative Series .....	10	41	31	.....
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy) .....	2,928	3,284	356	.....
Bacteriological Examinations (P.M.) .....	50	89	39	.....
B. abortus Examinations .....	626	881	255	.....
B. tularensis Examinations .....	626	881	255	.....
Cattle Blood Examinations .....	2,687	1,421	.....	1,266
<b>Total</b> .....	<b>146,593</b>	<b>176,417</b>		

TABLE 2

## DETAIL OF EXAMINATIONS OF MILK PERFORMED THROUGHOUT THE YEAR 1946

	1945	1946
Number of milks examined bacteriologically .....	938	846
Number of milks examined for butterfat .....	98	116
Number of milks examined for B. coli .....	212	98
Number of milks tested by the Phosphatase test .....	10	29
Number of ice creams examined .....	68	58

TABLE 3

## DETAILS OF THE BACTERIOLOGICAL AND CHEMICAL EXAMINATIONS OF WATER PERFORMED THROUGHOUT THE YEAR 1946

	1945	1946
Number of samples of water examined bacteriologically and found fit for human consumption .....	1,620	1,577
Number of samples of water examined bacteriologically and found unfit for human consumption .....	191	498
Number of samples of water examined bacteriologically and chemically and found fit for human consumption .....	235	240
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption .....	144	239
Number of samples of water examined chemically and found fit for human consumption .....	216	417
Number of samples of water examined chemically and found unfit for human consumption .....	66	201
Number of samples of ice examined bacteriologically and found fit for human consumption .....	15	15
Number of samples of ice examined bacteriologically and found unfit for human consumption .....	.....	1

TABLE 4

## DETAIL OF SOME OF THE WORK DONE BY THE LABORATORY IN RELATION TO THE CONTROL OF INFECTIOUS DISEASE DURING THE YEAR 1946

Diseases	No. of Specimens		No. of Physicians	Month.	Sputum.	Diph.	Ty.		Total.
	Positives	Negatives					Fever.	Total.	
Pulmonary Tuberculosis ..	63	705	.....	Jan. ....	145	263	73	481	
				Feb. ....	40	166	44	250	
				Mar. ....	84	142	62	288	
				April .....	66	115	67	248	
Diphtheria and Haemolytic Streptococci ..	31	1,757	663	May .....	62	109	61	232	
				June .....	38	96	56	190	
				July .....	74	334	101	509	
				Aug. ....	60	97	98	255	
Typhoid fever ..	185	696	.....	Sept. ....	48	112	85	245	
				Oct. ....	45	167	86	298	
				Nov. ....	51	114	72	237	
				Dec. ....	55	73	76	204	
<b>Total</b> .....				<b>768</b>	<b>1,788</b>	<b>881</b>	<b>3,437</b>		



TABLE 5  
NUMBER OF BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY  
SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS DURING THE YEAR 1946

Bloods Examined: Presumptive Kahn .....	99,009
Standard Kahn .....	8,697
Quantitative Kahn .....	1,556
Wassermann (Kolmer) .....	9,221
Cerebro-spinal fluids examined by Wassermann (Kolmer) test .....	3,097
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., A.C., Haem., Accidentally broken) .....	1,259
Bloods broken and leaked in transit .....	259
Bloods and cerebro-spinal fluids "Positive" to reaction .....	3,215
Bloods and cerebro-spinal fluids "Negative" to reaction .....	96,290
Bloods and cerebro-spinal fluids giving "Doubtful Please Repeat" re- action .....	1,093
Bloods giving "Please Repeat" reaction .....	1,384
Bloods giving "Report as is" .....	189
Bloods giving "N.S.Q. Please Repeat" .....	314
Number of bloods and cerebro-spinal fluids examined in 1945 .....	80,542
Number of bloods and cerebro-spinal fluids examined in 1946 .....	102,106
Increase in number of specimens examined .....	21,564
Increase in per cent .....	26.77%

TABLE 6  
NUMBER OF BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY  
SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS, BY THE  
MONTH, DURING THE YEAR 1946

	Presumptive Kahn Test	Standard Kahn Test	Quantitative Kahn Test	Blood Wasserm'n	C.S.F. Wasserm'n	Unsuitable
						(N.S.Q., A.C., Haem.)
January .....	8,895	838	....	866	293	111
February .....	9,654	821	....	900	276	99
March .....	10,732	818	....	889	262	113
April .....	8,614	724	....	796	237	76
May .....	8,108	614	....	674	255	95
June .....	9,724	857	70	905	261	130
July .....	7,674	731	247	761	288	123
August .....	7,210	662	257	696	232	98
September .....	6,510	643	292	670	335	58
October .....	7,130	581	243	595	223	67
November .....	8,683	727	223	752	269	140
December .....	6,075	681	224	717	226	149
Total .....	99,009	8,697	1,556	9,221	3,097	1,259

TABLE 7  
NUMBER OF PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TESTS FOR  
SYPHILIS DURING THE YEAR 1946

	Negative	Positive	Doubtful Please Repeat	Please Repeat	N.S.Q. Please Repeat	Report as is	Unsuit- able	Total
January .....	650	2	....	3	3	1	20	679
February .....	656	2	....	7	....	....	9	674
March .....	812	2	....	3	3	....	9	829
April .....	847	3	....	6	3	....	12	871
May .....	1,263	10	....	5	....	....	1	1,279
June .....	1,887	4	....	17	5	....	26	1,939
July .....	1,753	4	1	12	4	2	23	1,799
August .....	1,501	6	1	13	4	....	20	1,545
September .....	1,187	8	1	2	2	....	10	1,210
October .....	1,860	7	5	5	4	1	6	1,888
November .....	1,602	5	3	9	2	....	24	1,645
December .....	1,321	4	2	11	2	....	51	1,391
Total .....	15,339	57	13	93	32	4	211	15,749



## DEPARTMENT OF PUBLIC HEALTH

TABLE 8  
REPORT OF WORK DONE FOR THE MILITARY AUTHORITIES  
DURING THE YEAR 1946

	Airforce	Army	Navy	U.S.	Total
Milks .....	29	45	.....	.....	74
Waters—Bact. ....	136	26	1	.....	163
Smears—G.C. ....	2	51	.....	.....	53
T.B. Examinations .....	26	63	3	.....	92
Widals .....	4	10	.....	.....	14
Urines .....	1	.....	1	2	4
Misc. Bact. ....	59	83	.....	1	143
Throat Swabs .....	9	112	7	.....	128
Wassermanns:					
Bloods .....	83	830	9	.....	922
C.S.F. ....	10	152	.....	.....	162
Kahns:					
Presumptive .....	3,576	23,903	215	4	27,698
Standard .....	82	813	9	.....	904
<b>Total.....</b>	<b>4,017</b>	<b>26,088</b>	<b>245</b>	<b>7</b>	<b>30,357</b>

TABLE 9  
BACTERIOLOGICAL EXAMINATIONS FOR EVIDENCE OF TYPHOID FEVER,  
DYSENTERY AND RELATED INFECTIONS

Source	Salmonella Typhi	(1)Other Salmonella	Shigella (Dysentery bacilli)	Negative	Total
Stools .....	30	33	22	395	480
Urine .....	1	.....	.....	10	11
Blood culture .....	3	2	.....	12	17
Culture of blood submitted for Agglutination purposes .....	5	2	.....	903	910
Duodenal drainage .....	2	*1	.....	2	5
Number of cases .....	10	20	21	.....	.....

\* S. typhi-murium.

(1) Details of Salmonella infection of the 20 cases:	Details of the Shigella infections (B. dysenteriae).
S. typhi-murium .....	Sh. paradysenteriae (Flexner bacillus) 13
S. oranienberg .....	Sh. Sonnei (Sonne's bacillus) 3
S. oregon .....	Not further identified 5
S. madella .....	
S. paratyphi B. ....	Total cases .....
S. thompson .....	21
Not further identified .....	
Total cases .....	

TABLE 10  
SERA AND VACCINE DISTRIBUTED JANUARY 1946 TO DECEMBER 1946

Smallpox Vaccine:		Dick Test:	
1 point .....	2,385	10 persons .....	819
10 points .....	5,805	Tetanus Toxoid:	
100 points .....	16	1 person .....	76
Diphtheria Antitoxin, in syringe:		Tetanus Antitoxin:	
1,000 units .....	599	1,500 units .....	427
5,000 units .....	23	5,000 units .....	28
20,000 units .....	338	10,000 units .....	31
Diphtheria Toxoid:		Pertussis Vaccine:	
1 person .....	4,681	1 person .....	3,877
3 c.c. ....	433	6 persons .....	505
6 c.c. ....	910	Staphylococcus Toxoid:	
Diphtheria Toxoid and Pertussis (combined):		2 c.c. vial .....	268
1 person .....	7,491	Gas Gangrene Antitoxin:	
6 persons .....	2,000	4,000 units .....	82
Schick Test:		10,000 units .....	161
25 persons .....	467	Typhoid-Paratyphoid Vaccine:	
Scarlet Fever Antitoxin:		1 person .....	337
3,000 units, syringe .....	288	10 c.c. ....	761
9,000 units, vial .....	115	Other Vaccines:	
9,000 units, syringe .....	120	Autogenous, 25 c.c. bottle .....	23
Scarlet Fever Toxin:		Stock Vaccine, 25 c.c. bottle .....	3
1 person .....	3,303	Rocky Mountain Spotted Fever,	
6 persons .....	2,370	30 c.c. bottle .....	83
Scarlet Fever Toxin:		65 c.c. bottle .....	6
Strength "A"—30 doses (large) ..	33	Diluted Diphtheria Toxoid:	
Strength "B"—30 doses (large) ..	220	Small .....	2
Strength "C"—30 doses (large) ..	36		
Strength "D"—30 doses (large) ..	64		
Strength "E"—30 doses (large) ..	126		

TABLE 11  
AMOUNT OF AUTOGENOUS AND OTHER VACCINE PREPARED AND DISTRIBUTED  
DURING THE YEAR 1946

	Total, 1945	Total, 1946	Increase	Decrease
Autogenous Vaccine (25 c.c. quantity).....	22	23	1	....
Stock Vaccine (25 c.c. quantity) .....	12	3	....	9
Total.....	34	26		

TABLE 12  
COMMERCIAL VALUE OF WORK IF MINIMUM CHARGE WERE MADE—1946

Sputum Examinations .....	768	\$ 1.00	\$ 768.00
Diphtheria and Haemolytic Streptococci .....	1,788	1.00	1,788.00
Typhoid Fever .....	881	1.00	881.00
Milk .....	912	3.00	2,736.00
Water .....	3,188	10.00	31,880.00
Guinea pig inoculations .....	911	3.00	2,733.00
Miscellaneous .....	5,685	3.00	17,055.00
Plasma cultures .....	150	.25	37.50
Urinalysis .....	34	1.00	34.00
Medico-Legal (Blood, seminal, etc.) .....	9	5.00	45.00
Cerebro-Spinal Fluids for Wassermann Test .....	3,097	1.00	3,097.00
Bloods for Wassermann Test .....	9,221	1.00	9,221.00
Bloods for the Quantitative Kahn Test .....	1,556	....	....
Bloods for Standard Kahn Test .....	8,697	1.00	8,697.00
Bloods for Presumptive Kahn Test .....	99,009	1.00	99,009.00
Bloods for Rh factor .....	622	.50	311.00
Smears for the Gonococcus .....	17,577	1.00	17,577.00
Cultures for Gonococcus .....	5,289	1.00	5,289.00
Van Den Bergh Determination .....	288	1.00	288.00
Pathological Histological Material .....	9,321	5.00	46,605.00
Blood Smear Examinations .....	154	2.00	308.00
Ascheim Zondek Tests .....	383	5.00	1,915.00
Comparative Series .....	41	3.00	123.00
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy) .....	3,284	2.00	6,568.00
Bacteriological Examinations (P.M.) .....	89	5.00	445.00
B. abortus Examinations .....	881	.50	440.50
B. tularensis Examinations .....	881	.50	440.50
Cattle Blood Examinations .....	1,421	.10	142.10
Autogenous Vaccine .....	23	5.00	115.00
Stock Vaccine .....	3	3.50	10.50
Total.....			\$258,559.10

The tissues and exudates of 170 patients were examined for the presence of fungi, and in 39 of them pathogenic fungi were demonstrated.



## Division of Entomology

(J. H. BROWN, C.S.I. (C), B.Sc. (Agric.) M.Sc.)

### *General Introduction.*

The following information is a summary of the Third Annual Report of the Division of Entomology and the Ninth Annual Report of the Rocky Mountain Spotted Fever and Sylvatic Plague Survey, for the year ending December 31, 1946.

During the 1946 survey season a considerable amount of work was done and some new investigations were undertaken. During the spotted fever survey 34 collections were made consisting of 187 host and 2,226 drag ticks. The host ticks were taken from 447 animals, of which 436 were shot and 11 trapped. No spotted fever positives were found.

A total of 1,031 persons were vaccinated against spotted fever. Of these 579 were from Redcliff, 368 from Manyberries, 84 from Thelma and Elkwater.

During the course of the plague survey 323 collections were made consisting of 3,061 animals of which 1,083 were shot and 1,218 were trapped. These animals yielded 5,729 fleas and 57 tissue specimens. No positives for plague were found in the flea and tissue specimens. The plague positives found in 1945 had already extended the known plague area eastward to the Saskatchewan border.

A considerable amount of tularaemia investigational work was under-taken but no new information was obtained.

Considerable progress was made in the study of rat migration, distribution and invasion of western Canada and it is expected that this report will be published early in 1947.

A preliminary investigation into the probable occurrence of *Haplosporangium parvum*, a fungus disease of small rodents transmittable to man, was under-taken in conjunction with Dr. E. S. Keeping of the Provincial Laboratory aided by a grant of monies from the Medical Section of the National Research Council of Canada. During the course of this investigation a total of 272 small rodents, mainly mice, were trapped. From these, 14 collections of material were found to be positive. The infection was found to be present at Lethbridge, Red Deer, Athabasca, Peace River and Grande Prairie.

An investigation was under-taken in co-operation with Dr. Norman Topping, United States Public Health Service, Bethesda, Maryland, into the possibility of sheep acting as a spotted fever reservoir. A total of 150 blood samples were taken from groups of sheep, ranging in age from week-old lambs to three year old ewes in the spotted fever areas in the Manyberries district, for laboratory examination. A similar number of bloods for check purposes were taken from comparable groups of sheep in the Scandia district, which is free from spotted fever. The experiment is not complete as yet but important information is indicated.



Laboratory space and facilities were obtained for this division in the Terrace Building and the laboratory was established there during October. The establishment of the laboratory is of immeasurable value to this division as it will allow many investigations to be under-taken which have been hereto impossible. Laboratory equipment is being obtained and by 1947 the division should have a well equipped laboratory. It should be pointed out, however, that the acquisition of the laboratory now makes it imperative that a technician be hired, particularly a person qualified in bacteriology so that the investigational work can proceed without hindrance.

A number of scientific papers were prepared and published during the year.

*Personnel.*

Mr. H. B. Hall, B.Sc., 3rd year Medical Student, University of Alberta was Officer-in-Charge of Crew No. 1. Mr. G. J. Nicholson, B.Sc., 2nd year Medical Student was Officer-in-Charge of Crew No. 2. Mr. D. W. McMillan, 2nd year Medical Student was assistant on Crew No. 1. Mr. R. F. Scott, 1st year Medical Student was assistant on Crew No. 2 from May to July when he resigned due to ill health. He was replaced by W. Goresky, 1st year Medical Student.

All of these men have a keen interest in the field work and rendered good and effective service.



## Public Health Nursing Division

(JEAN S. CLARK, R.N., B.S., M.P.H., *Director*)

Despite the fact that the past year has been a difficult one for the Nursing Division from the point of view of staff fluctuation, it has been one of slow but steady progress in the matter of general organization. Expansion of the service has not, of course, been possible as it has been a virtually impossible task to keep those districts already established, staffed. This can be readily understood when it is realized that 1946 saw the peak of staff shortage since the establishment of the Division. It is to be hoped that there will be more easing of the situation in the coming year.

### *Staff.*

The most momentous staff change during the year was that of the Director. Miss Helen McArthur who had held the post since July 1944, left Alberta in October to become the first National Director of Nursing Services for the Canadian Red Cross Society, while Miss Jean Clark, formerly the Assistant Director, returned from Johns Hopkins University, where she had been taking her Master's Degree in Public Health, to become the new Director of the Division.

Of special moment also was the attainment of their twenty-fifth year of service by four of the members of the nursing staff, Miss M. Lavell, Miss B. Emerson, Miss A. Conroy, and Miss O. Watherston. It was with regret, however, that the retiring resignations of the latter three nurses were accepted before the end of the year. Mrs. I. Hawkes, Secretary of the Division, also observed the anniversary of her twenty-fifth year of service to the Department.

Other staff changes included three leaves of absence, 9 resignations and twelve appointments.

### *Organized Centres.*

As has already been mentioned, the problem of personnel shortage has prevented the opening of new districts during the past year, though requests for the service were received from several areas. On the other hand, due to changing needs and shifting populations, it was found expedient to close the Pendryl district and to move the nurse formerly stationed at Warburg to Breton.

The list of organized centres is now as follows:

URBAN—Calgary, Edmonton, Medicine Hat, Drumheller, Vegreville.

RURAL—Alder Flats, Blueberry Mountain, Bonanza, Bow Island, Breton, Breynat, Craigmyle, Dixonville, Fawcett, Foremost, Ft. Assiniboine, Grassland, Grouard, Hemaruka, Hilda, Hines Creek, Kinuso, Lindale, Lomond, Mackay, Maloy, New Brigden, Newbrook, Peers, Plamondon, Smith, Sunnynook, Tangent, Tulliby Lake, Valley View, Vauxhall, Whitecourt, Whitemud Creek, Worsley, Youngstown.

In addition, the office of the Public Health Nursing Division continued to provide supervision for the one-nurse Health Units in the Province. These include:

Health District	Location
McLennan-High Prairie .....	McLennan
Athabasca .....	Colinton
Pembina .....	Westlock
Wheatland .....	Strathmore



Brooks .....	Brooks
McLeod-Pincher Creek .....	Granum
Rocky Mountain .....	Rocky Mountain House
Wainwright .....	Wainwright
Spirit River .....	Spirit River

### *Staff Education.*

The value of staff education, as well as the fact that more personalized efforts in this area would be desirable is fully recognized by the nursing office. Because of the present heavy demands upon the administrative personnel, no appreciable expansion of activities in this field has been possible though the program of former years has been continued.

As a means of keeping the nurses in the field up to date on administrative procedures of the Division as well as on new drugs and new developments in medical science which might be applicable to their work, the nursing office has continued to prepare and send out to all staff members a quarterly news letter of approximately fifteen mimeographed pages. With the same object in view, the annual staff Conference was again held in the week following Easter and in addition to general discussion of common problems, topics such as Immunization, Insect Control, Infant Feeding, Tuberculosis Control, School Examinations and Problems in Sanitation, were discussed by guest speakers.

Some advance was possible in the matter of reference material and guides for the district nurses. A concerted effort was made to institute standard libraries in all of the districts and there is now in preparation a Manual for Public Health Nurses outlining the personnel policies of the Division and a general program for the nurse in the field.

### *Supervision.*

Twenty-six areas were paid one or more supervisory visits during the year, while, as always, considerable supervision and guidance was given in office conferences at such times as the various nurses have had occasion to visit the nursing office. A degree of supervision was also possible through the monthly reports submitted by each nurse. Situations continue to arise, however, which indicate that a closer contact on the part of the nursing office with both the nurses and the local nurses home committees is essential. It is hoped that this need may be met at least in some measure, by a full time assistant to the Director in the coming year. Certainly, at present the Director's time is crowded to capacity with administrative duties and even one visit per year to each area has not been possible.

### *Program in Rural Areas.*

Due to the inauguration of a new report form, comparison between the work done by the district nurses during the past year and the work done in former years is not possible. However, generally speaking, it can be safely assumed that the volume of work as shown in Table 1 at the conclusion of this report, has not decreased.

Once again, the amount of fees collected in the districts, more than covered the total cost of the drugs and equipment supplied by the Division. This is shown in the following statement:

Fees collected .....	\$9,385.46
Total cost of drugs and equipment .....	8,517.57
Balance .....	\$ 867.89



A point of interest which we might note here is the fact that desire for the service is not diminishing with the inclusion of district nursing areas in organized Municipalities. Rather, as this has happened, the service has been continued at the request of the districts concerned and their respective Municipalities have been billed on a population basis for services rendered. Revenue stemming from this source in 1946 amounted to \$4,265.00.

#### *Program in Urban Areas.*

The nurses of the Child Welfare Clinics have continued to carry on a full prevention program in child health as shown in Table 2 at the conclusion of this report. In addition to that shown, however, a considerable volume of work has been carried on in other fields. The nurses at Drumheller and Vegreville have carried on the school programs in their respective towns and surrounding areas, while the nurse at Medicine Hat has assisted with the school program in that area. Miss Wilson of Drumheller has also assisted regularly with monthly chest X-ray clinics held under the direction of the Central Alberta Sanatorium. In the past year, there were twelve such clinics with 291 persons receiving appointments.

Miss Hagerman of Medicine Hat assisted with seven Rocky Mountain Spotted Fever Immunization clinics and has, in addition, to her preventive program, held regular weekly Venereal Disease Clinics. Miss Lavell in Calgary, has continued to carry the responsibility of inspecting Provincial baby shelters and private hospitals in that City. In 1946, she made 311 inspections of baby shelters and paid 65 visits to private hospitals.

#### *Miscellaneous.*

*Office.*—Added to their usual duties of administration and supervision, the Director and her assistant inevitably become involved with a number of miscellaneous activities which, though not directly concerned with their work, are inescapable and time consuming. The Edmonton Exhibition is one of these and during the week of its duration this year, they were on duty with the Department Exhibit every day. Lecturing to outside groups is another, and during 1946, amongst a variety of such activities, the Director spoke to the senior students of the city hospitals and directed two adult education series of 6 lectures each.

The services of the Alberta Maternity Fund maintained by the Provincial I.O.D.E., Alberta Women's Institutes and U.F.W.A., were continued, and in response to requests from district nurses forty-one layettes were sent out to needy mothers by the nursing office.

#### *Field.*

In the field, the nurses have, as usual, been instrumental in facilitating the services of all divisions of the Department as well as those of various other provincial and national organizations. An example of this is their co-operation with the Venereal Disease Division. This year, in addition to the usual treatment of incidental cases, three of the district nurses assisted for a week with the program of mass testing and treatment of the Indian population of the Grouard and Slave Lake areas which was conducted by the Venereal Disease Division in co-operation with the Dominion Government during the month of August at Grouard.

The nursing office and the staff in the field again co-operated with the University of Alberta and with various Schools of Nursing



in the provision of field work for students. Twenty-two public health nurses obtained two weeks field experience in 1946 in both district nursing and child welfare programs, while student nurses from five Training Schools as well as trainees from the Canadian Vocational Training School have attended Child Welfare Clinics in Edmonton, Calgary, Medicine Hat and Vegreville for periods of observation ranging from one day to one month each.

#### Conclusion.

In conclusion, the Public Health Nursing Division would like to express its appreciation to all those who have aided in the furtherance of its work—to Dr. Cross and to Dr. Bow who have given generously of their sympathetic attention to the problems of the Division, to the staffs of other divisions and departments, and to allied social welfare groups in the Province. In rural areas, special commendation must go to the members of the medical profession, members of the nurses home committees and teachers of the local schools who have assisted the nurses in the field.

Lastly, the nursing office wishes to pay tribute to the members of the field staff for the splendid manner in which they have carried on with their duties in spite of the frequent difficulties which have faced them.

TABLE 1  
REPORT OF DISTRICT NURSING CENTRES (EXCLUSIVE OF WORK DONE  
IN SCHOOLS)

36 Districts	1946
Treatment Consultations .....	20,003
Miscellaneous P.H. Consultations .....	7,449
Antepartum Consultations .....	1,937
Postpartum Consultations .....	624
Infant and Pre-school Consultations .....	4,033
Treatment Home Visits .....	4,678
Miscellaneous P.H. Home Visits .....	1,863
Communicable Disease Home Visits .....	486
Maternal Welfare Home Visits .....	652
Infant & Pre-school P.H. Home Visits .....	899
Deliveries .....	148
Abortions .....	61
Cases sent to Hospital or Doctor .....	1,375
Deaths (under 1 year) .....	10
Deaths (over 1 year) .....	45
Cases Communicable Diseases Reported .....	809
Pieces P.H. Literature Distributed .....	5,646
Fees collected .....	\$9,385.46
Immunizations:	
Diphtheria Toxoid .....	4,641
Scarlet Fever Toxin .....	6,979
Smallpox Vaccine .....	2,093
Whooping Cough Vaccine .....	3,747
Typhoid Fever Vaccine .....	34
Total number of doses .....	17,494
6 doses Staphylococcus Toxoid.	
6 Patch Tests.	



TABLE 2  
REPORT OF CHILD WELFARE CLINICS, 1946 (EXCLUSIVE OF WORK DONE  
IN SCHOOLS)

Clinics, 1946	Edmonton	Calgary	Vegreville	Drumheller	Medicine Hat
<b>Baby Clinic:</b>					
No. of Names on roll	3,736	3,757	64	381	1,601
New cases admitted	1,881	1,422	39	179	438
Old cases re-admitted	4				2
Referred to family doctor	10	20	4	12	64
Discharged	1,042		44		4
Deaths	8	6	1		1
Transferred to Pre.-S. Clinic	260		11	122	102
No. in attendance	6,857	7,572	207	2,091	3,061
Breast Fed	1,431	1,342	64		707
Bottle Fed	4,109	3,999	116		1,595
Other Feeding	1,317	2,231	27		759
<b>Pre-School Clinic:</b>					
No. of names on roll	1,237	4,741	17		1,000
New cases admitted	328	743	3		63
Old cases re-admitted	93				
Referred to family doctor	21	33	1		14
Discharged	538		17		
Deaths	2				
No. in attendance	1,310	2,732	227		943
<b>Home Visits:</b>					
Baby Visits	1,236				326
Pre-school visits	249				92
Pre-natal visits					38
Special visits		376			244
<b>Summary:</b>					
Total no. home visits	1,485	5,432	41	76	700
Total no. clinics held	200	250	44	71	137
Total no. in attendance	8,167	10,545	434	2,091	4,004
Average attendance	41		9.86	29.45	48.4
Total no. seen by doctor	1,150	3,393			
No. letters written on work	66	8,407	14		
<b>Immunization—Total no. children completing Inoculation:</b>					
Diphtheria		11	96	46	236
Scarlet Fever			29	17	211
Whooping Cough			88	44	40
Typhoid Fever			1	3	6
Diph. & Wh. Cough combined				149	174
Total no. doses given (different sera)			791	1,502	2,115
No. vaccinated Smallpox		6	87	190	334

TABLE 3  
SCHOOL WORK (INCLUDING THAT DONE BY BOTH DISTRICT NURSES AND  
CHILD WELFARE CLINIC STAFFS)

32 Districts	1946
<b>School Health Program:</b>	
1. No. of visits to Schools	432
2. No. individual inspections	5,231
3. No. with suspected defects	2,791
(a) Defective vision	727
(b) Defective hearing	80
(c) Diseased Tonsils	1,366
(d) Unsound Teeth	2,077
(e) Eye diseases	4
(f) Ear diseases	9
(g) Enlarged Cervical Glands	553
(h) Enlarged Thyroid Glands	164
(i) Malnutrition	536
(j) Nervous disorders	185
(k) Faulty Posture	260
(l) Orthopaedic Defects	2
(m) Ringworm	7
(n) Impetigo	15
(o) Scabies	67
(p) Pediculosis	199
(q) Other skin conditions	82
(r) No. exclusions—suspect communicable disease	115
4. No. correction of defects	419
5. Classroom Talks	154
6. Sanitary Inspection of Schools	181
7. No. Consultations with Teachers	287
8. No. consultations with Parents	336
9. No. school follow-up Home Visits	158
<b>Immunization:</b>	
1. Total number of doses of the following:	
(a) Diphtheria Toxoid	2,611
(b) Scarlet Fever Toxin	2,188
(c) Smallpox Vaccine	1,005
(d) Whooping Cough Vaccine	1,003
(e) Typhoid Fever Vaccine	4
Total	6,811
2. Mantoux Tests and Patch Tests	1,347
3. Schick Tests	92



## Hospitals Division

(DR. A. SOMERVILLE, D.P.H., *Director*)

Since 1945 there has been an increase of five in the number of approved hospitals operating in the province. Of these, three were newly constructed municipal hospitals built and operating under The Municipal Hospitals Act. They were: Mayerthorpe, Oyen and Ponoka. The other two hospitals were in operation previously but were added to the approved hospital list during 1946. They were: Miners' Union at Cadomin and the General at Daysland. In addition to the three new municipal hospitals opened, five other hospitals were municipalized under the Act. They were: Berwyn, Empress, Lacombe, Macleod, and Rocky Mountain House.

This increase in the number of approved hospitals resulted in an increase of 100 adult beds and 30 bassinets. There was an increase of 17,487 patients under care during the year which resulted in an increase of 117,669 patient days.

In spite of an increase of 100 nurses of all kinds over 1945, the shortage of nursing staff continues to be a problem of major importance. Ward aids are still being used extensively in practically all hospitals but in smaller rural hospitals particularly.

### *Approved Hospitals.*

As outlined in the opening paragraph, there was an increase of five approved hospitals in 1946. On December 31st, 1946, there were 101 hospitals on the approved list, compared to 96 as on December 31st, 1945. These hospitals are divided as follows:

	1946	1945
Catholic .....	29	29
Protestant .....	6	7
Municipal .....	46	38
Municipally operated .....	10	12
Community .....	2	3
Industrial .....	5	4
Service Groups .....	2	2
University .....	1	1
	<hr/>	<hr/>
	101	96

### *Private Hospitals.*

There was no change in the total number of hospitals operating under the Private Hospitals Act during the year 1946. Thirty-five such hospitals were in operation on December 31st, 1946.

### *Baby Shelters.*

Baby shelters are licensed under The Private Hospitals Act and there were 57 operating during the year 1946, the same number as were in operation during the year 1945. In future, there will be no report made by this Division on this phase of the work as baby shelters were placed under the jurisdiction of the Department of Public Welfare in 1947.

### *Statistics.*

The following statements are submitted giving the details of each approved hospital in the province.

No. 1—Bed capacity, number of patients, etc.

No. 2—Patient days.



- No. 3—Staff.  
 No. 4—Nursing statistics, cases treated.  
 No. 5—Surgical operations, infections, deaths and other hospital statistics.  
 No. 6—Operating expenditure.  
 No. 7—Operating revenue.  
 No. 8—Costs and earnings per patient day with percentage of costs.

For convenient reference the statistical totals appearing in the above mentioned statements are condensed in the following tables. The totals for the year 1945 are also shown so that a comparison can be made.

## HOSPITAL BEDS

	1946		1945	
	Capacity	Complement	Capacity	Complement
Adult beds .....	4676	4822	4588	4720
Cribs .....	464	543	452	502
Bassinets .....	892	1015	863	956
	<u>6032</u>	<u>6380</u>	<u>5903</u>	<u>6178</u>
Beds per thousand population (excluding Bassinets) .....	6.4	6.7	6.1	6.2
Patients accommodated per bed per year .....	.....	25.3	.....	21.9

## PATIENT DAYS

	1946	1945
Adults and Children .....	1,405,820	1,309,466
Newborn .....	210,878	189,563
All Patients .....	1,616,698	1,499,029

## PATIENTS UNDER CARE DURING THE YEAR

	1946	1945
Adults and Children .....	140,634	125,666
Average stay .....	9.0	9.3
Newborn .....	20,761	18,242
Average stay .....	10.1	10.4
Total Patients .....	161,395	143,908
Average stay .....	9.2	9.4
Average in Hospital Daily .....	4,423	4,107
Percentage of Population in Hospital Daily .....	.55	.50
Percentage of Population Admitted Per Year .....	20.9	17.4

## STAFF

	1946	1945
Administration:		
Executive .....	106	103
Clerical .....	266	243
Professional:		
Salaried Doctors .....	30	31
Internes .....	61	21
Technicians .....	117	116
Nurses:		
Total .....	1,953	1,854
Graduate .....	927	829
Student .....	781	739
Probationers .....	224	221
Affiliates .....	21	65
Dietitians:		
Graduate .....	20	17
Student .....	6	6
Orderlies and Ward Helpers .....	565	368
Other Employees .....	1,418	1,348
Total Staff .....	<u>4,542</u>	<u>3,742</u>

## ANAESTHETICS

General .....	30,882	33,131
Spinal .....	10,219	9,403

## INFECTIONS DEVELOPED IN HOSPITAL

Medical .....	47	86
Surgical .....	110	122
Obstetrical .....	110	95

## COMMUNICABLE DISEASES HOSPITALIZED

Tuberculosis* .....	561	585
Typhoid .....	32	35
Others .....	1,382	1,608

\*Excluding Central Alberta Sanatorium.



## BIRTHS (EXCLUDING INDIANS) IN APPROVED HOSPITALS

	1946	1945
Total No. Live Births .....	20,168	17,128
Live Births—Male .....	10,327	8,721
Live Births—Females .....	9,841	8,407
Total No. Stillborn .....	351	307
Percentage of Births in Hospitals to total births in Province (excluding Indians) .....	95.9%	93.8%

## DEATHS IN HOSPITAL

Total (Excluding still births) .....	3,356	3,241
Within 10 days after Surgery .....	193	252
Within 48 hours after Admission .....	899	784
From Communicable Diseases .....	58	49
Maternal .....	56	29
Maternal per 1,000 Live Births .....	2.77	1.63

## EXAMINATIONS DONE

Post Mortem .....	906	709
Laboratory .....	424,643	397,802
X-Ray .....	111,104	90,275

## NURSES TRAINING

No. of Schools .....	11*	11
No. of Graduates .....	275	306

\*Includes Mental Institute, Ponoka.

## FINANCIAL

	1946	1945
Total Operating Revenue .....	\$7,608,291.01	\$6,710,085.66
Total Operating Cost .....	\$7,762,342.00	\$6,272,273.73
Revenue Per Patient Day .....	\$4.70	\$4.48
Cost .....	\$4.80	\$4.18
Salaries and Wages .....	44.4%	.....
Supplies .....	34.5%	.....
Purchased Services .....	4.2%	.....
*Balance * .....	16.9%	.....

\*Includes: Insurance, depreciation, repairs and replacements, interest and exchange, and miscellaneous.







Edmonton, General, T.B. Division.....	234	18	62	314	226	18	62	306	192	52	37	175	165	175	770	808	1,212	808	175	165	340	
Edmonton, Misericordia.....	417	65	58	340	421	62	86	569	302	79	.....	65	2,735	5,504	770	808	1,212	808	175	165	340	
Edmonton, Royal Alexandra.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,259	7,832	1,138	.....	.....	.....	3,543	6,274	9,817	
Edmonton, Isolation, T.B. Division.....	596	19	30	645	596	19	30	645	246	30	22	317	3,108	3,318	350	377	.....	377	348	3,485	3,668	7,153
Edmonton, University of Alberta:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,542	240	.....	.....	.....	.....	4,542	240	4,782	
(a) D.V.A.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	.....	.....	.....	.....	2	2	2	
(b) Orthopaedic.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24	28	.....	.....	.....	.....	24	28	52	
(c) Polio.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40	40	.....	.....	.....	.....	40	40	40	
(d) T.B. Division.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Edson, St. John's.....	34	3	5	42	32	3	5	40	27	7	1	.....	517	527	64	77	.....	77	594	591	1,185	
Elk Point, Municipal.....	29	2	7	36	29	4	10	43	24	9	.....	.....	663	833	80	80	.....	80	62	913	725	
Empress, Municipal.....	23	2	6	33	20	.....	5	25	13	2	5	.....	336	371	28	28	.....	28	364	402	766	
Fairview, Community.....	13	.....	.....	13	13	1	5	19	9	4	1	.....	309	468	54	47	.....	47	363	515	878	
Ft. McMurray, St. Gabriel's.....	14	4	4	22	14	4	4	22	14	2	2	.....	154	208	27	23	.....	23	181	231	412	
Ft. Smith, General.....	34	6	6	46	33	6	6	45	30	2	7	.....	275	290	10	16	.....	16	285	306	591	
Ft. Vermillion, St. Theresa.....	25	3	6	34	20	9	6	35	22	7	.....	42	47	88	19	13	.....	13	61	101	162	
Galahad, St. Joseph's.....	36	3	6	42	42	2	16	60	38	6	.....	251	473	42	44	293	.....	293	517	810	1,682	
Grande Prairie, Municipal.....	5	.....	6	5	12	2	5	19	9	5	.....	601	829	138	114	739	.....	739	943	1,682		
Grimshaw, Battle River.....	46	4	9	59	39	.....	2	48	28	9	.....	90	158	31	32	121	.....	121	190	311	1,166	
Hanna, Municipal.....	20	1	7	28	20	2	8	30	19	3	2	.....	386	607	93	80	.....	93	479	687	1,166	
Hardisty, St. Anne's.....	60	8	13	81	49	9	12	70	48	8	.....	214	388	39	48	253	.....	253	436	689	1,166	
High Prairie, Providence.....	48	9	17	74	46	7	15	68	41	12	.....	912	1,070	106	105	1,175	.....	1,175	1,175	2,193	1,166	
High River, Municipal.....	33	3	8	44	36	3	8	47	30	9	.....	632	981	94	109	726	.....	726	1,090	1,816	1,166	
Innisfail, Municipal.....	10	.....	.....	10	12	2	.....	14	14	.....	.....	.....	308	547	93	93	.....	93	401	638	1,089	
Islay, Municipal.....	15	.....	.....	15	15	.....	.....	15	13	.....	.....	.....	177	126	16	16	.....	16	163	188	351	
Jasper, Seton.....	16	1	3	20	22	5	7	34	22	5	.....	294	344	30	50	324	.....	324	391	718	1,166	
Killam, General.....	31	2	10	43	30	3	10	43	28	4	.....	556	871	131	120	687	.....	687	991	1,678	1,166	
Lacombe and District, Community.....	18	5	8	31	20	11	8	39	22	8	1	.....	362	574	72	81	.....	81	434	655	1,089	
Lac la Biche, St. Catherine's.....	64	8	8	80	64	8	8	80	51	8	5	.....	943	1,459	89	102	.....	102	1,032	1,561	2,593	
Lamont, Public.....	14	2	.....	16	14	2	.....	16	16	.....	.....	.....	147	172	16	16	.....	16	163	188	351	
Lethbridge, Isolation.....	120	12	36	168	119	12	38	169	93	38	16	.....	1,525	2,074	292	238	.....	238	1,817	2,312	4,129	
Lethbridge, St. Michael's.....	106	8	18	132	97	6	18	121	36	17	.....	1,284	2,136	209	202	1,493	.....	1,493	2,338	3,831	1,166	
Lethbridge, Galt.....	47	6	14	67	52	6	14	72	43	11	.....	641	1,044	119	124	760	.....	760	1,168	1,928	1,166	
Lloydminster, Municipal.....	14	.....	.....	8	22	16	1	23	10	7	.....	168	211	22	28	190	.....	22	239	429	1,166	
Macleod, Municipal.....	16	.....	.....	6	22	16	5	21	11	5	.....	144	195	19	24	163	.....	19	24	163	382	
Magrath, Municipal.....	21	3	8	32	21	3	5	29	15	9	.....	229	357	57	60	286	.....	57	60	286	417	
Mannville, Municipal.....	18	2	6	26	20	2	4	26	14	8	.....	7	48	22	16	29	.....	22	16	29	64	
Mayerthorpe, Municipal.....	81	12	25	118	110	10	22	142	93	23	4	.....	1,601	2,323	317	338	.....	338	1,918	2,661	4,579	
Medicine Hat, General.....	9	.....	.....	11	9	2	.....	11	11	.....	.....	.....	1,601	2,323	317	338	.....	338	1,918	2,661	4,579	
Medicine Hat, Isolation.....	24	2	4	30	24	3	4	31	19	6	.....	214	375	34	28	248	.....	34	28	248	403	
Mundare, General.....	25	4	4	33	28	3	7	38	18	9	.....	544	713	93	86	637	.....	93	86	637	799	
McLennan, Sacred Heart.....	17	1	5	23	18	2	4	24	12	8	.....	247	385	38	38	282	.....	38	38	282	423	
Myrnam, Municipal.....	13	1	2	16	13	1	3	22	15	2	.....	305	159	17	16	322	.....	17	16	322	175	
Nordegg, General.....	13	1	2	16	13	1	3	22	15	2	.....	305	159	17	16	322	.....	17	16	322	175	
Olds, Municipal.....	21	2	6	29	19	2	10	31	15	6	.....	207	445	93	73	300	.....	93	73	300	518	
Oyen, Municipal.....	15	.....	.....	20	15	.....	.....	20	20	.....	.....	.....	399	490	59	44	.....	59	44	458	992	
Peace River, Municipal.....	20	2	4	24	26	2	5	33	23	5	.....	252	421	48	51	300	.....	48	51	300	472	
Pincher Creek, St. Vincent's.....	23	2	6	31	23	3	7	32	22	3	.....	128	198	33	21	161	.....	33	21	161	219	
Penoka, Municipal.....	26	4	9	39	26	4	9	39	20	10	.....	268	430	64	64	332	.....	64	64	332	494	
Provost, Municipal.....	20	2	8	30	20	2	8	30	17	5	.....	208	376	55	55	64	.....	55	55	64	263	
Rayway, St. Joseph's.....	14	.....	.....	20	20	1	6	27	17	4	.....	140	313	49	52	189	.....	49	52	189	365	
Raymond, Municipal.....	20	3	6	29	16	3	6	25	13	4	.....	140	313	49	52	189	.....	49	52	189	365	



TABLE No. 1—Continued

Hospitals	Bed Capacity				Bed Complement				Classification (Beds, Cribs)						Patients Under Care During Year				Total		
	Number				Number				General Med. and Surgery	Obstetrics	Tuberculosis	Contagious Diseases	Incurables	Others	M.	F.	Newborn			M.	F.
	Adult	Cribs	Bassnets	Total	Adult	Cribs	Bassnets	Total									Adults and Children	M.			
Red Deer, Municipal	50	2	10	62	56	9	19	84	51	14							194	174	1,117	1,664	2,781
Rimby, St. Paul's	17	1	6	24	21	3	6	30	18	6							50	34	235	307	542
Rocky Mountain House, Municipal	20	2	4	26	20	2	5	27	17	4				1			39	27	207	249	456
Smoky Lake, George McDougall	11	4	7	22	16	3	6	25	14	5							38	51	200	391	591
Spirit River, Holy Cross	14	3	4	21	15	5	5	25	16	4							26	28	245	332	577
St. Paul, St. Theresa	30	5	5	40	42	8	14	64	30	10	2			8			139	137	776	1,115	1,891
Stettler, Municipal	33	2	10	45	36	4	10	50	30	10							116	113	648	972	1,620
Taber, Municipal	22	5	4	31	29	5	7	41	29	5							99	81	508	668	1,176
Trochu, St. Mary's	20	2	6	28	20	2	8	28	16	6							60	67	335	526	861
Turner Valley, Oilfields General	13	6	19	38	16	2	8	26	13	5							60	47	282	341	623
Vegreville, General	81	6	12	99	70	9	16	95	65	12			2				122	128	976	1,625	2,601
Vermilion, Municipal	33	3	8	44	42	2	10	54	33	10				1			97	72	710	878	1,588
Viking, Municipal	24	2	8	34	21	2	6	29	17	6							37	28	136	227	363
Vilna, Our Lady's	13	4	3	20	15	3	4	22	14	4							55	50	307	414	721
Vulcan, Municipal	16	8	8	32	24	2	6	27	16	4				1			70	53	400	518	918
Wainwright, Municipal	17	2	4	23	24	3	7	34	23	4							27	17	373	465	838
Wayne, General	13	...	...	13	20	3	3	26	20	3							116	144	972	1,312	2,284
Westlock, Immaculata	26	4	9	39	38	4	9	51	30	10				2			173	188	1,140	1,212	2,352
Westskiwin, Community	44	3	10	57	41	6	15	62	32	13	1						65	48	380	499	879
Willingdon, General	24	5	5	34	25	6	6	37	23	6				2			299	294	1,790	2,143	3,933
<b>Total</b>	4,676	464	892	6,032	4,822	543	1,015	6,380	3,441	930	216	238	2	504			10,626	10,135	69,140	92,255	161,395

Estimated for: Canmore, Coleman, Turner Valley.

Less Patients in hospital at end of year.....

Less D.V.A., Orthopaedic, Polio, and T.B. Division cases.....









Mayerthorpe, Municipal	477	382	859	425	350	775	8.5	10.0	9.1	2.3
Medicine Hat, General	36,811	6,907	43,718	35,851	6,706	42,557	9.3	10.4	9.5	119.7
Medicine Hat, Isolation			Not Reported					Not Reported		
Mundare, General	3,847	614	4,461	3,884	605	4,489	6.7	10.1	7.1	12.2
McLennan, Sacred Heart	9,042	1,526	10,568	8,909	1,490	10,399	7.2	8.6	7.3	28.9
Myram, Municipal	3,626	694	4,320	3,588	732	4,320	5.8	11.0	6.3	11.8
Nordegg, General	3,180	327	3,507	3,079	362	3,441	6.6	10.9	6.9	9.7
Olids, General	6,159	1,580	7,739	6,159	1,580	7,739	9.4	9.5	9.5	21.2
Oyen, Municipal		Not Reported						Not Reported		
Peace River, Municipal	8,649	1,040	9,689	8,578	1,052	9,630	9.9	10.4	10.0	26.5
Pincher Creek, St. Vincent's	6,090	923	7,013	6,530	933	7,463	9.9	9.7	9.9	19.2
Ponoka, Municipal	1,901	524	2,425	1,860	524	2,384	6.0	11.1	6.6	6.6
Provost, Municipal	5,822	1,333	7,155	5,754	1,329	7,083	8.4	10.5	8.7	19.6
Radway, St. Joseph's	4,022	1,132	5,154	3,963	1,134	5,097	6.9	9.8	7.4	14.1
Raymond, Municipal	3,200	987	4,187	3,151	983	4,134	7.1	9.9	7.6	11.4
Red Deer, Municipal	19,022	4,026	23,048	18,883	4,114	22,997	7.9	11.3	8.4	63.1
Rimbey, St. Paul's	3,589	894	4,483	3,686	920	4,606	8.2	11.2	8.6	12.2
Rocky Mountain House, Municipal	2,623	527	3,150	2,407	550	2,957	6.4	8.7	6.7	8.2
Smoky Lake, George McDougall	2,702	754	3,456	2,702	754	3,456	5.4	8.7	5.9	9.5
Spirit River, Holy Cross	4,164	484	4,648	4,030	495	4,525	7.9	9.3	8.1	12.7
St. Paul, St. Theresa	10,356	2,760	13,116	10,312	2,641	12,953	6.4	9.8	6.9	35.9
Stettler, Municipal	13,826	2,220	16,046	13,135	2,141	15,276	9.7	9.6	9.7	43.9
Taber, Municipal	7,315	1,750	9,065	7,315	1,750	9,065	7.5	10.3	8.0	24.8
Trochu, St. Mary's	4,819	1,320	6,139	4,704	1,304	6,008	6.6	10.5	7.2	16.8
Turner Valley, Oilfields General	3,962	1,110	6,072	3,886	1,066	4,952	7.7	10.2	8.1	13.8
Vegreville, General	17,810	2,391	20,201	17,995	2,375	20,370	7.8	9.9	8.0	55.3
Vermilion, Municipal	10,478	1,800	12,278	10,225	1,760	11,985	7.3	10.7	7.6	33.6
Viking, Municipal	5,367	988	6,355	5,457	1,038	6,495	9.5	11.8	9.5	17.4
Vilna, Our Lady's	1,892	596	2,488	1,931	616	2,547	6.5	9.6	7.1	6.8
Vulcan, Municipal	4,297	960	5,257	6,342	1,177	7,519	10.5	11.7	10.6	14.4
Wainwright, Municipal	6,605	1,369	7,974	6,399	1,364	7,763	8.2	11.2	8.4	21.8
Wayne, General	4,083	443	4,526	4,409	449	4,858	6.9	10.2	7.1	12.4
Westlock, Immaculata	11,844	2,470	14,314	11,741	2,467	14,208	5.8	9.5	6.2	39.2
Wetaskiwin, Community	11,767	2,928	14,695	11,488	2,891	14,379	5.8	8.2	6.2	40.2
Willingdon, General	5,265	1,021	6,286	5,125	1,002	6,127	6.8	9.1	7.0	17.2
Total	1,405,820	210,878	1,616,698	1,375,428	208,238	1,583,666	9.0	10.3	9.2	4,423.4
Less D.V.A., Orthopaedic, Polio and T.B. Division cases	173,754		173,754	187,275		187,275				
	1,232,066	210,878	1,442,944	1,188,153	208,238	1,396,391				

Estimated for: Canmore, Coleman, Turner Valley





Edmonton, Misericordia	6	13	1	3	7	50	76	37	1	1	19	74	288	92	Yes	18
Edmonton, Royal Alexandra	3	43	2	21	22	85	141	39	3	3	48	184	594	157	Yes	63
Edmonton, University of Alberta	5	60	8	24	20	91	97	31	6	7	95	160	608	86	Yes	34
Edson, St. John's						6					7	8	21		No	
Elk Point, Municipal	1	1				5					3	5	12		No	
Empress, Cottage						3					3	4	13		No	
Fairview, Community						5					3	8	13		No	
Ft. McMurray, St. Gabriel's						1					5	3	12		No	
Ft. Permillon, St. Theresa	1	1				1					2	1	5		No	
Galahad, St. Joseph's	1	1	1			8					3	6	12		No	
Grande Prairie, Municipal	1	1				3					5	4	9		No	
Grimshaw, Battle River	1	1	1			3			1		4	11	27	3	No	
Hanna, Municipal	1	1				3					3	3	10		No	
Hardisty, St. Anne's	3	2				7					8	10	30		No	
High Prairie, Providence	1					16					1	11	28		No	
High River, Municipal						9					1	8	18		No	
Innisfail, Municipal	1					3	1				1	3	8		No	
Islay, Municipal	1					5					1	2	9		No	
Jasper, Seton	1					5					4	4	13		No	
Killam, General	1					4					4	4	24		No	
Lacombe & District Community	1					8					5	9	24		No	
Lac La Biche, St. Catherine's	1					5					2	6	14		No	
Lamont, Public	1	7	1	1	2	7	24	15				20	77	5	Yes	10
Lethbridge, Isolation						1							1		No	
Lethbridge, St. Michael's	2	6			3	35				1	11	59	117	33	No	
Lethbridge, Galt	3	4			4	17	32	21		1	17	37	136	28	Yes	11
Lloydminster, Municipal						15					2	13	32	5	No	
Macleod, Municipal						5					5	2	12		No	
Magrath, Municipal	3	1				2					2	2	10		No	
Mannville, Municipal						4					3	2	10		No	
Mayerthorpe, Municipal	1	1				4					3	2	6		No	
Medicine Hat, General	3	5			1	13	33			1	9	46	111	11	Yes	10
Medicine Hat, Isolation						1									No	
Mundare, General	1	1				3					3	8	16		No	
McLennan, Sacred Heart						4					5	14	24		No	
Myrnam, Municipal						3					4	3	12		No	
Nordegg, General	1	1			1	2					4	3	14		No	
Olds, Municipal	1					7		1		1	3	6	17		No	
Oyen, Municipal						1									No	
Peace River, Municipal						8					4	7	20	5	Yes	
Pincher Creek, St. Vincent's	1	1				6					3	3	14		No	
Ponoka, Municipal	1	1				7					4	3	16		No	
Provost, Municipal						7					1	7	15		No	
Radway, St. Joseph's	1	1			1	4					3	9	19		No	
Raymond, Municipal	1	1				4					1	4	11		No	
Red Deer, Municipal	2	1				10					12	10	35	10	Yes	
Rimbey, St. Paul's	1					3					3	6	13		No	
Rocky Mountain House, Municipal	1					5					4	5	14		No	

Not Reporting

Not Reported

Not Reported

TABLE No. 3—Continued

Hospital	STAFF														Total	Medical Staff	No. of Doctors	Training School	Affiliation with other Institutions	Graduated during the year
	Admin'istr'n		Professional				Nurses				Dietitians		Others							
	Executive	Clerical	Salaried Doctors	Interns	Technicians	Graduate	Student	Probationers	Affiliates	Graduate	Student	Orderlies and Ward Helpers	All other Employees							
Smoky Lake, George McDougall.....	1	1	1	.....	.....	4	.....	.....	.....	.....	.....	2	5	13	Yes	2	No	No	.....	
Spirit River, Holy Cross.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	7	12	No	.....	No	No	.....	
St. Paul, St. Theresa.....	2	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	9	14	29	Yes	.....	No	No	.....	
Stettler, Municipal.....	4	1	.....	.....	1	10	.....	.....	.....	.....	.....	11	7	31	Yes	6	No	No	.....	
Taber, Municipal.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	4	7	26	Yes	4	No	No	.....	
Trochu, St. Mary's.....	1	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	6	6	17	No	.....	No	No	.....	
Turner Valley, Oilfields General.....	3	.....	.....	.....	2	8	.....	.....	.....	1	4	4	16	59	Yes	8	Yes	Yes	5	
Vegreville, General.....	1	.....	.....	.....	.....	7	.....	.....	.....	.....	3	3	5	17	No	.....	No	No	.....	
Vermilion, Municipal.....	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	1	7	13	No	.....	No	No	.....	
Viking, Municipal.....	.....	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	5	9	No	.....	No	No	.....	
Vilna, Our Lady's.....	1	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	6	14	No	.....	No	No	.....	
Vulcan, Municipal.....	1	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	6	15	No	.....	No	No	.....	
Wainwright, Municipal.....	1	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	2	11	Yes	5	No	No	.....	
Wayne, General.....	1	.....	.....	.....	.....	4	.....	.....	.....	.....	.....	.....	4	11	Yes	.....	No	No	.....	
Westlock, Immaculata.....	1	3	.....	.....	.....	7	.....	.....	.....	.....	.....	7	13	31	No	.....	No	No	.....	
Wetaskiwin, Community.....	1	.....	.....	.....	1	12	.....	.....	.....	.....	.....	.....	11	26	Yes	7	No	No	.....	
Willingdon, General.....	1	.....	.....	.....	.....	3	.....	.....	.....	.....	.....	3	6	14	No	.....	No	No	.....	
<b>Total</b> .....	<b>106</b>	<b>266</b>	<b>30</b>	<b>61</b>	<b>117</b>	<b>927</b>	<b>781</b>	<b>224</b>	<b>21</b>	<b>20</b>	<b>6</b>	<b>565</b>	<b>1418</b>	<b>4542</b>	<b>889</b>	<b>275</b>				

Estimated for Canmore, Coleman and Turner Valley.







TABLE No. 4—Continued

Hospitals	Medical		Surgical				Non-Operative		Obstetrics Admitted	Percentage of Maternity to Total Admissions	Living Births		Communicable Diseases except Typhoid & T. B.	Typhoid cases	Cardiac Disease cases	Rheumatic cases	Malignant Disease Cases	Gonorrhoeal cases	Venereal Disease cases	Alcoholics
	Male	Female	Major		Minor		Male	Female			Male	Female								
			Male	Female	Male	Female														
Edmonton, Isolation	315	310	1108	427	2940	920	1310	561	898	14.4	371	342	5	274	109	381	87	149	7	17
Edmonton, University of Alberta	2156	825	41	26	123	84	49	5	147	14.3	77	61	2	10	10	2	2	2	11	2
Edson, St. John's	294	257	99	105	205	197	3	5	146	9.9	80	61	2	63	16	6	2	7	10	10
Elk Point, Municipal	514	409	27	22	67	62	3	5	59	8.5	28	31	3	28	3	1	2	2	7	1
Empress, Cottage	145	148	27	22	44	59	12	5	98	12.8	53	45	2	19	12	3	1	7	7	1
Fairview, Community	204	264	27	44	59	50	12	6	49	13.8	26	42	1	5	3	1	1	7	7	1
Ft. McMurray, St. Gabriel's	121	104	13	12	22	31	24	6	49	13.8	26	42	1	5	3	1	1	7	7	1
Ft. Smith, General	184	207	26	18	25	11	41	8	33	5.4	10	16	2	4	1	1	1	30	30	1
Ft. Vermilion, St. Theresa	35	50	7	7	7	5	5	8	33	25.3	19	13	1	2	1	1	1	4	4	1
Galahad, St. Joseph's	173	273	16	20	55	103	2	2	82	11.6	40	43	1	28	5	3	1	4	4	1
Grande Prairie, Municipal	276	221	73	142	239	196	15	2	245	17.5	136	110	1	33	28	5	6	6	4	1
Grimshaw, Battle River	50	31	4	4	22	26	15	2	81	33.7	30	32	2	2	3	2	2	2	2	1
Hanna, Municipal	359	490	43	54	73	83	30	5	174	17.9	92	80	2	30	5	10	10	10	10	2
Hardisty, St. Anne's	165	171	26	24	57	66	5	3	86	14.5	39	47	1	5	6	2	2	2	2	2
High Prairie, Providence	422	475	42	81	430	286	42	3	207	10.6	99	103	5	8	11	3	9	36	1	1
High River, Municipal	461	476	50	73	154	248	116	14	199	12.5	90	108	1	62	37	8	2	8	7	7
Innisfail, Municipal	190	240	24	60	108	116	116	11	187	22.3	92	90	1	27	10	3	3	3	8	1
Islay, Municipal	108	108	8	8	32	22	22	1	33	10.7	16	16	1	7	1	3	3	3	3	1
Jasper, Seton	149	88	7	7	21	21	7	1	31	10.3	16	16	1	8	10	3	3	3	3	6
Killam, General	195	298	11	10	110	84	2	1	81	12.7	28	50	5	16	10	3	3	3	3	1
Lacombe and District, Community	484	466	62	96	69	120	51	23	285	20.2	130	117	7	19	19	3	1	5	2	2
Lac la Biche, St. Catherine's	228	325	21	35	54	43	57	14	155	16.7	70	80	9	13	9	2	1	2	2	2
Lamont, Public	688	969	107	86	158	177	18	12	53	22.3	88	101	2	74	60	42	131	1	1	1
Lethbridge, Isolation	3	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Lethbridge, St. Michael's General	752	692	203	255	392	459	144	61	574	16.2	288	233	1	60	49	31	15	14	15	15
Lethbridge, Galt	839	897	139	296	430	651	86	50	443	13.2	201	201	3	61	2	41	11	44	3	3
Lloydminster, Municipal	521	603	76	78	119	166	44	82	239	14.5	119	120	3	66	41	8	2	4	4	4
Macleod, Municipal	129	92	10	18	24	16	16	46	46	12.2	20	28	2	4	6	2	1	1	1	1
Magrath, Municipal	74	121	12	27	30	33	33	43	43	12.7	19	24	1	11	6	4	4	4	4	1
Mannville, Municipal	138	162	9	18	95	44	20	7	116	20.0	56	60	1	13	9	5	4	4	4	3
Mayerthorpe, Municipal	733	622	209	282	885	861	75	42	684	17.8	307	324	1	122	26	81	28	5	3	3
Medicine Hat, General	129	254	10	16	46	55	31	31	72	12.3	33	28	3	38	19	2	2	2	2	2
Mundare, General	328	329	30	58	155	148	31	31	202	16.2	91	83	7	12	17	5	1	27	9	9
McLennan, Sacred Heart	178	229	23	37	46	48	52	23	73	11.6	35	36	1	10	10	1	1	1	1	1
Myram, Municipal	79	61	122	11	122	32	52	15	36	7.8	17	15	4	13	14	4	4	4	4	4
Nordegg, General	79	61	122	11	122	32	52	15	36	7.8	17	15	4	13	14	4	4	4	4	4



	183	317	27	37	70	82	20	8	164	25.1	93	73	19	2	19	Not Reported	2	14	
Olds, Municipal	172	179	30	42	90	80	100	63	111	12.9	57	42	27	7	6	1	7	14	
Oyen, Municipal	197	261	15	19	16	25	17	63	99	14.9	47	51	30	8	5	1	8	7	
Peace River, Municipal	60	66	27	30	36	39	33	67	67	20.5	33	21	2	4	4	2	8	2	
Pincher Creek, St. Vincent's	177	237	33	32	59	41	33	122	122	17.6	63	62	12	10	4	3	4	3	
Ponoka, Municipal	158	193	18	25	77	74	41	138	138	24.3	52	64	3	12	7	1	1	1	
Provost, Municipal	74	142	21	22	34	41	11	3	104	23.0	49	52	1	1	1	1	1	1	
Radway, St. Joseph's	573	729	196	113	199	238	69	47	443	18.7	186	174	66	11	10	12	4	2	
Raymond, Municipal	122	150	13	15	48	26	6	80	80	17.9	48	32	5	4	2	4	2	2	
Red Deer, Municipal	123	54	24	32	46	27	6	66	66	17.9	34	24	4	2	4	2	4	3	
Red Deer, St. Paul's	147	263	6	13	29	17	23	11	87	17.6	38	49	1	8	4	3	2	3	
Rocky Mountain House, Municipal	186	227	12	10	22	19	23	11	53	10.3	26	25	8	12	8	4	10	12	
Smoky Lake, George McDougall	412	505	30	50	347	244	18	5	274	17.3	136	134	9	2	2	10	10	10	
Spirit River, Holy Cross Community	293	342	57	90	160	167	18	21	243	17.7	115	111	30	14	12	8	2	2	
St. Paul, St. Theresa	226	263	62	27	169	211	37	19	175	17.9	97	78	17	3	7	6	5	2	
Stettler, Municipal	200	272	19	28	110	92	2	1	127	17.6	59	64	11	2	2	1	6	1	
Taber, Municipal	131	139	1	17	26	67	67	15	107	21.0	60	47	11	6	1	33	2	2	
Trochu, St. Mary's	675	1090	66	120	344	283	10	7	250	10.8	119	125	64	31	12	33	2	2	
Turner Valley, Oilfields General	300	504	67	87	145	125	2	2	167	11.9	96	71	24	46	10	14	1	1	
Vegreville, General	181	169	19	17	33	43	24	6	90	15.8	52	37	14	14	5	3	7	7	
Vermilion, Municipal	78	110	5	4	8	12	8	4	63	21.5	36	26	6	2	2	4	4	4	
Viking, Municipal	118	133	25	33	86	58	13	7	114	18.8	51	50	20	3	3	1	2	2	
Vilna, Our Lady's	182	227	12	126	83	20	49	72	120	15.3	70	53	21	5	7	3	3	6	
Vulcan, Municipal	181	101	48	48	99	66	13	8	46	7.5	27	16	1	8	6	2	2	3	
Wainwright, Municipal	521	585	129	151	189	164	6	4	248	12.4	113	142	3	1	13	27	2	12	
Wayne, General	337	360	97	166	178	277	6	4	362	18.4	172	182	22	6	7	10	2	7	
Westlock, Immaculata	311	276	9	29	53	42	4	6	138	17.8	63	48	11	8	8	10	2	2	
Wetaskiwin, Community																			
Willingdon, General																			
<b>Total</b>	<b>28061</b>	<b>31246</b>	<b>7975</b>	<b>10138</b>	<b>17900</b>	<b>17151</b>	<b>4784</b>	<b>2873</b>	<b>21222</b>		<b>10410</b>	<b>9824</b>	<b>32</b>	<b>2764</b>	<b>1536</b>	<b>1718</b>	<b>746</b>	<b>659</b>	<b>298</b>

Estimated for Canmore, Claresholm, Coleman, Eckville and Turner Valley.







TABLE No. 5—Continued

Hospitals	Surgical Operations										Infections Developed in Hospitals				Deaths					
	Abdominal	Gynaecological not including Curettages	Curettages	Amputations	Fractures		General	Total Operations	Medical	Surgical	Obstetrical		Mothers	Newborn	Stillborn	Premature	From Cancer	From Anaesthetics	From Communicable Diseases	Within 48 Hours of Admission
					Open	Closed					Mothers	Infants								
Stettler, Municipal	112	9	16	8	3	27	285	460	2	1	1	6	2	1	4	2	11	11	11	
Taber, Municipal	69	...	21	1	2	12	364	460	...	...	...	...	...	...	...	...	...	...	1	
Trochu, St. Mary's	47	...	4	1	...	18	179	249	...	...	...	...	...	...	...	...	...	...	...	
Turner Valley, Oilfields General	1	...	2	3	...	40	35	81	...	...	...	...	...	...	...	...	...	...	...	
Vegreville, General	150	29	24	5	5	49	544	806	2	1	...	...	...	...	...	...	...	...	14	
Vermilion, Municipal	140	10	15	...	8	30	221	424	2	...	...	...	...	...	...	...	...	...	2	
Viking, Municipal	36	...	9	...	...	17	67	129	...	...	...	...	...	...	...	...	...	...	2	
Vilna, Our Lady's	9	...	1	1	...	4	36	51	...	...	...	...	...	...	...	...	...	...	2	
Vulcan, Municipal	42	15	3	4	...	21	117	202	...	...	...	...	...	...	...	...	...	...	2	
Wainwright, Municipal	31	4	4	1	29	122	187	...	...	...	...	...	...	...	...	...	...	...	1	
Wayne, General	55	12	14	1	...	26	153	261	...	...	...	...	...	...	...	...	...	...	1	
Westlock, Immaculata	146	22	27	1	1	48	457	702	8	4	...	1	...	...	...	...	...	...	11	
Wetaskiwin, Community	272	3	36	10	6	77	328	732	8	4	...	1	...	...	...	...	...	...	10	
Willingdon, General	34	2	1	...	...	4	45	86	...	...	...	...	...	...	...	...	...	...	1	
<b>Total</b>	<b>12141</b>	<b>3525</b>	<b>2164</b>	<b>496</b>	<b>572</b>	<b>3191</b>	<b>35991</b>	<b>58080</b>	<b>47</b>	<b>110</b>	<b>41</b>	<b>69</b>	<b>250</b>	<b>351</b>	<b>257</b>	<b>458</b>	<b>20</b>	<b>58</b>	<b>899</b>	

Estimated for Canmore, Claresholm, Eckville & Turner Valley.





TABLE No. 5a—Continued

Hospitals	DEATHS				General Anaes- thetics Given	Spinal Anaes- thetics Given	Autopsies Held	Laboratory Examinations	X-Ray Examinations	Blood taken for Wasserman Test	Bacteriological Examination of Sterilized Dressings	Pasteurized Milk Supply	Water Supply Tested Bacteriologically
	Within 10 days from Surgical Operation		Total excluding Stillbirths										
	Number	Percentage to Total Operations	Male	Female									
Edmonton, Royal Alexandra	17	.50	231	187	4725	1309	158	96547	12228	6075	237	Yes	Yes
Edmonton, University	40	.75	135	68	180	73	160	70262	34311	8422	31	Yes	Yes
Edson, St. John's	1	.17	17	9	533	45	.....	780	457	25	.....	Yes	Yes
Elk Point, Municipal	1	.56	5	6	42	73	.....	3000	600	287	.....	Yes	Yes
Empress, Cottage	1	.....	7	5	140	4	.....	760	129	150	2	No	No
Fairview, Community	1	1.28	5	4	67	1	.....	7	69	7	2	No	No
Ft. McMurray, St. Gabriel's	1	.....	6	6	72	9	.....	18	74	20	3	No	No
Ft. Smith, General	.....	.....	.....	.....	.....	.....	.....	172	216	42	.....	No	No
Ft. Vermillion, St. Theresa	2	.91	3	5	8	.....	.....	79	78	10	2	No	No
Galahad, St. Joseph's	.....	.....	22	13	173	5	.....	916	.....	8	6	No	No
Grande Prairie, Municipal	.....	.....	3	3	434	40	.....	.....	437	.....	1	No	No
Grimshaw, Battle River	.....	.....	3	2	39	.....	1	.....	35	.....	3	No	No
Hanna, Municipal	1	.35	20	10	241	.....	6	96	161	.....	.....	Yes	Yes
Hardisty, St. Anne's	1	.58	9	5	136	6	.....	765	305	6	4	No	No
High Prairie, Providence	1	.12	31	9	574	90	10	5008	1051	282	4	Yes	Yes
High River, Municipal	.....	.....	22	17	350	106	.....	746	660	.....	4	Yes	Yes
Innisfail, Municipal	.....	.....	20	6	246	.....	.....	.....	197	2	.....	Yes	Yes
Islay, Municipal	1	1.66	11	2	24	13	.....	50	22	8	2	No	No
Jasper, Seton	.....	.....	5	2	16	.....	.....	293	211	31	4	Yes	Yes
Killam, General	.....	.....	4	3	118	21	.....	800	143	6	2	No	No
Lacombe & District Community	.....	.....	15	16	303	54	.....	.....	447	669	.....	Yes	Yes
Lac La Biche, St. Catherine's	.....	.....	14	8	130	2	.....	857	159	8	4	No	No
Lamont, Public	2	.36	21	15	227	247	2	2160	10400	237	.....	No	No
Lethbridge, St. Michael's	6	.33	43	20	252	904	2	19259	1470	1620	17	Yes	Yes
Lethbridge, Galt	1	.07	33	14	421	276	.....	14351	1779	1260	.....	Yes	Yes
Lloydminster, Municipal	2	.37	33	14	421	4	1	2346	1188	196	4	Yes	Yes
Macleod, Municipal	1	1.75	3	5	50	26	.....	25	150	20	.....	Yes	Yes
Magrath, Municipal	.....	.....	1	1	82	14	1	22	3	3	.....	Yes	Yes
Mannville, Municipal	.....	.....	14	5	102	14	.....	416	56	9	.....	No	No
Mayerthorpe, Municipal	.....	.....	Not Reported	.....	.....	.....	Not Reported	.....	.....	.....	Not Reported	.....	.....
Medicine Hat, General	6	.27	62	45	1120	272	4	8640	.....	796	2	Yes	Yes
Mundare, General	.....	.....	6	4	86	16	.....	407	137	6	2	No	No
McLennan, Sacred Heart	.....	.....	5	7	202	.....	3	1433	322	225	.....	No	No
Myrnam, Municipal	.....	.....	4	5	149	5	.....	.....	.....	1	.....	No	Yes





## DEPARTMENT OF PUBLIC HEALTH

TABLE No. 6—OPERATING EXPENDITURE

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
Athabasca, Municipal	\$ 15,819.32	\$ 12,091.06	\$ 1,781.28	\$ 471.03	\$ 1,771.01	\$ 381.30	\$ 1.15	\$ 400.85	\$ 32,717.00
Banff, Mineral Springs	82,622.91	55,108.85	3,598.45	1,303.89	17,746.95	2,428.67	125.31	1,362.26	164,297.29
Barrhead, St. Joseph's	11,600.00	7,720.73	1,152.05	186.66	1,700.00	246.28		19,173.80	41,779.52
Bassano, Municipal	12,920.41	9,127.17	3,361.93	224.89	1,682.98	665.06	8.56	18.20	28,009.20
Beaverlodge, Municipal	8,077.35	5,565.80	1,045.88	131.14	1,565.00	623.63	268.23	405.60	17,682.63
Bentley, Community	4,712.15	424.48	424.48	284.36		462.12	7.48	4,000.00	17,937.60
Berwyn, R. A. P.	8,342.88	7,033.26	1,366.86	162.75	1,080.00	399.73			18,380.48
Bonnyville, K. H. P.	7,620.00	5,349.33	275.10			1,762.65	.60	343.01	15,350.69
Bonnyville, St. Louis	15,990.00	13,399.13	1,024.28	228.60		3,122.45	3,360.00	161.30	37,285.76
Brooks, Municipal	14,860.92	15,294.51	1,087.92	253.47	2,810.00	944.54	2,576.41		37,829.77
Cadomin, General		Not Reported			Not Reported			Not Reported	
Calgary, General	304,810.85	209,388.77	31,393.03	3,569.25		36,839.35	63,262.86	12,532.11	661,796.22
Calgary, Isolation	13,304.84	5,737.64	1,805.85	203.20		3,043.73	3,951.84	419.47	28,466.57
Calgary, Holy Cross	252,914.34	200,846.83	13,921.21	5,865.53	48,300.54	15,428.88	2,908.77	15,756.23	555,942.33
Calgary, Junior Red Cross	39,682.00	19,458.09	3,745.19	375.42	955.11			453.58	64,669.39
Calgary, Salvation Army Grace	13,701.24	14,900.28	599.94	111.34	842.45	4,321.36	.48	1,882.44	36,359.53
Camrose, St. Mary's	38,469.59	35,685.67	3,614.87	133.50	6,693.90	3,264.70	29.53		87,891.76
Canmore, Canmore Hospital									23,139.40
Cardston, Municipal	20,779.75	16,374.64	2,535.31	275.30	2,472.28	3,343.01	467.42	863.11	47,110.82
Carmanangay, Little Bow Municipal	7,148.99	4,861.68	1,135.32	140.00		676.36			13,982.35
Castor, Our Lady of the Rosary	13,771.37	8,730.83	1,149.98	397.50		3,534.98		452.98	28,057.64
Cereal, Municipal	6,942.61	4,765.50	1,177.98	40.80				158.00	13,084.89
Claresholm, Municipal	22,682.83	7,591.62	9,308.96	133.00	1,279.70	506.41	476.75	24.50	42,013.77
Cold Lake, John Neil	6,262.68	3,383.53	304.81			508.13		604.45	11,063.60
Coleman, Miners' Union									16,818.25
Consort, Municipal	7,856.87	8,819.37	821.47	423.52		36,997.86		340.60	55,259.69
Coronation, Municipal	12,265.38	9,137.06	1,546.36	99.44	645.53	907.98	133.09	64.40	24,799.24
Daysland, Providence	6,721.88	7,359.96	899.60	90.85	2,892.83	645.37		160.45	18,770.91
Desmarais, St. Martin's	1,820.00	1,180.00	1,323.00	75.00		225.00		215.00	4,838.00
Disbury, General	17,078.30	14,235.43	1,405.80	296.62	5,257.11	1,125.74	4,156.07	289.12	43,844.19
Drumheller, Municipal	58,803.10	37,753.62	5,547.25	1,189.03	5,041.12	7,664.59	27.08	2,138.08	118,183.87
Eckville, Municipal	11,608.08	11,863.73	2,073.48	264.17	3,541.41	1,146.40	3,000.17	71.50	33,568.94
Edmonton, Beulah Rescue Home	7,987.20	9,355.61	472.63	106.00	2,385.77			173.45	20,480.66
Edmonton, General	215,597.06	178,576.09	15,015.18	6,624.64	26,313.38	13,345.90	4,581.00	2,387.47	462,440.72
Edmonton, Misericordia	172,289.70	149,786.03	14,726.96	3,100.11	19,577.37	18,789.15	18,717.50	4,002.73	400,989.55
Edmonton, Royal Alexandra	454,401.69	311,459.07	22,964.71	16,101.50	17,945.26	49,277.71	33,387.20	11,430.88	916,968.02
Edmonton, University of Alberta	537,718.30	378,577.81	52,559.92	2,326.95		60,546.51	28,430.35	19,771.33	1,079,931.17
Edson, St. John's	16,059.05	10,770.02	1,566.69	192.49	2,805.10	1,889.94	51.01	193.53	33,527.83
Elk Point, Municipal	16,859.44	19,329.07	2,482.88	141.42	1,118.13	3,112.04	1,250.00	341.55	44,634.54
Empress, Cottage	9,401.60	13,714.01	816.23			1,031.78	24.68	914.15	25,902.45





TABLE No. 6—OPERATING EXPENDITURE—Continued

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
Vegreville, General	22,497.05	25,400.14	3,550.37	1,455.89	7,869.69	1,614.89	.....	4,368.04	66,756.07
Vermilion, Municipal	18,491.94	13,853.51	2,353.01	468.55	2,230.49	2,785.98	422.56	84.80	40,690.84
Viking, Municipal	11,695.09	9,996.39	2,225.24	235.55	767.40	472.53	.....	307.14	25,699.34
Vilna, Our Lady's	7,003.35	4,553.30	541.42	118.81	1,377.53	1,493.15	1,037.06	274.50	16,399.12
Vulcan, Municipal	12,660.80	6,772.57	1,565.92	191.10	2,983.09	1,299.35	461.33	680.24	26,614.40
Wainwright, Municipal	15,772.66	14,363.30	1,629.66	290.72	1,516.60	1,213.52	192.50	480.00	35,458.96
Wayne, General	10,657.46	6,216.67	1,525.30	184.67	1,241.03	1,146.01	147.67	621.97	21,740.78
Westlock, Immaculata	22,092.51	21,104.80	2,864.74	599.50	1,764.46	.....	6,574.52	642.78	55,643.31
Wetaskiwin, Community	24,158.60	23,362.33	3,471.32	558.09	5,755.03	2,770.86	18.17	115.68	60,210.08
Willingdon, General	12,819.75	11,371.94	544.55	132.97	715.15	518.98	.....	1,116.17	27,219.51
Total	\$3,454,288.48	\$2,685,296.68	\$ 329,837.96	\$ 62,423.50	\$ 286,052.22	\$ 384,868.08	\$ 211,965.53	\$ 157,071.64	\$7,762,342.26

Not Reported—Total Expenditure Estimated for: Canmore, Coleman, Ft. McMurray, Mayerthorpe, Medicine Hat Isolation, Ponoka, Red Deer, and Turner Valley.



TABLE No. 7—OPERATING REVENUE

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Other Revenue	Total Revenue
Athabasca, Municipal	\$ 11,508.40	\$ 1,513.50	\$ 13,021.90	\$ 586.05	\$ 12,435.85	\$ 16,596.27	\$ 240.00	\$ 190.05	\$ 29,462.17
Banff, Mineral Springs	96,692.36	30,962.62	127,654.98	11,847.70	115,807.28	6,882.30	41,686.05	91.35	164,466.98
Barrhead, St. Joseph's	31,044.00	8,030.00	39,074.00	4,151.25	34,922.75	5,664.35	8.00	7,860.00	48,447.10
Bassano, Municipal	17,764.25	1,424.66	19,188.91	10,034.71	9,154.20	11,473.82	1,018.15	3,897.87	24,533.89
Beaverlodge, Municipal	4,020.60	1,533.90	5,554.50	173.50	5,381.00	15,590.50	3,223.75	726.15	22,715.80
Bentley, Municipal	6,675.18	5,085.49	11,760.67	.....	11,760.67	6,175.68	12.25	327.49	21,160.10
Berwyn, R. A. P.	8,796.25	1,487.00	10,283.25	.....	10,283.25	7,649.65	584.70	3,376.00	18,372.64
Bonnyville, K. H. P.	8,245.65	1,391.45	9,637.10	8,633.01	9,637.10	1,384.20	3,259.00	1,370.62	14,982.00
Bonnyville, St. Louis	24,444.08	11,364.00	35,808.08	8,633.95	27,175.07	4,701.80	.....	.....	36,506.49
Brooks, Municipal	14,576.80	24,918.30	39,495.10	.....	38,801.15	3,390.30	.....	.....	42,191.45
Cadomin, General	.....	Not Reported	.....	.....	Not Reported	.....	.....	Not Reported	.....
Calgary, General	293,190.33	54,056.27	347,246.60	.....	347,246.60	134,481.95	.....	.....	481,728.55
Calgary, Isolation	1,120.90	61.35	1,182.25	.....	1,182.25	1,147.50	.....	.....	2,329.75
Calgary, Holy Cross	354,407.46	175,040.62	529,448.08	37,412.07	492,036.01	51,134.85	.....	9,904.98	553,075.84
Calgary, Junior Red Cross	.....	.....	.....	.....	.....	21,304.33	.....	43,365.06	64,669.39
Calgary, Salvation Army Grace	20,323.45	2,063.30	22,386.75	795.72	21,591.03	8,272.71	.....	6,258.05	36,212.79
Camrose, St. Mary's	53,796.40	24,963.90	78,670.30	7,000.00	71,760.30	8,915.30	.....	77.92	80,753.52
Canmore, Canmore	.....	.....	.....	.....	.....	.....	.....	.....	10,260.10
Cardston, Municipal	11,526.20	2,504.85	14,031.05	.....	14,031.05	29,630.41	1,442.75	658.37	45,762.58
Carmangay, Little Bow Municipal	3,634.85	972.67	4,607.52	.....	4,607.52	7,775.06	.....	672.56	13,055.14
Castor, Our Lady of the Rosary	16,568.08	2,119.35	18,687.43	.....	18,687.43	2,551.05	.....	7,190.00	28,428.48
Cereal, Municipal	2,838.00	730.08	3,568.08	.....	3,568.08	7,261.65	.....	.....	10,829.73
Clareholm, Municipal	16,032.35	7,469.70	23,502.05	347.25	23,154.80	21,046.84	.....	20.00	44,221.64
Cold Lake, John Neil	2,090.75	202.99	2,293.74	552.50	1,741.24	8,701.49	220.50	25.00	10,688.23
Coleman, Miners' Union	.....	.....	.....	.....	.....	.....	.....	.....	16,708.08
Consort, Municipal	5,777.10	.....	5,777.10	.....	5,777.10	.....	.....	42,902.33	48,679.43
Coronation, Municipal	4,491.85	1,410.33	6,352.18	23.94	6,328.24	4,233.90	62.60	11,812.88	22,437.62
Daysland, Providence	7,492.05	3,175.13	10,667.18	200.00	10,467.18	812.25	.....	453.21	11,732.64
Desmarais, St. Martin's	2,484.00	.....	2,484.00	637.50	1,846.50	428.15	.....	.....	2,274.65
Didsbury, General	9,504.99	7,894.35	17,399.34	.....	17,399.34	23,362.60	.....	937.25	41,699.19
Drumheller, Municipal	45,624.90	14,459.53	60,084.43	3,415.93	56,668.50	60,951.54	.....	1,960.72	118,428.32
Eckville, Municipal	7,119.01	2,049.57	9,168.58	.....	9,168.58	23,791.65	.....	.....	34,920.95
Edmonton, Beulah Rescue Home	5,217.88	.....	5,217.88	.....	5,217.88	9,544.60	.....	6,644.42	21,406.90
Edmonton, General	177,325.35	110,481.49	287,807.84	20,675.84	267,132.00	55,815.00	.....	169,016.56	491,964.06
Edmonton, Misericordia	212,033.18	120,799.52	332,832.70	90,120.96	242,711.74	160,322.12	.....	8,395.05	413,671.36
Edmonton, Royal Alexandra	487,794.85	271,297.81	759,092.66	88,531.65	670,561.01	144,545.35	.....	73,654.21	888,760.57
Edmonton, University of Alberta	788,987.55	282,443.24	1,071,430.79	56,389.80	1,015,040.99	168,109.29	2,242.45	.....	1,183,150.28
Edson, St. John's	25,682.75	7,308.24	32,990.99	3,606.78	29,384.21	4,320.90	.....	.....	33,705.11
Elk Point, Municipal	16,141.53	1,952.53	18,094.06	2,038.46	16,055.60	18,177.26	.....	3,224.58	37,457.44
Empress Cottage	17,500.17	5,455.11	22,955.28	.....	22,955.28	3,009.15	.....	479.69	26,444.12
Fairview, Community	11,833.64	5,189.95	17,023.59	.....	17,023.59	7,663.55	732.15	18.86	25,438.15



## DEPARTMENT OF PUBLIC HEALTH

TABLE No. 7—OPERATING REVENUE—Continued

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Other Revenue	Total Revenue
Ft. McMurray, St. Gabriel's	2,875.60	546.75	3,422.35	125.00	3,297.35	600.45	.....	2,180.00	23,918.01
Fort Vermilion, St. Theresa	11,461.45	2,410.69	13,872.14	.....	13,872.14	.....	.....	7,163.24	6,077.80
Galahad, St. Joseph's	22,313.10	7,694.35	30,007.45	.....	30,007.45	29,277.55	2,079.10	5,366.59	21,035.38
Grande Prairie, Municipal	4,061.90	483.15	4,545.05	582.85	3,962.20	8,488.92	148.65	15,716.44	66,730.69
Grimshaw, Battle River	15,856.45	6,726.22	22,582.67	.....	22,582.67	29,542.63	.....	2,025.45	28,316.21
Hanna, Municipal	14,451.20	4,505.06	18,956.26	180.86	18,775.40	2,413.35	.....	3,116.59	54,150.75
Hardisty, St. Anne's	44,528.18	10,408.00	54,936.18	23,454.60	31,481.58	6,367.77	2,072.35	15,092.16	24,305.34
High Prairie, Providence	26,741.88	2,609.80	29,351.68	991.50	28,360.18	33,960.77	.....	4,268.98	55,213.34
High River, Municipal	14,286.15	745.60	15,031.75	.....	15,031.75	21,254.25	.....	339.04	66,589.93
Innisfail, Municipal	3,100.00	84.00	3,184.00	.....	3,184.00	14,021.80	125.75	281.14	36,625.04
Jasper, Seton	9,148.70	2,821.67	11,970.37	3,262.37	8,708.00	3,470.80	.....	5,810.66	17,612.69
Killam, General	11,804.97	3,024.00	14,828.97	765.00	14,063.97	1,875.15	.....	10,316.30	17,989.46
Lacombe and District, Community	33,034.41	7,973.00	41,007.41	.....	41,007.41	5,481.90	420.00	8.36	26,255.42
Lac la Biche, St. Catherine's	17,119.25	1,080.00	18,199.25	1,110.85	17,088.40	4,969.25	212.00	12,400.00	46,917.67
Lamont, Public	56,848.40	23,653.52	80,501.92	5,051.66	75,450.26	9,680.50	.....	11,262.07	34,669.65
Lethbridge, Isolation	342.45	.....	342.45	.....	342.45	80.55	.....	.....	96,392.83
Lethbridge, St. Michael's General	105,100.65	58,669.32	163,769.97	6,937.33	156,832.64	15,391.35	.....	2,298.00	174,521.99
Lethbridge, Galt	97,208.93	48,057.52	145,266.45	6,561.33	138,705.12	33,489.30	.....	2,519.48	174,713.90
Lloydminster, Municipal	48,508.85	9,889.00	58,397.85	6,711.26	51,686.59	8,964.30	2,296.50	1,018.90	63,966.29
Macleod, Municipal	12,431.28	.....	12,431.28	1,500.00	10,931.28	9,255.13	.....	218.05	20,404.46
Magrath, Municipal	4,685.60	1,922.85	6,608.45	200.00	6,408.45	13,363.25	232.91	321.43	20,326.04
Mannville, Municipal	8,817.25	764.00	9,581.25	121.44	9,459.81	10,709.22	.....	676.04	20,845.07
Mayerthorpe, Municipal	100,630.16	39,224.90	139,855.06	7,445.79	132,409.27	27,049.90	.....	3,831.51	13,010.66
Medicine Hat, General	.....	.....	.....	.....	.....	.....	.....	.....	163,290.68
Medicine Hat, Isolation	.....	.....	.....	.....	.....	.....	.....	.....	2,007.22
Mundare, General	12,759.88	3,478.40	16,238.28	1,219.05	15,019.23	5,801.95	.....	2,238.15	23,059.33
McLennan, Sacred Heart	27,391.56	11,066.39	38,457.95	11,061.40	27,396.55	4,918.10	39.44	15,403.09	47,757.18
Myrnam, Municipal	8,694.10	2,718.35	11,412.45	.....	11,412.45	18,092.06	.....	29.33	29,533.84
Odds, General	8,292.26	6,020.88	14,313.14	338.24	13,974.90	24,702.40	.....	.....	38,677.30
Nordegg, General	.....	.....	.....	.....	.....	.....	.....	.....	25,715.03
Oyen, Municipal	1,301.00	418.25	1,719.25	.....	1,719.25	10,455.11	.....	.....	12,174.36
Peace River, Municipal	17,871.00	9,287.94	27,158.94	.....	27,158.94	19,603.80	400.00	1,261.65	48,424.39
Pincher Creek, St. Vincent's	24,174.75	2,674.36	26,849.11	6,850.90	19,998.21	6,187.35	.....	17,320.00	43,505.56
Ponoka, Municipal	.....	.....	.....	.....	.....	.....	.....	.....	13,510.06
Provost, Municipal	9,684.95	2,729.65	12,414.60	.....	12,414.60	18,911.35	789.10	.....	32,115.05
Radway, St. Joseph's	11,128.00	3,587.89	14,715.89	859.50	13,856.39	2,292.75	1,223.63	437.37	17,810.14
Raymond, Municipal	4,844.45	3,050.95	7,895.40	1,000.00	7,795.40	16,722.65	528.30	77.50	25,123.85
Red Deer, Municipal	.....	.....	.....	.....	.....	.....	.....	.....	76,329.05
Rimbeey, St. Paul's	18,190.73	1,024.25	18,190.73	37.60	18,153.13	2,020.95	.....	149.95	20,324.03
Rocky Mountain House, Municipal	5,778.75	.....	6,803.00	125.00	6,678.00	8,671.10	271.50	505.00	16,125.60



Smoky Lake, George McDougall	4,804.50	18,025.94	22,830.44	806.00	22,830.44	5,011.44	1,930.50	4,453.00	27,841.88
Spirit River, Holy Cross Community	13,600.70	3,780.60	17,381.30	1,500.00	16,575.30	1,930.50	30,693.38	395.49	22,858.80
St. Paul, St. Theresa	12,773.95	4,501.50	17,275.45	1,750.00	15,775.45	28,665.30	714.14	2,713.10	46,468.83
Stettler, Municipal	22,957.75	2,452.02	25,409.77	1,750.00	23,659.77	19,507.57	2,569.50	6,000.00	53,434.70
Taber, Municipal	22,043.90	7,200.17	29,244.07	409.54	29,244.07	19,507.57	1,120.00	10,794.44	48,751.64
Trochu, St. Mary's	15,695.15	4,588.46	20,283.61	5,012.10	19,874.07	35,688.55	169.09	2,713.10	25,156.67
Turner Valley, Oilfields General	23,259.70	8,909.36	32,169.06	355.12	27,156.96	19,872.78	282.78	151.91	22,205.00
Vegreville, General	16,497.85	3,876.97	20,374.82	485.70	20,019.70	16,887.95	725.41	10,794.44	69,965.51
Vermilion, Municipal	8,615.78	475.62	9,091.40	500.00	9,091.40	18,859.00	1,397.85	78.80	40,061.57
Viking, Municipal	5,412.80	1,986.41	7,399.21	500.00	6,913.51	1,018.25	346.00	12,147.89	26,961.02
Vilna, Our Lady's	7,397.50	722.25	8,119.75	5,339.42	8,119.75	21,692.50	100.00	37,854.47	14,385.56
Vulcan, Municipal	12,857.75	4,570.87	17,428.62	800.00	17,428.62	18,859.00	1,397.85	10,794.44	30,158.25
Wainwright, Municipal	16,882.25	5,231.24	22,113.49	3,539.65	21,613.49	6,731.30	552.25	12,147.89	37,854.47
Wayne, General	38,953.75	13,807.10	52,760.85	3,539.65	47,421.43	6,266.70	205.05	12,147.89	21,765.40
Westlock, Immaculata	51,783.21	6,976.72	58,759.93	3,539.65	50,983.21	7,835.20	6,266.70	12,147.89	65,499.42
Wetaskiwin, Community	3,799.35		10,776.07		7,236.42				57,533.76
Willingdon, General									27,219.51
<b>Total</b>	<b>\$3,917,562.27</b>	<b>\$1,558,268.74</b>	<b>\$5,475,831.01</b>	<b>\$ 453,959.63</b>	<b>\$5,021,871.38</b>	<b>\$1,718,338.38</b>	<b>\$ 67,425.31</b>	<b>\$ 596,992.73</b>	<b>\$7,608,291.01</b>

Not Reporting—Estimated for: Canmore, Coleman, Ft. McMurray, Mayerthorpe, Medicine Hat Isolation, Nordegg, Ponoka, Red Deer, and Turner Valley.

TABLE No. 8

Hospitals	Operating Cost Per Patient Per Day Exclusive of Capital and Reserve	Percentage of Cost				Revenue per Patient per Day
		Salaries and Wages	Supplies	Purchased Services	Balance*	
Athabasca, Municipal	\$ 4.17	48.3	36.9	5.4	9.4	\$ 3.75
Banff, Mineral Springs	5.66	50.3	33.5	2.2	14.0	5.66
Barrhead, St. Joseph's	4.49	27.8	18.5	2.8	50.9	5.21
Bassano, Municipal	4.83	46.1	32.6	12.0	9.3	4.49
Beaveridge, Municipal	5.21	45.7	31.5	5.9	16.9	6.69
Bentley, Municipal	4.59	26.2	44.9	2.4	26.5	5.41
Berwyn, Ratepayers' Association of Peace	4.82	45.3	38.3	7.3	9.1	4.81
Bonnyville, Katherine H. Prittie	4.86	49.6	34.8	1.8	13.8	4.75
Bonnyville, St. Louis	4.27	42.8	35.9	2.7	28.6	4.18
Brooks, Municipal	5.02	39.2	41.2	2.8	16.8	5.60
Cadomin, General	4.86	Not Reported	31.6	4.7	Not Reported	3.54
Calgary, General	10.27	46.1	20.1	6.3	17.6	8.40
Calgary, Isolation	5.23	46.7	20.1	6.3	26.9	8.40
Calgary, Holy Cross	3.19	45.4	36.1	2.5	26.0	5.20
Calgary, Junior Red Cross	2.61	61.3	30.0	5.6	3.1	3.19
Calgary, Salvation Army Grace	4.39	37.6	40.9	1.6	19.9	2.59
Camrose, St. Mary's	8.04	40.6	40.6	4.1	14.7	4.03
Canmore, Canmore	4.96	Not Reported	Not Reported	Not Reported	Not Reported	3.56
Cardston, Municipal	5.46	44.1	34.7	5.3	15.9	4.81
Cardmangay, Little Bow Municipal	4.54	51.1	34.7	8.2	6.0	5.10
Castor, Our Lady of the Rosary	6.67	49.0	31.1	4.0	15.9	4.60
Cereal, Municipal	3.81	53.0	36.4	9.0	1.6	5.52
Clareholm, Municipal	4.72	54.0	18.0	2.1	25.8	4.01
Cold Lake, John Neil	5.71	56.6	30.5	2.7	10.2	4.56
Coleman, Miners' Union	11.79	Not Reported	Not Reported	Not Reported	Not Reported	5.67
Consort, Municipal	4.35	14.2	16.0	1.5	68.3	10.39
Coronation, Municipal	5.07	51.0	37.9	6.4	4.7	3.93
Daysland, Providence	1.76	35.7	39.2	4.7	20.4	3.16
Desmarais, St. Martin's	6.53	37.6	24.3	27.3	10.8	.82
Didsbury, Municipal	4.89	38.9	32.4	3.2	25.5	6.21
Drumheller, Municipal	5.31	49.7	31.9	4.6	13.8	4.90
Ekville, Municipal	3.60	34.5	35.3	6.2	24.0	5.51
Edmonton, Beulah Rescue Home	5.13	38.9	45.6	2.3	13.2	3.76
Edmonton, General	4.14	42.9	37.3	3.2	11.6	4.40
Edmonton, Misericordia	5.42	46.6	38.6	3.6	16.2	5.29
Edmonton, Royal Alexandra	5.60	49.5	33.9	2.5	14.1	5.25
Edmonton, University of Alberta	4.11	49.7	35.0	4.9	10.4	6.13
Edson, St. John's	4.11	47.8	32.1	4.6	15.5	3.46



Elk Point, Municipal	3.41	37.6	43.3	5.6	13.5	2.86
Empress, Cottage	3.87	36.2	52.9	3.1	7.8	3.95
Fairview, Community	3.80	43.4	38.2	6.7	11.7	4.29
Ft. McMurray, St. Gabriel's	6.52	Not Reported	Not Reported	Not Reported	Not Reported	6.09
Ft. Smith, General	4.13	57.5	31.6	3.7	7.2	4.35
Fort Vermilion, St. Theresa	2.65	36.9	42.9	7.4	12.8	3.56
Galahad, St. Joseph's	3.88	46.9	33.2	5.0	14.9	4.70
Grande Prairie, Municipal	12.02	23.2	16.4	5.8	54.6	13.12
Grimshaw, Battle River	5.42	40.9	35.6	6.6	16.9	4.93
Hanna, Municipal	2.85	46.0	34.6	4.4	15.0	3.34
Hardisty, St. Anne's	3.67	41.1	40.8	6.2	11.9	2.91
High Prairie, Providence	4.28	49.7	32.9	7.5	9.9	4.42
High River, Municipal	3.66	47.8	35.9	4.8	11.5	3.73
Innisfail, Municipal	4.71	46.9	28.8	12.9	11.4	4.72
Islay, Municipal	5.57	31.9	35.5	3.2	29.4	4.44
Jasper, Seton	5.74	29.7	36.9	3.4	30.0	5.72
Killam, General	3.77	44.3	39.8	4.2	11.7	3.79
Lacombe and District, Community	4.26	25.4	65.8	3.5	5.3	4.27
Lac la Biche, St. Catherine's	4.65	45.9	43.8	2.1	8.2	4.61
Lamont, Public	14.72	66.5	19.7	4.6	9.2	2.36
Lethbridge, Isolation	5.44	46.1	35.6	4.3	14.0	4.80
Lethbridge, St. Michael's	4.66	43.7	45.5	4.5	6.3	4.67
Lloydminster, Municipal	3.56	50.2	37.1	4.4	8.3	3.27
Lyle, Municipal	5.63	40.7	40.0	5.7	13.6	6.11
Macleod, Municipal	6.83	53.6	34.4	4.2	7.8	7.28
Magrath, Municipal	3.91	45.4	40.1	5.0	9.5	3.82
Mannville, Municipal	15.68	Not Reported	Not Reported	Not Reported	Not Reported	15.14
Mayrthorpe, Municipal	3.99	42.6	45.7	4.9	6.8	3.73
Medicine Hat, General	4.58	7.4	33.6	6.6	52.4	5.16
Mundare, General	4.68	21.5	20.0	7.5	51.0	4.51
McLennan, Sacred Heart	8.31	56.8	30.8	2.9	9.5	6.83
Myrnam, Municipal	9.64	33.8	37.5	7.1	21.6	7.33
Nordegg, General	5.83	45.1	25.3	5.8	23.8	4.99
Olds, General	4.48	43.8	32.7	4.7	18.8	4.99
Peace River, Municipal	3.63	49.6	35.1	5.3	10.0	6.20
Pincher Creek, St. Vincent's	5.64	Not Reported	Not Reported	Not Reported	Not Reported	5.57
Ponoka, Municipal	4.49	44.6	36.8	5.7	12.9	4.48
Provost, Municipal	4.62	56.3	26.8	8.0	8.9	3.45
Radway, St. Joseph's	5.39	29.8	29.8	5.6	34.8	6.00
Raymond, Municipal	3.93	Not Reported	Not Reported	Not Reported	Not Reported	3.31
Red Deer, Municipal	5.06	50.1	24.7	4.6	20.6	4.53
Rimbey, St. Paul's	4.29	46.3	37.3	4.6	11.8	5.11
Rocky Mountain House, Municipal	8.78	41.1	29.6	5.0	24.3	8.05
Smoky Lake, George McDougall	5.98	26.6	39.5	3.9	30.0	4.93
Spirit River, Holy Cross Community	3.33	47.2	34.9	5.1	12.8	3.54
St. Paul, St. Theresa	5.00	46.1	40.8	2.2	9.9	3.33
Stettler, Municipal	4.04	47.1	34.7	1.0	18.2	5.37
Taber, Municipal	5.00	46.1	40.8	1.0	18.2	5.37
Trochu, St. Mary's	4.04	48.5	27.0	4.2	20.3	4.09

TABLE No. 8—Continued

Hospitals	Operating Cost Per Patient Per Day Exclusive of Capital and Reserve	Percentage of Cost			Revenue per Patient per Day
		Salaries and Wages	Supplies	Purchased Services	
Turner Valley, Oilfields General	4.14	Not Reported	Not Reported	Not Reported	4.37
Vegreville, General	3.30	33.7	38.0	2.1	3.46
Vermilion, Municipal	3.31	45.4	34.0	5.7	3.26
Viking, Municipal	4.04	45.5	38.8	8.6	4.24
Vilna, Our Lady's	6.59	42.7	27.7	3.1	5.78
Vulcan, Municipal	5.06	47.5	25.4	5.8	5.73
Wainwright, Municipal	4.45	44.4	40.5	4.5	4.73
Wayne, General	4.80	49.0	28.5	7.0	4.80
Westlock, Immaculata	3.88	39.6	37.9	5.1	4.56
Wetaskiwin, Community	4.09	40.1	38.8	5.7	3.91
Willingdon, General	4.33	47.0	41.7	2.0	4.33
Total	\$ 4.80	44.4	34.5	4.2	\$ 4.70

Not Reported—Estimated for: Canmore, Coleman, Ft. McMurray, Mayerthorpe, Medicine Hat Isolation, Ponoka, Red Deer, and Turner Valley.

\*Balance includes Insurance, Depreciation, Repairs and Replacements, Interest and Exchange, and Miscellaneous.



## Division of Social Hygiene

(HAROLD ORR, O.B.E., M.D., D.P.H., F.R.C.P. (C), F.A.C.P., *Director*)

I have the honor to submit the twenty-seventh annual report of the Division of Social Hygiene for the year ending December 31st, 1946.

The routine work of the Division was continued at the same high pitch that was attained during the war years. A piece of pioneer work was undertaken in connection with syphilis amongst Indians and Breeds. For some time we had felt that there were foci of infection in the hinterland beyond the Lesser Slave Lake and this opinion was supported by the experience of our nursing staff in the north, so we began to do a serological survey. It was necessarily slow as our nurses had to travel sometimes by pack horse and occasionally by airplane to remote areas. However some thousands were examined and a total of one hundred and fifty odd syphilitic patients brought to light. Some of these were Indians and some were Breeds. There were a few Whites as well but the Indians constituted about fifty percent of the group, the Whites and Breeds constituting the other fifty percent.

The treatment project was started in co-operation with the Department of Indian Affairs. Subsequently the medical services for the Indian Affairs were taken over by Department of National Health and the final project was in co-operation with the Department of National Health. Both Dr. Layton and Dr. Moore took an active interest in the project.

The Camp was established on the West shore of the Lesser Slave Lake, on the outskirts of the town of Grouard. The camp site was a beautiful one and consisted of some fifty odd tents of one sort or another, mostly bell tents, which were requisitioned by the Department of Indian Affairs from the Department of Militia and Defence. The site was chosen for the following reasons:

1. It is the centre of Indian activities in the north and the site of an important Roman Catholic Mission to Indians.
2. There are no licensed premises within twenty miles of the camp.
3. A water supply was available but water of course had to be carted in horse drawn tanks.
4. The camp was definitely off the main highway and a degree of privacy was made possible.

Dr. Rentiers remained in medical charge throughout the entire project and was assisted by a staff of ten nurses. Mrs. Tainton looked after the business end and remained to the end of the project. The camp was operated September 1st to 30th.

It is characteristic of the Indian that he will not move without his family and the total number of persons provided for was in excess of three hundred, although only one hundred and fifty-eight of them were actually under treatment. However, all their other ills had to be looked after too, so a general medical clinic was held every day for the purpose of looking after minor ailments.



The Indian will not do any work if he thinks the Government ought to do it for him and these Indians, having been told that the Government was giving them this treatment, were disinclined to cut wood or in other ways fend for themselves during the period of the project. With a different approach this could be obviated.

The food was all provided and rationed out to each family twice daily. Each family did its own cooking. The unattached individuals looked after themselves by grouping together.

The co-operation insofar as treatment was concerned was excellent. The patients even submitted to the spinal puncture without any question. They were brought together, the males in one group and females in another, and given a couple of lectures at the beginning of the project. These talks were satisfactorily interpreted in Cree for the benefit of those who did not understand English. In addition to explaining the treatment a good deal of educational material was introduced.

The treatment consisted of 2,400,000 units of penicillin given at the rate of 30,000 units every three hours during the day. The night dose, given at 8:00 p.m. consisted of 120,000 units in solvecillin. This carried the patient over until 8:00 the following morning. In addition each patient was given ten intravenous injections of an arsenical and at least one or two intramuscular injections of bismuth. Our object was to give five intramuscular injections of bismuth but in some instances this was found undesirable owing to the great number of intramuscular injections of penicillin. However in every instance enough bismuth was given for its synergistic effect.

It is interesting to note that of the one hundred odd cerebrospinal fluid examinations there were only three Grade 4 spinal fluids and two Grade 3's. All the others were negative. We are planning to provide malaria pyrexia therapy for all five.

We feel that this project has demonstrated how important a factor such bringing together of these persons can be from the educational point of view. The camp had not been in operation many days before others who had been missed in the original survey began to come in voluntarily for a blood test and in this way the number of patients was added to and the project had to be continued for an additional two weeks to take care of these. In some instances small babies, some born since the original survey and some in whom the nurses could not do a vena puncture, were examined during the project and in few instances had to be treated.

We feel further that the people of this territory have been impressed by our desire to give them the best treatment and care possible and further work in the future should be made very much easier in this vast area. One of our Public Health nurses is stationed at Lesser Slave Lake and a certain amount of follow-up work will be possible and any Indians and Breeds who have been missed can report to her for a serological test.

We were impressed with the observations that since the establishment of the treatment camp at Grouard the profound ignorance of the subject has largely disappeared amongst the Indians and this has led to many persons who were missed on the primary surveys coming in voluntarily to the Public Health Nurse in the District for serological examinations.



I regret to have to report the loss, through death, of Mrs. Hilda W. Tainton. She had served the Department well for over twenty years and had developed an epidemiological technique which was in some ways unique and which had attracted international attention through its efficiency.

The following statistical report indicates the work of the Division during the year:

PROVINCIAL CLINIC, EDMONTON—Provincial Building, 10048 101A Avenue

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) .....							40	55	517	141			753
Syphilis (congenital) .....	1	1											2
Acquired—Primary .....							3	1	19	8			31
Acquired—Secondary .....								2	3	3			8
Acquired—Latent .....							2	2	10	6			20
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....													
Type Undetermined .....													
Totals .....	1	1					45	60	549	158			814

Number of cases of syphilis—Male 38, Female 23 ..... 61  
 Number of cases of gonorrhoea—Male 557, Female 196 ..... 753

Number and results of Kahn and Wassermann tests: 4,700 of which 601 were positive.  
 Number and results of Cerebrospinal Fluid tests: 139 of which 16 were positive.  
 Number of results of Bacteriological tests for gonococci: 8,232 of which 883 were positive.  
 Number and results of Cultures: 5,466 of which 465 were positive.

PROVINCIAL CLINIC, CALGARY—713 3rd Street East, Calgary

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) .....				1		3	15	32	359	136			546
Syphilis (congenital) .....													
Acquired—Primary .....							2	22	9	1			34
Acquired—Secondary .....								2	9				11
Acquired—Latent .....							1	21	11				33
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....													
Type Undetermined .....													
Totals .....				1		3	15	35	404	165	1		624

Number of cases of syphilis—Male 46, Female 32 ..... 78  
 Number of cases of gonorrhoea—Male 374, Female 172 ..... 546

Number and results of Kahn and Wassermann tests: 3,521 of which 849 were positive.  
 Number and results of Cerebrospinal Fluid tests: 47 of which 6 were positive.  
 Number and results of Bacteriological tests for gonococci: 4,286 of which 523 were positive.

## HIGH PRAIRIE CLINIC—High Prairie, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) .....							2	7	64	8			81
Syphilis (congenital) .....													
Acquired—Primary .....							3		5				8
Acquired—Secondary .....							1		1				2
Acquired—Latent .....									2				2
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....													
Type Undetermined .....													
Totals .....							2	11	71	9			93

Number of cases of syphilis: Male 7, Female 5 .....

Number of cases of gonorrhoea: Male 66, Female 15 .....

Number and results of Kahn and Wassermann tests: 620 of which 25 were positive.

Number and results of Cerebrospinal Fluid tests: 25 of which none were positive.

Number and results of Bacteriological tests for gonococci: 140 of which 50 were positive.

McLENNAN CLINIC—McLennan, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) .....									18	3			21
Syphilis (congenital) .....													
Acquired—Primary .....										2			2
Acquired—Secondary .....									1	1			2
Acquired—Latent .....													
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....													
Type Undetermined .....													
Totals .....									19	6			25

Number of cases of syphilis: Male 1, Female 3 .....

Number of cases of gonorrhoea: Male 18, Female 3 .....

Number and results of Kahn and Wassermann tests: 142 of which 8 were positive.

Number and results of Cerebrospinal Fluid tests: 2 of which 0 were positive.

Number and results of Bacteriological tests for gonococci: 50 of which 30 were positive.

PROVINCIAL CLINIC, MEDICINE HAT—Medicine Hat General Hospital, Medicine Hat

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) .....							8	3	9				20
Syphilis (congenital) .....	2		2		1		1						4
Acquired—Primary .....									6	1			7
Acquired—Secondary .....							1		2				3
Acquired—Latent .....													
Acquired—Tertiary (Neurosyphilis) .....									1				1
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (other) .....							1	1	1				3
Type Undetermined .....													
Totals .....	2				1		11	11	13				38

Number of cases of syphilis: Male 10, Female 8 .....

Number of cases of gonorrhoea: Male 3, Female 17 .....

Number and results of Kahn and Wasserman tests: 192 of which 64 were positive.

Number and results of Cerebrospinal Fluid tests: 2 of which 0 were positive.

Number and results of Bacteriological tests for gonococci: 112 of which 9 were positive.



## PROVINCIAL GAOL—Fort Saskatchewan, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.			
Gonorrhoea (all forms) .....							8	3	16				27
Syphilis (congenital) .....													
Acquired—Primary .....							1						1
Acquired—Secondary .....								2					1
Acquired—Latent .....											4		4
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....													
Type Undetermined .....													
Totals .....							9	5	16		4		34

Number of cases of syphilis: Male 2, Female 5 .....

Number of cases of gonorrhoea: Male 3, Female 24 .....

Number and results of Kahn and Wassermann tests: 1,034 of which 79 were positive.

Number and results of Cerebrospinal Fluid tests: 5 of which 0 were positive.

Number and results of Bacteriological tests for gonococci: 2,498 of which 92 were positive.

## PROVINCIAL GAOL—Lethbridge, Alberta

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.			
Gonorrhoea (all forms) .....									2				2
Syphilis (congenital) .....													
Acquired—Primary .....													
Acquired—Secondary .....									4				4
Acquired—Latent .....									5				5
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....									1				1
Type Undetermined .....									5				5
Totals .....									17				17

Number of cases of syphilis: Male 15.

Number of cases of gonorrhoea: Male 2.

Number of prisoners examined: 1,014.

Number and results of Kahn and Wassermann tests: 956 of which 72 were positive.

COMBINED REPORTS OF CLINICS ON THE LESSER SLAVE LAKE—SLAVE LAKE,  
SMITH, KINUSO, FAUST, CANYON CREEK, DRIFTPILE AND GROUARD

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.			
Gonorrhoea (all forms) .....					1	2	1	6	7	12			29
Syphilis (congenital) .....						1							1
Acquired—Primary .....								3					3
Acquired—Secondary .....									1				1
Acquired—Latent .....									1				1
Acquired—Tertiary (Cardiovascular) .....													
Acquired—Tertiary (Neurosyphilis) .....													
Acquired—Tertiary (other) .....													
Type Undetermined .....									3	5			8
Totals .....					1	3	1	9	11	18			43

Number of cases of syphilis: Male 4, Female 10 .....

Number of cases of gonorrhoea: Male 9, Female 20 .....

Number and results of Kahn and Wassermann tests: 543 of which 15 were positive.

Number and results of Cerebrospinal Fluid tests: None.

Number and results of Bacteriological tests for gonococci: 75 of which 12 were positive.

## PRIVATE PHYSICIANS REPORTING CASES

Total number of new cases of venereal disease classified as to sex and age of patient.

	Under 1 yr.		1-4 yrs.		5-14 yrs.		15-19 yrs.		20 yrs. & over		Age not stated		Totals
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Gonorrhoea (all forms) ..	2	3	5	1	4	33	65	419	148	76	50		806
Syphilis (congenital) .....	3		1	2					3	1	1		11
Acquired—Primary .....						4	1	39	25	3	4		76
Acquired—Secondary .....							4	10	9	5	3		31
Acquired—Latent .....						2	1	19	24	8	3		57
Acquired—Tertiary (Cardiovascular) .....									1	5	1	1	8
Acquired—Tertiary (Neurosyphilis) .....									10	5	3	4	22
Acquired—Tertiary (other) .....									8	3	3		14
Type Undetermined .....				1					21	16	9	3	50
Totas .....	5	3	6	4	4	39	71	530	236	109	68		1075

Number of cases of syphilis: Male 156, Female 113 .....

269

Number of cases of gonorrhoea: Male 531, Female 275 .....

806

Number of doctors in the province receiving consultative service .....

284

Number of doses of arsenicals distributed to private physicians .....

11,731

Number of doses of bismuth distributed to private physicians .....

17,640

RECAPITULATION

NEW PATIENTS ADMITTED TO THE VARIOUS CLINICS OF THE DIVISION  
OF SOCIAL HYGIENE IN 1946

Sex	Syphilis	Gonorrhoea	Totals
Males .....	123	1032	1155
Females .....	86	447	533
Totals .....	209	1479	1688

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Total
Syphilis .....	269	25	294
Gonorrhoea .....	806	139	945
Totals .....	1075	164	1239

Total number of cases of syphilis reported in Alberta .....

503

Total number of cases of gonorrhoea reported in Alberta .....

2424

2927

Total number of new cases of syphilis reported in Alberta exclusive of armed  
forces personnel .....

478

Total number of new cases of gonorrhoea reported in Alberta exclusive of  
armed forces personnel .....

2285

2763

ALLEGED CONTACTS AND SOURCES OF VENEREAL INFECTIONS

For the Period January 1st, 1946—December 31st, 1946

Location of Sources or Contacts	Number of Sources of Infection Reported	Number of Sources of Infection Located	Percentage of Sources of Infection Located
Edmonton .....	505	467	92%
Calgary .....	310	246	79%
Lethbridge .....	51	29	57%
Medicine Hat .....	29	22	79%
Rest of Province .....	485	416	86%
Alberta Totals Only .....	1380	1180	86%
Sources of Infection or Contacts re- ported outside of Alberta .....	92	40	43%
Total .....	1472	1220	83%



Unit Forwarding Information	Number of Sources of Infection Reported	Sources of Number of Infection Located	Sources of Infection Located Percentage
Army and R.C.N.V.R. ....	157	131	83%
R.C.A.F. ....	46	41	89%
U.S. Forces ....	19	18	94%
Private Doctors and Clinics .....	1199	997	83%
Other Provinces in Canada (Undesignated) .....	51	33	66%
Totals .....	1472	1220	83%

Inadequate information on cases in Alberta, 200.

Sources of infection that could not be located by authorities outside of Alberta, 52.

#### DETAILS OF INFORMATION OBTAINED ON THE FACILITATION PROCESS

How Informant met Source of Infection or Contact	Approx.	Where Informant met Source of Infection or Contact	Approx.
Picks up .....	716 49%	Resturant or Beer Parlor...	257 17%
Introduction .....	182 12%	Dance Hall .....	187 13%
Friend .....	109 7%	Street .....	233 16%
Marital Partner .....	55 4%	Friend .....	93 6%
House of Prostitution .....	18 1%	Hotel .....	70 5%
Pimp .....	9 .06%	Marital Partner .....	55 4%
No data available .....	383 26%	Recreation, Private Party ..	66 4%
		Train or Railway Station ..	14 1%
		House of Prostitution .....	17 1%
		House or Room .....	83 6%
		Taxi .....	9 .06%
		No data available .....	388 26%

#### DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION

Place of Exposure	Approx.	Occupation of Source of Infection or Contact	Approx.
Rooming House .....	263 18%	Waitress .....	284 19%
Private House .....	297 20%	Housewife .....	81 6%
Hotel .....	246 17%	Prostitute or Streetwalker ..	113 8%
Outdoors .....	176 12%	Domestic, Hotel or Hospital Maid .....	132 9%
Car .....	126 9%	Factory or Plant Worker ..	144 10%
Train, boat or Auto Camp ..	3 .09%	Clerk, Salesman, Steno and Teacher .....	102 7%
House of Prostitution .....	14 .02%	Service Personnel .....	26 2%
No data available .....	347 23%	Unemployed .....	11 .07%
		No data available .....	579 39%

## Sanitary Engineering Division

(D. R. STANLEY, B.Sc. (C.E.), *Provincial Sanitary Engineer*)

The present post-war prosperity with its attendant labor and material shortages has prolonged many of the division's sanitation problems which cropped up during the war years. In particular these problems arose in the fields of milk supply, housing, restaurants, water supply and sewerage.

The milk supply problem especially for smaller communities was due to the fact that farmers were not interested in this business because it was not as profitable as other types of farming. As a result, some communities found themselves entirely without a milk supply. At best some communities had to accept milk supplies from very questionable sources. The milk situation for these smaller communities seemed to improve somewhat during 1946.

Another phase of milk supply, that of protection by pasteurization progressed quite favourably in that many towns and villages have passed compulsory pasteurization By-Laws as authorized in 1945 amendments to The Public Health Act. One of the difficulties that has arisen is that pasteurizing equipment is difficult to obtain and communities passing a pasteurization By-Law cannot therefore immediately get their milk pasteurized. The following is a list of communities that had pasteurization By-laws approved by Provincial Board of Health in 1946.

Towns of: Bassano, Olds, Vegreville, St. Paul.

Every indication points to many more communities passing such By-Laws in 1947.

The housing situation has come to the attention of the division many times during 1946 in the form of complaints from various sources to the effect that families were having to live under very crowded and unsanitary conditions. In ordinary times the division could have such dwellings declared unfit for human habitation by a Medical Officer of Health but due to the shortage of housing such action was not considered wise in most cases. Another year should see the housing situation greatly improved.

The general public has suddenly taken a very great interest in restaurant sanitation. This has been evidenced by the numerous complaints and suggestions received by the division regarding restaurant sanitation. One of the big problems is to get local boards of health interested in enforcing Provincial Health Regulations in areas under their control. The situation however in this regard is satisfactory in cities or health units where full-time staffs are employed. Another great problem in restaurant sanitation has been educating the food handlers in proper sanitary methods. This problem was attacked in Calgary by running a food handlers course. However it was difficult to get those concerned to attend the course. The tremendous turn-over of staff in restaurants has also complicated the problems. When staff becomes more available and more food handlers courses are organized, this phase of restaurant sanitation should improve.



The water supply and sewage disposal problems in the Province in 1946, became much more acute because of the tremendous building program. Also many hotels, businesses and even private homes modernized their premises by installing pressure water and sewage disposal systems. These problems are being solved as quickly as material becomes available for the construction of proper community waterworks and sewerage systems. The activity in the waterworks and sewerage field in 1946, was unprecedented in the Province of Alberta. This activity is especially notable in that it concerned so many small towns and villages. A waterworks and sewerage system was constructed in the Town of Innisfail in 1946. The Town of Morinville constructed a sewerage system and there was also some waterworks and sewerage construction at Westlock, Raymond and Vermilion.

The following Certificates were issued by the Provincial Board of Health during the year 1946 covering waterworks, sewerage and hospital construction.

1. City of Calgary, Certificate No. 523-46. Proposed Water and Sewer Construction. Estimated cost, \$40,000.00.
2. City of Edmonton, Certificate No. 524-46. Proposed Hospital Construction. Estimated cost, \$19,216.42.
3. Village of Consort, Certificate No. 525-46. Proposed Hospital Construction. Estimated cost, \$50,000.00.
4. Village of Killam, Certificate No. 526-46. Proposed Addition to existing Hospital. Estimated cost, \$56,377.85.
5. Town of Ponoka, Certificate No. 527-46. Proposed Hospital Construction. Estimated cost, \$75,000.00.
6. Village of Oyen, Certificate No. 528-46. Proposed Hospital Construction. Estimated cost, \$50,000.00.
7. Village of Two Hills, Certificate No. 529-46. Proposed Hospital Construction. Estimated cost, \$70,000.00.
8. City of Calgary, Certificate No. 530-46. Proposed Sewer Connections. Estimated cost, \$35,685.00.
9. City of Lethbridge, Certificate No. 531-46. Proposed Storm Sewer Extensions. Estimated cost, \$80,500.00.
10. City of Calgary, Certificate No. 532-46. Proposed Sewer and Water Connections and Sewers. Estimated cost, \$84,554.55.
11. Town of Morinville, Certificate No. 533-46. Proposed Sewerage Construction. Estimated cost, \$2,000.00.
12. Town of Vulcan, Certificate No. 534-46. Proposed Water and Sewerage Construction. Estimated cost, \$173,753.00.
13. Village of Penhold, Certificate No. 535-46. Proposed Water and Sewerage Construction. Estimated cost, no cost.
14. Village of Westlock, Certificate No. 536-46. Proposed Sewerage Construction. Estimated cost, \$30,000.00.
15. Village of Barrhead, Certificate No. 537-46. Proposed Waterworks and Sewerage. Estimated cost, \$84,890.00.
16. Town of Wainwright, Certificate No. 538-46. Proposed Waterworks and Sewerage Construction. Estimated cost, \$194,000.00.
17. Village of Barons, Certificate No. 539-46. Proposed Waterworks Construction. Estimated cost, \$50,400.00.
18. Village of Grimshaw, Certificate No. 504-46. Proposed Waterworks Construction. Estimated cost, \$25,000.00.
19. Town of Nanton, Certificate No. 541-46. Proposed Waterworks Construction. Estimated cost, \$73,144.00.
20. Town of Gleichen, Certificate 542-46. Proposed Waterworks Construction. Estimated cost, \$35,300.00.
21. Village of Fairview, Certificate No. 543-46. Proposed Waterworks Construction. Estimated cost, \$50,000.00.



22. Village of Elnora, Certificate No. 544-46. Proposed Hospital Construction. Estimated cost, \$45,000.00.
23. Hamlet of Mercoal, Certificate No. 545-46. Proposed Sewerage Construction.
24. Town of Three Hills, Certificate No. 546-46. Proposed Hospital Construction. Estimated cost, \$88,000.00
25. Village of Legal, Certificate No. 547-46. Proposed Waterworks and Sewerage Construction. Estimated cost, \$49,000.00.
26. District of Crows Nest Pass, Certificate No. 548-46. Proposed Hospital Construction. Estimated cost, \$235,000.00.
27. Town of Hardisty, Certificate No. 549-46. Proposed Waterworks and Sewerage Construction. Estimated cost, \$62,000.00.
28. City of Edmonton, Certificate No. 550-46. Proposed Sewerage Construction. Estimated cost, \$277,080.00.
29. Town of Granum, Certificate No. 551-46. Proposed Waterworks and Sewerage Construction. Estimated cost, \$45,916.00.
30. Town of Vegreville, Certificate No. 552-46. Proposed Waterworks and Sewerage Extension Schemes. Estimated cost, \$89,500.00.
31. Town of Bow Island, Certificate No. 553-46. Proposed Waterworks System. Estimated cost, \$67,440.00.

During the year reports of 1,525 Bacteriological analyses, 677 Chemical analyses, 8 milk analyses, 38 ice analyses reached the Division. In the case of contaminated waters, the persons concerned were advised as to the procedure to follow in order to restore the quality of the water to a safe condition.

The Sanitary Inspector of the Division in the year 1946, investigated 150 complaints and requests, some of which entailed holding meetings with local boards of health, councils and other bodies. During the winter 28 logging camps were visited, some as a result of complaints and some as routine inspections.

Plumbing work done throughout the Province directly under the supervision of the Division's Plumbing Inspector in 1946 has been as follows:

Water closets 708, Lavatory Basins 851, Laundry Tubs 58, Baths and Showers 535, Sinks 560, Septic Tanks 252, Miscellaneous Fixtures 60.

Inspection fees collected for this work by the Provincial Plumbing Inspector in 1946, amounted to \$2,928. The previous high for collection was in 1945 when fees totalled \$2,008.

Besides the above the following work was carried out in Calgary, Edmonton, Lethbridge, Medicine Hat, Drumheller, Red Deer, Wetaskiwin, High River, Brooks, Claresholm, Hanna, Grande Prairie, Banff, Jasper and Waterton, where the work was done under the supervision of local Plumbing Inspectors:

Water Closets 6,575, Laundry Tubs 219, Sinks 5,476, Lavatory Basins 5,911, Baths and Showers 4,764, Septic Tanks 20, Miscellaneous Fixtures 718.

As a result of the above installations 406 outside toilets were eliminated.



## Cancer Services

(E. L. POPE, M.D., *Director, Cancer Diagnostic Clinic*)

I have the honour to submit the annual report of the Cancer Diagnostic Clinics for the year 1946.

Number of patients examined:

	New	Follow-up	Total
Edmonton .....	1,382	1,534	2,916
Calgary .....	876	496	1,372
Totals .....	2,258	2,030	4,288

It will be noted that the total number of new cases is 2,258, compared with 1,794 in 1945, 1,726 in 1944, 1,670 in 1943, 1,186 in 1942 and 1,142 in 1941.

Of these new cases, 1,146 were found to be non-malignant and therefore did not require treatment under the Cancer Clinic.

A summary of the anatomical distribution of the cancerous lesions in order of frequency is attached herewith, 1,112 in number.

The total number of surgical operations authorized for 1946 was as follows:

Edmonton .....	857
Calgary .....	433
	<u>1,290</u>

The total number of authorizations for surgical operations acted upon was as follows:

Edmonton .....	742
Calgary .....	283
	<u>1,025</u>

The total number of cases referred to hospitals:

Edmonton .....	914
Calgary .....	120
	<u>1,034</u>

The total number of cases referred by the Clinics for X-ray therapy:

Edmonton .....	565
Calgary .....	309
	<u>874</u>

The total number of cases referred for X-ray examinations:

Edmonton .....	807
Calgary .....	227
	<u>1,034</u>

The total number of miscellaneous examinations and treatments authorized by the Edmonton Cancer Clinic was 146.

The total number of cases referred to Dr. H. Orr, Edmonton Clinic, for biopsies and treatment was 161.

The total number of cases referred to Drs. Ellis, Tucker and Conroy, Edmonton Clinic, for cystoscopies and examinations was 88.

The total number of cases referred to Dr. H. Jamieson, Edmonton Clinic, complete blood counts, gastric analysis, etc., was 183.

Since the opening of the Clinics in 1941, the total number of cases examined, exclusive of re-examinations is 9,776. Of these 5,174 were diagnosed as cancer, or 52.8 per cent.

A second clinic each week was established at the Edmonton Cancer Clinic beginning April 1, 1946. This clinic is held each Friday morning, 9 a.m. to 12 a.m.

1946 ANATOMICAL DISTRIBUTION OF CANCEROUS LESIONS IN ORDER OF FREQUENCY

EDMONTON		CALGARY	
Skin .....	111	Breast .....	109
Breast .....	92	Skin .....	100
Stomach .....	48	Cervix .....	41
Lip .....	47	Lip .....	32
Colon .....	35	Stomach .....	30
Cervix .....	31	Colon .....	29
Rectum .....	29	Bladder .....	25
Lung .....	23	Prostate .....	20
Bladder and Kidney .....	22	Kidney .....	11
Uterus .....	19	Mouth .....	11
Brain .....	14	Rectum .....	11
Prostate .....	13	Uterus .....	11
Malignant Lymphoma .....	11	Abdomen .....	10
Hodgkin's .....	11	Hodgkin's .....	7
Leukemia .....	10	Lung .....	7
Mouth .....	10	Parotid .....	6
Oesophagus .....	10	Larynx .....	5
Testicle .....	5	Pancreas .....	5
Bone .....	4	Ovary .....	4
Miscellaneous .....	63	Testicle .....	4
		Oesophagus .....	3
		Eye .....	3
		Groin .....	3
		Bone .....	2
		Finger .....	2
		Leukemia .....	2
		Neck .....	2
		Shoulder .....	2
		Thyroid .....	2
		Chest .....	1
		Legs .....	1
		Nose .....	1
		Penis .....	1
		Vulva .....	1
	608		504



## Mental Health Division

(RANDALL R. MACLEAN, M.D., *General Medical Superintendent  
of Provincial Mental Institutions and Director of  
Mental Hygiene Clinics*)

Included in the activities of this Branch is the work carried out in connection with the operation of the following Institutions:

Provincial Mental Hospital, Ponoka.

Auxiliary Mental Hospital, Raymond.

Auxiliary Mental Hospital, Claresholm.

Provincial Mental Institute, Edmonton.

Provincial Training School for Mental Defectives, Red Deer.

The programme of Mental Hygiene or Guidance Clinics is carried out in connection with this Department also.

Closely allied to the work of the aforementioned Departments is that of the Eugenics Board and the sterilization programme.

### PROVINCIAL MENTAL HOSPITAL, PONOKA

#### *Patient Population Changes.*

There were 1,367 patients—768 male and 599 female cases in residence on January 1st, 1946. On December 31st, 1946, there were 1,404 patients in residence—799 males and 765 females representing an over all increase of some 37 patients. During the year fifty patients—31 males and 19 females were transferred to the Provincial Mental Institute, Edmonton. Twelve female patients were transferred to the Claresholm Auxiliary Mental Hospital. Two male and six female patients were transferred to the Red Deer Training School. Transfers to this Hospital from the latter institutions were as follows: Three female patients from the Provincial Mental Institute, six female patients from the Claresholm Auxiliary Hospital; and five male and four female patients from the Red Deer Training School. The transfers to the Hospital were necessary in order that the patients concerned might be given active psychiatric or medical or surgical treatment not possible in the auxiliary hospitals.

The percentage of elderly patients admitted, male and female, suffering from senility or the effects of cerebral arteriosclerosis was quite high as it has been in recent years.

A number of adult defectives were also admitted to this Hospital during the year.

During the year two medical officers joined the staff, improving conditions in that respect. There was improvement also in the male staff situation, but the countryside shortage of female nurses and female help generally was felt by this Hospital.

#### *Admission of Patients.*

The total number of admissions for the year, exclusive of transfers to this Hospital from other institutions, was 594—309 males and 285 females. This would represent twenty-four more admis-



sions than the year 1945. Some 140 patients were admitted on a Voluntary basis; 151 were admitted by Medical Certification; 298 were committed by Warrant of the Attorney General, and five admitted under The Mental Defectives' Act. Accommodation for patients was taxed to the limit throughout the year.

#### *Separation of Patients.*

Separations for the year totalled 634—327 males and 307 females. The discharge rate was approximately 81 per cent of the admission rate. There were 70 transfers—33 males and 37 females.

There were 74 deaths—48 males and 26 females. The death rate based on the total number of patients under treatment would be approximately 4 per cent. The commonest causes of death were those associated with cardio-vascular diseases and respiratory diseases, including tuberculosis.

#### *General Health.*

The general health of the patients was good throughout the year. There were no epidemics. The improvement in the Medical Staff numbers made it possible for the patients to be observed and examined with greater frequency and efficiency.

Routine Chest X-Ray examinations were carried out as formerly. All patients suspected of having tuberculosis were isolated for repeated examinations and observation. Those found to have active tuberculosis were placed in a ward for such cases. All patients were X-rayed before being given shock treatments.

#### *Treatment of the Patients.*

All newly admitted patients were carefully examined and observed and active treatment was prescribed according to the indications for it. Routine Blood Tests, Urinalysis, X-Ray Examinations of the Chest, and Spinal Fluid Tests were done on all newly admitted patients.

#### *Psychotherapy.*

It was possible to do more Psychotherapy this year than formerly because of the increase in the number of Medical Officers.

#### *Shock Therapy.*

Over 300 patients were given courses of this form of treatment in the nature of Electro-Shock and Insulin Therapy. The results obtained were very gratifying and compared favourably with the results obtained in other Psychiatric Hospitals. Treatment by combining Electro-Shock and Insulin Shock was carried out in selected cases with some success.

#### *Fever Therapy.*

During the year, some 150 courses of treatment were given to the syphilitic patients newly admitted and those resident in the Institution. Penicillin was used extensively by the prescribed methods. In all, some 2,000 treatments were given to the syphilitic patients during the year. The results of the treatments administered were satisfactory.

#### *Hydrotherapy and Physiotherapy.*

These forms of treatment, which include Prolonged Baths, Wet Packs, Medicated Baths, Showers, Massage, Light Treatments, Electric Cabinet Treatments and others, were also used extensively



throughout the year. The total number of such treatments given for their sedative tonic or eliminative effects reached the thousands.

#### *Occupational Therapy.*

Opportunities for Occupational Therapy were afforded the majority of the patients from the Hospital. Some 560 of the 612 patients admitted during the year attended Occupational Therapy Classes. Certain Occupational Studios are set aside for the patients on the continued treatment wards. By rotating these patients through these studios it is possible to keep a closer check on the course of their mental conditions.

#### *Recreational Activities.*

The staff of the Occupational Department supervise the Recreational Programme. During the year card parties, garden parties, dances, baseball tournaments, curling, sleigh rides, skating party and two Sports Days were held for the patients. Picture shows were held during the cooler months and physical training classes were conducted under the supervision of a member of the Occupational Therapy Staff. This Department also supervises the patient's Library which now contains many hundreds of volumes of the best and latest books.

#### *Beauty Parlor.*

During the year, nearly a thousand patients were given various forms of treatment and attention in the Beauty Parlour. In all, over 8,000 treatments, consisting of Shampoos, Finger Waves, Permanents, and Manicures, were given.

#### *Religious Services.*

Religious services of all major denominations were held regularly throughout the year, including many Communion Services. Many pastoral visits were made to the patients by the Parish Priest and the Clergyman.

#### *Social Service Department and Mental Hygiene Guidance Clinic.*

Guidance Clinics were held in Edmonton, Calgary, Lamont, Wainwright, Red Deer, High River, and in the Edmonton Rural Health District. The psychiatric work of the Clinics was done by psychiatrists from the Mental Hospitals. Some 86 Clinics were held as compared with 60 in 1945. Over 300 new cases were examined during the year and approximately 800 follow-up examinations and interviews were made. Since the initiation of the Clinics in 1929, approximately 5,000 cases have been handled.

Included in the work of the Social Service Department is the obtaining of field reports in connection with Hospital cases. The social workers also make home visits to obtain information of value in handling cases for discharge or discharged. The social workers are also responsible for intelligence tests of patients in a hospital and those seen in the Clinics.

#### *Surgical Service.*

The two Honorary Surgeons performed 78 operations. The patients convalesced satisfactorily.

#### *Dental Department.*

On November 1st a full-time dentist was appointed to the Institution, enabling it to resume its former routine of having all newly admitted cases carefully examined and treated. It also permitted



of the reinstatement of the ordinary routine whereby all patients visit the dentist at regular intervals or receive emergency care where indicated.

Despite the fact that there was no resident dentist for such a long period during the year, over 1,200 treatments were given the patients.

#### *X-Ray Department.*

Regular Chest X-Ray examinations of the patients and the staff were made and all patients undergoing Shock Treatments were X-Rayed prior to the initial treatment, and re-rayed subsequently where there was any indication for it. A total number of 2,511 X-Rays were taken during the year 1946; 1,643 of which were Chests.

#### *Laboratory Service.*

In all, over 3,500 tests were done in the Laboratory, including Urinalyses, Blood Wassermanns, Cerebral Spinal Fluid examinations, Bacterial examinations, Blood Chemistry, Gastric Analyses, and Basal Metabolic Rate determinations.

The Laboratory Technician also assisted in the Post-Mortem examinations and the preparation of the specimens.

#### *Nurses' Training School.*

The fourteenth annual graduation exercises were held on May 31st, 1946, when the eleventh class of General and Psychiatric Nurses, ten in number, received their diplomas. In addition, six Graduate Nurses received their Certificates in Psychiatric Nursing.

One male attendant graduated, having completed his three year course. The War interfered with the training of male attendants. During the year, forty student nurses were in various stages of their training.

During the spring term, twenty-three B.Sc. in Nursing students from the University of Alberta were assigned two weeks' field work at this Hospital. They received orientation lectures and other instructions on the functions of the mental hospital.

#### *Department of Building Maintenance.*

This Department, operating under the jurisdiction of the Department of Health, completed a heavy programme of maintenance, renovation and alteration in the Institution as a whole. New roofs were placed on several wards and on all the corridors of the Hospital and the reservoirs. Several verandahs were glassed in making them useful for sleeping purposes. A considerable amount of new linoleum was laid on the floors—much of the worn out linoleum was replaced. The air conditioning systems for certain male and female wards were completed and functioned satisfactorily.

#### *Fire Protection.*

Monthly fire practises, using the fighting equipment and evacuating the wards of the patients were held. Meetings to discuss methods of fire fighting were also conducted. Two inspections from the Fire Commissioners were made during the year and their recommendations given careful consideration. Suitable fire engines were placed on the stock and poultry farms, additional fire extinguishers and a portable hose reel were added to the equipment.



*Staff Changes.*

Two Medical Officers were added to the Medical Staff during the year, which brought considerable relief to the acute shortage which existed during the War.

*Business Office.*

The work of the Business Office increased during the year, corresponding to the high rate of admissions of patients. Maintenance accounts were dealt with to better advantage than in previous years.

*Farm.*

Poultry, egg, hog and milk production was satisfactory and met with the demands of the Institution.

*Cannery.*

Over 21,000 No. 10 cans of garden products and fruit, both domestic and imported, were processed during the season. Of this amount, some 3,000 cans were delivered to the other Provincial Institutions.

*Print Shop.*

This Department was able to take care of the printing of essential forms and book-binding during the year.

*Garden Compartments.*

This Department provided a good supply of vegetables such as carrots, beets, parsnips, cabbage, and others, and small fruits such as strawberries and raspberries. Ripe tomatoes, flowers and potted plants were supplied to the Hospital wards in numerable quantities from the greenhouse.

*Stores Department.*

Hospital supplies were well cared for in this Department. Certain shortages of materials were noticed, this being due as before-mentioned, to difficulties in obtaining them.

*Laundry.*

The laundry functioned satisfactorily despite difficulties in obtaining adequate supplies of soap and other items, difficulties experienced by all laundries at present.

*Carpenter Shop.*

This Department took care of repairs and maintenance of Hospital equipment, chiefly furniture, quite satisfactorily during the year. Over 3,000 articles were given attention during the year.

*Tailor Shop.*

The Tailor Shop operated satisfactorily despite current shortage of textiles.

*Department of Housekeeping.*

Inventories were kept up to date. Much Hospital property was salvaged through the efforts of this Department.

*Linen Room.*

This Department which sorts, folds, mends, and distributes the linen to the various wards, handles approximately 25,000 pieces each week.

*Sewing Room.*

This Department which manufactures Nurses' uniforms, patients' clothing and gowns, and many other articles, made over 17,000 such items during the year.

*Dietary Department.*

A good general and balanced diet was provided for the patients with liberal facilities for special diets for those requiring them. The Dietitian assisted in training the nursing students.

*Department of the Chief Engineer.*

This Department, providing heat, light and water, functioned with the utmost satisfaction to the Institution as a whole.

TABLE No. 1  
MOVEMENT OF PATIENT POPULATION DURING 1946

	Male	Female	Total	Male	Female	Total
In residence December 31, 1945 .....				768	599	1367
On leave or otherwise absent .....				53	19	72
Admissions:						
First Admissions:						
(a) Voluntary .....	62	45	107			
(b) Certificates .....	55	52	107			
(c) Warrant .....	124	90	214			
(d) M.D. Act .....	1	2	3			
Re-Admissions:						
(a) Voluntary .....	14	19	33			
(b) Certificates .....	16	28	44			
(c) Warrant .....	37	47	84			
(d) M.D. Act .....	—	2	2			
Transfers .....	5	13	18			
				314	298	612
				1135	916	2051
Separations:						
Discharges:						
(a) As recovered .....	52	49	101			
(b) As improved .....	77	103	180			
(c) As unimproved .....	21	26	47			
(d) As without psychosis .....	50	48	98			
Transfers .....	33	37	70			
Deaths .....	48	26	74			
On leave or elopement prior to December 31, 1945:						
Discharged .....	46	18	64			
				327	307	634
				808	609	1417
On leave or otherwise absent .....				9	4	13
In residence December 31, 1946 .....				799	605	1404



TABLE No. 2

## PSYCHIATRIC DIAGNOSIS OF PATIENT POPULATION IN RESIDENCE, DEC. 1, 1946

	Psychoses		
	Male	Female	Total
01 Psychoses with syphilitic meningoencephalitis (general paresis) ..	56	11	67
02 Psychoses with other forms of syphilis of the central nervous system:			
021 Meningo-vascular type .....	4	5	9
022 With intracranial gumma .....	1	.....	1
03 Psychoses with epidemic encephalitis .....	2	2	4
04 Psychoses with other infectious diseases .....	2	.....	2
05 Alcoholic psychoses .....	1	.....	1
052 Delirium tremens .....	2	.....	2
053 Koreakow's psychosis .....	2	.....	2
054 Acute hallucinosis .....	6	.....	6
07 Traumatic psychoses .....	2	.....	2
175 Traumatic delirium .....	4	.....	4
08 Psychoses with cerebral arteriosclerosis .....	37	23	60
09 Psychoses with other disturbances of circulation:			
091 With cerebral embolism .....	2	1	3
092 With cardio-renal disease .....	1	.....	1
10 Psychoses with convulsive disorders .....	3	.....	3
101 Epileptic deterioration .....	11	21	31
102 Epileptic clouded states .....	4	3	7
11 Senile psychoses:			
111 Simple deterioration .....	26	18	44
112 Presbyophrenic type .....	1	2	3
113 Delirious and confused .....	2	1	3
114 Depressed and agitated .....	.....	2	2
115 Paranoid types .....	8	4	12
116 Undefined .....	.....	1	1
12 Involutional melancholia:			
121 Melancholia .....	5	11	16
13 Psychoses due to other metabolic, etc., diseases:			
135 Anemia .....	1	.....	1
136 Diabetes .....	2	.....	2
15 Psychoses associated with organic changes of the nervous system:			
151 Huntington's Chorea .....	4	1	5
152 Disseminated sclerosis .....	1	.....	1
153 Vascular accident .....	1	1	2
154 Subarachnoid haemorrhage .....	1	.....	1
16 Psychoneuroses .....	1	.....	1
162 Psychasthenia .....	.....	3	3
163 Neurasthenia .....	.....	2	2
164 Hypochondriasis .....	1	.....	1
17 Manic-depressive psychoses:			
171 Manic type .....	24	34	58
172 Depressive type .....	8	32	40
173 Mixed types .....	1	4	5
176 Stuporous type .....	.....	1	1
18 Dementia Praecox (Schizophrenia):			
181 Simple type .....	3	18	21
182 Hebephrenic type .....	23	19	42
183 Catatonic type .....	224	202	426
184 Paranoid type .....	164	79	244
19 Paranoia and Paranoid conditions:			
191 Paranoia .....	14	4	18
192 Paranoid conditions .....	36	28	64
21 Psychoses with mental deficiency .....	59	35	94
22 Undiagnosed psychoses .....	.....	9	9
23 Without psychoses .....	2	.....	2
231 Epilepsy .....	8	2	10
234 Mental deficiency .....	35	24	59
235 Disorder of personality .....	.....	1	1
Totals .....	799	605	1404

## SHOWING THE PSYCHOSES IN THOSE ADMITTED DURING 1946

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis)	12	2	14
02	Psychoses with other forms of syphilis of the central nervous system:			
021	Meningo-vascular type	2	.....	2
024	Taboparesis	1	.....	1
03	Psychoses with epidemic encephalitis	1	2	3
04	Psychoses with other infectious diseases	1	.....	1
05	Alcoholic psychoses	4	.....	4
052	Delirium tremens	3	2	5
054	Acute hallucinosis	3	3	6
055	Chronic hallucinosis	1	.....	1
06	Psychoses due to drugs or other exogenous poisons	.....	1	1
07	Traumatic psychoses	3	.....	3
175	Traumatic delirium	.....	.....	.....
08	Psychoses with cerebral arteriosclerosis	27	17	44
09	Psychoses with other disturbances of circulation	1	1	2
10	Psychoses with convulsive disorders:	4	5	9
101	Epileptic deterioration	1	.....	1
102	Epileptic clouded states	4	4	8
11	Senile psychoses:			
111	Simple deterioration	13	12	25
114	Depressed and agitated	1	.....	1
115	Paranoid types	4	3	7
12	Involutional melancholia	3	7	10
121	Melancholia	2	4	6
13	Psychoses due to other metabolic, etc. diseases	1	.....	1
134	Chronic nephritis	1	.....	1
135	Organic brain disease	1	.....	1
15	Psychoses associated with organic changes of the nervous system			
151	Huntington's Chorea	1	.....	1
154	Subarachnoid haemorrhage	1	.....	1
16	Psychoneuroses:			
161	Hysteria	2	1	3
162	Psychasthenia	.....	2	2
163	Neurasthenia	.....	3	3
164	Hypochondriasis	2	1	3
165	Reactive depression	2	7	9
166	Anxiety state	1	.....	1
17	Manic-depressive psychoses:			
171	Manic type	17	21	38
172	Depressive type	22	24	46
174	Hypomanic	2	3	5
177	Circular type	.....	1	1
18	Dementia Praecox (Schizophrenia)	1	.....	1
181	Simple type	1	.....	1
182	Hebephrenic type	.....	3	3
183	Catatonic type	63	84	147
184	Paranoid type	31	10	41
185	Undefined	3	4	7
19	Paranoia and Paranoid conditions			
192	Paranoid conditions	6	5	11
20	Psychoses with psychopathic personality	2	.....	2
21	Psychoses with mental deficiency	4	5	9
22	Undiagnosed psychoses	4	7	11
23	Without psychoses			
231	Epilepsy	5	4	9
232	Alcoholism	1	3	4
233	Drug addiction	5	1	6
234	Mental deficiency	.....	1	1
235	Disorder of personality	14	31	45
236	Psychopathic personality	.....	1	1
237	Tabes Dorsalis	3	1	4
242	Neurosyphilis	6	.....	6
243	Chronic Encephalitis	16	7	23
244	Senile chorea	2	2	4
245	Migraine	1	.....	1
24	Primary behaviour disorders	2	.....	2
	Totals	314	298	612





TABLE No. 5  
DISCHARGES, CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES AND CONDITION ON DISCHARGE  
FOR THE YEAR 1946

	Recovered			Improved			Unimproved			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Psychoses												
01. Psychoses with syphilitic meningo-encephalitis (general paresis)												
02. Psychoses with other forms of syphilis of the central nervous system:												
023 Tabo-paresis				2		2			1	1	2	1
03. Psychoses with epidemic encephalitis			1		1			1	1	1	1	2
04. Psychoses with other infectious diseases											1	1
05. Alcoholic psychoses	2	2	4	1	1	1				3	2	5
052 Delirium tremens	1	2	3	1	1	1				2	2	4
054 Acute hallucinosis				1		1				1		1
055 Chronic hallucinosis											1	1
06. Psychoses due to drugs or other exogenous poisons	1		1									1
07. Traumatic psychoses:												
075 Traumatic delirium			1		9	17	1	1	1	1	9	19
08. Psychoses with cerebral arteriosclerosis												
09. Psychoses with other disturbances of circulation	1	1	1	2	2	2			1	1	1	3
10. Psychoses with convulsive disorders	1		1	2	2	4			1	1	3	6
11. Senile psychoses:												
111 Simple deterioration	4	1	5	3	6	9			1	1	7	14
12. Involutional melancholia												
13. Psychoses due to other metabolic, etc., diseases												
14. Psychoses due to new growth												
15. Psychoses associated with organic changes of the nervous system												
154 Subarachnoid haemorrhage									1	1	1	1
16. Psychoneuroses												
17. Manic-depressive psychoses:												
171 Manic type	6	10	16	4	7	11					10	17
172 Depressive type	8	10	18	14	13	27			2	2	22	25
174 Hypomanic	2	1	3		2	2					2	3
177 Circular type					1	1						1
18. Dementia Praecox (Schizophrenia):												
183 Catatonic type	20	13	33	18	43	61	9	6	15	47	62	109
184 Paranoid type	4		4	7	1	8	3	8	11	14	9	23
185 Undefined			1		3	3						4





TABLE No. 6  
DISCHARGES DURING 1946—SHOWING DURATION OF RESIDENCE

	Under 3 months		Under 6 months		Under 9 months		Under 12 months		Under 18 months		Under 2 years		Over 2 years		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
01. Psychoses	5	1	1	2	3	1	1	1	1	1	1	1	1	1	7	4
02. With syphilitic meningo-encephalitis	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1
03. With other forms of syphilis of the central nervous system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
04. With epidemic encephalitis	6	4	10	1	1	1	1	1	1	1	1	1	1	1	1	1
05. With other infectious diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
06. Due to drugs or other exogenous toxins	7	6	13	2	2	1	1	1	1	1	1	1	1	1	9	11
07. Traumatic psychoses	3	5	8	1	1	1	1	1	1	1	1	1	1	1	3	3
08. With cerebral arteriosclerosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
09. With other disturbances of circulation	3	5	8	1	1	1	1	1	1	1	1	1	1	1	4	6
10. With convulsive disorders	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11. Senile psychoses	5	3	8	1	3	4	1	1	1	1	1	1	1	1	7	7
12. Involuntional psychoses	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13. Psychoses due to other metabolic, etc., diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14. Psychoses due to new growth	3	9	12	4	3	7	1	1	1	1	1	1	1	1	1	1
15. Associated with organic changes of the nervous system	15	24	39	11	13	24	5	2	7	1	1	1	1	1	33	47
16. Psychoneuroses	20	34	54	17	16	33	9	12	21	8	3	11	1	1	61	74
17. Manic-depressive psychoses	4	3	7	1	1	2	1	1	1	1	1	1	1	1	5	4
18. Schizophrenia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19. Paranoia and paranoid conditions	45	37	92	2	1	3	1	1	1	1	1	1	1	1	3	1
20. With psychopathic personality	2	2	2	4	7	11	1	1	2	1	1	1	1	1	50	45
21. With mental deficiency	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22. Undiagnosed psychoses	117	132	249	44	50	94	18	19	37	11	4	15	6	9	200	226
23. Without psychoses	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
24. Primary Behaviour Disorders	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total	117	132	249	44	50	94	18	19	37	11	4	15	6	9	200	226



TABLE No. 7

## RECORD OF DEATHS DURING 1946

Register No.	Sex.	Age.	Time in Hospital			Cause of Death
			Years.	Months.	Days.	
13039	M	69	.....	.....	20	Broncho-pneumonia.
10746	M	90	4	7	29	Senility.
12838	M	20	.....	.....	7	Lobar-pneumonia.
13060	M	81	.....	.....	10	Cerebral hemorrhage, fractured skull.
11747	M	73	2	6	18	Coronary Occlusion.
13090	M	38	.....	.....	1	Delirium Tremens.
12733	M	80	.....	5	6	Generalized Arteriosclerosis.
13092	M	60	.....	.....	14	Uremia due to Nephritis.
7877	F	27	9	7	24	Pulmonary Tuberculosis.
12848	M	72	.....	6	.....	Senility—Senile Psychosis.
13068	M	76	.....	.....	28	Lobar pneumonia.
5961	F	78	12	1	21	Myocarditis.
11447	M	89	3	3	19	Generalized Arteriosclerosis, fracture of left femur.
236	F	67	33	10	27	Hypertension, Myocarditis.
12609	M	26	.....	5	10	Epilepsy, Brain Tumour.
13158	F	25	.....	.....	8	Exhaustion, due to Schizophrenia, catatonic excitement.
13107	M	82	.....	.....	31	Senility.
2952	M	64	22	9	26	Chronic Nephritis.
289	M	66	10	5	1	Generalized Arteriosclerosis.
13063	M	45	.....	2	8	General Paresis of the Insane.
11226	F	62	3	10	20	Generalized Arteriosclerosis, Epilepsy.
12567	M	41	1	1	26	General Paresis of the Insane.
12289	F	48	1	8	21	General Paresis of the Insane.
13205	M	68	.....	.....	19	Generalized Arteriosclerosis.
13194	M	68	.....	1	12	General Paresis of the Insane.
12342	M	68	1	8	8	Intercranial lesion with Cerebral Arteriosclerosis.
13197	F	28	.....	1	11	Tumour (Malignant) of Cervical Glands.
13186	M	31	.....	2	.....	General Paresis of the Insane.
13160	M	35	.....	2	11	Mentally depressed, suicide by hanging.
12813	F	75	.....	10	16	Myocarditis.
10541	M	62	5	5	14	Acute Peritonitis.
12940	M	72	.....	7	12	Septicemia, Septic Infection of Right Knee.
9078	F	22	5	.....	8	Brain Tumour, Non-malignant.
6845	M	46	11	8	.....	Tuberculosis of Lungs and Bones.
13162	M	70	.....	3	16	Exhaustion, Senile Psychosis.
12700	M	65	1	.....	7	Generalized Arteriosclerosis.
227	F	50	34	1	7	Epilepsy.
6882	F	43	11	6	19	Inanition.
4678	F	61	16	7	3	Uterine Carcinoma.
11331	F	82	3	11	9	Chronic Myocarditis.
13166	F	72	.....	4	17	Generalized Arteriosclerosis.
2305	F	68	25	8	83	Chronic Myocarditis.
5041	F	53	15	8	16	Pulmonary Tuberculosis.
13161	M	73	.....	4	28	Generalized Arteriosclerosis.
11908	F	82	2	8	5	Senility.
12428	M	70	1	9	23	Broncho-pneumonia.
8513	M	59	9	3	4	General Paresis of the Insane.
12567	M	63	1	6	21	Toxic Absorption from Gangrene, Right Iliac Artery Embolism.
4572	M	70	17	.....	17	Encephalo Malacia due to Cerebral Arteriosclerosis.
13392	M	30	.....	1	10	General Paresis of the Insane, Tertian Malaria (Therapeutic).
11462	F	79	3	10	7	Generalized Arteriosclerosis.
6127	F	53	9	.....	6	Carcinoma of the Cervix.
13442	F	39	.....	.....	21	Septic Broncho-pneumonia.
357	F	70	33	6	23	Senility.
12126	F	73	1	6	.....	Carcinoma of the Cervix.
13241	M	63	.....	5	24	Lobar Pneumonia, Cerebral Arteriosclerosis.
13464	M	73	.....	.....	13	Congestive Heart Failure, Aortic Valvular Disease.
4649	F	48	16	11	17	Haemorrhage from Gastric Ulcer.
10722	M	77	5	6	3	Chronic Myocarditis.
9081	M	36	8	6	4	Bilateral Pulmonary Tuberculosis.
13336	M	66	.....	4	28	Coronary Occlusion.
1667	F	81	27	4	10	Toxic Exhaustion (decubitus ulcers).
13474	M	81	.....	2	12	Coronary Occlusion.
12765	M	75	1	5	27	Cerebral Haemorrhage with left Hemiplegia.
11048	M	74	5	.....	18	Chronic Myocarditis.
13012	M	70	1	1	26	Chronic Myocarditis.
13515	M	59	.....	1	19	Subarachnoid Haemorrhage, Arteriosclerosis.
2675	M	71	23	7	.....	Chronic Myocarditis.
13847	M	49	.....	2	22	General Paresis of the Insane.
12615	M	51	1	9	18	Taboparesis.
13588	M	77	.....	.....	11	Chronic Myocarditis.
7908	F	70	.....	3	8	Hypostatis Pneumonia.
13605	F	50	.....	.....	7	Lobar Pneumonia.
13248	M	57	.....	1	17	Influenza with Intestinal complications.

Total—74.

TABLE No. 8  
CLASSIFICATION OF DEATHS ACCORDING TO PSYCHIATRIC DIAGNOSIS, 1946

	Male	Female	Total
Psychoses			
01 Psychoses with syphilitic meningoencephalitis (general paresis).....	8	1	9
02 Psychoses with other forms of syphilis of the central nervous system:			
023 Taboparesis .....	1	.....	1
03 Psychoses with epidemic encephalitis .....			
04 Psychoses with other infectious diseases .....			
05 Alcoholic psychoses .....	1	.....	1
052 Delirium tremens .....			
06 Psychoses due to drugs or other exogenous poisons .....			
07 Traumatic psychoses .....			
08 Psychoses with cerebral arteriosclerosis .....	9	2	11
09 Psychoses with other disturbances of circulation .....	1	.....	1
10 Psychoses with convulsive disorders:			
101 Epileptic deterioration .....	.....	3	3
11 Senile psychoses:			
111 Simple deterioration .....	8	4	12
113 Delirious and confused .....	2	.....	2
114 Depressed and agitated .....	1	.....	1
115 Paranoid types .....	2	.....	2
12 Involutional melancholia .....	.....	1	1
13 Psychoses due to other metabolic, etc., diseases:			
133 Cancer of the uterus .....	1	.....	1
14 Psychoses due to new growth .....			
15 Psychoses associated with organic changes of the nervous system			
16 Psychoneuroses .....			
17 Manic-depressive psychoses:			
171 Manic type .....	.....	3	3
172 Depressive type .....	1	.....	1
18 Dementia Praecox (Schizophrenia):			
182 Hebephrenic type .....	1	.....	1
183 Catatonic type .....	2	6	8
184 Paranoid type .....	2	.....	2
19 Paranoia and Paranoid conditions:			
192 Paranoid conditions .....	2	2	4
20 Psychoses with psychopathic personality .....	.....	2	2
21 Psychoses with mental deficiency .....	.....	.....	.....
22 Undiagnosed psychoses .....	1	.....	1
23 Without psychoses:			
231 Epilepsy .....	1	.....	1
234 Mental deficiency .....	2	1	3
240 Senility .....	1	.....	1
241 Organic brain disease .....	1	.....	1
244 Senile chorea .....	.....	1	1
24 Primary behavior disorders .....	.....	.....	.....
Totals .....	48	26	74

### AUXILIARY MENTAL HOSPITAL, RAYMOND

There was little or no change in the population of this Institution also designed for Continued Care of Female Cases.

Opportunities for Occupational and Recreational Therapy were afforded the patients in keeping with their capabilities. Dances, picnics, and a Sports Day were held and patients were given an opportunity to attend the picture shows in the Town of Raymond.

#### *Gardens and Grounds.*

The vegetable crop was not sufficient for the needs of the Institution due to the poor season. There was, however, a good yield of tomatoes.

The general health of the patients was good throughout the year.



TABLE 1  
MOVEMENT OF PATIENT POPULATION DURING 1946

	Male	Female	Total	Male	Female	Total
In Residence January 1st, 1946 .....				117	117	
Admissions:						
(a) Voluntary .....						
(b) Certificates .....		1	1			
(c) Warrant .....						
(d) Order .....						
(e) Transfers .....					1	1
				118	118	
Re-Admissions:						
(a) Voluntary .....						
(b) Certificates .....						
(c) Warrant .....						
(d) Order .....						
(e) Transfers .....						
Discharges During the year:						
(a) As recovered .....						
(b) As improved .....						
(c) As unimproved .....						
(d) Transferred to other hospitals .....						
(e) Eloped .....						
(f) Deported .....						
(g) As without Psychoses .....						
(h) Deaths .....		4	4		4	4
				114	114	
In Residence December 31, 1946 .....						

TABLE 2  
SHOWING THE PSYCHOSES IN THOSE ADMITTED IN 1946

Psychoses	Female
02 Psychoses with other forms of Syphilis of the central nervous system:	
021 Meningo-Vascular (cerebral) .....	1
05 Alcoholic Psychoses:	
054 Acute hallucinosis .....	1
08 Psychoses with Cerebral Arteriosclerosis .....	4
10 Psychoses with Convulsive disorders:	
101 Epileptic deterioration .....	1
103 Other epileptic types (arteriosclerosis) .....	1
11 Psychoses Senile:	
111 Simple deterioration .....	3
115 Paranoid types .....	3
17 Manic depressive Psychoses:	
171 Manic type .....	1
172 Depressive type .....	5
173 Circular type .....	1
18 Dementia Praecox (Schizophrenia):	
182 Hebephrenic type .....	5
183 Catatonic type .....	21
184 Paranoid type .....	25
19 Paranoia and Paranoid conditions:	
192 Paranoid conditions .....	11
21 Psychoses with mental deficiency .....	11
22 Undiagnosed Psychoses .....	1
23 Without Psychoses:	
234 Mental deficiency:	
234a Idiot .....	3
234b Imbecile .....	5
234d Unspecified .....	9
235 Disorders of personality due to epidemic encephalitis .....	2

TABLE 3  
RECORD OF DEATHS DURING THE YEAR 1946

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
9420	F	60	7	1	13	Congestive heart failure.
2649	F	55	22	10	29	Cerebral haemorrhage.
11607	F	81	3	1	27	Pneumonia from Generalized Arteriosclerosis with Hypertension.
11781B	F	81	1	1	23	Coronary Thrombosis with Generalized Arteriosclerosis.

## AUXILIARY MENTAL HOSPITAL, CLARESHOLM

There was very little change in patient population which is kept constant at 100 females.

*Occupational and Recreational* activities in keeping with the patients' propensities were carried on as before. There were parties, picnics, a Sports Day and opportunities afforded for attending the movies in the Town of Clareholm.

*Gardens and Grounds.*

A good crop of vegetables were grown—sufficient to meet the needs of the Institution.

The Institution is designed for Continued Care of Female patients. Their general health was good throughout the year.

TABLE 1  
MOVEMENT OF PATIENT POPULATION DURING 1946

In Residence January 1st, 1946	1946			1946		
	Male	Female	Total	Male	Female	Total
Admissions:					96	96
(a) Voluntary						
(b) Certificate		1	1			
(c) Warrant						
(d) Order						
(e) Transfers		12	12			
Re-Admissions:						
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) Order						
(e) Transfers					13	13
					109	109
Discharged during the year:						
(a) As Recovered						
(b) As Improved						
(c) As Unimproved		1	1			
(d) As Without Psychoses						
(e) Transferred to other hospitals		6	6			
(f) Eloped						
(g) Deported to other countries						
(h) Deaths		2	2		9	9
					100	100

TABLE 2  
SHOWING THE PSYCHOSES OF PATIENTS IN RESIDENCE IN 1946

	Female
04 Psychoses with other infectious diseases	1
08 Psychoses with cerebral arteriosclerosis	5
10 Psychoses with convulsive disorders:	
101 Epileptic deterioration	2
11 Senile Psychoses:	
111 Simple deterioration	2
115 Paranoid types	2
12 Involutional melancholia:	
121 Melancholia	4
16 Psychoneuroses:	
163 Ueurasthenia	1
17 Manic-depressive psychoses:	
172 Depressive type	1
18 Dementia Praecox (Schizophrenia):	
181 Simple type	2
182 Hebephrenic type	5
183 Catatonic type	21
184 Paranoid type	25
19 Paranoia and paranoid conditions:	
191 Paranoia	1
192 Paranoid conditions	8
21 Psychoses with mental deficiency	10
23 Without Psychoses:	
234 Mental deficiency	10
Total	100

TABLE 3  
RECORD OF DEATHS DURING 1946

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
5151	F	48	15	1	24	Failure of Compensation.
11714	F	84	3	5	27	Senile Psychoses due to Asthenia.



## PROVINCIAL MENTAL INSTITUTE, EDMONTON

There were 1,210 patients, 995 males and 215 females in the Hospital on January 1st, 1946. There were 1,239 patients, 1,000 males and 239 females, in the Hospital on December 31st, 1946. There was an increase in the population of some 29 patients during the year. Since this Institution was designed for Continued Treatment almost exclusively, only 45 new cases were received, the balance being made up of transfers from other Provincial Institutions, chiefly the Provincial Mental Hospital, Ponoka. There were 58 discharges and 54 deaths.

Such forms of treatment as are indicated in an Institution of this character were administered during the year.

*Occupational Therapy, Psycho-Therapy, and Shock Treatments.*

Occupational Therapy, Psycho-therapy and Shock Treatments were given to various patients throughout the Institution. Recreational activities were carried out on a seasonal basis. There is still a shortage of staff due to the war, which limits these activities.

*General Health.*

The general health of the patients was good. Tuberculosis patients were segregated. Frequent X-Ray examinations are made on suspected and incipient cases. Active immunization against Typhoid was carried on throughout the year.

*The Farm.*

The farm supplied an adequate quantity of milk during the year. Crop conditions were better than 1945, and a greater supply of vegetables was available.

*Accommodation.*

Accommodation has been taxed to the limit. A small unit for defectives is under construction at present.

*Training of Attendants.*

Lecture courses were given the attendants during the year.

*Guidance Clinic and Police Court Work.*

The Superintendent made regular visits to Edmonton for the purpose of examining police court cases, many of which were referred to the Institution for a period of observation while on remand. The value of this service to the Police Court authorities has proven inestimable. The Assistant Superintendent regularly attended the Guidance Clinics held in that City. This service also proved most valuable in the Community.

TABLE No. 1  
MOVEMENT OF POPULATION

	Males	Females	Total
Patients on books January 1st, 1946:			
In Hospital	995	215	1210
On Probation	13	7	20
Eloperments	5	3	8
On Special Parole	6	4	10
<b>Total</b>	<b>1019</b>	<b>229</b>	<b>1248</b>
Admissions During Year:			
First Admissions	30	15	45
Re-admissions	6	...	6
Transfers	32	20	52
<b>Total</b>	<b>68</b>	<b>35</b>	<b>103</b>
Total Received During Year:			
Transfers	32	20	52
Re-admissions	6	...	6
Warrant	12	7	19
Voluntary	4	1	5
Certificates	8	2	10
Mental Defectives Act	6	5	11
<b>Total</b>	<b>68</b>	<b>35</b>	<b>103</b>
Discharged During Year:			
Recovered	5	2	7
Improved	19	8	27
Unimproved	14	7	21
Transfers	...	3	3
Died	49	5	54
<b>Total</b>	<b>87</b>	<b>25</b>	<b>112</b>
Patients on Books End of Year:			
In Hospital	979	231	1210
On Probation	8	7	15
Eloperments	2	...	2
On Special Parole	11	1	12
<b>Total</b>	<b>1000</b>	<b>239</b>	<b>1239</b>
Total admitted since opening	1857	307	2164
Total discharged since opening	546	47	593
Total deaths since opening	455	17	472

TABLE No. 2  
PSYCHIATRIC AND INDUSTRIAL CLASSIFICATION OF PATIENTS

	Males	Females	Total
Psychiatric:			
Patients insane	879	192	1071
Epileptics (not insane)	16	8	24
Mental Deficiency (not insane)	103	37	140
All other types (not insane)	2	2	4
<b>Total</b>	<b>1000</b>	<b>239</b>	<b>1239</b>

TABLE No. 3  
NATIVITY OF PATIENTS IN RESIDENCE

Males			Females			Total
Australia	1	...	1	...	2	3
Austria	72	9	81	...	27	30
Belgium	4	...	4	...	48	71
Canada	336	120	456	...	9	11
China	7	...	7	...	39	52
Denmark	9	...	9	...	32	41
England	102	12	114	...	23	24
Finland	4	1	5	...	7	8
France	10	...	10	...	127	150
Germany	31	5	36	...	8	9
Holland	3	1	4	...	39	47
Hungary	7	3	10	...	17	17
Ireland	24	3	27	...	...	...
Italy	12	...	12	...	1000	1239
Japan	2	1	3	...	239	239
Norway	27	3	30	...	17	17
Poland	48	23	71	...	...	...
Rumania	9	2	11	...	...	...
Russia	39	13	52	...	...	...
Scotland	32	9	41	...	...	...
Sweden	23	1	24	...	...	...
Switzerland	7	1	8	...	...	...
U.S.A.	127	23	150	...	...	...
Wales	8	1	9	...	...	...
Other Countries	39	8	47	...	...	...
Unascertained	17	...	17	...	...	...
<b>Total</b>	<b>1000</b>	<b>239</b>	<b>1239</b>	...	...	...



TABLE 4.  
AGE AT ADMISSION AND PRINCIPAL PSYCHOSES

Psychoses	Total		Under 15 years		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39								
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.							
01. General Paresis	40	4	44																		
02. With other forms of syphilis	4	4	4										4	2							
03. With Epidemic Encephalitis	4	1	5										1	1							
04. With other infect. Diseases	1	1	2										1	1							
05. Alcoholic	3	3	3										1	1							
06. Due to drugs, etc.	20	2	22																		
07. Traumatic	1	1	1																		
08. Cerebral Arteriosclerosis	29	8	37	1	2	1	3	7	1	8	6	3	9	6							
09. With other dis. of circ.	33	7	40																		
10. With Epilepsy	1	2	3																		
11. Senile	3	2	5																		
12. Involutional	6	1	7																		
13. Due to Other Met. Diseases	2	2	4																		
14. Due to New Growth	2	2	4																		
15. With Org. Changes Ner. Sys.	48	23	71																		
16. Psychoneuroses	553	110	663		18	6	24	81	16	97	114	23	137	106							
17. Manic Depressive	58	6	64																		
18. Schizophrenia	2	2	4																		
19. Paranoia and Paranoid Cond.	64	21	85	1	2	2	4	10	5	15	11	2	13	11							
20. Psycho. Personality	7	2	9																		
21. With Mental Deficiency	16	8	24	3	3	2	5	6	1	7	4	4	8								
22. Undiagnosed	103	37	140	9	3	12	32	25	10	35	12	6	18	8							
23. Without Psychoses:	1	1	2	1	1			1		1				1							
231	1	1	2																		
234																					
235																					
236																					
Total	1000	239	1239	15	3	18	45	23	68	133	34	167	146	47	193	146	34	180	150	33	183

TABLE No. 4—Continued  
AGE AT ADMISSION AND PRINCIPAL PSYCHOSES

Psychoses	40 to 44		45 to 49		50 to 54		55 to 59		60 to 64		65 to 69		70 and over		Unascertained M. F. T.								
	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.	M.	F. T.									
01. General Paresis	10	2	7	7	4	4	4	4	2	2	2	2											
02. With other forms of syphilis																							
03. With Epidemic Encephalitis			1	1	2	2																	
04. With other infectious Diseases																							
05. Alcoholic																							
06. Due to Drugs, etc.																							
07. Traumatic	1	1	1	1	1	1	1	1	11	1	3	1	3	3									
08. Cerebral Arteriosclerosis																							
09. With other Disturbances of Circ.	2	1	1	1	1	1	3	3	4	2	10	3	16	2	18								
10. With Epilepsy																							
11. Senile																							
12. Involutional	2	2					1	1	1	1	1	1											
13. Due to Other Metabolic Diseases																							
14. Due to New Growth																							
15. With Organic Changes of Ner. System	1	1	1	1	2	1	1	1	1	1													
16. Psychoneuroses	5	2	7	4	12	3	7	1	4	1	2	2	2	2	2								
17. Manic Depressive	48	10	58	33	7	40	13	2	15	1	1	1	1	1	5								
18. Schizophrenia	14	2	16	7	16	16	2	2	5	1	2	2	2	2	5								
19. Paranoia & Paranoid Conditions																							
20. Psychopathic Personality	8	1	9	5	2	1	2	2	2	2	1	1	1	1									
21. With Mental Deficiency																							
22. Undiagnosed																							
23. Without Psychoses:																							
231	1	1																					
234			4	1	6	6	1	1															
235	9																						
236																							
Total	98	22	120	69	16	85	79	12	91	41	3	44	31	6	37	20	4	24	22	2	24	5	5



TABLE No. 5  
INCREASE OF PATIENTS DURING THE YEAR, BY PRINCIPAL PSYCHOSES

Psychoses	Total			First Admission			Re-Admission			Transfer		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
01. General paresis	1	1	2		1	1				1		1
02. With other forms of Syphilis	1		1							1		1
03. With Epidemic Encephalitis												
04. With other Infectious Diseases												
05. Alcoholic												
06. Due to Drugs, etc.												
07. Traumatic	1		1	1		1						
08. Cerebral Arteriosclerosis	2	1	3	2		2				1		1
09. With other Disturbances of Circ.												
10. With Epilepsy	12		12	9		9	1		1	2		2
11. Senile												
12. Involutional		1	1		1	1						
13. Due to other Metabolic Diseases												
14. Due to New Growth	2		2	1		1	1		1			
15. With Organic Changes of Ner. System	1	1	2	1		1						
16. Psychoneurosis	4	3	7	1	2	3	2		2	1	1	2
17. Manic Depressive	25	12	37	4	4	8				21	8	29
18. Schizophrenia	1	1	2				1		1			1
19. Paranola and Paranoid Conditions	1		1							1		1
20. Psychopathic Personality	1		1									
21. With Mental Deficiency	1	3	4	1	1	2				1	2	2
22. Undiagnosed	1		1							1		1
23. Without Psychoses:												
231	3		3				1		1	2		2
233	2		2	2		2						
234	10	10	20	8	5	13				2	5	7
235		1	1								1	1
236		1	1		1	1						
	68	35	103	30	15	45	6		6	32	20	52





TABLE No. 7  
CAUSE OF DEATH, BY PRINCIPAL PSYCHOSES, WITH AGE AT DEATH AND DURATION OF HOSPITAL LIFE

Psychoses	M.	F.	Total	T.	Cause of Death	Age Years	Years	Hospital Life		
								Months	Days	Days
01. General Paresis	3	...	3	3	Coronary Occlusion	59	...	9	12	...
					Pulmonary Tuberculosis	47	11	7	26	...
05. Alcoholic	1	...	1	1	Pulmonary Tuberculosis	43	12	1	8	...
08. Cerebral Arteriosclerosis	5	1	6	6	Chronic Myocarditis	77	35	11	21	...
					Bronchopneumonia (Terminal)	86	13	...	10	...
					Cerebral hemorrhage	91	5	...	18	...
					Chronic Myocarditis	75	...	6	2	...
					Chronic Myocarditis	80	6	...	9	...
					Coronary Occlusion	74	11	...	7	...
					Senile dementia	64	1	...	5	...
10. With Epilepsy	3	...	3	3	Chronic Myocarditis	53	24	7	2	...
					Coronary Thrombosis	44	20	1	14	...
					Papillary Carcinoma of bladder	70	10	10	10	...
11. Senile	9	...	9	9	Bronchopneumonia (Terminal)	96	8	9	10	...
					Bronchopneumonia (Terminal)	76	1	7	15	...
					Cerebral hemorrhage	87	...	7	7	...
					Chronic Myocarditis	80	...	9	4	...
					Coronary Occlusion	68	2	8	5	...
					Coronary Occlusion	78	...	5	7	...
					Coronary Occlusion	81	...	2	4	...
					Coronary Occlusion	84	...	4	15	...
					Coronary Occlusion	87	...	5	2	...
15. With Organic Changes of Ner. System	1	...	1	1	Uremia due to Urinary Obstruction	56	16	2	16	...
17. Manic Depressive	2	1	3	3	Brain tumour, tuberculoma	73	...	4	...	...
					Coronary Occlusion	84	28	4	12	...
					Coronary Occlusion	40	4	4	4	...
18. Schizophrenia	12	1	13	13	Pulmonary Tuberculosis	22	6	6	24	...
					Acute Bacterial Endocarditis	57	6	9	26	...
					Acute Hepatitis	40	22	2	7	...
					Acute Pancreatitis	69	34	7	...	...
					Bronchopneumonia	99	25	...	...	...
					Carcinoma of the Pancreas	54	18	2	22	...
					Carcinoma of the Stomach	26	4	2	14	...
					Cerebral Contusion	50	10	6	7	...
					Cervical Lymphadenitis	63	31	6	22	...
					Coronary Occlusion	67	34	9	8	...
					Coronary Occlusion	50	6	2	10	...
					Multiple fractures of the Skull	37	4	11	9	...
19. Paranoia and Paranoid Conditions	5	...	5	5	Pulmonary Tuberculosis	44	12	9	9	...
					Pulmonary Tuberculosis	60	32	10	18	...
					Cerebral Hemorrhage	91	34	6	13	...
					Coronary Occlusion	69	26	1	23	...
					Coronary Occlusion	65	28	2	19	...
					Lober Pneumonia (unresolved)	57	10	...	8	...
					Perforated Gastric Ulcer with Hemorrhage	...	...	...	...	...

TABLE No. 7—Continued  
 CAUSE OF DEATH, BY PRINCIPAL PSYCHOSES, WITH AGE AT DEATH AND DURATION OF HOSPITAL LIFE

Psychoses	Total			Cause of Death	Age Years	Years	Hospital Life Months	Days
	M.	F.	T.					
21. With Mental Deficiency	1	1	1	Pulmonary Tuberculosis	34	11	2	18
23. Without Psychosis:								
231	1	1	1	Idiopathic Epilepsy	16	2	3	.....
234	6	1	7	Chronic myocarditis with Degeneration	51	10	9	5
				Bronchopneumonia	65	17	1	10
				Bronchopneumonia	53	13	3	24
				Miliary Tuberculosis	19	1	4	21
				Pulmonary Hemorrhage	34	2	9	5
				Pulmonary Tuberculosis	23	2	4	11
				Pulmonary Tuberculosis	17	2	4	11
236	1	.....	1	Coronary Occlusion	59	1	2	22
Total	49	5	54					



## PROVINCIAL TRAINING SCHOOL FOR MENTAL DEFECTIVES, RED DEER

There were 269 patients, 143 males and 128 females in residence on January 1st, 1946. There were 272 patients, 148 males and 124 females in residence on December 31st, 1946. There was an increase of three in the population, however, the facilities of the Institution were taxed to the limit. There were 29 discharges, 12 males and 17 females.

The training programme of the children was carried out to the fullest extent possible.

### *Recreational Activities.*

The patients engaged in seasonal outdoor sports. Parties, picnics, movies and hikes were held as well. There were C.G.I.T., Scout and Girls Club activities also.

### *Occupational Activities.*

Vocational Classes for boys and girls were conducted. There were Carpentry and Farm Instruction Classes for the boys and Dress Making and Fancy Work Classes for the girls.

### *General Health.*

The general health of the patients was remarkably good.

### *Construction and Maintenance.*

Work was commenced for replacement of the tank house of the water tower. The root house was improved. General items of maintenance were attended to.

### *Farm and Gardens.*

Good crops were raised on the farm and ample supplies of vegetables were raised. Some vegetables were shipped to the Provincial Mental Hospital, Ponoka for canning for this Institution. Milk production was increased.

### *Laundry and Linen Room.*

These Departments functioned satisfactorily despite the increasing demands upon the equipment.

### *Guidance Clinic and Extra Institutional Activities.*

The Superintendent conducted the Guidance Clinics when held in the Health Unit in Red Deer, and also saw cases at the request of the R.C.M.P. A number of out-patients were seen at the Institution, and advice and instructions given to the parents.

Table 1  
MOVEMENT OF FEEBLE-MINDED POPULATION

	Male	Female	Total
Defectives on books of institution at January 1st, 1946:			
In Provincial Training School, Red Deer, Alberta .....	143	126	269
<b>ADMISSIONS:</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
1. First admissions, voluntary .....	16	12	28
2. Re-admissions .....	1	2	3
3. Transfers from P.M.H., Ponoka .....	—	1	1
Total number of admissions .....	17	15	32
Total number of defectives on the books during 1946 .....	160	141	301
<b>OUTGOING:</b>			
1. Paroles .....	6	15	21
2. Transfers .....	3	2	5
3. Deaths .....	3	—	3
Total number of outgoing .....	12	17	29
Defectives on books of the Institution at Dec. 31st, 1946 .....	148	124	272

TABLE 2  
MENTAL STATUS OF FIRST ADMISSIONS, RE-ADMISSIONS AND TRANSFERS

Mental Status	First Admissions			Re-admissions			Transfers			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Idiot	2	2	4	.....	.....	.....	.....	.....	.....	2	2	4
Imbecile	7	3	10	.....	1	1	.....	.....	.....	1	4	11
Moron	7	7	14	1	1	2	.....	1	1	8	9	17
Totals	16	12	28	1	2	3	.....	1	1	17	15	32

TABLE 3  
NATIVITY OF INCOMING PATIENTS AND OF THEIR PARENTS

	Patients			Parents Male Patients			Parents Female Patients		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
British Columbia	7	.....	1	.....	.....	.....	.....	.....	.....
Alberta	16	12	28	2	4	6	.....	5	5
Saskatchewan	.....	1	1	.....	.....	.....	1	.....	1
Manitoba	.....	.....	.....	1	.....	1	1	.....	1
Ontario	.....	.....	.....	1	1	2	3	3	6
Quebec	.....	.....	.....	1	1	2	.....	.....	.....
New Brunswick	.....	.....	.....	.....	1	1	.....	.....	.....
Canada	.....	.....	.....	.....	.....	.....	2	1	3
Newfoundland	.....	.....	.....	.....	1	1	.....	.....	.....
England	.....	.....	.....	1	.....	1	1	.....	1
France	.....	.....	.....	1	1	2	.....	.....	.....
Germany	.....	.....	.....	.....	.....	.....	1	1	2
Russia	.....	.....	.....	1	.....	1	1	.....	1
Poland	.....	.....	.....	1	1	2	.....	.....	.....
Scotland	.....	.....	.....	1	1	2	.....	.....	.....
United States	.....	.....	.....	2	3	5	2	3	5
Unascertained	.....	.....	.....	5	3	8	3	2	5
Totals	17	15	32	17	17	34	15	15	30

TABLE 4a  
AGE OF ADMISSIONS CLASSIFIED WITH REFERENCE TO MENTAL STATUS

Age Group	Idiot			Imbecile			Moron			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
5-9	.....	.....	.....	4	2	6	5	.....	5	9	2	11
10-14	2	.....	2	2	1	3	2	5	7	6	6	12
15-19	.....	1	1	1	.....	1	1	2	3	2	3	5
20-24	.....	.....	.....	.....	.....	.....	.....	2	2	.....	2	2
25-29	.....	.....	.....	.....	1	1	.....	.....	.....	.....	1	1
40-44	.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	1
Totals	2	2	4	7	4	11	8	9	17	17	15	32

TABLE 4b  
AGE OF TOTAL POPULATION CLASSIFIED WITH REFERENCE TO MENTAL STATUS

Age Group	Idiot			Imbecile			Moron			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
5-9	1	5	6	7	5	12	5	1	6	13	11	24
10-14	11	3	14	15	4	19	10	15	25	36	22	58
15-19	13	7	20	15	10	25	10	8	18	38	25	63
20-24	11	4	15	16	7	23	2	7	9	29	18	47
25-29	3	8	11	10	6	16	1	2	3	14	16	30
30-34	7	5	12	2	6	8	1	2	3	10	13	23
35-39	.....	5	5	4	6	10	1	.....	1	5	11	16
40-44	1	3	4	.....	4	4	.....	.....	.....	1	7	8
45-49	.....	1	1	.....	2	2	.....	.....	.....	2	1	3
Totals	47	41	88	71	48	119	30	35	65	148	124	272



TABLE 5  
OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS AND  
CHRONOLOGICAL AGE

## A—PAROLES

Age Group	Imbecile			Moron			Years in Residence
	M.	F.	T.	M.	F.	T.	
5-9				1		1	0/5
10-14	1		1				2/2
15-19				1		1	13/2
					1	1	3/5
					1	1	13/0
					1	1	13/1
		1	1				0/11
				1		1	5/3
				1		1	5/3
					1	1	5/3
		1	1				0/2
		1	1				4/11
20-24					1	1	5/3
					1	1	5/6
					1	1	10/8
					1	1	5/3
					1	1	10/0
					1	1	/3
25-29					1	1	14/9
				1		1	17/3
35-9		1	1				9/5
Totals	2	3	5	5	11	16	145/4

OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS  
AND CHRONOLOGICAL AGE

## B—TRANSFERS

Age Group	Imbecile			Moron			Years in Residence
	M.	F.	T.	M.	F.	T.	
15-19				1		1	1/10
20-24		1	1				13/6
		1	1				/10
					1	1	4/1
25-29				1		1	19/7
Total		2	2	2	1	3	39/7

OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS  
AND CHRONOLOGICAL AGE

## C—DEATHS

Cause of Death	Age Group	Idiot			Moron			Year in Residence
		M.	F.	T.	M.	F.	T.	
Broncho-pneumonia, severe enterocolitis	25-29	1		1				15/6
Broncho-pneumonia, Tracheitis	15-19				1		1	3/2
Toxaemia, accidental burns	5-9	1		1				4/2
Totals		2		2	1		1	22/0

TABLE 6  
SOME OF THE TYPES IN RESIDENCE

Classification	Idiot			Imbecile			Moron			Total		Percentage	
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.		T.
Infirmary Type:													
(a) Physically Helpless	15	18	34	9	8	17	1		1	25	26	51	18.75
(b) Mentally Helpless	28	18	46	17	5	22	2		2	47	23	70	25.73
M.D. and Epileptic	14	10	24	9	2	11	6	6	12	29	18	47	17.28
M.D. and Psychopathic				2		2				2		2	.73
M.D. and Psychotic		1	1				1	1		2	2	2	.73
Mongols and Mongoloid	3	2	5	11	6	17	1		1	15	8	23	8.45
Totals	60	49	109	48	21	69	10	7	17	118	77	195	71.67

## DEPARTMENT OF PUBLIC HEALTH

TABLE 7  
APPLICATIONS AWAITING ADMISSION

Applications dated:	Male Female Total			Applications dated:	Male Female Total		
1928 to 1938 .....	15	14	29	1944 .....	25	21	46
1939 .....	5	8	13	1945 .....	29	19	48
1940 .....	11	7	18	1946 .....	22	19	41
1941 .....	13	13	26				
1942 .....	15	14	29	Totals .....	150	132	282
1943 .....	15	17	32				

TABLE 8  
KNOWN DEFECTIVES

	Male	Female	Sex not Designated	Total
Reported 1926 to 1934 .....	70	65	1	142
Reported during 1935 .....	9	1	1	17
1936 .....	19	7	.....	26
1937 .....	19	14	.....	33
1938 .....	16	16	1	33
1939 .....	15	19	.....	34
1940 .....	14	12	.....	26
1941 .....	9	9	.....	18
1942 .....	27	15	1	43
1943 .....	16	7	2	25
1944 .....	14	21	2	37
1945 .....	22	11	1	34
1946 .....	24	20	3	47
	274	223	18	515

## GUIDANCE CLINICS

These Clinics, designed for examination, diagnosis, and where possible, treatment, were held regularly in Edmonton and Calgary, and somewhat irregularly at Lamont, Red Deer, Stettler, High River and Rural Edmonton, with occasional examinations elsewhere during the year. There has been increasing demand for the Service of the Clinic personnel, indicating the appreciation of the Service, and the prospects for continued success in this Branch of the Department.

Up to the end of 1946 some 6,000 new cases had been examined since the inception of the Clinics in 1929. Innumerable cases were seen more than once in the process of their treatment, or the periodic guidance to relatives.

*Eugenics Board.*

During the year the Eugenics Board held seven meetings, one of which was at the Provincial Training School, Red Deer, and one at the Provincial Mental Institute, Edmonton. Some 107 cases were presented to the Board for their consideration.

Fifty-five cases, 24 males and 31 females, underwent sterilization operations in accordance with the recommendations during the year.





## DEPARTMENT OF PUBLIC HEALTH

TABLE 4b  
CLASSIFICATION OF NEW CLINIC CASES—SCHOOL AGE GROUP  
(7 YEARS 0 MONTHS-18 YEARS 11 MONTHS)

Nature of Case	Edmonton	Calgary	Edmonton	Other Clinics	Totals
Mental Deficiency:					
General Retardation .....	24	19	19	18	80
Behaviour Problem .....	3	.....	.....	1	3
Epilepsy .....	4	.....	2	1	7
Physical Defect .....	.....	.....	.....	5	5
Other Conditions .....	2	.....	.....	2	2
Backward in School .....	6	5	2	2	15
Behaviour Problem .....	23	10	11	2	46
Sex Delinquency .....	1	.....	.....	.....	1
Epilepsy .....	3	.....	1	.....	4
Other Conditions .....	17	13	7	4	41
Totals .....	83	47	42	32	204

TABLE 4c  
CLASSIFICATION OF NEW CLINIC CASES—ADULT GROUP  
(OVER 19 YEARS 0 MONTHS)

Nature of Case	Edmonton	Calgary	Edmonton	Other Clinics	Totals
Mental Deficiency:					
General Retardation .....	7	.....	.....	1	8
Epilepsy .....	1	.....	.....	.....	1
Physical Defects .....	1	1	.....	.....	2
Epilepsy .....	5	.....	.....	.....	5
Psychosis:					
Other than G.P.I. ....	9	7	1	3	20
Psychoneurosis .....	11	4	2	.....	17
Arteriosclerosis .....	.....	2	.....	1	3
Other Conditions .....	14	3	1	1	19
Totals .....	48	17	4	6	75
Table 4a .....	20	16	6	4	46
Table 4b .....	83	47	42	32	204
Grand Totals .....	151	80	52	42	325

TABLE 5  
AGENCIES REFERRING NEW CLINIC CASES, 1946

Agency	Edmonton	Calgary	Edmonton	Other Clinics	Totals
School Officials and Teachers .....	31	8	.....	2	41
Doctors, Medical Health Officers and Clinics .....	42	29	52	10	133
Provincial Child Welfare, Children's Aid, Juvenile Court .....	25	9	.....	.....	34
Homes (Mountview, Beulah, Kiwanis, Y.W.C.A., and Salvation Army) .....	2	16	.....	.....	18
Parents, Relatives, Friends .....	26	7	.....	3	36
Relief Department .....	1	.....	.....	.....	1
Provincial Health Department other than Child Welfare and Relief .....	8	4	.....	.....	12
Full-time Health Units .....	1	1	.....	26	28
Self .....	6	2	.....	1	9
Other Agencies, etc. ....	9	4	.....	.....	13
Totals .....	151	80	52	42	325

TABLE 6  
MAJOR RECOMMENDATIONS MADE IN REGARD TO NEW CLINIC CASES, 1946

Major Recommendations	Edmonton	Calgary	Edmonton	Other Clinics	Totals
Admission to Provincial Mental Hospital or Provincial Mental Institute .....	17	10	.....	1	28
Admission to Provincial Training School or other similar Institutions .....	19	12	1	1	33
Treatment by own Doctor or other Clinics .....	8	5	3	.....	16
Treatment given, including direct treatment for Epilepsy .....	23	1	8	3	35
Continue Home, Institutional, or School life .....	17	11	5	16	49
Modified School Programme, Special Class, or Vocational Training .....	20	6	15	13	54
Change in Home Routine, Care, Discipline .....	4	9	7	2	22
More Social Contacts, wider interests, re-establishment of self-confidence .....	9	2	7	1	19
Return to Clinic, further examination .....	11	12	2	3	28
Placement under careful supervision .....	5	5	.....	.....	10
Other Recommendations .....	18	7	4	2	31
Totals .....	151	80	52	42	325



TABLE 7  
SUMMARY OF WORK OF GUIDANCE CLINICS SINCE 1936

Year	No. of Clinics	New Cases	Follow-ups, Interviews	Total Case Load	Total New Cases Examined
Total New Cases from 1929 to 1936.....					2526
1937.....	99	416	513	929	2942
1938.....	97	406	632	1038	3348
1939.....	95	403	1275	1678	3751
1940.....	94	356	1398	1754	4107
1941.....	88	344	1315	1659	4451
1942.....	70	310	1272	1582	4761
1943.....	64	212	1013	1225	4973
1944.....	67	267	972	1239	5240
1945.....	60	253	695	948	5493
1946.....	85	325	1023	1348	5818

TABLE 7a  
SUMMARY OF NUMBER OF MENTAL DEFECTIVES EXAMINED BY YEARS

Year	I.Q.: 0 to 25 Probably Idiots		I.Q.: 26 to 50 Probably Imbeciles I.Q.: 51 to 75 Probably Morons		I.Q. Unknown but Mental Deficiency Indicated		Totals			Percentage of New Cases	Cumulative Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	T.				
1937.....	5	2	16	14	55	38	....	....	76	54	130	32.0%	799*
1938.....	4	1	17	9	51	41	....	....	72	51	123	30.3%	1052
1939.....	5	3	19	24	46	46	....	....	70	73	143	35.5%	1195
1940.....	3	4	20	14	39	19	16	15	78	52	130	36.5%	1325
1941.....	3	2	23	16	43	25	13	8	82	51	133	38.7%	1458
1942.....	6	8	18	15	34	16	3	2	61	41	102	32.9%	1560
1943.....	6	12	17	11	15	14	3	7	41	44	85	40.1%	1645
1944.....	6	5	16	19	26	30	10	7	58	61	119	44.6%	1764
1945.....	6	6	15	11	32	24	4	5	57	46	103	40.7%	1867
1946.....	2	2	16	13	40	43	9	9	67	67	134	40.6%	2001

\*Includes estimated number of Mental Defectives examined previous to 1936 (32% of total new cases).

M—Males, F—Females, T—Totals.

## The Eugenics Board

(J. M. MACEachran, M.A., Ph.D., *Chairman*)

The Eugenics Board held seven meetings during 1946, for the consideration of cases for sexual sterilization. Five of these meetings were held at the Provincial Mental Hospital, Ponoka; one at the Provincial Mental Institute, Edmonton; and one at the Provincial Training School, Red Deer. The dates and places of meeting were:

- 21 February, 1946—Provincial Mental Hospital.
- 21 February, 1946—Provincial Mental Institute
- 18 April, 1946—Provincial Mental Hospital.
- 27 June, 1946—Provincial Mental Hospital.
- 10 September, 1946—Provincial Mental Hospital.
- 11 September, 1946—Provincial Training School.
- 28 November, 1946—Provincial Mental Hospital.

### *Cases Presented.*

Fifty-four male cases and fifty-three female cases were presented to the Board during the year, or a total of one hundred and seven cases. Of these, one male case was deferred, and one male case re-presented, the previous decision being upheld. Fifty-two male cases and all the female cases presented were passed, some subject to the consent of the patient, or parent, or both.

Twenty-three of the one hundred and six new cases presented, or approximately 22 per cent, had been examined previously at one of the Guidance Clinics. This number is made up of nine male and fourteen female cases.

The total number of cases presented and passed by the Board to 31 December, 1946, was 2,273, made up of 1,145 male cases, and 1,128 female cases. Total cases operated on to the end of 1946 was 1,059, made up of 423 male, and 636 female cases.

### *Operations—VTDF.*

There were fifty-five operations performed during the year, twenty-four on male and thirty-one on female cases. All but three of the cases operated on were considered by the Board in either 1945 or 1946. The three cases considered previous to 1945 were all female. There were eight more sterilization operations performed in 1946 than in 1945.

In fourteen of the thirty-one female cases operated on the appendix was removed. In two of the twenty-four male cases operated on hernias were repaired.

All the operations were performed by either Dr. J. W. Richardson of Calgary, or by Dr. J. Ross Vant or Dr. R. H. Horner of Edmonton. One female case was operated on in the General Hospital, Calgary. All the other operations were performed at the Provincial Mental Hospital, Ponoka.



*Follow-up Work.*

This was again at a minimum due to the continued shortage of staff. It is hoped that 1947 will see sufficient increase in staff to allow much more to be done in securing information on cases returned to the community.

*Visiting Board.*

The Eugenics Board, acting as a Visiting Board, made a tour of the Provincial Institutions in September. The Provincial Mental Institute, the Provincial Mental Hospital, the Provincial Training School, the Central Alberta Sanatorium and the Auxiliary Mental Hospitals at Claresholm and Raymond, were visited and inspections carried out.

*Staff Changes.*

Mrs. L. M. Storey (Miss K. Colgrove), continued as Acting Secretary to the Eugenics Board, to the middle of July, 1946. At this time she resigned from the Provincial Health Service. Mr. E. J. Kibblewhite, who had been on leave-of-absence with the Armed Forces, received his discharge in May, 1946, and returned to the Health Department. He resumed duties as Secretary to the Board when Mrs. Storey resigned.

During the year Miss Gladys Jones became secretary to Dr. R. R. MacLean and discontinued her work as Clinic and Eugenics Board stenographer. Her loss was much regretted. Fortunately, Mrs. A. M. James agreed to return for a limited time and worked for the last half of the year. She has given excellent service.

*Appreciation.*

The Eugenics Board takes this opportunity again to express its thanks and appreciation to Dr. R. R. MacLean, General Superintendent of Provincias Mental Institutions; to Dr. W. J. McAlister, Medical Superintendent of the Provincial Mental Institute; to Dr. D. L. McCullough, Medical Superintendent of the Provincial Training School, and to their respective Staffs, for the cheerful assistance which has been shown them in their visits to the Institutions.

A tabular summary of the Eugenics Board work to the end of December, 1946, is attached. One or two small errors in the table prepared with the Report for 1945 have been corrected.

**CASES PRESENTED AND PASSED**  
(To December 31, 1946)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929 .....	1	3	4	1	3	4
1930 .....	6	36	42	7	39	46
1931 .....	25	63	88	32	102	134
1932 .....	20	43	63	52	145	197
1933 .....	35	56	91	87	201	288
1934 .....	132	82	214	219	283	502
1935 .....	123	97	220	342	380	722
1936 .....	103	88	191	445	468	913
1937 .....	115	87	202	560	555	1115
1938 .....	84	84	168	644	639	1283
1939 .....	104	74	178	748	713	1461
1940 .....	53	61	114	801	774	1575
1941 .....	68	50	118	869	824	1693
1942 .....	47	51	98	916	875	1791
1943 .....	67	63	130	983	838	1921
1944 .....	56	73	129	1039	1011	2050
1945 .....	54	64	118	1093	1075	2168
1946 .....	52	53	105	1145	1128	2273

## DEPARTMENT OF PUBLIC HEALTH

OPERATIONS ONLY  
(To December 31, 1946)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929 .....	1	2	3	1	2	3
1930 .....	6	30	36	7	32	39
1931 .....	13	51	64	20	83	103
1932 .....	15	34	49	35	117	152
1933 .....	13	41	54	49	158	206
1934 .....	46	59	105	94	217	311
1935 .....	33	54	87	127	271	398
1936 .....	36	42	78	163	313	476
1937 .....	57	48	105	220	361	581
1938 .....	26	37	63	246	398	644
1939 .....	18	29	47	264	427	691
1940 .....	14	23	37	278	450	728
1941 .....	37	40	77	315	490	805
1942 .....	24	28	52	339	518	857
1943 .....	29	31	60	368	549	917
1944 .....	13	27	40	381	576	957
1945 .....	18	29	47	399	605	1004
1946 .....	24	31	55	423	636	1059



## Division of Tuberculosis Control

DR. A. H. BAKER, B.A., M.B., *Medical Superintendent and Director*

The opening of the Charles Camsell Indian Hospital in Edmonton was the outstanding advance in anti-tuberculosis work in Alberta during 1946. This step, on the part of the Indian Affairs' Branch of the Department of National Health and Welfare, has made available to the Indians a tuberculosis service comparable to that provided other residents. For the first time, we can now say that free diagnosis and free treatment for tuberculosis are available to all residents.

The program of this Division is the Prevention of Tuberculosis. To this end, free clinics and mobile X-ray surveys have provided diagnostic facilities to many, and a follow-up service to ex-patients; sanatorium treatment has been given to many needing it; assistance has been given the Alberta Tuberculosis Association in its splendid rehabilitation efforts; educational work has been carried on by talks, radio addresses, instruction to nurses and medical students; free laboratory services and X-ray film interpretation have been provided many physicians and general hospitals.

A detailed statistical section will be found at the end of this report.

### *Diagnostic Clinics.*

These are regularly operated in Calgary and Edmonton by sanatorium physicians as in previous years, but the pre-war practice of sending examining physicians to outside clinics has yet to be resumed. Not only are new patients examined, but discharged sanatorium patients are re-checked and advised. At points not reached by physicians, X-ray services have again been supplied to all known or suspected cases of tuberculosis, and to contacts of known cases. These films have been made by local hospitals, and sent to Calgary or Edmonton for interpretation. Throughout the year a grand total of 98,633 persons received physical examinations and/or X-ray examinations at the hands of the physicians of the Division in Edmonton and Calgary. This is about 16,000 less than last year, due to a decrease in those attending mobile X-ray clinics. The mobile units operated at 66 points throughout the year.

### *New Cases of Tuberculosis.*

There were found, through all agencies, 1,051 new cases, an increase of 82 over last year. New cases of active pulmonary tuberculosis numbered 487, of active non-pulmonary tuberculosis 20, while inactive cases made up the remainder, i.e., 544.

### *X-Ray Survey of Calgary.*

Plans were made to X-ray the entire city of Calgary during the fall and winter of 1946-47. This was a community effort. His Worship, Mayor Watson, launched the campaign by calling a meeting of citizens representative of the entire city, and at which general approval of the undertaking was voiced and a central survey committee appointed. The hearty co-operation of His



Worship, Mayor Watson and of the city administration, made possible a successful survey.

It was agreed that Mr. F. E. Spooner, general chairman of the survey, and Mr. C. Robert Dickey, Secretary of the Alberta Tuberculosis Association, would provide publicity, clinic facilities, and all details involved in getting the general public to attend, while the medical staff of Central Alberta Sanatorium would provide the X-ray examinations, interpret the films, send out the reports, and re-ray and examine all persons needing the same.

The survey was a success. Acknowledgment is made of the great contribution made by hundreds and even thousands of women and men who conducted the house to house canvass, and subsequently assisted with much clerical work.

While the survey was not completed in 1946, it may be stated that it was concluded in April. The following are the final figures:

Number X-rayed .....	68,796
Films suggesting Active Tuberculosis .....	70
Films suggesting Inactive Tuberculosis .....	603
Number of normal films .....	63,348
Number of films considered abnormal .....	4,938

#### *Pneumothorax Out-Patient Treatment.*

For the convenience of ex-patients, these treatments are provided not only in Calgary and Edmonton, but at Lethbridge, Medicine Hat, Drumheller, Red Deer, Stettler, Lacombe and Lamont.

Twenty-two persons received 512 treatments at points other than Calgary and Edmonton.

#### *Work Among the Indians.*

With the opening of the Charles Camsell Indian Hospital, Indian patients in Provincial sanatorium beds were transferred. During the first part of the year, this Division X-rayed 3,076 persons for the Indian Affairs' Branch, while later in the year the latter conducted 4,077 examinations. All told, over 7,000 Indians received this diagnostic service. This represents a real advance in preventing tuberculosis, since many of those found to suffer from tuberculosis are now under sanatorium care. We wish Dr. Meltzer, Medical Director, and his staff great success in their efforts to reduce the toll of tuberculosis among the Indians.

#### *Services Rendered to Hospitals and Physicians.*

1. Laboratory: 857 tests were carried out on specimens sent in.
2. Tuberculin for Diagnosis: Tuberculin dilutions have been supplied to 11 hospitals, 13 clinics and 7 practising physicians. Patch tests have also been supplied.
3. Interpretation of X-ray films: 4,689 X-ray films have been sent in for interpretation to Calgary and Edmonton offices.

An idea of the extent of the X-ray service in the Province may be gained, when it is pointed out that over 300 films of non-sanatorium persons were interpreted every day of the year, excluding Sundays and holidays.

#### *The Alberta Tuberculosis Association.*

This voluntary organization, through the Christmas Seal Sale, has extended its assistance to patients by greater service in the occupational therapy and rehabilitation fields. It provides a handicraft teacher in Edmonton, and, in Calgary, a young man who devotes his time to rehabilitation and occupational therapy. It



bears the expense of all supplies. A number of ex-patients have been re-trained and placed in suitable positions.

A full time organizer of mobile X-ray clinics has been provided. This has proved of great value this last year, since improved local organization has resulted in larger clinics.

In its educational policy, this Association has provided two scholarships for physicians to assist them in post graduate work. Two members of the staff availed themselves of this opportunity. It is already apparent that the quality of work of the Division has been improved, and it is sincerely hoped that similar provision may be made from year to year so that the medical standards may be kept on the highest level.

Books and medical periodicals have been placed in the nurses' libraries to assist them in maintaining an up-to-date and efficient service.

These are some of the avenues through which the Alberta Tuberculosis Association has been supplementing the work of the Division. Grateful acknowledgement is made of the ever ready assistance given by Mr. C. Robert Dickey, Secretary of the Association.

#### *Educational Work.*

Tuberculosis exhibits were on display at the Calgary Stampede and Edmonton Exhibition and at smaller fairs. These were made possible by the Alberta Tuberculosis Association, which also provided the services of a nurse in charge.

Sanatorium physicians gave courses in Tuberculosis to some training schools in Calgary and Edmonton.

In Edmonton, the clinics for medical students are still conducted by Dr. G. R. Davison. It is believed that these are an important part in our educational program, since medical students are given an opportunity to gain some experience in the diagnosis and treatment of tuberculosis.

Radio talks have been prepared in co-operation with the section of Health Education of the Department of Health. Dr. Baker addressed the annual meeting of the Montana Tuberculosis Association in Helena in September on "The Operation of Mobile X-ray Units in Alberta." Other addresses were given by the medical staff to various groups in Edmonton and Calgary.

#### *Institutional Activities.*

Sanatorium work has had its difficulties and these have been largely due to a lack of nursing and domestic staff. Costs have increased due to high commodity prices and to necessary salary adjustment.

Sanatorium beds were decreased in Edmonton in September, since it was felt that the tuberculosis section of the University Hospital was urgently needed for poliomyelitis patients.

#### *Medical Personnel.*

Dr. W. J. Downs, who had been on military leave, returned to the staff in Edmonton.

Dr. J. C. McPherson, a former staff member, re-joined the Edmonton staff.

Dr. T. A. Wright, on discharge from the Army, joined the staff of Central Alberta Sanatorium.



Dr. P. Schragge resigned to pursue further study.

Dr. Huxley Johnson replaced Dr. Schragge.

Thus for the first time since the onset of the war, the medical staff was complete.

#### *Medical and Surgical Work.*

This has been carried on to greater advantage with the help of increased staff. All patients' records are periodically reviewed and staff opinions obtained as to the proper treatment. Collapse therapy still continues to be used in as wide a field as possible.

#### *Administration Section (Fiscal Year Ending March 31st, 1947)*

The total sanatorium patient days in the Province, numbered 131,010, a decrease of 12,103 over 1945, due to closing of the University Hospital section and to staff shortage.

The gross operative cost of Central Alberta Sanatorium .....	\$285,254.30
Revenue .....	58,081.93
Net cost .....	227,172.37
Gross per patient day cost .....	4.031
Net per patient day cost .....	3.21
Hospital costs, Edmonton and elsewhere .....	207,698.49

#### COST OF CLINIC SERVICE

Treatment—Out-patient Pneumothorax .....	\$ 3,605.00
Mobile Units .....	19,473.72
Other Diagnostic Services .....	7,548.50
Total Clinic costs .....	30,627.22
Gross cost under Tuberculosis Act .....	523,580.01

On the basis of population of 803,330 the per capita cost for Tuberculosis Control was \$0.65.

The total number of meals served at Central Alberta Sanatorium was 334,646. The cost of food per meal was \$0.2036, an increase of \$0.028 over that of last year.

#### *Acknowledgments.*

Through the kindly interest of Dr. and Mrs. G. R. Johnson of Calgary and several friends, the Sanatorium was presented with a beautiful silver Tea Service and Tray on March 11. This gift, as an expression of confidence in the work being done, is much appreciated, and will serve for many years as a stimulus to greater effort. In passing, may I say that the Sanatorium opened in 1920 and operated for five years under Dr. Johnson's supervision as Director of Medical Services for Alberta of the Department of Soldiers' Civil Re-establishment, and that since that time he has continued as a true friend and wise counsellor in an unofficial capacity.

A second event of unusual interest, took place in February, when Mrs. J. H. Woods personally presented two new movie projectors and screen to the sanatorium. The late Honourary Lt.-Col. J. H. Woods bequeathed to the Medical Superintendent of the Sanatorium the sum of \$1,000.00 to be spent in the interests of the patients. After consideration and consultation with Mrs. Woods, it was agreed that this gift to patients should take the form of better movie service—as made possible by new equipment. We were honoured February 11 when Mrs. Woods personally presented this equipment, and her daughter, Mrs. D. J. McDonald, expressed to the assembly her mother's wish that the gift would bring increased pleasure to the patients.

It is a pleasure to acknowledge the continued interest and help of the Honourable, the Minister, Dr. W. W. Cross and his deputy, Dr. M. R. Bow.



To the members of the medical staff, both in Calgary and Edmonton, I wish to express my appreciation for their loyal, unselfish and efficient services. A similar tribute and recognition is due every other staff member who has contributed to the success of the work.

Throughout another year we have secured the co-operation of the Superintendents and their staffs of the three Edmonton Hospitals providing sanatorium accommodation. To Dr. A. R. Anderson, Dr. A. McGugan, and to the Sister Superior of the General Hospital, the Division of Tuberculosis wishes to express its thanks.

To the Alberta Tuberculosis Association, to the Medical Officers of Health, the Public Health Nurses, the practising physicians, and to the many other individuals and organizations, all of whom have contributed to the progress of Anti-tuberculosis work in 1946, may I, on behalf of the Division of Tuberculosis, express its appreciation.

### Donations and Entertainment.

#### CENTRAL ALBERTA SANATORIUM

ENTERTAINMENT—Canadian Red Cross Society, concert; Ukrainian Concert Party, concert; Cribbage Tournament; Billiard Tournament; Picture Shows.

DONATIONS—Children's Hospital Aid Society, gifts; Mrs. J. McKirdy, holly; Leyden's Funeral Home, cigarettes; Pon Yee, books; Alberta Tuberculosis Association, books; Ashdown's Hardware, 2 garden chairs; Coleman Junior Red Cross, cribbage boards and cards; Ladies' Auxiliary, socks; Thursday Night Knitting Club, pocket books; Mr. L. R. Philpott, magazines; Dr. A. J. Palmer, donation to Comfort and Entertainment Fund. Dr. W. Merritt, donation to Comfort and Entertainment Fund; Mrs. J. H. Woods, cheque; Allan's Greenhouse, Bowness, flowers; Canadian Red Cross, parcels; Ontario Laundry, cigarettes and candy; Lakeside Social Workers, Lacombe, scrap books; Mr. M. Quail, book; W.B.L., subscription to "Coronet"; Women's Auxiliary, B.E.S.L., Drumheller, parcels; Ladies' Auxiliary Canadian Legion No. 4, Lethbridge, cigarettes; Highway Women's Institute, Red Deer, parcels; The Devon and Cornwall Sewing Group, parcels; United Church Group, parcels; Anglican Women's Auxiliary, parcels; Catholic Women's League, parcels; Sisters of St. Famille, parcels; Salvation Army, parcels; Canadian Legion, parcels; Department of Veterans' Affairs, parcels; Masonic Order, gifts.

#### EDMONTON GENERAL HOSPITAL

ENTERTAINMENT—R.C.M.P. Group; Jack Toulson; Welsh Choir, Violin Selections; Ukrainian Youth Carol Singers; Lutheran Church Singers; Ukrainian Orthodox Church Choir; Hallowe'en Party; Four Card Parties; Valentine Bingo Party; Movies; Cameron Orchestra.

DONATIONS—I.O.D.E. Chapters, library books and magazines; War Services Council, magazines; Mr. E. Berg of Yellowknife, money; Bonne Amie Club, gifts; Ukrainian Club, gifts; Woolworth's Club, gifts; Lutheran Club, gifts; Mrs. J. McKenzie, gifts; Mr. Sawchuk, money; Mrs. Patzig, money; Crystal Spring Happy Gang, money; Ramsay Florists, flowers; Red Cross, magazines; Drs. Davison, McPherson, Aylesworth, books; Alberta Tuberculosis Association, Public Library.

#### ROYAL ALEXANDRA HOSPITAL

ENTERTAINMENT—Bingo Party; Picture Shows.

DONATIONS—Dr. Bell, magazine subscriptions; Dr. J. B. MacKay, magazine subscriptions; Central United Church Ladies' Aid, magazine subscriptions; Miss. M. F. Fraser, magazine subscriptions; Wimodausis Society, flowers.

### CLINIC REPORT

Place	No. of Sessions	New Cases of T.B.				No. of Examinations		
		Pulmonary		Non-Pulmonary		New Exams.	Review Exams.	Total
		Active	Inactive	Active	Inactive			
<b>STATIONARY CLINICS:</b>								
Calgary	44	10	24	.....	.....	143	211	354
Central Alberta Sanatorium	51	43	124	3	1	957	939	1896
Drumheller	12	3	7	.....	.....	135	89	224
Lethbridge	6	5	12	.....	.....	142	155	297
Medicine Hat	11	3	15	.....	.....	92	132	224
Red Deer	5	.....	16	.....	.....	103	95	198
Edmonton	208	113	206	2	.....	1169	1350	2519
Total	337	177	404	5	1	2741	2971	5712
<b>TRAVELLING CLINICS:</b>								
Nordegg	1	.....	3	.....	.....	191	2	193
Grand Total	338	177	407	5	1	2932	2973	5905



## TUBERCULIN SURVEYS BY PUBLIC HEALTH NURSES.

By Public Health Nurses and Teachers.	No. Tested		X-rayed	New Cases
	No. Tested	Positive	X-rayed	Cases
Salvation Army Children's Home, Calgary				
Buffalo	149	29	22	.....
Normal School, Calgary	6	1	.....	.....
Drumheller	112	11	112	Mobile 1
Coffee Counters Ltd., Calgary	1865	64	64	.....
Big Prairie	28	6	6	Clinic
Strathmore	50	.....	2	Clinic
Stettler	98	9	4	.....
Medicine Hat (Kinsmen Survey)	442	10	8	1
			66	.....
Total	2750	130	284	2

## SURVEYS OF INDIAN SCHOOLS BY INDIAN AFFAIRS' BRANCH

Agency	No. X-rayed	New Cases Pulmonary Tuberculosis	
		Active	Inactive
Blackfoot (Old Sun, Crowfoot)	204	4	2
Bloods (St. Mary's, St. Paul's)	287	8	4
Saddle Lake (Blue Quill)	119	1	5
Hobbema (Ermineskin)	147	6	1
Edmonton (Edmonton Residential School, St. Albert)	216	2	1
Stoneys (Indian Residential)	81	2	.....
Sarcee	9	.....	.....
	1063	23	13

## SURVEYS OF RESERVES

Blackfoot	696	7	16
Onion Lake (Cold Lake, Frog Lake, Keheewin)	439	17	11
Hobbema	970	18	27
Edmonton (Winterburn)	104	1	2
Saddle Lake	349	6	6
Stoneys (Morley)	435	8	7
Stoneys (Nordegg)	21	.....	1
	3014	57	70

Dr. Meltzer reported that 181 Indians suffering from some form of Tuberculosis were admitted to the Charles Cammell Indian Hospital. Of these 98 were newly discovered cases of Tuberculosis, classified as follows:

Pulmonary Tuberculosis, active	68
Pulmonary Tuberculosis, inactive	15
Non-Pulmonary Tuberculosis, active	14
Non-Pulmonary Tuberculosis, inactive	1

Mental Hospital: Ponoka Patients Staff	No. X-rayed	New Cases Pulmonary Tuberculosis	
		Active	Inactive
	843	2	2
	499	.....	1
	1342	2	3

## SUMMARY—CLINICS AND SURVEYS

	No. Sessions	New Cases Tuberculosis				Total Exam. & Surveyed
		Pulmonary Active	Pulmonary Inactive	Non-Pulmonary Active	Non-Pulmonary Inactive	
Stationary Clinics	337	177	407	5	1	5712
Travelling Clinics	1	.....	3	.....	.....	193
School, Kinsmen Surveys	9	1	1	.....	.....	2750
Indian Surveys	14	80	83	.....	.....	4077
Mental Hospital	.....	2	3	.....	.....	1342
C.A.S. Staff and Edmonton	.....	1	.....	.....	.....	738
Mobile Unit Surveys	66	191	828	.....	.....	87,898
		452	1325	5	1	102,710

The Indian Affairs' Branch carried out 4,077 of the above examination. The remainder, 98,633, was the work of the Tuberculosis Division.



In the following classification of new cases of tuberculosis, there are included only those in whom the diagnosis has been confirmed; not all those found by Mobile Units have as yet been reviewed.

## SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS

	1945	%	1946	%
Clinics .....	682	70.4	590	56.14
Referred for Admission by family physicians .....	109	11.2	120	11.42
School Surveys .....	.....	.....	2	.19
Mental Hospital .....	7	.7	5	.48
Indian Surveys .....	32	3.3	163	15.5
Referred by D.V.A. ....	108	11.1	139	13.23
Provincial Laboratory .....	21	2.2	17	1.62
Other sources .....	10	1.0	14	1.33
Central Alberta Sanatorium Staff .....	.....	.....	1	.09
	<u>969</u>	<u>—</u>	<u>1051</u>	<u>—</u>

## CLASSIFICATION OF 1,051 NEW CASES OF TUBERCULOSIS

Active Pulmonary Tuberculosis .....	487
Inactive pulmonary tuberculosis .....	544
Non-pulmonary tuberculosis .....	20
	<u>1051</u>

## CLASSIFICATION OF 868 NEW CASES OF ACTIVE AND INACTIVE PULMONARY TUBERCULOSIS (Indians not included—163)

		%
Minimal .....	453	52
Moderately advanced .....	242	28.9
Far advanced .....	80	9.2
Primary .....	85	9.8
Tuberculous pleurisy with effusion .....	7	.8
Tuberculous pleurisy without effusion .....	1	.1
	<u>868</u>	
		%
Non-residents diagnosed as having tuberculosis .....	17	1.6
Cases advised to have Sanatorium care (exclusive of Indians) .....	345	
Accepted for treatment .....	302	87.5
Admitted .....	299	86.6
Clinic cases advised to have Sanatorium care .....	139	
Accepted .....	101	72.7
Admitted .....	100	71.2

## EXAMINATION OF CONTACTS OF NEW CASES OF TUBERCULOSIS

Number known contacts .....	2260	
Number checked .....	936	41.41%

One hundred and fifty-nine persons reported to Central Alberta Sanatorium for X-ray in 1946 who were not referred by general practitioners or who were not contacts. These films were interpreted immediately and reported verbally. The patient was examined if the appearance of the X-ray film indicated that this was necessary. In this group two tuberculosis cases were discovered, one of which was active and the patient was admitted for treatment.

## DEPARTMENT OF PUBLIC HEALTH

## TUBERCULIN MAILING LIST, 1946

## Clinics and Health Units:

Calgary Clinic .....	City Hall, Calgary.
University Outdoor Clinic .....	Edmonton.
Doctor M. G. McCallum .....	Stettler.
Doctor H. Siemens .....	Edmonton Rural Health Unit.
Miss M. Murray .....	Red Deer Health Unit.
Rosebud Health Unit .....	Didsbury.
Two Hills Health Unit .....	Two Hills.
Miss H. O. Mann .....	Nursing Mission, Lethbridge.
Medical Officer of Health .....	High River.
Miss M. Burton .....	Rocky Mountain House.
Clover Bar Health Unit .....	Edmonton.
Miss G. Hutchings .....	Strathmore.
Mrs. J. Danforth .....	Black Diamond.

## Hospitals:

Edmonton General Hospital .....	Edmonton.
Colonel Belcher Hospital .....	Calgary.
Dr. L. McLatchie .....	Calgary.
Dr. R. C. Riley .....	Holy Cross Hospital, Calgary.
University Hospital .....	Edmonton.
Royal Alexandra Hospital .....	Edmonton.
Drumheller Hospital .....	Drumheller.
No. 10 Repair Depot, R.C.A.F. ....	Calgary.
Military Hospital—Currie .....	Calgary.
Suffield Military Hospital .....	Suffield.
Taber Municipal Hospital .....	Taber.

## Miscellaneous:

Dr. A. Magid .....	Magrath.
Dr. J. McCrimmon .....	Pincher Creek.
Dr. E. C. Scharf .....	Calgary.
Dr. H. J. Muth .....	Taber.
Drs. Parsons and Parsons .....	Red Deer.
Dr. B. C. Armstrong .....	Medicine Hat.
Dr. M. S. Miller .....	Calgary.

In addition to the above, five bottles of No. 2, sixty-five bottles of No. 3, and one bottle of No. 4 as well as 1,039 Patch Tests, were mailed to doctors, nurses and hospitals not on the regular mailing list.

## LABORATORY WORK REFERRED BY PRACTISING PHYSICIANS

Sputum .....	602
Urinalysis .....	13
Z.N. of Urine .....	43
Blood Counts .....	14
G.P. Inoculation .....	170
Other examinations, Pleural fluid, Stomach Washings & Swabs .....	15
	<hr/>
	857

## STATISTICAL SECTION OF SANATORIA

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
Patients under treatment Jan. 1, 1946 .....	216	113	35	22	386
Patients admitted, 1946 .....	171	206	26	4	407
Patients treated .....	387	319	61	26	793
Discharged and died .....	211	201	26	15	453
Transferred in .....	176	118	35	11	340
Transferred out .....	182	139	43	16	380
Remaining under treatment, Dec. 31, 1946 ..	7	10	6	16	39
Patient days .....	175	129	37	....	341
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	73,573	44,917	12,230	3,371	134,091



## DIAGNOSIS ON ADMISSION OF 407 PATIENTS ADMITTED—1946

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
No disease .....	.....	.....	.....
For diagnosis .....	.....	24	24
Non-Tuberculous .....	12	2	14
Pleural Effusion .....	.....	1	1
Tuberculosis, Inactive .....	2	.....	2
Childhood Tuberculosis .....	5	8	13
Tuberculous Pleurisy .....	3	.....	3
Non-Pulmonary Tuberculosis .....	4	2	6
Pulmonary Tuberculosis:			
Minimal .....	28	58	86
Moderately advanced .....	62	72	134
Far advanced .....	55	65	120
Miliary .....	.....	4	4
	<hr/> 171	<hr/> 236	<hr/> 407
No. with sputum positive on admission .....	100	97	.....
Sputum positive later .....	5	8	.....
Sputum persistently negative .....	66	131	.....
	<hr/> 171	<hr/> 236	<hr/> 407
Of the above noted re-admissions were .....	34	43	77

## OPERATING ROOM REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
Summary of Pneumothorax Cases:					
Under treatment Jan. 1, 1946 .....	156	96	17	15	284
Started during 1946 .....	43	42	8	1	94
Under treatment on Admission .....	17	37	7	.....	61
	<hr/> 216	<hr/> 175	<hr/> 32	<hr/> 16	<hr/> 439
Cases discontinued .....	59	55	3	11	128
Number transferred out of Province .....	.....	4	1	.....	5
Number transferred to other sections of Division .....	8	26	8	5	47
	<hr/> 67	<hr/> 75	<hr/> 12	<hr/> 16	<hr/> 180
Under treatment Dec. 31, 1946 .....	149	90	20	.....	259
Unsuccessfully attempted .....	15	22	4	.....	41
Refills:					
Resident .....	2,354	2,051	384	114	4,903
Out patient .....	1,943	1,093	216	.....	3,222
Total .....	<hr/> 4,297	<hr/> 3,114	<hr/> 600	<hr/> 114	<hr/> 8,125

In addition to the above, 512 pneumothorax refills were given to 22 Ex-sanatorium patients at the following places: Drumheller, Lethbridge, Medicine Hat, Innisfail, Lacombe, Lamont and Stettler.

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
<b>THORACOPLASTIES:</b>					
1st Stage .....	8	.....	.....	.....	8
2nd Stage .....	9	.....	.....	.....	9
3rd Stage .....	3	.....	.....	.....	3
4th Stage .....	1	.....	.....	.....	1
(8 cases) .....	21	.....	.....	.....	21
Pneumolysis .....	42	9	.....	.....	51
Phrenicopraxis:					
Successful .....	31	.....	.....	.....	31
Unsuccessful .....	2	6	.....	.....	8
Intravenous injections .....	229	.....	7	.....	236
Intramuscular injections .....	21	.....	.....	.....	21
Aspirations from pleural space .....	649	141	.....	.....	790
Other aspirations .....	14	4	.....	.....	18
Intercostal drainage .....	1	4	.....	.....	5
Bronchoscopic Examination .....	2	1	.....	.....	3
Lipiodol instillations .....	1	5	.....	.....	6
Pelvic Examination .....	9	.....	.....	.....	9
Thoroscopies .....	1	2	.....	.....	3
Intracavity pressure .....	1	.....	.....	.....	1
Removal Fish Hook from hand .....	1	.....	.....	.....	1
Resuturing portion thoro wound .....	1	.....	.....	.....	1
Curretting of Granuloma of Great Toe .....	1	.....	.....	.....	1
Excision ingrown toe nail .....	2	.....	.....	.....	2
Excision cartilage from region of ankle .....	1	.....	.....	.....	1
Cauterization of papaloma in ear .....	1	.....	.....	.....	1
Incision and drainage rectal abscess .....	1	.....	.....	.....	1
Lumbar puncture .....	5	9	.....	.....	14
Vital capacity .....	4	22	.....	.....	26
Introduction intra-pleural trochar & canula .....	4	.....	.....	.....	4
Basal metabolism .....	12	3	.....	.....	15
Plaster sheels .....	.....	7	.....	.....	7
Monaldi drainage .....	.....	4	.....	.....	4
Cystoscopy .....	.....	.....	2	.....	2
Electro cardiogram .....	.....	.....	1	.....	1

**X-RAY REPORT**

<b>RADIOGRAPHS MADE:</b>					
Thorax .....	3,189	659	181	42	4,071
Spine .....	35	9	1	.....	45
Pelvis .....	13	4	.....	.....	17
Knee .....	4	3	.....	.....	7
Skull .....	1	.....	.....	.....	1
Sinuses .....	2	2	.....	.....	4
Teeth .....	21	14	5	.....	40
Shoulder .....	3	2	.....	.....	5
Wrist .....	2	.....	.....	.....	2
Hand .....	2	2	.....	.....	4
Ribs .....	1	.....	.....	.....	1
Ankles .....	3	.....	.....	.....	3
Feet .....	3	.....	.....	.....	3
Sacrum and coccyx .....	1	.....	.....	.....	1
Kidney .....	2	.....	.....	.....	2
Pyelogram .....	3	.....	.....	.....	3
Abdomen .....	4	1	1	.....	6
G. I. Tract .....	6	.....	.....	.....	6
Gall Bladder .....	2	.....	1	.....	3
Leg .....	.....	1	.....	.....	1
Hip .....	.....	2	.....	.....	2
	<u>3,297</u>	<u>699</u>	<u>189</u>	<u>42</u>	<u>4,227</u>
<b>FLUOROSCOPIC EXAMINATION:</b>					
Pneumothorax cases .....	4,254	3,279	604	140	8,277
G. I. Tract .....	6	17	1	.....	24
	<u>4,260</u>	<u>3,296</u>	<u>605</u>	<u>140</u>	<u>8,301</u>
Films referred for Interpretation .....	<u>2,055</u>	<u>2,634</u>	.....	.....	<u>4,689</u>



## LABORATORY REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	University Hospital	Total
<b>Sputum Examinations:</b>					
Positive .....	1,261	664	190	44	2,159
Negative .....	2,102	1,079	332	117	3,630
Urine Examinations .....	2,995	425	943	261	4,624
<b>Blood Examinations:</b>					
Blood Counts .....	382	245	35	9	671
Sedimentations .....	752	609	145	41	1,547
Blood Sugar .....	49	17	5	2	73
Non-protein nitrogen .....	3	.....	.....	.....	3
Bleeding and clotting .....	16	.....	.....	.....	16
Blood typing .....	17	.....	.....	.....	17
Calcium .....	.....	1	2	.....	3
<b>Miscellaneous:</b>					
Pleural fluid .....	99	51	.....	.....	150
Gastric lavage .....	.....	109	.....	.....	109
Gastric analysis .....	4	8	1	2	15
Guinea Pig Inoculation .....	232	.....	.....	.....	232
Spinal fluid .....	3	9	.....	.....	12
Grams stains .....	99	.....	.....	.....	99
Cultures .....	.....	31	.....	.....	31
Other examinations .....	85	71	.....	.....	156
<b>Wassermann Reports</b>					
Positive .....	3	13	.....	.....	16
Negative .....	161	206	.....	.....	367
	<u>8,263</u>	<u>3,538</u>	<u>1,653</u>	<u>476</u>	<u>13,930</u>

## HELIO THERAPY REPORT

Patients treated .....	27	41	.....	.....	68
Number of treatments .....	2,619	298	.....	.....	2,917

## DENTAL REPORT

Patients examined .....	432	114	62	.....	608
Patients treated .....	206	268	104	.....	578
Prophylactic Treatments .....	128	22	22	.....	172
Number of Fillings .....	507	160	71	.....	738
Number of Extractions .....	144	83	11	.....	238
Number of Dentures .....	20	1	.....	.....	21
Dentures Repaired and Adjusted .....	59	.....	.....	.....	59
Number of Bridges .....	2	2	.....	.....	4

## I.—CLASSIFICATION OF DISCHARGED PATIENTS:

	On Admission. No.	Residence		On Discharge				
		31 days or less	Over 31 days	AA.	Q.	I.	U.	D.
1. No Disease .....	1	1	.....	.....	.....	.....	1	.....
2. Observation .....	21	10	11	.....	.....	20	1	.....
3. Non-Tuberculous .....	17	10	7	.....	1	6	10	.....
4. Tuberculosis Inactive .....	5	3	2	.....	.....	3	2	.....
	<u>44</u>	<u>24</u>	<u>20</u>	.....	<u>1</u>	<u>29</u>	<u>14</u>	.....
5. Childhood Tuberculosis .....	9	3	6	.....	2	6	1	.....
6. Adult Type Pulmonary Tuberculosis Clinical:								
Minimal .....	85	12	73	1	17	62	4	1
Moderately advanced .....	64	8	56	.....	15	37	7	5
Far advanced .....	8	3	5	.....	1	1	2	4
Positive:								
Minimal .....	5	1	4	.....	1	4	.....	.....
Moderately advanced .....	88	1	87	.....	22	53	6	7
Far advanced .....	135	21	114	.....	15	39	18	63
Miliary .....	5	1	4	.....	.....	.....	2	3
7. Tuberculous Pleurisy .....	3	.....	3	.....	2	1	.....	.....
8. Non-Pulmonary Tuberculosis .....	7	1	6	.....	.....	2	2	3
Total Active Tuberculosis .....	<u>409</u>	<u>51</u>	<u>358</u>	<u>1</u>	<u>75</u>	<u>205</u>	<u>42</u>	<u>86</u>
Total Treated .....	.....	.....	378	.....	72	210	24	72
Total Untreated .....	.....	75	.....	1	4	24	32	14
Grand Total .....	<u>453</u>	<u>75</u>	<u>378</u>	<u>1</u>	<u>76</u>	<u>234</u>	<u>56</u>	<u>86</u>

**Explanation of Abbreviations and Terms used:** The standard of classification is that of the National Tuberculosis Association. "Minimal", "Moderately Advanced" and "Far Advanced," refer to anatomical extent of disease. "AA" Apparently Arrested, "Q" Quiescent, "I" Improved, "U" Unimproved, and "D" Died.

NOTE: Only those in residence over 31 days are classed as "Treated".

## II.—CLASSIFICATION ON ADMISSION OF 453 DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
No Disease .....	1	.....	1
Observation .....	.....	21	21
Non-Tuberculous .....	13	4	17
Tuberculosis, Inactive .....	5	.....	5
Childhood Tuberculosis .....	5	.....	5
Pulmonary Tuberculosis, Active .....	181	213	394
Tuberculous Pleurisy .....	3	.....	3
Non-Pulmonary Tuberculosis .....	3	4	7
	<u>211</u>	<u>242</u>	<u>453</u>

## III.—DIAGNOSIS ON DISCHARGE OF 44 NON-TUBERCULOUS AND INACTIVE CASES:

No Disease .....	1	6	7
Bronchogenic Carcinoma .....	1	.....	1
Pleurisy .....	4	1	5
Post-pneumonic Debility .....	2	.....	2
Pneumonoconiosis .....	1	.....	1
Pneumonitis .....	1	3	4
Silicosis .....	4	2	6
Tuberculosis, Inactive .....	5	3	8
Pulmonary Sepsis .....	.....	3	3
Empyema .....	.....	2	2
Pulmonary Fibrosis .....	.....	2	2
Bronchiectasis .....	.....	1	1
Septicaemia .....	.....	1	1
	<u>19</u>	<u>25</u>	<u>44</u>

## IV.—CLASSIFICATION ON DISCHARGE OF 358 "TREATED" CASES OF ACTIVE TUBERCULOSIS AND TUBERCULOUS PLEURISY:

On Admission:	Number	On Discharge		Died
		Improved	Not Improved	
Minimal .....	77	74	3	.....
Moderately Advanced .....	143	124	7	12
Far Advanced .....	119	52	13	54
Childhood Tuberculosis .....	6	5	1	.....
Miliary .....	4	.....	2	2
Non-Pulmonary Tuberculosis .....	6	1	2	2
Tuberculosis Pleurisy .....	3	3	.....	.....
	<u>358</u>	<u>259</u>	<u>28</u>	<u>71</u>

## V.—SEX:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Male .....	117	126	243
Female .....	94	116	210
	<u>211</u>	<u>242</u>	<u>453</u>

## VI.—SOCIAL STATUS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Single .....	99	120	219
Married .....	102	111	213
Widowed .....	8	.....	8
Divorced or Separated .....	2	5	7
Separated .....	.....	6	6
	<u>211</u>	<u>242</u>	<u>453</u>



	Central Alberta Sanatorium	Edmonton Sanatoria	Total
<b>XIII.—OCCUPATIONS—WOMEN:</b>			
At Home .....	10	19	29
Bookkeeper .....	1	.....	1
Aircraft Repair .....	.....	1	1
Chambermaid .....	1	.....	1
Clerical Worker .....	6	.....	6
Clerk (Store) .....	2	7	9
Cook .....	1	1	2
Domestic .....	4	3	7
Housewife .....	47	60	107
Janitress .....	1	.....	1
Laundry Worker .....	2	.....	2
Nurse (Student) .....	3	1	4
Nurse (Graduate) .....	4	2	6
Postmistress .....	1	.....	1
Retired .....	.....	1	1
Student .....	5	13	18
Stenographer .....	1	4	5
Seamstress .....	.....	1	1
Teacher .....	2	2	4
Ward Maid .....	2	.....	2
Ward Aide .....	.....	1	1
Waitress .....	1	.....	1
	<u>94</u>	<u>116</u>	<u>210</u>

**XIV.—RESIDENCE OF DISCHARGED PATIENTS:****CITIES:**

Edmonton .....	14	74	88
Calgary .....	66	.....	66
Lethbridge .....	11	.....	11
Medicine Hat .....	7	.....	7
Drumheller .....	2	.....	2
Red Deer .....	4	1	5
Wetaskiwin .....	.....	3	3
	<u>104</u>	<u>78</u>	<u>182</u>

**TOWNS:**

Brooks .....	3	.....	3
Camrose .....	1	1	2
Cardston .....	1	.....	1
Coleman .....	3	2	5
Grande Prairie .....	2	1	3
Innisfail .....	2	.....	2
Macleod .....	1	.....	1
Ponoka .....	1	3	4
Vegreville .....	3	.....	3
Rocky Mountain House .....	1	.....	1
Athabasca .....	.....	7	7
Daysland .....	.....	1	1
Ft. Saskatchewan .....	.....	3	3
Hardisty .....	.....	1	1
Lacombe .....	.....	2	2
Lloydminster .....	.....	3	3
Morinville .....	.....	1	1
Peace River .....	.....	1	1
St. Albert .....	.....	2	2
Stettler .....	.....	1	1
St. Paul .....	.....	4	4
Tofield .....	.....	4	4
Vegreville .....	.....	4	4
Wainwright .....	.....	2	2
	<u>18</u>	<u>43</u>	<u>61</u>

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
<b>VILLAGES:</b>			
Black Diamond .....	2	.....	2
Bentley .....	1	.....	1
Barrhead .....	.....	2	2
Bawlf .....	.....	1	1
Berwyn .....	.....	3	3
Bonnyville .....	.....	1	1
Bowden .....	.....	2	2
Bruderheim .....	.....	1	1
Elnora .....	.....	1	1
Fahler .....	.....	1	1
Hay Lakes .....	.....	1	1
High Prairie .....	.....	2	2
Holden .....	.....	1	1
Legal .....	.....	1	1
Myrnam .....	.....	3	3
Mundare .....	.....	1	1
Ohaton .....	3	.....	3
Radway .....	.....	1	1
Ryley .....	.....	1	1
Seba Beach .....	.....	1	1
Smoky Lake .....	.....	3	3
Sylvan Lake .....	.....	1	1
Turner Valley .....	1	1	2
Provost .....	.....	1	1
Viking .....	1	.....	1
Westlock .....	.....	1	1
	8	31	39
<b>INDIANS:</b>			
Cardston .....	3	.....	3
Gleichen .....	1	.....	1
Fort McMurray .....	.....	1	1
Upper Hay River .....	.....	2	2
Edmonton .....	.....	1	1
Hobbema .....	.....	1	1
Kinuso .....	.....	1	1
	4	6	10
<b>ENLARGED MUNICIPAL DISTRICTS:</b>			
No.			
5 .....	1	.....	1
9 .....	1	.....	1
16 .....	1	.....	1
26 .....	1	.....	1
30 .....	3	.....	3
40 .....	4	.....	4
44 .....	2	.....	2
47 .....	2	.....	2
49 .....	1	.....	1
53 .....	2	.....	2
55 .....	5	1	6
57 .....	1	.....	1
61 .....	.....	2	2
62 .....	.....	2	2
63 .....	.....	1	1
64 .....	2	1	3
66 .....	.....	1	1
67 .....	1	.....	1
71 .....	1	.....	1
73 .....	1	1	2
74 .....	1	.....	1
81 .....	1	1	2
82 .....	2	2	4
83 .....	1	1	2
86 .....	1	1	2
88 .....	1	1	2
89 .....	1	5	6
90 .....	.....	4	4
91 .....	.....	1	1
92 .....	.....	3	3
93 .....	.....	2	2
94 .....	2	.....	2
	.....	5	5
	39	35	74
127 .....	.....	.....	.....



	Central Alberta Sanatorium	Edmonton Sanatoria	Total
<b>IMPROVEMENT DISTRICTS:</b>			
No.			
10	4	1	5
11	1	.....	1
15	2	.....	2
22	1	.....	1
28	5	.....	5
42	1	.....	1
46	2	.....	2
65	1	.....	1
69	3	.....	3
75	.....	6	6
76	.....	2	2
77	.....	2	2
78	.....	1	1
79	1	1	2
85	.....	1	1
87	.....	1	1
101	3	3	6
102	.....	1	1
103	.....	3	3
105	.....	3	3
107	.....	1	1
122	.....	3	3
124	.....	5	5
125	.....	3	3
128	.....	1	1
131	1	.....	1
134	1	.....	1
137	1	.....	1
138	.....	1	1
139	.....	2	2
143	2	2	4
145	.....	1	1
146	.....	3	3
Special Area	1	.....	1
	<u>30</u>	<u>47</u>	<u>77</u>
Non-residents	8	2	10

**SUMMARY OF RESIDENCE OF DISCHARGED PATIENTS:**

Cities	104	78	182
Towns	18	43	61
Villages	8	31	39
Indian Reserves	4	6	10
Non-Residents	8	2	10
Enlarged Municipal Districts	39	35	74
Improved Districts	30	47	77
	<u>211</u>	<u>242</u>	<u>453</u>

**IX.—RELIGION:**

Agnostic	.....	2	2
Atheist	1	.....	1
Buddhist	1	.....	1
Christian Reform	1	.....	1
Baptist	11	3	14
Church of England	44	23	67
Jewish	3	1	4
Greek Catholic	3	27	30
Greek Orthodox	3	15	18
Latter Day Saints	3	1	4
Lutheran	17	28	45
Mennonite	1	.....	1
Methodist	1	2	3
Nazarene	1	.....	1
Pentecostal	2	.....	2
Presbyterian	21	9	30
Roman Catholic	42	78	120
Salvation Army	1	.....	1
Seventh Day Adventist	1	.....	1
United	44	51	95
Undenominational	10	2	12
	<u>211</u>	<u>242</u>	<u>453</u>

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
<b>X.—AGE ON ADMISSION:</b>			
From 1 to 9 years .....	3	7	10
From 10 to 14 years .....	2	7	9
From 15 to 19 years .....	16	37	53
From 20 to 29 years .....	94	73	167
From 30 to 39 years .....	46	38	84
From 40 to 49 years .....	21	40	61
From 50 to 59 years .....	20	27	47
From 60 to 69 years .....	8	11	19
From 70 and over .....	1	2	3
	<u>211</u>	<u>242</u>	<u>453</u>
<b>XI.—NATIVITY:</b>			
Alberta .....	113	141	254
Canada (other Provinces) .....	39	33	72
Austria .....	3	6	9
Belgium .....	1	1	2
China .....	4	.....	4
Czecho-Slovakia .....	1	2	3
England .....	10	9	19
Finland .....	1	.....	1
Hungary .....	2	.....	2
Holland .....	1	.....	1
Norway .....	2	4	6
Poland .....	5	19	24
Russia .....	2	3	5
Roumania .....	1	2	3
Scotland .....	8	2	10
Sweden .....	4	6	10
United States .....	11	7	18
Ukraine .....	3	1	4
Wales .....	.....	2	2
Lithuania .....	.....	1	1
Germany .....	.....	1	1
Italy .....	.....	1	1
Denmark .....	.....	1	1
	<u>211</u>	<u>242</u>	<u>453</u>
<b>XII.—LENGTH OF RESIDENCE IN ALBERTA:</b>			
Born in Alberta .....	109	140	249
Alberta 1 year or less .....	5	4	9
Alberta 1 to 5 years .....	12	8	20
Alberta 6 to 9 years .....	5	4	9
Alberta 10 to 14 years .....	6	8	14
Alberta 15 to 19 years .....	25	28	53
Alberta 20 to 40 years .....	24	15	39
Alberta 30 or more years .....	25	35	60
	<u>211</u>	<u>242</u>	<u>453</u>
<b>XIII.—RACIAL ORIGIN:</b>			
Austrian .....	3	4	7
Belgian .....	1	1	2
Bohemian .....	.....	1	1
Chinese .....	4	.....	4
Czechoslovakian .....	3	3	6
Danish .....	1	2	3
Dutch .....	7	5	12
English .....	44	39	83
French .....	8	12	20
Finnish .....	4	1	5
Greek .....	10	5	15
German .....	3	1	4
Jewish .....	3	.....	3
Hungarian .....	5	7	12
Indian .....	19	15	34
Irish .....	.....	1	1
Italian .....	.....	1	1
Lithuanian .....	3	34	37
Metis .....	1	1	2
Negro .....	11	12	23
Norwegian .....	8	14	22
Polish .....	1	.....	1
Roumanian .....	2	4	6
Russian .....	24	4	6
Scottish .....	42	19	61
Swedish .....	7	14	21
Ukrainian .....	15	43	58
Unknown .....	4	.....	4
Welsh .....	2	3	5
	<u>211</u>	<u>242</u>	<u>453</u>



	Central Alberta Sanatorium	Edmonton Sanatoria	Total
XIV.—OCCUPATIONS—MEN:			
Apprentice .....	1	.....	1
Accountant .....	4	.....	4
Air Force .....	1	4	5
Army .....	1	15	16
At Home .....	1	12	13
Attendant .....	.....	1	1
Auctioneer .....	.....	1	1
Bookkeeper .....	.....	1	1
Barber .....	.....	1	1
Baker .....	1	.....	1
Bank Messenger .....	1	.....	1
Cabinet Maker .....	1	.....	1
Carpenter .....	4	3	7
Clerical Worker .....	5	.....	5
Cook .....	3	3	6
Clerk (Store) .....	3	.....	3
Caterpillar Operator .....	.....	1	1
Physician .....	2	.....	2
Dispatcher .....	.....	1	1
Electrician .....	1	.....	1
Engineer .....	2	.....	2
Fireman .....	.....	1	1
Farmer .....	20	44	64
Flour Packer .....	1	.....	1
Gardener .....	1	.....	1
Hairdresser .....	1	.....	1
Hotel Keeper .....	3	.....	3
Health Inspector .....	.....	1	1
Instructor .....	1	.....	1
Jeweller .....	.....	1	1
Labourer .....	9	6	15
Laundryman .....	1	.....	1
Lumberman .....	2	.....	2
Logger .....	.....	1	1
Metal Worker .....	2	.....	2
Machinist .....	1	.....	1
Manufacturer .....	1	.....	1
Mechanic (Motor) .....	2	.....	2
Merchant .....	.....	2	2
Miner .....	8	7	15
Marine .....	.....	1	1
Oil Worker .....	.....	1	1
Pool Room Operator .....	1	.....	1
Postmaster .....	1	.....	1
Projectionist .....	1	.....	1
Plasterer .....	.....	1	1
Retired .....	.....	4	4
R.C.N.V.R. ....	.....	1	1
Salesman .....	6	3	9
Section Man .....	1	1	2
Station Agent .....	1	.....	1
Storekeeper .....	1	.....	1
Student .....	10	6	16
Street Railway .....	.....	1	1
Sheet Metal Worker .....	.....	1	1
Technician .....	1	.....	1
Tinsmith .....	1	.....	1
Trainman .....	2	.....	2
Truck Driver .....	5	.....	5
Undertaker .....	1	.....	1
Welder .....	1	.....	1
	117	126	243





ANNUAL REPORT  
OF THE  
**Vital Statistics Branch**  
OF THE  
DEPARTMENT OF PUBLIC HEALTH  
PROVINCE OF ALBERTA

1946

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Vital Statistics Branch  
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DEPARTMENT OF HEALTH  
PROVINCE OF ALBERTA



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# VITAL STATISTICS BRANCH

(ARTHUR PACKFORD, *Deputy Registrar General*)

This is the 42nd Annual Report of the Vital Statistics of the Province of Alberta and is for the year 1946. This report shows a considerable increase in the birth and marriage rates and a slight increase in the death rate. The infant mortality rate is the same as the previous year, and there is a very substantial decrease in the maternal mortality rate.

The birth rate is the highest of the five Western Provinces, but is lower than the four Eastern Provinces, and is the highest in the Province since 1921.

The upswing in the marriage rate followed the end of the War, and was general in all countries. The rate is exactly the same as in 1940, which was the highest marriage rate in the Province since 1913.

The death rates from epidemic and contagious diseases show a considerable decline in whooping cough. Scarlet fever is the same as the previous year, a decline in diphtheria, but an increase in tuberculosis and influenza. There was also an increase in the death rates for diseases of the heart and cancer. There was a slight increase in the total of violent and accidental deaths.

## POPULATION

The census taken by the Dominion Bureau of Statistics in June, 1946, shows the population as 803,330. All rates in this Report have, therefore, been based on this figure.

## BIRTHS

There were 22,184 live births registered during the year. The birth rate was 27.6 per 1,000 population. There were 2,245 more births than in the previous year, and the increase in the birth rate was 3.5. Of the total births, 11,302 were males and 10,882 were females, the ratio being 1,036 males to each 1,000 females. The average for the previous ten years was 1,046 males to each 1,000 females. Twin births numbered 273 and there were 3 triplet births. Illegitimate births numbered 1,218, an increase of 168 from the previous year, the rate being 5.5 per 100 births.

The number of children born to residents of cities and towns of 1,000 population or over was 8,873, and to residents of the rural districts 12,154. Indian births numbered 1,157. The births to residents only in the four large cities were as follows: Edmonton, 3,431; Calgary, 2,559; Lethbridge, 483; and Medicine Hat, 356. The actual number of births in each of these cities was: Edmonton, 5,375; Calgary, 3,688; Lethbridge, 846; and Medicine Hat, 772.

For purposes of comparison the following are the birth rates for Canada, the Provinces, Great Britain, and certain other countries for the year 1946:



## VITAL STATISTICS BRANCH

## BIRTH RATES

Canada .....	26.9	Eire .....	22.6
Prince Edward Island .....	29.7	Australia .....	23.7
Nova Scotia .....	29.3	New Zealand .....	25.2
New Brunswick .....	33.9	United States of America .....	23.3
Quebec .....	30.7	France .....	20.6
Ontario .....	23.8	Belgium .....	18.1
Manitoba .....	25.9	Czechoslovakia .....	22.0
Saskatchewan .....	25.7	Netherlands .....	30.2
ALBERTA .....	27.6	Norway .....	22.5
British Columbia .....	22.5	Sweden .....	19.6
England and Wales .....	19.1	Italy .....	22.6
Scotland .....	20.3	Portugal .....	25.0
Northern Ireland .....	22.6		

## MARRIAGES

Marriages registered during the year numbered 9,478, being 2,168 more than in the previous year, and is 1,502 more than the average for the preceding five years, and constitutes a rate of 11.8, the rate for the previous year being 8.8. There were 138 brides of 16 years and under, 2,030 were between the ages of 17 and 19, and 4,326 were between the ages of 20 and 24. There were 145 grooms and 69 brides over 60 years of age. Of these, 36 grooms and 16 brides were over 70, and 17 grooms and 3 brides were over 75.

The number of marriages in the four large cities were as follows: Edmonton, 2,593; Calgary, 1,997; Lethbridge, 392; and Medicine Hat, 345.

The following are the marriage rates for Canada, the Provinces and certain other countries for the year 1946:

## MARRIAGE RATES

Canada .....	10.9	Eire .....	5.9
Prince Edward Island .....	8.9	Australia .....	10.7
Nova Scotia .....	10.7	New Zealand .....	12.3
New Brunswick .....	12.2	United States of America .....	16.3
Quebec .....	10.1	France .....	12.7
Ontario .....	11.2	Belgium .....	10.8
Manitoba .....	11.8	Czechoslovakia .....	9.8
Saskatchewan .....	9.9	Netherlands .....	11.4
ALBERTA .....	11.8	Norway .....	9.3
British Columbia .....	11.7	Sweden .....	9.3
England and Wales .....	8.9	Italy .....	9.1
Scotland .....	8.9	Portugal .....	7.6
Northern Ireland .....	7.3		

## DIVORCES

Divorces granted by decree absolute in the Province during the year numbered 974, this being 399 more than the previous year and 541 more than the average for the five preceding years; 494 divorces were granted to husbands and 480 to wives. In addition to the divorces, 12 decrees of nullity were issued.

## DEATHS

Total deaths during the year numbered 6,601, including 461 Indians, of which number 4,049 were males and 2,552 were females. There were 147 more deaths than in the previous year, the rates being 8.2 and 7.8 respectively. At the time of death, 506 males and 389 females were over 80 years of age. There were no deaths of centenarians recorded.

The number of deaths of residents of the four large cities were as follows: Edmonton, 1,022; Calgary, 996; Lethbridge, 154; and Medicine Hat, 133.

The chief cause of death, diseases of the heart, again shows an increase, the number of deaths being 1,721 compared with 1,643 for the previous year, and the rates being 214 and 199, respectively, per 100,000 population. Diseases of the arteries accounted for 102 deaths as compared with 138 for 1945, the rates being 12 and 14.



Deaths from cancer show an increase of 30, the number being 860 as compared with 830 the previous year, the rates being 107 and 100.

Deaths from pneumonia again showed a slight decrease, the numbers being 362 and 367 and the rates 45 and 44.

Deaths from all forms of tuberculosis increased from 263 to 302. There were 233 deaths due to pulmonary tuberculosis as compared with 200 in 1945, the respective rates being 29 and 25.

There were 89 deaths from influenza as compared with the previous year's total of 58.

Violent deaths (excluding suicides) numbered 456 compared with 472 the previous year. Auto accidents caused 90 deaths, 21 more than the previous year's total of 69. Railways accidents accounted for 15 deaths, 7 more than the previous year. Aeroplane accidents caused 8 deaths, 9 less than the previous year. Agriculture and Forestry accidents caused 2 more deaths than the previous year, the total being 35. Deaths by suicide numbered 100, an increase of 24, and homicides numbered 6 compared with 12 the previous year.

The following table shows the death rates for Canada, the Provinces, and certain other countries for 1946:

## DEATH RATES

Canada .....	9.4	Eire .....	13.9
Prince Edward Island .....	9.3	Australia .....	10.0
Nova Scotia .....	9.9	New Zealand .....	9.7
New Brunswick .....	10.1	United States of America .....	10.0
Quebec .....	9.3	France .....	13.4
Ontario .....	9.7	Belgium .....	13.4
Manitoba .....	9.0	Czechoslovakia .....	13.7
Saskatchewan .....	7.7	Netherlands .....	8.5
ALBERTA .....	8.2	Norway .....	9.2
British Columbia .....	10.1	Sweden .....	10.5
England and Wales .....	11.5	Italy .....	12.0
Scotland .....	13.1	Portugal .....	14.7
Northern Ireland .....	12.5		

## MATERNAL MORTALITY

There was a very substantial decrease in maternal mortality, the number of deaths being 32 as compared with 48 for the previous year, the rate being 1.4 per 1,000 live births. The rate for 1945 was 2.4. This is the lowest maternal mortality rate in Canada for 1946, and the lowest in the history of the Province. The rates for Canada, the Provinces, and certain other countries are as follows:

## MATERNAL MORTALITY RATES PER 1,000 BIRTHS

Canada .....	1.8	ALBERTA .....	1.4
Prince Edward Island .....	2.1	British Columbia .....	1.7
Nova Scotia .....	1.6	Scotland .....	2.3
New Brunswick .....	2.1	Eire .....	1.8
Quebec .....	2.1	Australia .....	1.9
Ontario .....	1.6	Netherlands .....	1.5
Manitoba .....	1.7	Portugal .....	6.7
Saskatchewan .....	1.7		

## INFANT DEATHS

Deaths of children under one year of age numbered 945, as compared with 862 for the previous year. The rate, however, is the same, being 43 per 1,000 live births. The following are the infantile mortality rates for Canada, the Provinces and certain other countries for 1946:

## VITAL STATISTICS BRANCH

## INFANT MORTALITY RATES PER 1,000 BIRTHS

Canada .....	47	Northern Ireland .....	54
Prince Edward Island .....	35	Eire .....	63
Nova Scotia .....	46	Australia .....	29
New Brunswick .....	66	New Zealand .....	25
Quebec .....	55	United States of America .....	34
Ontario .....	37	France .....	67
Manitoba .....	47	Belgium .....	71
Saskatchewan .....	47	Czechoslovakia .....	108
ALBERTA .....	43	Netherlands .....	38
British Columbia .....	38	Sweden .....	26
England and Wales .....	43	Italy .....	84
Scotland .....	54	Portugal .....	119

Stillbirths numbered 363, being 51 more than the previous year.



## DIVISIONS OF ALBERTA FOR CENSUS AND VITAL STATISTICS PURPOSES

As the Province of Alberta is not divided into Counties, and the political divisions are not permanently fixed, it has been found advisable to use as smaller areas, the Dominion Census Divisions.

The Province is divided into 17 census divisions. These divisions are further subdivided into organized municipal areas. These municipal areas, which were each originally within the boundaries of a single census division, have been reorganized by the Provincial authorities into larger units, and now, in many cases, part of the new municipality or improvement district is in one census division and part in another.

The following table shows the census divisions divided into municipalities, improvement districts, cities, towns and villages, with the 1946 and 1941 division population figures. The table is arranged to show the population of each of the former municipal districts, improvement districts or parts of districts included in the new units. Each new unit in the table is underlined. The former area or areas which make up the new unit are listed directly beneath.

POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNI-  
CIPALITIES FOR CENSUS YEARS, 1941 AND 1946

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
<b>ALBERTA</b> .....	<b>803,330</b>	<b>796,169</b>	<b>Division No. 1—Continued:</b>		
Rural .....	448,934	489,583	<b>Division No. 2</b> .....	<b>60,982</b>	<b>58,563</b>
Urban .....	354,396	306,586	Rural .....	29,651	29,725
<b>Division No. 1</b> .....	<b>31,256</b>	<b>29,595</b>	5. Sugar City .....	5,116	4,749
Rural .....	15,027	16,408	7. I.D. ....	376	432
1. I.D. ....	806	947	8. I.D. (pt.) .....	179	202
1. I.D. ....	43	57	37. Sugar City .....	2,844	2,391
2. I.D. ....	104	148	38. I.D. ....	1,305	1,282
3. I.D. ....	167	169	67. I.D. (pt.) .....	412	442
31. I.D. ....	52	62	6. Cochrane .....	3,735	4,233
32. I.D. ....	440	511	8. I.D. (pt.) .....	945	1,106
2. Burlington .....	1,275	1,440	9. I.D. ....	1,311	1,538
33. Flowery Plains .....	409	487	10. Cochrane .....	1,479	1,589
34. Burlington .....	866	953	8. I.D. ....	41	2
3. I.D. ....	2,242	2,505	39. Kerr (pt.) .....		2
4. I.D. ....	391	521	40. Castle River (pt.) .....	41	
5. I.D. ....	994	1,067	9. Pincher Creek .....	3,135	3,363
6. I.D. ....	503	541	39. Kerr (pt.) .....	1,422	1,532
35. I.D. ....	354	376	40. Castle River (pt.) .....	605	614
4. Warner .....	1,940	1,871	70. Livingston .....	1,108	1,217
36. Warner .....	1,940	1,871	10. I.D. ....	4,153	4,149
11. I.D. ....	3,774	4,756	71. I.D. ....	4,153	4,149
61. I.D. ....	565	740	15. I.D. (pt.) .....	7,171	6,693
62. I.D. ....	534	615	67. I.D. (pt.) .....	4,530	4,267
63. I.D. ....	514	609	68. I.D. (pt.) .....	2,641	2,426
91. I.D. ....	917	1,164	16. Bright .....	2,264	2,427
92. I.D. ....	705	890	39. Kerr .....		68
93. I.D. ....	539	738	68. I.D. (pt.) .....	374	423
12. Forty Mile .....	784	959	69. Bright .....	1,187	1,153
64. Forty Mile .....	784	959	99. Argyle (pt.) .....	454	476
13. Bow Island .....	465	535	100. I.D. (pt.) .....	249	307
94. Bow Island .....	465	535	26. Argyle (pt.) .....	1,248	1,516
14. Eureka .....	1,120	1,098	99. Argyle (pt.) .....	1,009	1,238
65. Eureka .....	1,120	1,098	100. I.D. (pt.) .....	239	278
15. I.D. (pt.) .....	2,621	2,297	27. I.D. (pt.) .....	95	162
66. I.D. ....	2,621	2,297	101. I.D. ....	95	162
Urban .....	16,229	13,187	Waterton Lakes Nat. Park .....	210	269
Cities:			Indian Reserves .....	2,483	2,162
Medicine Hat .....	12,859	10,571	Urban .....	31,331	28,838
Towns:			Cities:		
Bow Island .....	432	291	Lethbridge .....	16,522	14,612
Irvine .....	261	240	Towns:		
Taber .....	1,760	1,331	Blairmore .....	1,767	1,731
Villages:			Cardston .....	2,334	1,864
Burdett .....	110	123	Claresholm .....	1,306	1,265
Milk River .....	437	335	Coleman .....	1,809	1,870
Warner .....	370	296	Granum .....	238	238



POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
<b>Division No. 2—Continued:</b>			<b>Division No. 4—Continued:</b>		
Towns—Continued:			Rural—Continued:		
Macleod .....	1,649	1,912	192. I.D. ....	39	6
Magrath .....	1,295	1,207	193. I.D. ....	1	2
Pincher Creek .....	1,148	994	Bow West Area (pt.) .....	719	927
Raymond .....	2,116	2,089	96. I.D. (pt.) .....	176	245
Villages:			127. I.D. (pt.) .....	478	595
Coaldale .....	413	290	157. Marquis (pt.) .....	65	87
Cowley .....	94	125	Urban .....	9,270	7,068
Frank .....	194	204	Towns:		
Stirling .....	446	437	High River .....	1,674	1,430
<b>Division No. 3</b> .....	14,749	15,518	Nanton .....	873	718
Rural .....	10,963	12,151	Okotoks .....	694	591
21. I.D. ....	1,927	2,404	Stavely .....	299	273
121. Many Islands (pt.)			Vulcan .....	786	732
I.D. ....	1,927	2,404	Villages:		
22. I.D. ....	631	637	Arrowwood .....	206	251
122. Jubilee I.D. (pt.) .....	614	633	Barons .....	270	233
125. I.D. (pt.) .....	17	4	Black Diamond .....	1,380	890
23. I.D. ....	1,308	1,359	Blackie .....	222	223
125. I.D. (pt.) .....	1,104	1,180	Carmangay .....	229	229
127. I.D. (pt.) .....	204	179	Caley .....	140	133
28. I.D. (pt.) .....	5,480	5,475	Champion .....	279	320
123. Bow Slope (pt.) .....	5,480	5,475	Milo .....	108	129
34. Acadia (pt.) .....	12	9	Lomond .....	138	129
241. Acadia (pt.) .....	12	9	Nobleford .....	126	111
Army Experimental Range		317	Picture Butte .....	689	...
121. Many Islands .....		12	Turner Valley .....	1,157	676
122. Jubilee I.D. (pt.) .....		305	<b>Division No. 5</b> .....	16,719	18,926
Berry Creek-Sullivan Lake			Rural .....	13,409	15,560
Area (pt.) .....	661	752	34. Acadia (pt.) .....	670	739
122. Jubilee I.D. (pt.) .....	661	752	241. Acadia (pt.) .....	670	739
Bow West Area (pt.) .....	944	1,198	42. I.D. (pt.) .....	2,761	2,428
96. I.D. (pt.) .....	398	536	276. I.D. (pt.) .....	2,761	2,428
127. I.D. (pt.) .....	546	662	47. Starland .....	2,627	3,214
Urban .....	3,786	3,367	277. Michichi .....	879	1,118
Towns:			306. Lambton (pt.) .....	688	848
Bassano .....	590	582	307. Starland .....	1,060	1,248
Brooks .....	1,091	888	Berry Creek-Sullivan Lake		
Redcliffe .....	1,289	1,111	Area (pt.) .....	3,684	4,658
Villages:			214. I.D. (pt.) .....	963	1,251
Duchess .....	207	149	305. I.D. (pt.) .....	2,383	2,986
Empress .....	417	341	306. Lambton (pt.) .....	338	421
Enchant .....		76	Sounding Creek-Neutral		
Jenner .....		27	Hills Area (pt.) .....	3,667	4,521
Tilley .....	192	193	214. I.D. (pt.) .....	114	185
<b>Division No. 4</b> .....	28,402	29,383	242. I.D. ....	2,087	2,506
Rural .....	19,132	22,315	273. I.D. ....	474	553
25. Barons .....	19,132	22,315	331. I.D. (pt.) .....	992	1,277
97. I.D. ....	2,757	2,939	Urban .....	3,310	3,366
98. Little Bow .....	1,234	1,363	Towns:		
127. I.D. (pt.) .....	40	71	Hanna .....	1,756	1,622
26. Argyle (pt.) .....	1,776	1,994	Villages:		
129. Clear Lake .....	1,544	1,728	Cereal .....	111	142
130. I.D. (pt.) .....	232	266	Chinook .....	130	142
27. I.D. (pt.) .....	155	107	Craigmyle .....	140	186
130. I.D. (pt.) .....	59	39	Delia .....	231	315
131. I.D. ....	96	68	Morrin .....	177	216
Rural:			Munson .....	93	139
29. Vulcan .....	2,201	2,726	Oyen .....	339	326
127. I.D. (pt.) .....	26	72	Rumsey .....	98	90
128. Harmony .....	621	845	Youngstown .....	235	188
157. Marquis .....	380	442	<b>Division No. 6</b> .....	157,556	146,990
158. Royal .....	1,174	1,367	Rural .....	45,914	46,679
30. Blackie .....	2,171	2,433	28. I.D. (pt.) .....	663	668
157. Marquis (pt.) .....	641	857	123. Bow Slope I.D.		
189. Dinton .....	1,530	1,576	(pt.) .....	663	668
31. Highwood .....	3,497	3,552	32. Turner Valley (pt.) .....	63	84
159. Riley .....	1,686	1,721	222. I.D. (pt.) .....	63	84
190. Sheep Creek .....	1,811	1,831	39. I.D. ....	458	555
32. Turner Valley (pt.) .....	4,540	6,175	217. I.D. ....	458	555
160. I.D. ....	1,461	2,422	40. Bow Valley .....	2,578	2,907
161. I.D. (pt.) .....	18	47	218. Blackfoot .....	1,244	1,451
191. Stockland .....	3,061	3,706	219. Bow Valley .....	1,334	1,456
33. I.D. ....	42	28	41. I.D. ....	686	893
161. I.D. (pt.) .....	2	20			



## POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
<b>Division No. 6—Continued:</b>			<b>Division No. 7—Continued:</b>		
Rural—Continued:			Rural—Continued:		
247. I.D. ....	686	893	421. Ribstone .....	1,229	1,416
42. I.D. (pt.) .....	3,840	4,061	422. Gilt Edge .....	1,322	1,489
276. I.D. (pt.) .....	2,840	4,061	423. Battle River .....	1,086	1,399
43. Serviceberry .....	2,832	3,013	62. Flagstaff .....	6,461	7,804
248. Grasswold .....	1,332	1,400	364. Flagstaff .....	998	1,530
249. Keoma .....	1,500	1,613	394. Asquith .....	835	1,043
44. Conrich .....	4,892	4,273	395. Wheatland .....	1,465	1,692
220. Shepard .....	2,841	2,134	424. Kinsella .....	993	1,105
250. Beddington .....	2,051	2,139	425. Sterling .....	1,688	1,873
45. Springbank .....	5,008	3,241	455. Iron Creek (pt.) .....	482	561
221. Springbank .....	5,008	3,241	73. Beaver (pt.) .....	1,347	1,518
46. I.D. ....	3,711	3,598	455. Iron Creek (pt.) .....	1,347	1,518
222. I.D. (pt.) .....	286	405	Berry Creek-Sullivan Lake		
223. I.D. ....	1,693	1,546	Area (pt.) .....	126	147
251. I.D. ....	1,365	1,314	305. I.D. (pt.) .....	126	147
252. I.D. ....	361	333	Scounding Creek-Neutral		
254. I.D. ....	6	.....	Hills Area (pt.) .....	2,555	3,012
224. 253. I.D. ....	.....	.....	331. I.D. (pt.) .....	2,555	3,012
48. Kneehill .....	7,151	8,097	Buffalo National Park .....	17	4
278. Carbon .....	1,207	1,580	Urban .....	7,915	7,169
279. Norquay .....	1,982	2,184	Towns:		
308. Ghost Pine .....	1,786	2,023	Castor .....	647	625
309. Stauffer .....	2,176	2,310	Coronation .....	633	581
49. Mountain View .....	8,883	9,800	Hardisty .....	494	457
280. Rosebud .....	2,141	2,233	Wainwright .....	1,261	980
281. Beaver Dam .....	2,080	2,327	Villages:		
310. Mountain View .....	2,231	2,580	Alliance .....	243	233
311. Westerdale .....	2,431	2,660	Cadogan .....	.....	99
50. I.D. ....	899	1,085	Chauvin .....	383	343
282. I.D. ....	899	1,085	Consort .....	325	265
283. 284. I.D. ....	.....	.....	Czar .....	121	139
51. Banff National Park .....	2,244	2,545	Edgerton .....	273	258
Banff (not) .....	2,081	2,187	Forestburg .....	243	231
Indian Reserves .....	2,006	1,859	Galahad .....	166	145
Urban .....	111,642	100,311	Hughenden .....	168	164
Cities:			Irma .....	345	273
Calgary .....	100,044	88,904	Killam .....	430	347
Drumheller .....	2,659	2,748	Lougheed .....	171	195
Towns:			Monitor .....	.....	82
Didsbury .....	980	892	Provost .....	645	518
Gleichen .....	477	435	Sedgewick .....	417	320
Olds .....	1,521	1,337	Strome .....	233	233
Strathmore .....	603	560	Veteran .....	191	190
Three Hills .....	952	706	Viking .....	526	491
Villages:			Division No. 8 .....	64,789	67,630
Acme .....	282	285	Rural .....	44,097	49,293
Airdrie .....	198	191	54. Stettler .....	6,093	7,167
Beiseker .....	272	240	336. Success .....	1,236	1,389
Carbon .....	369	409	337. Vimy .....	686	947
Carstairs .....	385	371	366. Dublin .....	1,071	1,257
Cluny .....	151	138	367. Waverly .....	1,790	1,893
Cochrane .....	405	298	396. Haig (pt.) .....	811	1,012
Crossfield .....	433	409	397. Lakeside (pt.) .....	499	669
Forest Lawn .....	646	899	55. Red Deer (pt.) .....	6,681	7,792
Hussar .....	130	116	338. Hays .....	2,411	2,702
Irricana .....	150	172	339. Pine Lake .....	2,011	2,726
Langdon .....	.....	95	340. Arthur .....	2,259	2,364
Rockyford .....	226	201	63. Camrose .....	11,456	12,449
Rosebud .....	.....	99	396. Haig (pt.) .....	413	542
Standard .....	244	212	397. Lakeside (pt.) .....	922	1,004
Swalwell .....	.....	114	426. Melrose .....	2,760	2,955
Trochu .....	515	480	427. Evergreen .....	2,469	2,730
Division No. 7 .....	29,928	33,285	456. Parkland (pt.) .....	2,197	2,317
Rural .....	22,013	22,116	457. Lloyd George .....	2,695	2,901
52. Provost .....	4,020	4,716	64. Lacombe (pt.) .....	6,020	6,583
362. Hillcrest .....	936	986	398. Lamerton .....	2,169	2,479
363. Stocks (pt.) .....	489	617	399. Crown .....	3,851	4,104
391. Sifton .....	1,454	1,688	66. Ponoka (pt.) .....	5,625	6,235
392. Vale (pt.) .....	310	384	428. Waterglen .....	1,277	1,486
393. Huamha .....	831	1,041	429. Fertile Valley .....	4,348	4,749
53. Paintearth .....	3,503	4,160	73. Beaver (pt.) .....	398	562
334. Coronation .....	1,494	1,840	456. Parkland (pt.) .....	398	562
363. Stocks (pt.) .....	286	318	74. Wetaskiwin (pt.) .....	6,496	7,263
365. Progress .....	1,723	2,002	458. Montgomery .....	3,185	3,486
61. Wainwright (pt.) .....	3,984	4,755	459. Bigstone (pt.) .....	3,311	3,777
392. Vale (pt.) .....	347	451	Indian Reserves .....	1,328	1,242



## POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
<b>Division No. 8—Continued:</b>			<b>Division No. 9—Continued:</b>		
Urban .....	20,692	18,337	Rural—Continued:		
Cities:			80. Jasper National Park	1,588	1,622
Red Deer .....	4,042	2,924	Jasper (not)	1,419	1,335
Wetaskiwin .....	2,645	2,318	Urban .....	4,150	3,187
Towns:			Towns:		
Camrose .....	2,967	2,598	Rocky Mountain .....	1,017	800
Daysland .....	464	438	Sylvan Lake .....	971	805
Innisfail .....	1,272	1,223	Villages:		
Lacombe .....	1,808	1,603	Bentley .....	362	279
Ponoka .....	1,468	1,306	Bowden .....	273	234
Stettler .....	1,499	1,295	Eckville .....	195	135
Villages:			North Red Deer .....	698	524
Alix .....	428	360	Rimbeay .....	634	410
Bashaw .....	511	494	<b>Division No. 10 .....</b>	<b>51,881</b>	<b>58,807</b>
Bawlf .....	231	227	Rural .....	42,510	49,982
Big Valley .....	209	291	61. Wainwright (pt.) .....	333	425
Bittern Lake .....	38	50	451. Merton (pt.) .....	259	303
Blackfalds .....	119	113	452. Grizzly Bear (pt.) .....	74	122
Botha .....	112	111	71. Vermilion River (pt.) .....	10,572	11,869
Clive .....	227	224	451. Merton (pt.) .....	1,164	1,379
Delburne .....	379	308	452. Grizzly Bear (pt.) .....	973	1,246
Donalda .....	220	206	481. Wellington .....	1,566	1,794
Edberg .....	163	152	482. Vermilion Valley .....	1,819	1,872
Elnora .....	201	195	511. Streamstown .....	2,235	2,420
Erskine .....		172	512. Ethelwyn .....	2,815	3,158
Ferintosh .....	186	169	72. Minburn .....	6,218	7,052
Gadsby .....	120	141	453. Buffalo Coulee .....	1,130	1,370
Gull Lake .....	39	21	454. Lakeview .....	1,242	1,358
Halkirk .....	121	118	483. Melberta .....	1,716	1,894
Millet .....	348	325	484. Birch Lake .....	2,130	2,430
Mirror .....	562	570	73. Beaver (pt.) .....	3,173	3,683
New Norway .....	179	169	485. Patricia (pt.) .....	1,080	1,261
Ohaton .....		53	486. Beaver Lake (pt.) .....	2,093	2,422
Penhold .....	134	183	81. Eagle .....	11,787	14,483
<b>Division No. 9 .....</b>	<b>31,160</b>	<b>32,232</b>	485. Patricia (pt.) .....	771	848
Rural .....	27,010	29,045	513. Ukraina .....	2,549	3,179
55. Red Deer (pt.) .....	5,006	5,735	514. Sobor .....	2,664	3,279
341. Poplar Grove .....	2,762	3,113	515. Norma .....	2,502	3,027
371. Golden West .....	2,244	2,622	545. Eagle .....	3,301	4,150
56. Waterloo .....	1,482	1,402	82. Lamont .....	10,427	12,470
312. Waterloo .....	1,482	1,402	486. Beaver Lake (pt.) .....	585	672
57. Raven .....	2,168	2,254	516. The Pines .....	2,966	3,547
342. Raven .....	2,168	2,254	546. Wostok .....	3,812	4,653
58. I.D. .....	116	94	547. Leslie .....	3,064	3,598
313, 314. I.D. .....	11	12	Urban .....	9,371	8,825
316. I.D. .....		4	Towns:		
344. I.D. .....	99	72	Lloydminster (pt.) .....	698	572
374, 375. I.D. .....	6	6	Vegreville .....	1,563	1,696
315, 345, 346. I.D. .....			Vermilion .....	1,630	1,408
64. Lacombe (pt.) .....	2,634	2,670	Villages:		
400. Lorne .....	2,634	2,670	Andrew .....	369	326
65. I.D. .....	3,865	4,307	Bruderheim .....	232	237
343. I.D. .....	781	833	Chipman .....	194	240
401. Lochearn .....	2,716	3,037	Derwent .....	207	171
403. I.D. .....	368	437	Hairy Hill .....	235	.....
66. Ponoka (pt.) .....	1,685	1,800	Holden .....	382	361
430. Blindman .....	1,685	1,800	Innisfree .....	258	253
67. Last West .....	1,482	1,898	Islay .....		132
431. Last West .....	1,482	1,898	Kitscoty .....	240	234
68. I.D. .....	136	135	Lamont .....	468	438
432. I.D. .....	136	135	Lavoy .....	127	178
69. I.D. .....	1,979	1,234	Manville .....	472	396
376. I.D. .....	1,263	768	Minburn .....	198	129
433. I.D. .....	178	114	Mundare .....	727	756
434. I.D. .....	350	240	Mynnam .....	308	216
435. I.D. .....	67	8	Ranfurly .....		129
436. I.D. (Pt.) .....	2	.....	Ryley .....	338	323
463. I.D. .....	119	102	Two Hills .....	289	210
464, 465. I.D. .....		2	Willington .....	436	420
347, 348, 377, 437 (pt.) .....		.....	<b>Division No. 11 .....</b>	<b>168,331</b>	<b>149,193</b>
76. I.D. (pt.) .....	3,187	3,877	Rural .....	48,548	49,400
460. Columbia .....	1,760	1,951	73. Beaver (pt.) .....	2,629	2,997
461. I.D. .....	1,046	1,486	487. Cornhill .....	2,629	2,997
462. I.D. .....	381	440	74. Wetaskiwin (pt.) .....	9	39
79. I.D. (pt.) .....	1,682	2,017	459. Bigstone (pt.) .....	9	39
436. I.D. (pt.) .....	2	3			
466. I.D. (pt.) .....	1,680	2,014			
437 (pt.), 468. I.D. .....		.....			



## POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
<b>Division No. 11—Continued:</b>			<b>Division No. 12—Continued:</b>		
Rural—Continued:			Rural—Continued:		
75. Leduc	11,629	12,741	529, 530, 561, 587. I.D.		
488. Black Mud	3,798	4,239	108. I.D. (pt.)	131	106
489. Liberty	4,394	4,883	612. I.D. (pt.)	131	106
490. Pioneer	3,437	3,619	109. I.D. (pt.)	1,189	1,209
76. I.D. (pt.)	1,385	1,479	583. I.D.	830	889
491. I.D.	1,385	1,479	612. I.D.	319	277
83. Strathcona	6,383	6,725	615. I.D.	40	43
517. Clover Bar	2,515	2,740	616. I.D.		
518. Strathcona	3,868	3,985	110. I.D. (pt.)	45	33
84. Stony Plain	11,816	10,061	589. I.D. (pt.)		
519. Spruce Grove	6,923	4,824	590. I.D. (pt.)	45	33
520. Inga	2,693	3,013	111. I.D. (pt.)		
521. Tomahawk	1,960	2,198	591. I.D. (pt.)		
551. Morthen (pt.)	240	26	Urban	1,874	1,934
90. Sturgeon (pt.)	5,429	5,115	Towns:		
548. Sturgeon	5,429	5,115	Edson	1,571	1,499
91. Morinville (pt.)	3,248	3,542	Villages:		
549. Ray	3,248	3,542	Entwistle		218
93. Lac Ste. Anne (pt.)	5,109	5,654	Mayerthorpe	303	217
550. Woodford	2,590	3,045	<b>Division No. 13</b>	<b>30,352</b>	<b>33,172</b>
551. Morthen (pt.)	2,519	2,609	Rural	27,775	30,805
Elk Island National Park	51	50	71. Vermillion River (pt.)	441	587
Indian Reserves	860	997	541. I.D. (pt.)	441	587
Urban	119,783	99,793	85. I.D.	360	512
Cities:			541. I.D. (pt.)	132	153
Edmonton	113,116	93,817	571. I.D.	228	359
Towns:			86. St. Paul	9,234	10,122
Beverly	1,171	981	542. Lincoln	1,079	1,221
Fort Saskatchewan	921	903	543. Laurier	2,792	3,066
Leduc	920	871	544. Champlain	1,964	2,213
Morinville	735	580	573. St. Vincent (pt.)	1,241	1,351
St. Albert	804	697	574. St. Lina	1,267	1,347
Stony Plain	720	566	605. Ashmont (pt.)	891	924
Tofield	608	551	87. Bonnyville	1,737	1,867
Villages:			572. Bonnyville	1,737	1,867
Alberta Beach	101	59	88. St. Vincent	1,628	1,965
Hay Lakes	199	154	573. St. Vincent (pt.)	1,628	1,965
Kapasawin			89. Smoky Lake (pt.)	4,103	4,837
Onoway	175	156	575. Vilna	3,087	3,590
Sangudo	236	173	605. Ashmont (pt.)	872	1,069
Seba Beach	77	84	635. I.D. (pt.)	144	178
Wabamun		201	101. I.D.	5,719	6,259
<b>Division No. 12</b>	<b>16,718</b>	<b>17,431</b>	601. I.D.	1,363	1,466
Rural	14,844	15,497	602. I.D.	1,817	1,949
77. I.D.	1,645	2,004	603. I.D.	1,175	1,311
522. I.D.	1,645	2,004	604. I.D. (pt.)	288	313
78. I.D.	2,016	2,487	631. I.D.	953	1,007
493. I.D.	71	34	632. I.D.	11	18
495, 524. I.D.	24	35	633. I.D.	92	131
523. I.D.	83	99	634. I.D. (pt.)	20	64
553. I.D.	1,065	1,318	102. I.D. (pt.)	2,577	2,745
554. I.D.	773	1,001	604. I.D. (pt.)	312	408
494. I.D.			634. I.D. (pt.)	140	216
79. I.D. (pt.)	2,558	1,862	635. I.D. (pt.)	919	1,013
466. I.D. (pt.)	2,555	1,803	664. I.D. (pt.)	32	4
498. I.D.	3	59	666. I.D.	832	751
93. Lac Ste. Anne (pt.)	2,148	2,484	695. I.D.	342	353
582. Kitchener	2,103	2,458	121. I.D. (pt.)	13	52
612. I.D. (pt.)	45	26	661, 662. I.D.		35
94. Pembina	2,710	2,667	663. I.D.	1	11
552. Pembina	2,710	2,667	664. I.D. (pt.)		35
95. I.D.	2,236	2,560	Indian Reserves	1,963	1,859
525. I.D.	52	43	Urban	2,577	2,367
526. I.D.	72	225	Towns:		
527. I.D.	356	344	St. Paul	1,187	1,018
555. I.D.	860	930	Villages:		
556. I.D.	387	291	Bellis		128
584. I.D.	472	690	Bonnyville	730	603
585. I.D.	37	37	Elk Point	338	307
586. I.D.			Vilna	322	311
96. I.D.	166	85	<b>Division No. 14</b>	<b>44,546</b>	<b>47,899</b>
528. I.D.	111	30	Rural	40,075	44,526
557. I.D.	25		89. Smoky Lake (pt.)	8,167	9,884
558. I.D.	30	44	576. Smoky Lake	3,294	3,974
559, 560. I.D.		4			
588. I.D.		7			



POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Division and Subdivision	Total		Division and Subdivision	Total	
	1946	1941		1946	1941
<b>Division No. 14—Continued:</b>			<b>Division No. 15—Continued:</b>		
Rural—Continued:			Rural—Continued:		
577. Unity	3,924	4,798	675, 676, 677, 678, 679, I.D.		1
606. I.D. (pt.)	21	46	620, 621 (pt.), 647, 648, 674. I.D.		
607. I.D. (pt.)	928	1,066	111. I.D. (pt.)	211	267
90. Sturgeon (pt.)	2,619	3,166	622. I.D. (pt.)		12
578. Opal	2,619	3,166	623, 650, 651. I.D.		35
91. Morinville (pt.)	2,563	2,838	681. I.D.		44
579. Hazelwood (pt.)	2,563	2,838	709. I.D.	99	93
92. Westlock	9,705	10,469	710. I.D.	112	83
579. Hazelwood (pt.)	673	653	591 (pt.), 621 (pt.), 624, 649, 680, 711. I.D.		
580. Lockerbie (pt.)	1,903	2,309	123. I.D.		15
608. Tawatinaw	2,123	2,256	700, 702. I.D.		15
609. Pibroch	2,341	2,476	672, 673, 701, 703. I.D.		
610. Shoal Creek	2,665	2,775	124. I.D.	2,731	2,545
93. Lac Ste. Anne (pt.)	2,487	3,006	730. I.D.	88	158
580. Lockerbie (pt.)	514	723	731. I.D.	691	698
581. Pershing	1,973	2,283	732. I.D.	866	758
102. I.D. (pt.)	3,392	3,557	733. I.D.	1,086	931
606. I.D. (pt.)	25	28	125. I.D.	2,713	3,044
607. I.D. (pt.)	997	1,123	705. I.D.	28	28
636. I.D. (pt.)	484	505	734. I.D.	116	93
665. I.D.	1,508	1,412	735. I.D.	200	248
726. I.D.	378	489	864. I.D.	1,312	1,087
103. Cartier	1,423	1,397	765. I.D.	856	1,384
637. Cartier	1,423	1,397	794. I.D.	201	204
104. I.D.	1,909	2,112	704. I.D.		
636. I.D. (pt.)	159	171	126. I.D.	1,719	1,687
667. I.D.	1,750	1,941	706. I.D.	422	416
105. Nelson	1,733	1,808	707. I.D.	274	203
638. Nelson	1,733	1,808	708. I.D.	41	93
106. Grosmont	835	863	736. I.D.	149	135
668. Grosmont (pt.)	835	863	737. I.D.	206	92
107. I.D.	2,925	3,166	738. I.D.	608	730
639. I.D.	805	903	767. I.D. (pt.)	19	18
640. I.D.	976	1,029	130. I.D.	3,571	4,327
668. Grosmont (pt.)	27		766. I.D.	725	601
669. I.D.	501	695	767. I.D. (pt.)	81	96
698. I.D.	122	63	795. I.D.	286	873
699. I.D.	494	476	796. I.D.	2,479	2,757
108. I.D. (pt.)	978	1,088	131. I.D. (pt.)	1,624	1,829
611. I.D.	978	1,088	825. I.D.	274	275
122. I.D.	1,339	1,172	826. I.D.	903	974
696. I.D.	243	281	855. I.D.	447	580
697. I.D.	563	588	824, 854. I.D.		
727. I.D.	173	57	Indian Reserves	938	1,154
728. I.D.	33	79	Urban	2,742	1,464
729. I.D.	327	167	Towns:		
Urban	4,471	3,373	Athabasca	747	578
Villages:					
Barrhead	739	399			
Clyde	150	160			
Lac La Biche	642	517			
Legal	445	462			
Radway	179				
Smoky Lake	457	430			
Waskatenau	258	237			
Westlock	854	590			
<b>Division No. 15</b>	<b>17,097</b>	<b>17,484</b>	<b>Division No. 16</b>	<b>28,733</b>	<b>30,349</b>
Rural	14,355	16,020	Rural	23,480	26,349
108. I.D. (pt.)	658	917	111. I.D. (pt.)	1	18
641. I.D.	605	875	741. I.D. (pt.)		12
670. I.D.	31	42	742. I.D. (pt.)	1	6
671. I.D.	2		127. Grande Prairie	9,505	10,687
109. I.D. (pt.)	134	160	739. Grande Prairie	1,962	2,307
613. I.D.	96	149	740. Bear Lake	2,575	2,622
614. I.D.	1	3	741. I.D. (pt.)	1,382	1,632
642. I.D.	37	8	742. I.D. (pt.)	387	462
643. I.D.			769. I.D. (pt.)	78	79
110. I.D. (pt.)	76	75	770. I.D. (pt.)	352	418
589. I.D. (pt.)	2		771. I.D.	1,682	1,946
590. I.D. (pt.)	53	64	772. I.D.	1,087	1,221
617, 644, 645. I.D.	4		132. I.D.	2,279	2,248
618, 619, 646. I.D.	2	3	769. I.D. (pt.)	600	652
622. I.D.	15	7	797. I.D.	964	884
			827. I.D.	154	166
			828. I.D.	561	546



## POPULATION OF CENSUS DIVISIONS OF ALBERTA CLASSIFIED BY MUNICIPALITIES FOR CENSUS YEARS, 1941 AND 1946—Continued

Divisions and Subdivisions	Total		Divisions and Subdivisions	Total	
	1946	1941		1946	1941
<b>Division No. 16—Continued:</b>			<b>Division No. 17—Continued:</b>		
133. Spirit River	1,404	1,828	Rural—Continued:		
829. Spirit River	1,404	1,828	760, 820, 848-850. I.D.		
134. I.D.	2,560	2,728	129. I.D.	378	335
770. I.D. (pt.)	602	644	761, 762. I.D.	22	6
800. I.D.	358	393	763, 793. I.D.	243	193
801. I.D.	76	93	852, 853. I.D.	52	75
830. I.D.	980	1,022	880, 881. I.D.	61	61
831. I.D.	523	538	791, 792, 821-823, 851. I.D.		
860. I.D.		10	131. I.D. (pt.)	136	51
861. I.D.	21	28	882. I.D.	127	42
135. Peace	1,791	2,003	915. I.D.	9	9
857. Peace	1,791	2,003	137. I.D.	112	45
136. Fairview	2,074	2,326	878, 879, 910. I.D.	112	45
858. Fairview	2,074	2,326	877,908. I.D.		
138. I.D. (pt.)	1,641	1,844	138. I.D. (pt.)	2,033	1,970
886. I.D.	451	516	946. I.D.	1,657	1,571
887. I.D.	578	666	947. I.D.	55	85
916. I.D.	290	268	977. I.D.	129	132
917. I.D.	322	394	978. I.D.	192	182
139. I.D.	2,110	2,506	143. I.D.	2,555	2,316
859. I.D.	884	824	782. I.D.	35	32
888. I.D.	411	564	843. I.D.	2,520	2,284
889. I.D.	446	681	781, 783, 784. I.D.		
890. I.D.	45	62	144. I.D.	89	37
891. I.D.	182	164	907. I.D.	24	
919. I.D.	55	80	1092. I.D.	65	37
920. I.D.	87	131	909, 938, 940, 969-971, 1000-1002, 1029-1031, 1059, 1119. I.D.		
918, 921. I.D.			145. I.D.	58	90
Indian Reserves	115	161	945, 975. I.D.	16	47
Urban	5,253	4,000	1005. I.D.	42	43
Towns:			911-914, 941-944, 972-974, 976, 1003, 1004, 1032-1036. I.D.		
Grande Prairie	2,267	1,724	1037, 1038. I.D.	379	278
Villages:			146. I.D.	382	279
Beaverlodge	443	331	1006, 1016. I.D.	3	1
Berwyn	308	206	948-951, 979-982, 1007-1011, 1017-1020, 1039-1042, 1067-1071, 1096-1098. I.D.		
Clairmont		102	147. I.D.	1,339	1,378
Fairview	487	432	1065. I.D.	323	385
Grimshaw	287	169	1094. I.D.	612	559
Hythe	288	247	1124. I.D.	314	322
Rycroft	272		1125. I.D.	90	112
Sexsmith	302	325	1066, 1123. I.D.		
Spirit River	362	276	148. I.D.	12	12
Wembley	237	188	1122. I.D.	12	12
			1129-1134, 1147-1152, 1179-1184, 1209-1214, 1238-1243. I.D.		
<b>Division No. 17</b>	<b>10,131</b>	<b>9,712</b>	149. I.D.	52	67
Rural	10,131	9,712	1138-1140. I.D.	52	67
102. I.D. (pt.)		3	1099-1101, 1135-1137, 1153-1158, 1185-1190, 1215-1220, 1244-1249. I.D.		
694. I.D. (pt.)		3	Wood Buffalo National Park (pt.)	24	42
121. I.D. (pt.)	219	224	Indian Reserves	2,361	2,507
693. I.D.	16				
694. I.D. (pt.)	48	26			
723. I.D.	109	139			
725, 756, 786. I.D.	17	47			
752, 753. I.D.	29	12			
691, 692, 721, 722, 724, 751, 754, 755, 785. I.D.					
128. I.D.	381	356			
757, 758, 759, 787, 790. I.D.	6	1			
817, 818, 847. I.D.	40				
819. I.D.	335	355			

TABLE 1.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN THE PROVINCE OF ALBERTA BY DIVISIONS, CITIES TOWNS AND VILLAGES OF 1,000 POPULATION AND OVER, BY PLACE OF RESIDENCE, 1946

Divisions, Cities and Towns	DEATHS										Stillbirths	Marriages		
	All Ages					Under 1 year								
	Births (Exclusive of Stillbirths)		1-4 years		5 years and over		1 year		1-4 years				5 years and over	
	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total			M.	F.
<b>TOTAL FOR THE PROVINCE</b>	22184	11302	10882	6601	4049	2552	542	403	114	89	3393	2060	363	9478
Division No. 1	842	424	418	252	151	101	21	15	3	2	127	84	16	429
Division No. 2	1733	895	838	528	323	205	53	45	12	12	258	148	29	795
Division No. 3	405	205	200	113	77	36	7	3	1	1	70	32	3	102
Division No. 4	757	373	384	217	132	85	18	12	3	2	111	71	10	174
Division No. 5	407	210	197	123	82	41	6	6	2	2	74	35	5	106
Division No. 6	4067	2037	2030	1433	864	569	97	72	17	13	750	484	80	2397
Division No. 7	833	424	409	240	141	99	18	10	2	2	123	87	13	240
Division No. 8	1892	958	934	546	341	205	37	31	12	7	292	167	34	732
Division No. 9	765	397	368	219	148	71	18	15	4	2	126	54	12	156
Division No. 10	1258	634	624	365	221	144	27	19	5	4	189	121	20	463
Division No. 11	4791	2457	2334	1415	844	571	109	77	22	19	713	473	74	2885
Division No. 12	442	234	208	135	95	40	10	9	3	1	82	30	11	71
Division No. 13	974	522	452	232	138	94	34	29	10	7	94	58	12	230
Division No. 14	1215	605	610	323	199	124	35	19	3	2	161	103	20	267
Division No. 15	793	329	341	153	93	60	22	19	6	4	65	37	8	144
Division No. 16	670	339	334	194	143	51	22	14	7	3	114	40	12	237
Division No. 17	340	159	181	113	57	56	8	14	5	8	44	34	4	50
<b>CITIES:</b>														
Calgary	2559	1282	1277	996	607	389	62	39	5	6	540	344	62	1997
Drumheller	135	77	58	31	22	9	2	2	1	1	20	9	1	89
Edmonton	3431	1782	1649	1022	627	395	81	49	11	10	535	336	51	2593
Lethbridge	483	260	223	154	91	63	8	15	2	2	83	46	8	392
Medicine Hat	356	172	184	133	75	58	12	6	2	2	61	52	5	345
Red Deer	190	103	87	58	40	18	1	4	1	1	38	14	2	180
Wetaskiwin	91	48	43	46	25	21	5	4	1	1	20	16	2	104
<b>TOWNS:</b>														
Beverly	19	11	8	1	1	1	1	1	1	1	1	1	1	52
Blairmore	53	27	26	14	9	5	2	2	2	2	9	4	1	30
Brooks	45	28	17	14	8	6	5	5	5	5	8	4	1	97
Camrose	115	57	58	32	21	11	5	5	3	3	16	6	1	103
Cardston	63	30	33	30	23	7	6	6	1	1	16	4	1	13
Clareholm	53	33	20	20	11	9	4	1	1	1	11	7	2	31
Coleman	73	38	35	29	22	7	4	1	1	1	17	6	2	31
Edson	112	41	30	12	5	7	4	7	2	2	4	7	1	32
Grande Prairie	76	34	42	20	15	5	4	2	2	2	11	3	1	111
Hanna	44	25	19	25	13	8	3	1	2	2	4	7	2	39
High River	48	20	28	15	11	4	1	1	1	1	12	11	1	50
Innisfall	48	20	28	15	11	4	1	1	1	1	10	4	2	32
Lacombe	54	28	26	29	14	15	3	3	1	1	10	15	1	55





TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS,  
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1946

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>ALBERTA</b> .....	22184	1632	1448	1711	1797	1976	1979	2035	2018	1959	1865	1747	2017
Rural .....	15311	1023	903	1092	1115	1204	1207	1202	1205	1154	1077	1034	1095
Urban .....	8873	609	545	619	682	772	772	833	813	805	788	713	922
<b>DIVISION No. 1</b> .....	842	56	48	57	64	82	72	82	79	73	83	72	74
Rural .....	409	31	23	30	34	37	34	41	40	26	39	41	33
Urban .....	433	25	25	27	30	45	38	41	39	47	44	31	41
City of Medicine Hat .....	356	20	20	24	24	43	31	36	32	40	33	24	29
Town of Taber .....	77	5	5	3	6	2	7	5	7	7	11	7	12
<b>DIVISION No. 2</b> .....	1,753	118	121	136	128	139	159	165	165	143	122	160	177
Rural .....	845	51	64	74	66	69	84	73	90	70	53	74	87
Urban .....	888	67	57	62	62	70	75	92	75	73	69	86	100
City of Lethbridge .....	483	35	24	32	35	34	46	56	43	35	39	48	56
Town of Blairmore .....	53	2	4	4	4	5	4	7	2	3	3	8	10
Cardston .....	63	9	7	4	4	5	7	5	5	3	5	4	3
Clareholm .....	53	3	3	7	4	4	3	5	5	4	6	5	8
Coleman .....	73	6	6	5	7	10	5	6	10	5	5	4	4
Macleod .....	36	1	1	3	3	4	3	1	3	3	2	6	4
Magrath .....	29	2	4	3	1	2	3	3	1	6	1	2	2
Pincher Creek .....	29	2	2	3	2	3	3	3	1	1	4	4	6
Raymond .....	69	9	6	4	5	7	2	6	5	9	4	5	7
<b>DIVISION No. 3</b> .....	405	29	20	35	40	36	32	33	43	35	34	36	32
Rural .....	330	26	16	31	32	29	26	30	33	29	26	27	25
Urban .....	75	3	4	4	8	7	6	3	10	6	8	9	7
Town of Brooks .....	45	1	1	3	4	4	3	1	7	3	8	6	4
Redcliff .....	30	2	3	1	4	3	3	2	3	3	...	3	3
<b>DIVISION No. 4</b> .....	757	52	45	52	47	83	71	73	74	75	61	66	58
Rural .....	608	44	36	42	39	63	58	58	57	61	46	59	45
Urban .....	149	8	9	10	8	20	13	15	17	14	15	7	13
Town of High River .....	44	5	5	1	1	8	5	3	5	4	7	1	5
Village of Black Diamond .....	50	3	3	3	2	10	4	4	4	7	4	2	7
Turner Valley .....	55	8	1	7	5	2	4	4	8	3	4	4	1



<b>DIVISION No. 5</b>	407	24	24	23	31	47	41	40	32	43	40	27	35
Rural	331	16	18	19	26	37	37	53	30	32	33	27	25
Urban	76	8	6	4	5	10	4	7	2	11	7	2	10
Town of Hanna	76	8	6	4	5	10	4	7	2	11	7	2	10
<b>DIVISION No. 6</b>	4067	272	250	313	354	355	356	355	373	350	381	367	401
Rural	1340	78	98	120	119	111	129	104	119	119	130	90	123
Urban	2727	194	152	193	235	244	251	251	231	251	251	217	278
City of Calgary	2559	186	141	177	226	227	208	232	244	221	239	197	261
Drumheller	135	8	9	12	9	12	12	16	8	9	9	15	16
Town of Olds	33	.....	2	4	.....	5	7	3	2	1	3	5	1
<b>DIVISION No. 7</b>	833	69	49	78	77	66	62	73	78	76	87	57	61
Rural	798	68	47	73	75	63	59	68	76	74	82	54	59
Urban	35	1	2	5	2	3	3	5	2	2	5	3	2
Town of Wainwright	35	1	2	5	2	3	3	5	2	2	5	3	2
<b>DIVISION No. 8</b>	1892	146	127	154	148	158	182	189	173	159	145	149	162
Rural	1276	103	81	108	119	106	126	121	114	101	91	106	100
Urban	616	43	46	46	29	52	56	68	59	58	54	43	62
City of Red Deer	190	9	16	11	5	16	16	23	16	21	20	18	19
Wetaskiwin	91	4	8	14	5	9	10	4	11	7	5	4	10
Town of Camrose	115	9	7	6	5	9	11	8	14	13	11	9	13
Innisfail	48	3	5	2	3	5	4	5	5	2	5	5	4
Lacombe	54	4	1	6	1	4	5	13	5	4	3	2	6
Ponoka	65	6	6	6	4	7	4	11	1	5	7	3	5
Stettler	53	8	3	1	6	2	6	4	7	6	3	2	5
<b>DIVISION No. 9</b>	765	70	49	54	54	67	72	60	78	82	51	70	58
Rural	701	64	43	49	50	63	63	55	72	73	48	67	54
Urban	64	6	6	5	4	4	9	5	6	9	3	3	4
Town of Rocky Mountain House	64	6	6	5	4	4	9	5	6	9	3	3	4
<b>DIVISION No. 10</b>	1258	84	107	88	107	112	114	110	103	102	126	92	113
Rural	1156	77	98	82	102	109	101	104	97	91	115	81	99
Urban	102	7	9	6	5	3	13	6	6	11	11	11	14
Town of Vegreville	41	2	4	3	1	1	1	2	3	7	5	7	5
Vermillion	61	5	5	3	4	2	12	4	3	4	6	4	9
<b>DIVISION No. 11</b>	4791	337	324	347	390	408	426	454	438	438	384	375	476
Rural	1341	106	104	106	113	119	120	140	112	117	88	105	111
Urban	3450	231	220	241	277	289	300	314	326	321	296	270	365
City of Edmonton	3431	231	218	238	275	286	300	310	324	319	295	270	365
Town of Beverly	19	.....	2	3	2	3	.....	4	2	2	1	.....	.....
<b>DIVISION No. 12</b>	442	38	27	24	34	45	43	38	41	35	36	35	46
Rural	371	32	23	22	29	38	35	34	37	31	32	24	34
Urban	71	6	4	2	5	7	8	4	4	4	4	11	12
Town of Edson	71	6	4	2	5	7	8	4	4	4	4	11	12

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS  
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1946

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>DIVISION No. 13</b> .....	<b>974</b>	85	62	84	84	94	88	88	89	83	73	67	77
Rural .....	899	78	62	80	76	88	80	75	84	79	65	59	73
Urban .....	75	7	4	4	8	6	8	13	5	4	8	8	4
Town of St. Paul .....	75	7	4	4	8	6	8	13	5	4	8	8	4
<b>DIVISION No. 14</b> .....	<b>1215</b>	90	74	106	98	125	109	130	104	99	94	90	96
Rural .....	1215	90	74	106	98	125	109	130	104	99	94	90	96
<b>DIVISION No. 15</b> .....	<b>670</b>	69	45	60	48	66	48	57	53	62	56	51	55
Rural .....	670	69	45	60	48	66	48	57	53	62	56	51	55
<b>DIVISION No. 16</b> .....	<b>793</b>	56	59	62	66	68	71	66	64	80	75	62	73
Rural .....	681	53	45	52	62	56	59	57	56	66	62	50	63
Urban .....	112	3	5	10	4	12	12	9	8	14	13	12	10
Town of Grande Prairie .....	112	3	5	10	4	12	12	9	8	14	13	12	10
<b>DIVISION No. 17</b> .....	<b>340</b>	37	26	38	27	25	39	22	31	24	17	31	23
Rural .....	340	37	26	38	27	25	39	22	31	24	17	31	23



TABLE 4.—LEGITIMATE AND ILLEGITIMATE BIRTHS (EXCLUSIVE OF STILLBIRTHS), IN CITIES OF 5,000 POPULATION AND OVER IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1946

Province and Cities	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>TOTAL FOR THE PROVINCE</b> .....	22184	11302	10882	20966	10683	10283	1218	619	599
Cities of 5,000 and over:									
Calgary .....	2559	1282	1277	2408	1204	1204	151	78	73
Edmonton .....	3431	1782	1649	3210	1673	1537	221	109	112
Lethbridge .....	483	260	223	455	242	213	28	18	10
Medicine Hat .....	356	172	184	335	165	170	21	7	14

TABLE 5.—MULTIPLE BIRTHS CLASSIFIED TO SHOW THE NUMBER OF CHILDEN BORN ALIVE AND STILLBORN, BY SEX IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1946

Classification of Births	Number
<b>TWIN BIRTHS</b> .....	273
Two males (both living) .....	91
One male and one female (both living) .....	93
Two females (both living) .....	76
One male living and one male stillborn .....	7
One male stillborn and one female living .....	1
One female living and one female stillborn .....	3
Two males (stillborn) .....	2
<b>TRIPLET BIRTHS</b> .....	3
One male and two females (all living) .....	1
Two females living and one female stillborn .....	1
Two females living and one male stillborn .....	1
Total multiple births .....	Number 276
	Male 296
	Female 259
Total single live births .....	Number 21646
	Male 11019
	Female 10627
Total single stillbirths .....	Number 346
	Male 180
	Female 166
Total confinements .....	22268



















TABLE 9.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHERS  
IN ALBERTA, 1946

Province	All Live Births						Births in Institutions					
	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Total for the Province .....	22129	193	14	252	10	22184	20592	182	14	246	9	20651

TABLE 10.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS IN CITIES OF 5,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHERS, IN ALBERTA, 1946

Cities	All Live Births						Births in Institutions					
	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence	Place of occurrence	Mother's residence elsewhere		Births to resident mothers occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Calgary .....	3452	963	4	70	3	2559	3445	963	4	69	3	2551
Edmonton .....	3454	2071	1	49	3	3431	5429	2063	1	49	3	3414
Lethbridge .....	947	486	1	23	1	483	943	485	1	23	1	480
Medicine Hat .....	633	294	.....	17	.....	356	629	293	.....	16	.....	352





TABLE 12.—DEATHS OF CHILDREN UNDER ONE YEAR (EXCLUSIVE OF 8 TILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES, BY SEX AND CALENDAR MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1946

CAUSES OF DEATH	Total under 1 year		MONTH OF DEATH																							
	Male	Female	January		February		March		April		May		June		July		August		September		October		November		December	
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<b>ALL CAUSES</b> .....	945	403	47	37	47	20	38	32	41	37	48	38	35	38	51	27	42	26	43	22	45	33	52	39	53	54
6 Cerebrospinal meningitis.....	10	4	6	2	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8 Scarlet fever.....	8	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9 Whooping cough.....	10	4	6	2	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10 Diphtheria.....	8	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11 Erysipelas.....	6	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13 Tuberculosis of the respiratory system.....	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14-22 Tuberculosis, other forms.....	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
24 Purulent infection and septicaemia.....	28	18	10	7	5	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27 Dysentery.....	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
30 Syphilis.....	5	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
33 Influenza.....	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35 Measles.....	28	18	10	7	5	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
36 Acute poliomyelitis and polioencephalitis.....	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
64 Diseases of the thymus gland.....	10	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
81 Meningitis (non-meningococcal).....	9	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
86 Convulsions.....	12	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
89 Diseases of the ear and of the mastoid process.....	2	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
105 Diseases of the larynx.....	2	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
106 Bronchitis.....	2	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
107 Bronchopneumonia.....	91	45	46	2	5	2	1	3	4	4	6	8	4	3	1	3	1	3	1	3	2	4	7	10	8	7
108, 109 Pneumonia.....	49	31	18	2	3	2	1	2	5	1	2	1	1	1	1	1	1	1	1	1	2	2	8	1	6	3
115 Diseases of the buccal cavity and annexa and of the pharynx and tonsils.....	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
116-118 Diseases of the stomach.....	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
119 Diarrhoea and enteritis.....	99	57	42	1	3	1	1	1	6	1	5	3	4	8	7	1	4	3	11	6	5	2	8	5	6	9
130 Acute nephritis.....	132	71	61	5	2	10	6	7	3	7	6	3	3	7	3	4	7	5	7	2	8	5	9	5	4	8
157 Congenital malformations.....	22	11	11	2	2	2	2	1	3	2	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	2
(a) Congenital hydrocephalus.....	42	25	17	1	1	4	3	3	1	1	3	2	1	1	1	3	3	2	4	1	1	1	1	1	1	1
(d) Congenital malformations of the heart.....	68	35	33	2	1	4	3	3	1	1	2	2	1	2	5	3	4	1	3	1	1	1	1	1	1	1
(b, c, e) Others under this title.....	22	12	10	2	2	1	1	1	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1
158 Congenital debility.....	274	150	124	18	8	15	6	10	9	9	12	21	7	12	19	12	13	10	10	4	15	13	10	11	12	12
159 Premature birth.....	274	150	124	18	8	15	6	10	9	9	12	21	7	12	19	12	13	10	10	4	15	13	10	11	12	12



160 Injury at birth	75	58	17	3	3	4	9	4	2	6	1	5	2	10	1	4	1	3	2	3	1	5	2	4
161 Other diseases peculiar to the first year of life	67	41	26	4	2	2	3	4	3	3	6	2	3	3	2	7	1	3	5	5	1	1	2	3
166-168 Homicides	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
169-195, 197 Other violent deaths	15	6	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
Other specified causes	14	6	8	1	1	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	2	3
199, 200 Ill-defined and unknown causes of death	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 13—INFANTILE DEATH AND STILLBIRTH RATES, ALSO NUMBER OF LIVE BIRTHS WITH OR WITHOUT A PHYSICIAN, BY DIVISIONS AND CITIES IN ALBERTA, BY PLACE OF RESIDENCE, 1946

Divisions and Cities	Death rate of children under one year of age to each 1,000 births				Births with or without a physician in attendance			Rates of stillborn children to 1,000 live births	
	Rate per 1000 live births	Number of deaths	Total Live births	With physician	Without physician	Not stated	Number of stillbirths	Rate per 1000 live births	
									With physician
Division No. 1—Medicine Hat (City of Medicine Hat excepted)	37	18	486	430	54	2	7	14.4	
Division No. 2—Macleod (City of Lethbridge excepted)	60	75	1250	1126	123	1	21	16.8	
Division No. 3—Bow	25	10	405	387	18	1	3	7.4	
Division No. 4—Nanton	40	30	757	744	12	1	10	13.2	
Division No. 5—Acadia	29	12	407	403	4	1	5	12.3	
Division No. 6—Calgary (Cities of Calgary and Drumheller excepted)	48	66	1373	1303	69	1	18	13.1	
Division No. 7—Battle River	34	28	833	814	16	3	13	15.6	
Division No. 8—Red Deer (Cities of Red Deer and Wetaskiwin excepted)	34	54	1611	1538	72	1	30	18.6	
Division No. 9—Rocky Mountain House	43	33	765	741	24	1	12	15.7	
Division No. 10—Victoria	37	46	1258	1220	35	3	20	15.9	
Division No. 11—Edmonton (City of Edmonton excepted)	41	56	1360	1261	95	4	23	16.9	
Division No. 12—Edson	43	19	442	394	45	3	11	24.9	
Division No. 13—Beaver River	65	63	974	806	161	7	12	12.3	
Division No. 14—Sturgeon	44	54	1215	1064	140	11	20	16.5	
Division No. 15—Clearwater	61	41	670	517	147	6	8	11.9	
Division No. 16—Peace River	38	30	793	739	54	12	12	15.1	
Division No. 17—Athabasca	65	22	340	167	172	1	4	11.8	
City of Edmonton	38	130	3431	3425	5	1	51	14.9	
City of Calgary	39	101	2559	2555	4	1	62	24.2	
City of Lethbridge	48	23	483	481	1	1	8	16.6	
City of Medicine Hat	51	18	356	352	2	2	9	25.3	
City of Red Deer	26	5	190	187	3	1	2	10.5	
City of Drumheller	15	2	135	135	1	1	1	22.0	
City of Wetaskiwin	99	9	91	90	1	1	2	15.3	
Divisions	44	657	14939	13654	1241	44	229	18.5	
Cities	40	288	7245	7225	15	5	134	16.4	
Whole Province	43	945	22184	20879	1256	49	363	16.4	

TABLE 14.—DEATHS OF CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES, BY SEX AND AGE AT DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1946

CAUSES OF DEATH	Total under 1 year		AGE AT DEATH																																				
	Total	Male	Under 1 day		1 day and under 1 week		1 week and under 2 weeks		2 weeks and under 3 weeks		3 weeks and under 1 month		1 month and under 2 mos.		2 months and under 3 mos.		3 months and under 4 mos.		4 months and under 5 mos.		5 months and under 6 mos.		6 months and under 7 mos.		7 months and under 8 mos.		8 months and under 9 mos.		9 months and under 10 mos.		10 months and under 11 mos.		11 months and under 12 mos.						
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.					
<b>ALL CAUSES</b> .....	945	542	403	164	108	112	69	30	23	26	18	14	11	43	24	41	27	22	24	18	21	20	17	18	20	11	9	8	11	3	9	7	4	5	8				
6 Cerebrospinal meningitis .....																																							
8 Scarlet fever .....																																							
9 Whooping-cough .....																																							
10 Diphtheria .....	10	4	6											2		1																							
11 Erysipelas .....																																							
13 Tuberculosis of the respiratory system .....	8	4	4																																				
14-22 Tuberculosis, other forms .....	6	2	4																																				
24 Purulent infection and septicaemia .....																																							
27 Dysentery .....	3	2	1																																				
30 Syphilis .....	5	3	2	1										1		1																							
33 Influenza .....	28	18	10											3	2	5	1	1	2	1	2	1	1	4	2	1	1	1											
35 Measles .....	3	2	1											1		1																							
36 Acute poliomyelitis and polioencephalitis .....																																							
64 Diseases of the thymus gland .....	10	8	2	2										1	3	2																							
81 Meningitis (non-meningococcal) .....	9	6	3											1	3	2																							
86 Convulsions .....	12	6	6											1	2																								
89 Diseases of the ear and of the mastoid process .....														1	1																								
105 Diseases of the larynx .....	2	1	1											1																									
106 Bronchitis .....	2	1	1											1																									
107 Bronchopneumonia .....	91	45	46											2	1	4	8	4	8	4	6	4	4	2	3	5	2	2	2	2	2	2	2	2	2	2	2	1	
108, 109 Pneumonia .....	49	31	18											1	3	1	2	1	4	2	5	1	4	5	2	4	1	1	3	1	2	1	1	1	1	1	1		
115 Diseases of the buccal cavity and annexe and of the pharynx and tonsils .....	1	1																																					
116-118 Diseases of the stomach .....	1	1																																					
119 Diarrhoea and enteritis .....	99	57	42											4	3	4	6	3	1	2	6	11	4	3	3	7	4	7	4	2	5	1	2	1	2	1	1		
130 Acute nephritis .....																																							





TABLE 15.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS OF CHILDREN UNDER ONE YEAR, IN CITIES OF 5,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, IN ALBERTA, 1946

Cities	All Deaths under one year						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Cities:												
Calgary .....	152	53	.....	2	101	138	48	.....	1	.....	91	.....
Edmonton .....	197	71	.....	4	130	185	71	.....	4	.....	118	.....
Lethbridge .....	34	13	.....	2	23	32	13	.....	2	.....	21	.....
Medicine Hat .....	22	5	.....	1	18	20	4	.....	1	.....	17	.....

TABLE 16.—TOTAL DEATHS (EXCLUSIVE OF STILL BIRTHS) AND DEATHS IN INSTITUTIONS OF CHILDREN UNDER ONE YEAR, BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE, IN ALBERTA, 1946

Total for the Province	All Deaths under one year						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
	947	12	.....	10	945	719	10	.....	9	.....	718	.....















































VITAL STATISTICS BRANCH

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1946—Continued

CAUSES OF DEATH	Total	AGES																	100 years and over	Not stated											
		Under 1 year	1 year	2 years	3 years	4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60-64 years			65-69 years	70-74 years	75-79 years	80-84 years	85-89 years	90-94 years	95-99 years				
121 Appendicitis	24	1	1	1	1	2	1	1	3	1	2	1	1	1	4	1	1	4	1	1	1	1	1	1	1	1	1				
Female	22	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
Male	38	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				
122 Hernia, intestinal obstruction	22	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				
Female	19	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			
(a) Hernia	12	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			
Female	19	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		
(b) Intestinal obstruction	10	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		
Female	8	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	
Male	4	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	
123 Other diseases of the intestines	18	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	
Female	7	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
Male	11	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
124 Cirrhosis of the liver	7	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
Female	4	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
Male	3	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
(a) With mention of alcoholism	18	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
Female	7	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
Male	11	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
(b) Without mention of alcoholism	7	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
Female	3	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
Male	4	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
125 Other diseases of the liver	2	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
Female	2	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
Male	5	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
(a) Acute yellow atrophy	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
Female	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
Male	5	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
(b) Others under this title	4	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
Female	4	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
Male	12	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
126 Biliary calculi	11	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
Female	10	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
Male	2	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
127 Other diseases of the gall-bladder and bile ducts	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
Female	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
Male	2	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
128 Diseases of the pancreas	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
Female	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
Male	5	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
Female	2	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
Male	3	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
129 Peritonitis without stated cause	315	1	2	1	1	1	3	5	2	2	3	4	5	10	5	17	25	34	43	38	43	40	21	10	10	8	2				
Female	212	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					
Male	103	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					
Female	4	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					
Male	3	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					
Female	3	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					
Male	4	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					
Female	3	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					

CLASS X.—DISEASES OF THE URINARY AND GENITAL SYSTEMS















































TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1946—Continued

CAUSES OF DEATH	Total	MONTHS												
		January	February	March	April	May	June	July	August	September	October	November	December	
<b>CLASS IV—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS</b>	52	4	3	3	3	6	2	4	5	6	5	1	1	6
Total	32	4	2	2	2	6	2	4	5	6	5	1	1	6
Male	20	2	1	1	1	4	2	4	2	3	2	1	1	2
Female	12	2	1	1	1	2	2	4	3	3	3	1	1	4
72 Haemorrhagic conditions	1													1
Sub-total	1													1
Male														
Female														
(a) Primary purpura	1													1
Male														
Female														
(b) Haemophilia	1													1
Male														
Female														
(c) Others under this title														
Male														
Female														
73 Anaemias	8		1	1	1	1	1	1	1	1	1	1	1	3
Sub-total	2													2
Male	3													3
Female	2													2
(a) Pernicious anaemia	5		1	1	1	1	1	1	1	1	1	1	1	3
Male														
Female														
(b) Others under this title														
Male														
Female														
74 Leukaemias and aukaemias	18	1	1	1	1	1	1	3	3	2	2	2	2	2
Sub-total	17	1	1	1	1	1	2	3	3	2	2	2	2	2
Male	18	1	1	1	1	1	1	3	3	2	2	2	2	2
Female	17	1	1	1	1	1	2	3	3	2	2	2	2	2
(a) Leukaemias	17	1	1	1	1	1	2	3	3	2	2	2	2	2
Male														
Female														
(b) Aleukaemias (Hodgkin's disease excepted)	5	3	1							1				
Male														
Female														
75 Diseases of the spleen														
Male														
Female														
76 Other diseases of the blood and blood-forming organs														
Male														
Female														
<b>CLASS V—CHRONIC POISONING AND INTOXICATION</b>	7	1	1			1	1	1	1	1	1	1	1	
Total	6	1	1			1	1	1	1	1	1	1	1	
Male	1													
Female	5	1	1			1	1	1	1	1	1	1	1	
77 Alcoholism	5	1	1			1	1	1	1	1	1	1	1	
Sub-total	1													
Male														
Female														
(a) Acute alcoholism	3													
Male	1													
Female	2													

















TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1946—Continued

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
119 Diarrhoea and enteritis (under 2 years of age)..... Sub-total	61	1	1	1	9	5	5	7	4	11	5	8	6
Male	45	3	1	1	1	4	4	1	3	7	2	5	9
Female	61	1	1	1	9	5	5	7	4	11	5	8	6
(a) Diarrhoea and enteritis	45	3	1	1	1	4	4	1	3	7	2	5	9
(b) Ulceration of the intestines	10	1	1	1	1	1	1	1	1	1	1	1	1
120 Diarrhoea and enteritis (2 years of age and over)..... Sub-total	12	1	1	1	2	3	3	3	1	2	1	1	2
Male	6	1	1	1	1	2	2	2	1	1	1	1	1
Female	7	1	1	1	1	1	1	1	1	1	1	1	1
(a) Diarrhoea and enteritis	4	1	1	1	1	1	1	1	1	1	1	1	1
(b) Ulceration of the intestines	5	1	1	1	1	1	1	1	1	1	1	1	1
121 Appendicitis	24	3	3	5	4	4	3	3	3	1	2	1	2
Male	22	1	1	2	4	2	2	2	2	1	2	1	2
Female	38	4	5	5	1	2	2	7	3	1	2	4	2
122 Hernia, intestinal obstruction..... Sub-total	19	2	2	2	2	1	1	3	2	3	1	2	3
(a) Hernia	12	1	1	1	1	1	1	2	1	2	1	2	1
(b) Intestinal obstruction	19	2	2	2	2	1	1	3	2	3	1	2	3
123 Other diseases of the intestines	10	3	3	2	1	2	4	1	1	2	1	1	3
Male	8	2	2	1	2	1	1	1	1	2	1	1	1
Female	18	1	2	1	1	1	3	2	3	1	2	1	2
124 Cirrhosis of the liver	7	1	1	1	1	1	1	1	1	1	1	1	2
(a) With mention of alcoholism	18	1	1	1	1	1	1	1	1	1	1	1	2
(b) Without mention of alcoholism	7	1	2	1	1	1	1	1	1	1	1	1	1
125 Other diseases of the liver..... Sub-total	7	3	1	1	1	1	3	3	2	3	2	1	2
(a) Acute yellow atrophy	2	1	1	1	1	1	1	2	1	1	1	1	1
(b) Others under this title	5	3	1	1	1	1	1	1	1	1	1	1	1
126 Biliary calculi	4	1	1	1	1	1	1	1	1	1	1	1	1
Male	12	1	2	1	1	3	1	1	1	1	1	1	1
Female	11	1	1	1	2	2	2	2	1	1	1	1	1
127 Other diseases of the gall-bladder and bile ducts	10	1	2	1	2	1	1	2	1	1	1	1	1
Male	11	1	1	1	1	1	1	1	1	1	1	1	1
Female	10	1	2	1	2	1	1	2	1	1	1	1	1





TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1946—Continued

CAUSES OF DEATH	Total	MONTHS															
		January	February	March	April	May	June	July	August	September	October	November	December				
(b) Spontaneous, therapeutic or of unspecified origin with mention of other infection .....	Female	2	1	1													
(c) Self-induced .....	Female																
(d) Induced by other person for non-therapeutic reasons ..	Female	1															
141 Abortion without mention of infection .....	Female	2			1				1								
(a) Spontaneous, therapeutic or of unspecified origin with mention of haemorrhage, trauma or shock and toxæmia ..	Female																
(b) Spontaneous, therapeutic or of unspecified origin with mention of haemorrhage, trauma or shock but not toxæmia .....	Female																
(c) Spontaneous, therapeutic or of unspecified origin with mention of toxæmia, but not haemorrhage, trauma or shock ..	Female	1															
(d) Spontaneous, therapeutic or of unspecified origin without mention of haemorrhage, trauma or shock or toxæmia .....	Female																
(e) Self-induced .....	Female	1															
(f) Induced by other person for non-therapeutic reasons ..	Female																
142 Ectopic gestation .....	Female	4			2				1								
(a) With mention of infection .....	Female	2			1												
(b) Without mention of infection .....	Female	2			1				1								
143 Haemorrhage of pregnancy, death prior to delivery .....	Female	2															
(a) Placenta praevia .....	Female																
(b) Premature separation of placenta .....	Female																











## VITAL STATISTICS BRANCH

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1946—Continued

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
<b>CLASS XVII.—VIOLENT OR ACCIDENTAL DEATHS</b>	<b>Total</b> .....	48	33	41	38	38	47	61	52	43	57	42	56
	Male .....	38	22	32	31	32	37	46	46	34	45	36	41
	Female .....	10	11	9	7	6	10	15	6	9	12	6	15
163, 164 Suicides .....	<b>Total</b> .....	7	4	9	9	9	8	11	3	5	7	4	3
	Male .....	2	5	3	3	2	2	1	1	3	1	1	1
	Female .....	5	1	6	6	7	6	10	2	2	6	3	2
163 Suicide by poisoning .....	<b>Sub-total</b> .....	1	3	2	2	1	1	3	1	2	3	1	1
(a) By corrosive substances, solid and liquid poisonings .....	Male .....	1	3	2	2	1	1	3	1	2	3	1	1
(b) By poisonous gas .....	Female .....	0	0	0	0	0	0	0	0	0	0	0	0
164 Suicide by other means .....	<b>Sub-total</b> .....	6	4	9	7	9	6	8	2	3	4	3	3
(a) By hanging or strangulation .....	Male .....	2	2	5	3	2	1	1	1	3	1	2	1
(b) By drowning .....	Female .....	4	2	4	4	7	5	7	1	0	3	1	2
(c) By firearms or explosives .....	Male .....	1	1	1	1	2	2	4	1	3	2	3	2
(d) By cutting or piercing instruments .....	Female .....	3	1	3	1	5	2	3	1	1	1	0	0
(e) By jumping from high places .....	Male .....	1	1	1	1	1	1	1	1	1	1	1	1
(f) By crushing .....	Female .....	1	1	1	1	1	1	1	1	1	1	1	1
(g) By other or unspecified means .....	Male .....	1	1	1	1	1	1	1	1	1	1	1	1
166-168 Homicides .....	<b>Total</b> .....	4	1	1	1	1	1	1	1	1	1	1	1
166 Homicide by firearms .....	Male .....	2	1	1	1	1	1	1	1	1	1	1	1
167 Homicide by cutting or piercing instruments .....	Female .....	1	0	0	0	0	0	0	0	0	0	0	0
168 Homicide by other or unspecified means .....	Male .....	1	0	0	0	0	0	0	0	0	0	0	0
169-195 Accidental deaths .....	<b>Total</b> .....	352	18	22	22	23	28	34	43	29	38	32	33
169 Railway accidents (excluding motor vehicles) .....	Male .....	93	6	9	4	4	8	14	5	5	11	5	15
	Female .....	14	1	2	3	1	2	1	2	1	1	1	2















	Male	Female	Total
(d) With mention of dementia praecox	1		1
14 Tuberculosis of the meninges and central nervous system	1	1	2
15 Tuberculosis of the intestines and peritoneum		1	1
16 Tuberculosis of the vertebral column	1		1
17 Tuberculosis of other bones and joints	2	1	3
(a) Bones	1	1	2
(b) Joints	1		1
22 Disseminated tuberculosis	1	1	2
(a) Acute generalized miliary	1	1	2
(b) Other and unspecified generalized	1		1
25 Gonococcus infection	1		1
30 Syphilis	4	3	7
(a) Locomotor ataxia (tabes dorsalis)	1		1
(b) General paralysis of the insane	1	1	2
(c) Other syphills of the central nervous system	1	1	2
(d) Others under this title	2	2	4
32 Other diseases due to spirochaetes	1		1
33 Influenza	4	1	5
(a) With respiratory complications	2	1	3
(b) Without respiratory complications	1	1	2
34 Small-pox	1		1
35 Measles	1		1
36 Acute poliomyelitis and polioencephalitis		1	1
37 Acute infectious encephalitis	1		1
38 Other diseases due to filterable viruses			
43 Mycoses			





































































































TABLE 21.—CLASSIFICATION OF ACCIDENTAL DEATHS ACCORDING TO THE NATURE OF INJURY. THESE ACCIDENTAL DEATHS ARE CLASSIFIED ACCORDING TO CIRCUMSTANCES INVOLVING THE ACCIDENT UNDER RUBRICS 169 TO 176, 178, 180, 181, 182, 183, 185, 186, 187 AND 193.

Int. list No.	CAUSES OF DEATH	Male	Female
	Accidental absorption of poisonous gas .....	16	2
170(c)	Automobile accidents (excluding trains or street-cars) .....	1	.....
174	Accidents in mines and quarries .....	2	.....
178	Accidental absorption of poisonous gas .....	8	1
180	Conflagration .....	5	1
	Accidental burns .....	27	20
169	Railway accidents (excluding motor vehicles) .....	1	.....
170(c)	Automobile accidents (excluding trains or street-cars) .....	3	.....
180	Conflagration .....	7	5
181	Accidental burns (conflagration excepted) .....	16	15
	Accidental Mechanical suffocation .....	6	6
170(c)	Automobile accidents (excluding trains or street-cars) .....	1	.....
182	Accidental mechanical suffocation .....	5	6
	Accidental drowning .....	39	5
170(c)	Automobile accidents (excluding trains or street-cars) .....	1	.....
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles) .....	1	.....
172	Water transport accidents .....	10	1
183	Accidental drowning .....	27	4
	Accidental injury by cutting or piercing instruments .....	1	.....
170(c)	Automobile accidents (excluding trains or street-cars) .....	1	.....
	Accidental injury by fall .....	50	26
170(c)	Automobile accidents (excluding trains or street-cars) .....	1	.....
171(b)	Other road transport accidents (excluding street-cars, trains, and motor vehicles) .....	1	.....
174	Accidents in mines and quarries .....	1	.....
175(b)	Injury by animals, in agriculture .....	2	.....
186(a)	Accidental injury by fall .....	45	26
	Accidental injury by crushing .....	148	17
169	Railway accidents (excluding motor vehicles) .....	13	1
170(a)	Collisions with trains .....	5	1
170(c)	Automobile accidents (excluding trains or street-cars) .....	62	11
170(d)	Motorcycle accidents (excluding automobiles) .....	1	.....
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles) .....	2	2
173	Air transport accidents .....	6	2
174	Accidents in mines and quarries .....	9	.....
175(a)	Accidents involving agricultural machinery and vehicles .....	14	.....
175(b)	Injury by animals in agriculture .....	7	.....
175(c)	Other agricultural accidents .....	1	.....
175(d)	Accidents involving forestry machinery and vehicles .....	1	.....
175(e)	Other forestry accidents .....	8	.....
176	Other accidents involving machinery .....	9	.....
186(b)	Accidental injury by crushing .....	10	.....
	Accidents due to electric currents .....	3	.....
174	Accidents in mines and quarries .....	1	.....
193	Accidents due to electric currents .....	2	.....



TABLE 22.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS IN CITIES OF 5,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE IN ALBERTA, 1946

Cities	All Deaths						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Cities:	1214	304	2	83	5	996	833	253	2	54	2	634
Calgary .....	1495	541	3	68	3	1022	1124	505	3	47	1	664
Edmonton .....	208	72	.....	17	1	134	138	69	.....	13	1	103
Lethbridge .....	169	46	.....	10	.....	133	110	43	.....	8	.....	75
Medicine Hat .....												

TABLE 23.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE IN ALBERTA, 1946

Province	All Deaths						Deaths in Institutions					
	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence	Place of occurrence	Residence elsewhere		Deaths of residents occurring elsewhere		Place of residence
		In Canada	In United States	In Canada	In United States			In Canada	In United States	In Canada	In United States	
Total for the Province .....	6605	129	8	113	20	6601	3953	85	6	70	10	3942

TABLE 24.—DEATHS FROM CERTAIN SPECIFIED CAUSES BY PROVINCE OF RESIDENCE, 1946

Int. list No.	Causes of Death	Canada	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1-2	Typhoid fever	92	.....	1	1	57	9	2	6	1	15
6	Cerebrospinal meningitis	83	.....	5	4	42	16	6	7	.....	3
8	Scarlet fever	58	.....	3	2	43	7	.....	2	1	.....
9	Whooping-cough	231	.....	8	20	136	34	7	2	19	5
10	Diphtheria	227	2	12	10	127	45	13	6	7	5
11	Erysipelas	16	.....	1	.....	6	4	.....	3	.....	1
13	Tuberculosis of the respiratory system	4,818	43	308	211	2,183	909	262	177	233	492
14-22	Tuberculosis, other organs	1,003	12	74	66	445	145	62	46	69	84
24	Purulent infection and septicaemia	36	.....	1	1	11	12	2	2	4	2
30	Syphilis	644	3	50	28	217	164	33	21	44	84
33	Influenza	1,601	14	88	97	815	279	61	86	89	72
34	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Measles	235	.....	9	13	87	60	.....	56	8	2
36	Acute poliomyelitis and polioencephalitis	179	11	2	5	115	31	3	3	8	1
45-55	Cancer and other malignant tumours	14,767	91	758	496	4,048	5,414	914	727	860	1,459
56-57	Tumours, non-malignant and not specified	385	5	29	14	77	149	22	30	25	34
61	Diabetes mellitus	2,409	10	115	84	652	962	141	141	119	185
63	Diseases of the thyroid and parathyroid	327	2	8	8	69	141	20	25	30	24
73	Anaemias	311	3	22	17	85	124	24	15	10	11
74	Leukaemias and aleukaemias	469	1	22	10	88	185	35	38	35	55
77	Alcoholism	151	1	9	7	18	35	3	2	66	10
81	Meningitis (non-meningococcal)	301	2	9	12	181	44	18	11	13	11
83	Intracranial lesions of vascular origin	9,486	93	589	392	1,830	4,195	543	517	503	804
84	Mental disorders and deficiency (general paralysis of the insane excepted)	156	3	16	7	22	64	12	8	9	15
85	Epilepsy	232	2	14	5	78	64	16	26	14	13
89	Diseases of the ear and of the mastoid process	224	2	7	7	150	28	6	10	5	9
90-95	Diseases of the heart	29,855	228	1,360	1,000	6,585	12,648	1,604	1,651	1,721	3,058
96, 97.	Diseases of the arteries	2,230	12	122	95	541	892	188	97	102	181
99, 102	Bronchitis	378	2	21	9	116	114	42	25	20	29
106	Pneumonia	5,657	65	307	307	1,747	1,665	302	451	362	451
107-109	Pleurisy	173	2	5	5	77	43	10	5	11	15
111	Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	431	.....	43	11	153	125	36	23	23	17
112	Asthma	229	3	16	7	73	70	16	5	20	19
115	Diseases of the buccal cavity and annexe and of the pharynx and tonsils	241	2	7	11	85	74	25	13	12	12
116-118	Diseases of the stomach	976	3	37	30	329	292	54	58	69	104
119-120	Diarrhoea and enteritis	1,873	7	78	134	850	263	145	177	128	91
121	Appendicitis	551	9	12	28	205	123	30	55	46	43
122	Hernia, intestinal obstruction	596	6	35	21	255	265	66	60	60	85
124	Cirrhosis of the liver	643	5	14	11	230	177	30	30	25	73
125-127	Other diseases of the liver	643	5	24	22	206	196	50	43	47	50
130-132	Nephritis	6,822	59	372	227	3,321	1,754	241	273	215	360
137	Diseases of the prostate	820	6	40	31	179	300	45	75	66	78
140-150	Puerperal causes	595	6	28	34	229	160	32	36	32	38



	2,338	19	128	98	804	744	127	121	151	146
157 Congenital malformations	2,338	19	128	98	804	744	127	121	151	146
159-161 Diseases peculiar to the first year of life	7,053	36	328	411	2,657	1,976	383	435	438	389
162 Senility	1,584	20	172	205	372	326	103	86	125	175
163-198 Violent deaths	8,197	41	440	307	1,839	3,122	492	512	556	888
163, 164 Suicides	1,002	1	34	24	153	414	60	76	100	100
166-168 Homicides	146	5	5	4	26	59	14	9	6	23
169 Railway accidents (excluding motor vehicles)	225	2	15	8	42	80	15	23	15	25
170 Motor vehicle accidents	1,770	4	85	71	483	712	101	72	90	152
171 Street-car and other road transport accidents	115	7	7	3	39	31	7	7	7	14
172 Water transport accidents	229	4	41	12	26	84	17	11	11	23
173 Air transport accidents	51	2	2	2	5	17	6	6	8	7
174 Accidents in mines and quarries	115	3	25	3	25	31	5	2	13	11
175 Agricultural and forestry accidents	338	15	15	12	72	113	24	43	35	44
176 Other accidents involving machinery	112	1	3	7	30	31	7	4	9	20
180 Conflagration	284	1	21	15	74	87	18	26	18	24
187 Cataclysm	17	1	1	1	16	16	1	1	1	1
Other violent deaths	3,773	28	189	146	864	1,447	218	233	244	404
Other specified causes	3,620	25	229	146	1,029	1,198	243	215	169	366
Total specified causes	114,157	862	5,978	4,667	33,484	39,648	6,471	6,413	6,570	10,064
Unspecified or ill-defined causes	774	12	68	199	206	110	66	9	31	73
All causes	114,931	874	6,046	4,866	33,690	39,758	6,537	6,422	6,601	10,137

TABLE 25.—DEATH RATES PER 100 000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1946

Int. list No.	Canada	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1-2 Typhoid fever	0.7	.....	0.2	0.2	1.6	0.2	0.3	0.7	0.1	1.5
6 Cerebrospinal meningitis	0.7	.....	0.8	0.8	1.2	0.4	0.8	0.8	0.1	0.3
8 Scarlet fever	0.5	.....	0.5	0.4	1.2	0.2	.....	0.2	0.1	.....
9 Whooping cough	1.9	.....	1.3	4.2	3.7	0.8	1.0	0.2	2.4	0.5
10 Diphtheria	1.8	2.1	2.0	2.1	3.5	1.1	1.8	0.7	0.9	0.5
11 Erysipelas	0.1	.....	0.2	.....	0.2	0.1	0.1	0.4	.....	0.1
13 Tuberculosis of the respiratory system	39.2	45.7	50.3	44.0	60.1	22.2	36.0	21.2	29.0	49.1
14-22 Tuberculosis, other organs	8.2	12.8	12.1	13.8	12.3	3.5	8.5	5.5	8.6	8.4
24 Purulent infection and septicaemia	0.3	1.1	0.2	0.2	0.3	0.3	0.3	0.2	0.5	0.2
30 Syphilis	5.2	3.2	8.2	5.8	6.0	4.0	4.5	2.5	5.5	8.4
33 Influenza	13.0	14.9	14.4	20.2	22.5	6.8	8.4	10.3	11.1	7.2
34 Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35 Measles	1.9	.....	1.5	2.7	2.4	1.5	.....	6.7	1.0	0.2
36 Acute poliomyelitis and polioencephalitis	1.5	11.7	0.3	1.0	3.2	0.8	0.4	0.4	1.0	0.1
45-55 Cancer and other malignant tumours	120.2	96.8	123.9	103.3	111.5	132.0	125.7	87.3	107.1	145.5
56-57 Tumours, non-malignant and not specified	3.1	5.3	4.7	2.9	2.1	3.6	3.0	3.6	3.1	3.4
61 Diabetes mellitus	19.6	10.6	18.8	17.5	18.0	23.5	19.4	16.9	14.8	18.4
63 Diseases of the thyroid and parathyroid glands	2.7	2.1	1.3	1.7	1.9	3.4	3.4	2.8	3.7	2.4
73 Anaemias	2.5	3.2	3.6	3.5	2.3	3.0	3.3	1.8	1.2	1.1
74 Leukaemias and aleukaemias	3.8	1.1	3.6	2.1	2.4	4.5	4.8	4.6	4.4	5.5
77 Alcoholism	1.2	1.1	1.5	1.5	0.5	0.9	0.4	0.2	8.2	1.0
81 Meningitis (non-meningococcal)	2.5	2.1	1.5	2.5	5.0	1.1	2.5	1.3	1.6	1.1
83 Intracranial lesions of vascular origin	77.2	98.9	96.2	81.7	51.0	102.3	74.7	62.1	62.6	80.2



TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1946—Continued

Int. list No.	Causes of Death	Canada	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
84	Mental disorders and deficiency (general paralysis of the insane excepted)	1.3	3.2	2.6	1.5	0.6	1.6	1.7	1.0	1.1	1.5
85	Epilepsy	1.9	2.1	2.3	1.0	2.1	1.6	2.2	3.1	1.7	1.3
89	Diseases of the ear and of the mastoid process	1.8	2.1	1.1	1.5	4.1	0.7	0.8	1.2	0.6	0.9
90-95	Diseases of the heart	243.1	242.6	222.2	208.3	181.4	308.4	220.6	198.2	214.3	304.9
96, 97,											
99, 102	Diseases of the arteries	18.2	12.8	19.9	19.8	14.9	21.8	25.9	11.6	12.7	18.0
106	Bronchitis	3.1	2.1	3.4	1.9	3.2	2.8	3.8	3.0	2.5	2.9
107-109	Pneumonia	46.1	69.1	50.2	64.0	48.1	40.6	41.5	54.1	45.1	45.0
110	Pleurisy	1.4	2.1	0.8	1.0	2.1	1.0	1.4	0.6	1.4	1.5
111	Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	3.5	3.2	7.0	2.3	4.2	3.0	5.0	2.8	2.9	1.7
112	Asthma	1.9	3.2	2.6	1.5	2.0	1.7	2.2	0.6	2.5	1.9
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	2.0	2.1	1.1	2.3	2.3	1.8	3.4	1.6	1.5	1.2
116-118	Diseases of the stomach	7.9	3.2	6.0	6.3	9.1	7.1	7.4	7.0	8.6	10.4
119-120	Diarrhoea and enteritis	15.2	7.4	12.7	27.9	23.4	6.4	19.9	21.2	15.9	9.1
121	Appendicitis	4.5	9.6	2.0	5.8	5.6	3.0	4.1	6.6	5.7	4.3
122	Hernia, intestinal obstruction	7.0	6.4	5.7	4.4	7.0	6.5	9.1	7.2	7.5	8.5
124	Cirrhosis of the liver	4.9	5.3	2.3	2.3	6.3	4.3	6.3	3.6	3.1	7.3
125-127	Other diseases of the liver	5.2	5.3	3.9	4.6	5.7	4.8	6.9	5.2	5.9	5.0
130-132	Nephritis	55.5	62.8	60.8	47.3	91.5	42.8	33.1	32.8	26.8	35.9
137	Diseases of the prostate	6.7	6.4	6.5	6.5	4.9	7.3	6.2	9.0	8.2	7.8
140-150	Puerperal causes	4.8	6.4	4.6	7.1	6.3	3.9	4.4	4.3	4.0	3.8
157	Congenital malformations	19.0	20.2	20.9	20.4	22.1	18.1	17.5	14.5	18.8	14.6
158-161	Diseases peculiar to the first year of life	57.4	38.3	53.6	35.6	73.2	48.2	52.7	52.2	54.5	38.8
162	Senility	12.9	21.3	28.1	42.7	10.2	7.9	14.2	10.3	15.6	17.4
163-198	Violent deaths	66.7	43.6	71.9	64.0	50.7	76.1	67.7	61.5	69.2	88.5
163-164	Suicides	8.2	1.1	5.6	5.0	4.2	10.1	8.3	9.1	12.5	14.0
166-168	Homicides	1.2	1.1	0.8	0.8	0.7	1.4	1.9	1.1	0.7	2.3
169	Railway accidents (excluding motor vehicles)	1.8	2.1	2.5	1.7	1.2	2.0	2.1	2.8	1.9	2.5
170	Motor vehicle accidents	14.4	4.3	13.9	14.8	13.3	17.4	13.9	8.6	11.2	15.2
171	Street-car and other road transport accidents	0.9	4.3	6.7	0.6	1.1	0.8	1.0	0.8	0.9	1.4
172	Water transport accidents	1.9	4.3	6.7	2.5	0.7	2.0	2.3	1.3	1.4	2.3
173	Air transport accidents	0.4	0.4	0.1	0.4	0.1	0.4	0.8	0.7	1.0	0.7
174	Accidents in mines and quarries	0.9	4.1	0.6	0.6	0.7	0.8	0.7	0.2	1.6	1.1
175	Agricultural and forestry accidents	2.9	1.1	2.5	2.5	2.0	2.8	3.3	5.2	4.4	4.4
176	Other accidents involving machinery	0.9	1.1	0.5	1.5	0.8	0.8	1.0	0.5	1.1	2.0
180	Conflagration	2.3	1.1	3.4	3.1	2.0	2.1	2.5	3.1	2.2	2.4
187	Cataclysm	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.4	0.1
	Other violent deaths	30.7	29.8	30.9	30.4	23.8	35.3	30.0	28.0	30.4	40.3
	Other specified causes	29.5	26.6	37.4	30.4	28.3	29.2	33.4	25.8	21.0	36.5
199-200	Total specified causes	929.4	917.0	976.8	972.3	922.4	966.8	890.1	769.9	818.2	1,003.4
	Unspecified or ill-defined causes	6.3	12.8	11.1	41.5	5.7	2.7	9.1	1.1	3.9	7.3
	All causes	935.7	929.8	987.9	1,013.8	928.1	969.5	899.2	770.9	822.0	1,010.7



TABLE 26.—PRINCIPAL CAUSES OF DEATH BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1946		1945		1944		1943		1942		1941		1940		1939		1938		1937	
	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population	Number of Deaths	Rate per 100,000 population
Diseases of the Heart	1721	214	1663	199	1534	186	1550	194	1483	184	1394	177	1086	137	997	126	895	114	849	109
Cancer	860	107	830	100	781	84	748	94	784	97	712	90	759	95	647	82	682	87	598	77
Diseases of the Arteries	102	12	138	16	121	14	116	14	97	12	86	11	517	65	350	79	455	58	342	48
Violent Deaths (Suicides excepted)	456	56	472	57	484	59	588	73	483	58	524	67	415	52	364	46	357	46	372	49
Pneumonia (all forms)	362	45	369	44	379	46	497	51	335	41	473	47	376	47	362	46	488	62	464	59
Pulmonary tuberculosis	233	29	200	25	229	27	224	28	214	26	254	32	232	29	217	27	206	26	265	34
Influenza	89	11	58	7	128	15	153	19	75	9	276	22	255	32	216	27	174	22	473	61
Nephritis	215	26	255	31	237	31	284	36	260	32	255	32	217	27	214	27	243	31	240	31
Nephritis	46	5	42	5	54	6	77	9	69	8	91	11	96	12	109	14	146	18	108	14
Appendicitis	100	12	76	9	57	7	79	10	86	10	103	13	96	12	103	13	100	12	101	13
Suicides	503	62	513	62	454	55	472	59	450	56	501	64	116	15	96	12	102	13	104	13
Cerebral Haemorrhage	119	14	143	17	120	14	116	14	106	13	122	15	90	11	90	11	85	11	70	9
Diabetes Mellitus	128	15	87	10	120	14	116	14	106	13	99	13	92	12	90	11	118	15	15	15
Diarrhoea and Enteritis	32	4	48	5	31	3	52	6	43	5	54	7	69	9	59	8	68	8	77	10
Puerperal Causes	19	2	43	5	42	5	11	1	12	1	23	3	56	7	33	4	30	4	49	6
Whooping Cough	1	1	1	1	9	1	7	1	11	1	6	1	9	1	19	2	25	3	24	3
Scarlet Fever	7	1	9	1	5	1	12	1	11	1	6	1	12	2	7	1	18	2	10	1
Diphtheria	1	1	2	1	8	1	1	1	1	1	5	1	3	1	7	1	12	2	6	1
Typhoid and Paratyphoid	8	1	6	1	10	1	19	2	2	1	30	4	6	1	6	1	30	4	123	16
Measles	8	1	6	1	10	1	19	2	2	1	30	4	6	1	6	1	30	4	123	16
Poliomyelitis	8	1	1	1	1	1	1	1	1	1	8	1	4	1	6	1	15	2	13	2

TABLE 27.—MARRIAGES IN THE PROVINCE OF ALBERTA, BY MONTHS, 1946

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Edmonton .....	2593	150	151	170	191	202	341	249	280	213	213	253	180
Calgary .....	1997	118	128	148	129	133	255	199	195	179	162	192	159
Lethbridge .....	392	27	37	28	26	37	50	28	41	30	32	27	29
Medicine Hat .....	345	22	20	30	22	27	38	36	23	28	43	30	26
Red Deer .....	180	5	8	8	24	13	28	22	17	14	11	19	11
Drumheller .....	89	2	4	6	10	4	17	13	8	5	9	3	8
Wetaskiwin .....	104	3	4	6	7	9	12	8	7	7	13	11	12
Rural Districts .....	3778	182	159	193	263	206	528	443	326	232	390	550	306
<b>Total for the Province .....</b>	<b>9478</b>	<b>509</b>	<b>511</b>	<b>594</b>	<b>672</b>	<b>631</b>	<b>1269</b>	<b>998</b>	<b>897</b>	<b>708</b>	<b>873</b>	<b>1085</b>	<b>731</b>

TABLE 28.—MARITAL STATUS OF BRIDEGROOMS AND BRIDES IN ALBERTA, 1946

	Total Marriages	Marriages between						Per cent. of Bridegrooms who were			Per cent. of Brides who were					
		Bachelors and		Widowers and		Divorced men and		Bachelors	Widowers	Divorced	Spinsters	Widows	Divorced			
		Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced Women	Spinsters	Widows	Divorced			
<b>Total Marriages .....</b>	<b>9478</b>	<b>7978</b>	<b>289</b>	<b>338</b>	<b>184</b>	<b>172</b>	<b>55</b>	<b>342</b>	<b>49</b>	<b>91</b>	<b>90.6</b>	<b>4.3</b>	<b>5.1</b>	<b>89.7</b>	<b>5.2</b>	<b>5.1</b>



















TABLE 32.—DIVORCES AND NULLITIES BY JUDICIAL DISTRICTS  
FOR THE YEAR 1946 IN ALBERTA

Judicial Districts	Divorces			Nullities		
	Number of Divorces	Granted to Husband	Granted to Wife	Number of Nullities	Granted to Husband	Granted to Wife
Edmonton .....	466	245	221	5	2	3
Calgary .....	371	177	194	6	2	4
Lethbridge .....	52	25	27	1	.....	1
Medicine Hat .....	28	12	16	.....	.....	.....
Peace River .....	5	3	2	.....	.....	.....
Grande Prairie .....	9	5	4	.....	.....	.....
Hanna .....	4	3	1	.....	.....	.....
Red Deer .....	22	14	8	.....	.....	.....
Drumheller .....	4	3	1	.....	.....	.....
Macleod .....	5	3	2	.....	.....	.....
Wetaskiwin .....	2	1	1	.....	.....	.....
Vegreville .....	6	3	3	.....	.....	.....
<b>Total</b> .....	<b>974</b>	<b>494</b>	<b>480</b>	<b>12</b>	<b>4</b>	<b>8</b>

## DIVORCES IN ALBERTA SINCE THE PASSING OF THE ACT

Year	Granted to Husband	Granted to Wife	Total
1919 .....	3	3	6
1920 .....	74	26	100
1921 .....	53	37	90
1922 .....	80	49	129
1923 .....	57	32	89
1924 .....	66	53	119
1925 .....	59	42	101
1926 .....	79	75	154
1927 .....	83	66	149
1928 .....	91	84	175
1929 .....	77	71	148
1930 .....	64	87	151
1931 .....	69	87	156
1932 .....	68	81	149
1933 .....	56	79	135
1934 .....	62	106	168
1935 .....	74	135	209
1936 .....	74	135	209
1937 .....	102	139	241
1938 .....	105	162	267
1939 .....	104	163	267
1940 .....	119	154	273
1941 .....	135	176	311
1942 .....	179	201	380
1943 .....	190	223	413
1944 .....	245	243	488
1945 .....	302	273	575
1946 .....	494	480	974



TABLE 33.—BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS AND BY PLACE OF RESIDENCE OF MOTHERS, ALBERTA, 1946

	Total	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Total for the Province	1157	118	91	117	81	99	103	105	100	87	63	80	113

TABLE 34.—BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS), CLASSIFIED AS LEGITIMATE OR ILLEGITIMATE, BY PLACE OF RESIDENCE OF MOTHERS, ALBERTA, 1946

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total for the Province	1157	565	592	916	440	476	241	125	116

TABLE 35.—DEATHS OF INDIAN CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES BY SEX IN ALBERTA, BY PLACE OF RESIDENCE, 1946

Int. list No.	Causes of Death	Total	Male	Female
	<b>ALL CAUSES</b>	149	72	77
6	Cerebrospinal meningitis			
8	Scarlet fever			
9	Whooping-cough	6	2	4
10	Diphtheria			
11	Erysipelas			
13	Tuberculosis of the respiratory system	8	4	4
14-22	Tuberculosis, other forms	6	2	4
24	Purulent infection and septicaemia			
27	Dysentery	1	1	
30	Syphilis	3	2	1
33	Influenza	11	5	6
35	Measles	1		1
36	Acute poliomyelitis and poliomyelitis			
64	Diseases of the thymus gland	1		1
81	Meningitis (non-meningococcal)	1		1
86	Convulsions	8	2	6
89	Diseases of the ear and of the mastoid process			
105	Diseases of the larynx			
106	Bronchitis			
107	Bronchopneumonia	27	12	15
108, 109	Pneumonia	25	16	9
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils			
116-118	Diseases of the stomach			
119	Diarrhoea and enteritis	15	12	3
130	Acute nephritis			
157	Congenital malformations	5	2	3
	(a) Congenital hydrocephalus			
	(d) Congenital malformations of the heart	4	1	3
	(b, c, e) Others under this title	1	1	
158	Congenital debility	7	1	6
159	Premature birth	19	8	11
160	Injury at birth			
161	Other diseases peculiar to the first year of life	2	1	1
166-168	Homicides			
169-195,				
197	Other violent deaths	1	1	
	Other specified causes	1		1
199, 200	Ill-defined and unknown causes of death	1	1	











































## VITAL STATISTICS BRANCH

TABLE 38.—POPULATION BIRTHS, MARRIAGES, DEATHS, AND RATES FOR THE YEARS 1905-1946

Year	Population	Number of Births	Rate Birth	Number of Marriages	Marriage Rate	Number of Deaths	Death Rate	Infantile Death Rate per 1,000 Births	Puerperal Death Rate per 1,000 Births	Rate of Natural Increase
1905	185,000	421	20.41	187	6.77	114	7.36	90.00	.....	13.04
1906	236,000	3,003	12.72	927	8.08	1,091	6.68	100.27	6.33	13.36
1907	266,000	4,732	17.80	1,907	7.63	1,578	8.22	126.57	6.02	14.22
1908	266,000	5,973	22.45	2,032	7.92	2,662	8.81	.....	.....	14.07
1909	301,000	6,897	22.91	2,384	7.92	2,662	8.81	129.49	8.63	14.00
1910	336,000	8,321	24.49	3,086	9.18	3,526	10.49	134.46	9.75	13.88
1911	374,000	8,813	23.56	3,630	9.70	3,618	9.67	124.75	8.26	15.13
1912	400,000	10,284	25.71	4,429	11.07	4,232	10.58	120.47	7.07	17.84
1913	429,000	11,871	28.47	5,053	12.12	4,432	10.63	100.54	6.13	21.43
1914	459,000	13,685	30.75	4,623	10.39	4,417	9.32	100.54	87.9	21.26
1915	480,000	13,452	28.90	4,202	9.06	3,588	7.73	90.5	7.20	18.69
1916	496,000	13,331	27.87	4,230	8.53	4,058	8.18	87.30	6.48	18.92
1917	508,000	13,576	27.01	4,270	8.54	4,047	8.09	107.10	5.51	11.86
1918	522,000	14,890	25.72	4,048	6.98	7,924	13.86	110.30	6.44	14.62
1919	522,000	14,130	23.95	4,718	7.90	5,507	9.33	93.70	8.38	17.57
1920	565,000	16,565	26.72	5,110	8.24	5,675	9.15	85.65	7.24	19.50
1921	588,000	16,414	27.89	4,661	7.92	4,940	8.39	91.93	6.68	17.83
1922	592,000	16,163	26.44	4,272	6.99	5,281	8.62	80.54	5.50	18.75
1923	593,000	15,153	25.75	4,177	6.99	4,843	8.06	90.54	6.18	16.42
1924	602,000	15,014	24.74	4,160	7.50	4,907	8.30	72.90	5.76	16.16
1925	608,000	15,014	25.02	4,363	7.27	4,717	7.86	81.63	5.82	15.31
1926	608,000	14,455	23.79	4,498	7.40	5,156	8.49	74.51	6.38	15.87
1927	633,000	14,897	24.03	4,707	7.58	5,059	8.16	76.50	6.75	15.79
1928	658,000	15,692	24.79	5,776	9.12	5,699	9.00	77.40	7.26	16.54
1929	684,000	16,924	26.19	6,004	9.29	6,239	9.65	63.57	6.46	18.41
1930	708,000	17,649	26.74	5,334	8.08	5,396	8.33	69.38	5.04	16.32
1931	732,000	17,252	23.57	5,142	7.02	5,302	7.24	58.68	3.76	15.50
1932	740,000	16,990	22.96	5,054	6.83	5,521	7.46	59.90	4.43	14.24
1933	748,000	16,123	21.33	5,389	7.10	5,346	7.07	54.89	4.99	14.01
1934	756,000	16,236	21.10	6,053	7.87	5,337	6.93	57.8	4.2	14.0
1935	770,000	16,183	21.0	6,010	7.7	5,729	7.3	60.0	5.8	12.5
1936	772,782	15,786	20.4	6,020	7.8	6,147	8.0	63.0	4.9	12.4
1937	783,000	15,903	20.4	6,345	8.2	6,261	8.0	51.0	4.3	12.8
1938	783,000	15,891	20.3	6,973	8.9	5,879	7.5	46.0	3.5	13.6
1939	789,000	16,470	20.9	7,838	9.9	5,789	7.3	48.0	3.9	14.1
1940	790,000	17,359	21.8	8,782	11.8	6,203	7.8	51.0	3.6	13.7
1941	796,169	17,308	21.7	8,470	10.7	6,385	8.0	42.0	2.3	15.2
1942	805,000	18,317	22.7	9,034	11.2	6,091	7.5	42.0	2.7	16.1
1943	792,000	19,290	24.3	7,771	9.8	6,524	8.2	46.0	1.6	16.0
1944	818,000	19,373	23.7	7,299	8.9	6,320	7.7	43.0	2.4	16.2
1945	826,000	19,939	24.1	7,310	8.8	6,454	7.8	43.0	2.4	16.2
1946	803,330	22,184	27.6	9,478	11.8	6,601	8.2	42.5	1.4	19.3



TABLE 39.—DEATHS AND DEATH RATES FROM PUERPERAL CONDITIONS, 1946

	Births	Deaths from Puerperal Conditions	Death Rate per 1,000 Births
Whole Province .....	22,184	32	1.4
City of Edmonton .....	5,375	5	.9
City of Calgary .....	3,688	4	1.0
Small Cities .....	2,608	2	.7
Rural .....	10,513	21	1.9

RATIO OF MALE TO FEMALE BIRTHS, AND OF BIRTHS TO DEATHS

Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths	Year	Births of Males to 1,000 Births of Females	Ratio of Births to Deaths
1905 .....	1,059	3.13	1926 .....	1,053	2.80
1906 .....	1,094	2.07	1927 .....	1,065	2.94
1907 .....	1,075	2.96	1928 .....	1,064	2.75
1908 .....	1,077	2.73	1929 .....	1,042	2.71
1909 .....	1,086	2.59	1930 .....	1,027	3.21
1910 .....	1,065	2.69	1931 .....	1,075	3.25
1911 .....	1,103	2.43	1932 .....	1,052	3.08
1912 .....	1,084	2.43	1933 .....	1,053	3.01
1913 .....	1,053	2.67	1934 .....	1,032	3.04
1914 .....	1,081	3.30	1935 .....	1,055	2.81
1915 .....	1,000	3.74	1936 .....	1,049	2.57
1916 .....	1,063	3.29	1937 .....	1,019	2.38
1917 .....	1,061	3.25	1938 .....	1,046	2.70
1918 .....	1,069	1.88	1939 .....	1,046	2.85
1919 .....	1,074	2.56	1940 .....	1,033	2.79
1920 .....	1,055	2.92	1941 .....	1,054	2.71
1921 .....	1,055	3.32	1942 .....	1,058	3.02
1922 .....	1,034	3.06	1943 .....	1,041	2.96
1923 .....	1,072	3.13	1944 .....	1,060	3.06
1924 .....	1,036	2.97	1945 .....	1,061	3.08
1925 .....	1,036	2.97	1946 .....	1,036	3.36





