

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

Contributors

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ANNUAL REPORT
OF THE
Department of Public Health
PROVINCE OF ALBERTA
INCLUDING
Vital Statistics Branch
1947

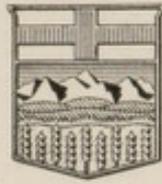
PUBLISHED BY ORDER OF THE LEGISLATIVE ASSEMBLY

EDMONTON
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1949

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Edmonton, December 31, 1948.

TO HIS HONOUR

J. C. BOWEN,

Lieutenant Governor of the Province of Alberta.

SIR:

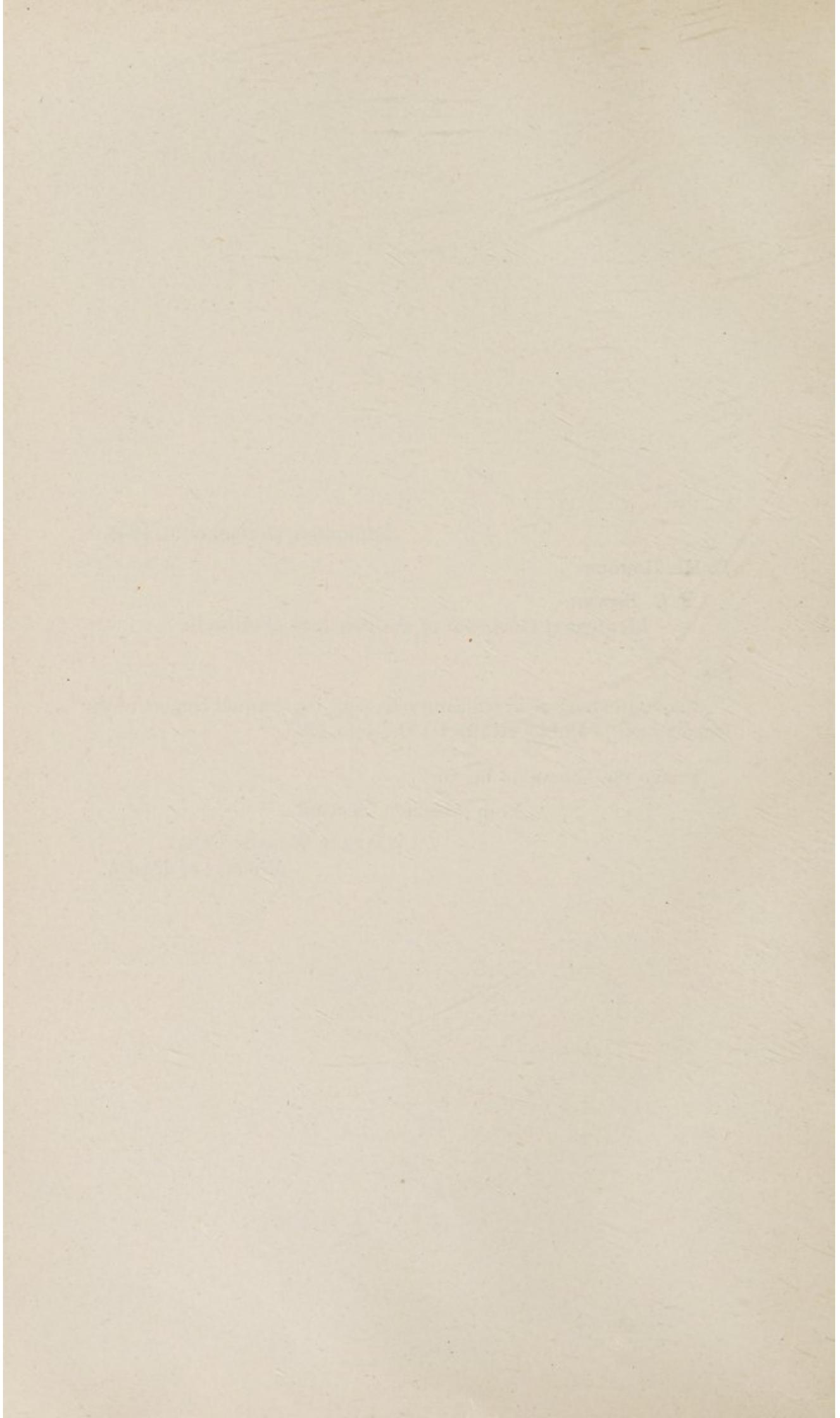
I have the honour to transmit herewith the Annual Report of the Department of Public Health for the year 1947.

I have the honour to be, Sir,

Your obedient Servant,

WALLACE WARREN CROSS,

Minister of Health.



December 31, 1948.

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

Administration Building, Edmonton, Alberta.

SIR:

I have the honour to submit herewith the Twenty-Ninth 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

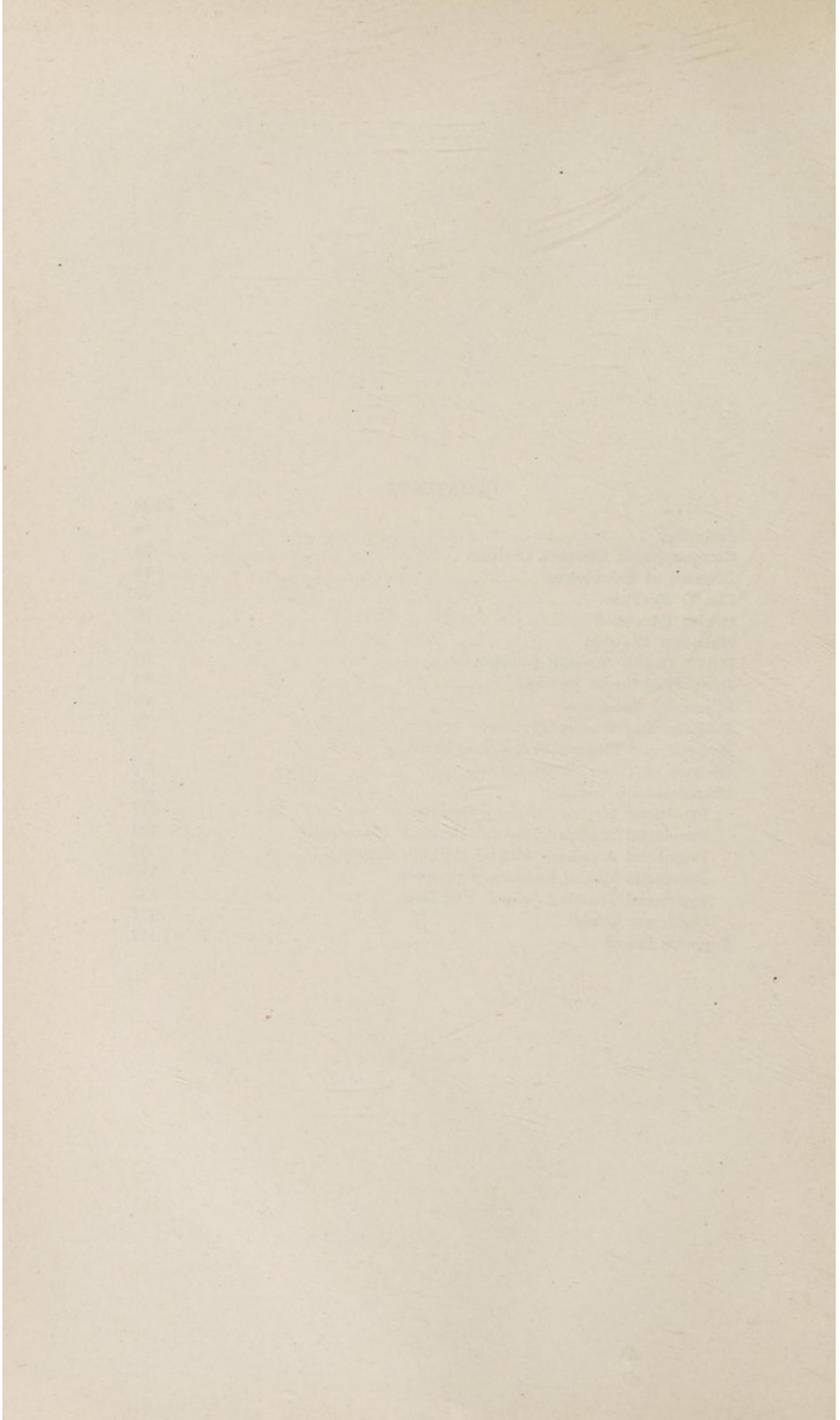


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TWENTY-NINTH ANNUAL REPORT OF THE
PROVINCIAL DEPARTMENT OF PUBLIC HEALTH
INCLUDING THE VITAL STATISTICS BRANCH

THE DEPARTMENT

Divisions:

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

A report containing 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. 519-47—Hospital Regulations amended to provide a minimum ward space of 80 square feet per bed, except for private wards which require at least 90 square feet. Also minimum dimension of ward to be 9 feet 6 inches. Previous regulations required 90 square feet area per bed for all wards.

O.C.-519-47.—Regulations Respecting the Preparation, Manufacture, Processing and Sale of Canned Meat Food Products amended to broaden definition of "canned meats" to include poultry and fish and to give authority to the Provincial Board to seize stocks if any of ingredients are thought to be unfit for use.

O.C.-835-47—Provincial Board of Health Regulations Respecting Nuisances and General Sanitation Nuisances amended to provide the following:

- (a) Prevent the indiscriminate dumping of waste on roads or streets.
- (b) Provide for zones in communities for tying horses and cattle.

- (c) Require refuse to be kept in proper containers.
- (d) Provide for the maintenance of fur farms once they are established according to regulations.

LEGISLATION PASSED DURING THE YEAR

Nursing Aides Act (Chapter 18).

The purpose of this Act is to provide for the training and licensing of nursing aides.

A nursing aide is defined as a person who, being neither a registered nurse nor a person in training to be a registered nurse at an approved school of nursing, undertakes the care of patients for remuneration.

An Advisory Council is provided for in section 4, consisting of two officers of the Department of Public Health, the Medical Inspector of Hospitals and the Superintendent of the Public Health Nursing Branch, and four representatives appointed by the organization specified in the section.

Sections 5 and 6 prescribe the duties and powers of the Advisory Council, those contained in section 5 being subject to the approval of the Lieutenant Governor in Council.

Section 7 provides for the appointment of a Registrar-Consultant and other officers, and section 8 sets out the duties of the Registrar-Consultant.

Section 9 deals with the establishment of schools of training, etc., for nursing aides and authorizes the Minister of Health, with the approval of the Lieutenant Governor in Council, to make arrangements for establishment of one or more central schools and the appointment of teachers, etc., also to arrange with hospitals for the training of nursing aides.

Section 10 authorizes the making of regulations by the Minister, with the approval of the Lieutenant Governor in Council.

Section 12 enables a nursing aide to collect through the Courts for services rendered.

This Act came into force on March 21, 1947.

Vital Statistics Act Amendment Act (Chapter 31).

This Act amends section 39 of The Vital Statistics Act, Chapter 30, R.S.A., 1942.

Paragraph (a) of section 1 of this Act enacts a new subsection (1a.). Subsection (1) provides among other things that any person may require extracts or entries of births, marriages and deaths duly certified by the Registrar General, his deputy or acting deputy on payment of a fee of fifty cents. This provision requires the signature of one of these officials on the certificates issued. It has been found impossible to comply strictly with this requirement, and the purpose of the proposed subsection (1a) is to provide an alternative method by which certificates with a printed facsimile of the signature of the proper official will be issued with respect to births, and certificates with a stamped facsimile of the signature in the case of marriages and deaths. The authority to issue a certificate signed by the proper authority is not disturbed, and such certificate will be issued when required for any particular purpose.

Paragraph (b) of section 1 of this Act strikes out subsection (2) of section 39 and substitutes a new subsection which extends the

provision making certified extracts *prima facie* evidence in Court to the new documents authorized by subsection (1a).

This Act came into force on March 21, 1947.

Public Health Act Amendment Act (Chapter 56).

The above Act in sections 25 and 26 provides for the setting up of "full-time health districts" which have become generally known as "full-time health units" or "health units". It is considered advisable to change the language of the Act to comply with usage.

Section 1 of this Act inserts a definition of "full-time health units" to take the place of the present definition of "full-time health district".

The changes made in section 23a by section 2 of this Act are all attributable to the change of name above referred to.

The change made in section 24 by section 4 of the Act is to eliminate reference to school divisions and school districts from the definitions of "municipality" and "council".

Section 5 of this Act enacts a new section to take the place of the present section 25. Only the changes made in the section are referred to here. Subsection (2) limits the number of members of the Board to five and provides for the division of the unit into wards, each to be represented by a member on the Board appointed by the council of the municipality, or by the Minister, in the event of the council not acting promptly. The scheme to be prepared by the Minister shall give an estimate of the expense involved and state the portion to be borne by the municipalities and the Government respectively, and shall be submitted to the councils of the municipalities concerned for their approval or disapproval, which is to be given within three months. If the scheme is approved by councils representing sixty per cent of the residents of the proposed unit, it shall be referred to the Board of Public Utility Commissioners for apportionment of their share of the expenses among the municipalities. Under the section formerly in force only those municipalities which approve were included in the unit and others might be selected in their stead.

Subsection (9) is new, and provides for the disestablishment of the unit under certain circumstances.

Subsection (10) is also new, and subsection (11) provides for a readjustment of municipal contributions by the Board of Public Utility Commissioners after a change of boundaries of the unit under subsection (10), which empowers the Minister to make such changes.

Subsection (13) is new and sets out in detail how the municipalities are to raise the amount of their contributions which are to be forwarded quarterly, while subsection (14) authorizes a municipality entirely within the unit to pay its contribution out of general revenue.

The amendments made to section 26 by section 6 of this Act are occasioned solely by the change of description from "full-time health district" to "full-time health unit."

This Act came into force on March 31, 1947.

Municipal Hospitals Act Amendment Act (Chap. 57).

Section 1 of this Act adds a new subsection (4) to section 5. That section deals with the establishment of hospital districts and

subsection (2) gives the Minister a discretion to establish a district whether he has received a petition or not. The new subsection (4) provides that where the Minister establishes a district under this authority the provisions of sections 7 to 11 shall not apply to the district until the Minister so directs. These sections provide for fixing the number of board members, etc., the appointment of a Provisional Board, and for meetings of such Board, the appointment of officers, etc., the payment of mileage, and the preparation of a scheme by the Provisional Board.

Subsection (3) of section 10 of the above Act provides for a payment to board members for attending meetings of a sum not exceeding four dollars per day. The amendment made by section 2 of this Act authorizes a payment not exceeding six dollars.

Section 3 of this Act amends section 11 of the Act. That section deals for the most part with the preparation of the scheme for a hospital district which is to be submitted to the ratepayers. Paragraph (a) of section 3 of this Act strikes out a provision requiring a statement of the proposed site of the hospital to be inserted in the scheme. The question of the site is now dealt with in another section. (See section 5 of this Act.) Paragraph (b) of section 3 of this Act amends the provision as to the minimum tax to be provided in the scheme to entitle ratepayers to hospital supporters benefits. The amendment places a minimum of six dollars on this tax. Paragraph (c) of section 3 strikes out subsection (10) of section 11 and substitutes a new subsection. The subsection formerly in force made it permissive for the scheme to contain a provision giving a renter the privileges of a taxpayer on such terms as may be deemed expedient. The new subsection enables any owner of real property in a hospital district who resides outside the district to assign to a renter his privileges as a ratepayer. This authority is limited to one renter irrespective of the number of parcels owned by the ratepayer.

Section 4 of this Act strikes out subsections (3) and (4) of section 16 dealing with the site, which are considered inapplicable in view of the proposed new subsection (1) of section 17 contained in section 5 of this Act. This requires the Minister to approve of the site of the hospital, or he may require a vote as to the site to be taken along with the vote on the scheme.

Section 18 of the Act which is struck out by section 6 of this Act is no longer necessary, as it also deals with the selection of a site for the hospital.

Section 7 of the Act strikes out subsections (1) to (6) of section 31 and substitutes five new subsections dealing with the addition to and subtraction from the area of an established district. Under the provisions formerly in force, the Minister of his own motion or on petition, may direct that a vote be taken with regard to addition to or detachment from a district of a specified area. The new subsections extend the provisions also to the transfer of an area from one district to another after a petition has been received from sixty-five per cent of the resident ratepayers of the area in question. The Minister is required to refer the petition to the Board of Public Utility Commissioners for consideration and recommendation. That Board may recommend that the petition be granted or refused or may direct a vote to be taken on the question. The new subsection (2) deals with the case where the council of a municipal district or the authority administering an improvement district asks

that a specified area, not in a hospital district, be added to an established district, and authorizes the Minister to add it or to direct a vote on the question. The new subsections (3), (4) and (5) enacted by section 7 of this Act are substantially the same as subsections (2), (3) and (4) of section 31 formerly in force.

Section 32 of the Act struck out by section 8 of this Act is no longer appropriate in view of the new provisions enacted by section 7 of this Act. Section 9 of this Act changes the allowance payable to members of boards after ratification of a scheme from "not exceeding four dollars" to "not exceeding six dollars" per day.

Section 10 of this Act validates a ministerial order whereby certain parcels of land were detached from the Elnora Municipal Hospital District.

Section 11 of this Act amends Form C in the Schedule to agree with the changes made by section 7 of this Act, particularly as to transfer of an area from one district to another.

This Act came into force on March 21, 1947.

Private Hospitals Act Amendment Act (Chap. 58).

This Act amends the definition of "private hospital" contained in paragraph (g) of section 2 of the above Act.

The change made in the definition is the elimination of reference to nursing homes and baby shelters. The former is unnecessary, and the administration of what were known as baby shelters is provided for in an amendment to The Child Welfare Act.

This Act came into force on March 21, 1947.

Registered Nurses Act Amendment Act (Chap. 71).

This Act amends section 4 of the Act by striking out paragraph (a) and substituting a new paragraph. This section provides that every person shall be eligible for membership in the Association who has the educational qualifications set out in paragraph (a). The paragraph heretofore in force required an applicant for membership to hold a high school graduation diploma disclosing successful completion of courses in Chemistry II and either Physics II or Biology, or to have an equivalent educational standing. The amendment reduces the necessary education requirements.

This Act came into force on March 21, 1947.

DEPARTMENT OF PUBLIC HEALTH

DEPARTMENT OF PUBLIC HEALTH
REVENUE AND EXPENDITURE FOR THE FISCAL YEAR ENDED MARCH 31st, 1948

	Salaries	Expenses	Revenue
601. Administration (General)	\$ 3,960.00	\$ 366.41	\$
602. Administration (General)	21,119.86	3,296.54	180.77
616. Administration (Chiropractic Act) .....	.....	.....	85.00
618. Administration (Postage) .....	.....	2,324.10	.....
636. Administration (Election of Rep. Municipal Hospital Boards) .....	.....	139.10	.....
603. Grants to Approved Hospitals .....	.....	1,043,947.33	.....
603. Expenses Hospital Inspection	6,480.75	1,263.84	117.00
605. Communicable Diseases	6,367.85	44,685.61	1,042.86
605. Sanitary Engineering	11,272.85	7,112.61	6,119.00
606. Public Health Nursing	66,259.34	19,740.10	14,871.19
607. Vital Statistics	39,299.39	12,107.31	83,737.01
608. Municipal Hospitals	4,170.24	1,911.02	.....
609. Insulin .....	.....	7,757.45	.....
610. Social Hygiene	24,924.33	17,613.02	.....
619. Grants to University Hospital .....	.....	20,000.00	.....
621. Travelling Clinic .....	.....	.....	37.00
622. Mental Hygiene	13,764.76	11,129.78	.....
626. Grants to University Lab. ....	.....	5,250.00	.....
631. Poliomyelitis .....	.....	27,933.29	.....
633. Cancer Treatment & Prevention	23,280.61	186,879.33	.....
637. Maternity Hospital Service	2,437.46	682,442.93	.....
638. Civil Service Nurse	2,070.72	766.81	.....
639. Public Health Education	4,307.55	3,868.76	.....
640. Division of Entomology	6,433.74	7,975.40	.....
641. Grants to Health Units .....	.....	65,744.83	.....
642. Health Units Training Centre	1,093.68	610.06	.....
643. Nursing Aides	3,376.69	347.74	171.00
Institutions			
612-1. } Prov. Mental Institute, Oliver	341,032.52	194,940.22	108,186.15
613-2. } Prov. Training School, Red Deer ..	130,993.55	61,216.73	64,646.44
612-3. } Prov. Mental Hospital, Ponoka	521,471.32	344,047.51	214,776.09
613-1. } .....	.....	.....	.....
612-4. } Auxiliary Hospital, Claresholm	21,833.89	19,293.10	11,269.96
612-5. } Auxiliary Hospital, Raymond	29,074.51	17,909.94	6,616.10
604. } Tuberculosis Control and Central .....	.....	.....	.....
604-C } Alberta Sanatorium, Calgary	260,277.73	371,909.57	86,105.02
	<u>\$1,545,303.34</u>	<u>\$3,184,530.44</u>	<u>\$ 597,960.59</u>
Total Expenditure Public Health Department			\$4,729,833.78
Less: Public Health Revenue			597,960.59
Net Expenditure, Department of Public Health			<u>\$4,131,873.19</u>

VITAL STATISTICS

Vital Statistics registered during the year were as follows:

Births	24,631
Marriages	8,797
Deaths	6,543

In all cases where rates are shown, such rates are based on a population of 823,000, the estimate of the Dominion Bureau of Statistics. 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 1942 to 1947:

Year	No. of Births	Birth Rate	No. of Marriages	Marriages Rate	No. of Deaths	Death Rate
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
1947	24,631	30.00	8,797	10.70	6,543	8.00

The birth rate for 1947 is 30.0 as compared with 27.6 for 1946. The marriage rate for 1947 is 10.7 as compared with 11.8 in 1946. The death rate for 1947 is 8.0 as compared with 8.2 in 1946.

General Health Conditions.

The deaths of 6,543 persons were registered in Alberta in 1947. Of this number, 3,916 were males and 2,627 females. There were

58 fewer deaths registered than in the previous year. There were 374 deaths from Pneumonia in 1947, an increase of 12 as compared with the previous year, and 72 deaths from Influenza, a decrease of 17 as compared with the previous year. Deaths from Pulmonary Tuberculosis numbered 215 in 1947 as compared with 233 the previous year. The chief cause of death is heart disease, 1,756 deaths having been registered as due to this cause, giving a rate of 213.5 per 100,000 population, as compared with 214.3, the rate for the previous year. Deaths from Cancer registered in 1947 number 878, a rate of 106.8 per 100,000 population, as compared with 860 deaths from this cause and a rate of 107.1 in 1946. Deaths from violence excluding suicides number 484 as compared with 450 in 1946. The respective rates were 59.0 and 56.0.

The infantile mortality rate for 1947 is 37 as compared with 43, the rate 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 1947 is .9 as compared with 1.4 for 1946. More detailed reference to the maternal mortality rate will be found in another section of this report.

Nine deaths were reported as due to Whooping Cough in 1947 as compared with 19 deaths from this cause in 1946. Of these 9 deaths, 6 were infants under one year of age. It is gratifying to note the material reduction in the number of deaths from Whooping Cough. Deaths from this cause can be still further reduced by taking steps to immunize children under two years of age against this serious disease. The Department provides the vaccine for this purpose free of charge on the request of physicians and local health authorities.

There were 4,629 cases of Measles with 21 deaths, and 317 cases of Rubella with no deaths reported in 1947. Measles was epidemic in 1947, and while there was a decline of 820 in the number of cases reported, there was an increase of 13 in the number of deaths which occurred from this disease. More detailed information concerning the cases of Measles and Rubella will be found in the report of the Communicable Disease Division.

There were 86 cases of Diphtheria, with 7 deaths reported in 1947, as compared with 48 cases and the same number of deaths during the previous year. Of the 86 cases reported in 1947, 6 were reported by cities and 80 by rural areas. The death rate for Diphtheria in 1947 is .9 as compared with .87 for 1946. Twenty-nine Diphtheria carriers were discovered, the majority of them in dealing with an epidemic of 40 cases which occurred in some Hutterite Colonies in the southern part of the Province.

Diphtheria is an entirely preventable disease. The Department furnishes toxoid for the immunization of children free of charge to physicians, local health authorities and local school authorities. Children should be protected early in life and such reinforcement of immunity given as may be found necessary during school life. If such a routine were carried out all over the Province, Diphtheria would soon be wiped out. An outbreak of Diphtheria in any area is an indication that no effective action has been taken in regard to immunization in such an area.

During 1947, 1,093 children living in outlying districts were immunized against Diphtheria by one of our Health Inspectors, part of whose time is devoted to this work.

No cases of Smallpox were reported in 1947. There are many areas in the Province in which not more than one-third of pre-school and school children have been vaccinated against Smallpox. Should the disease appear in such a community, it would spread with great speed, and should such an outbreak be of the malignant type, tragic results would follow. It cannot too often be emphasized that 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. In spite of the fact that no Smallpox has been reported in this Province for a number of years, this disease may appear at any time and become a serious menace to the unvaccinated. Smallpox vaccine is provided free of charge by the Department to physicians, local boards of health and local school authorities.

In 1947, 1,123 persons in outlying areas of the Province were vaccinated against Smallpox by our Health Inspector in charge of this work.

In 1947, 225 cases of Scarlet Fever and no deaths from this cause were reported, as compared with 482 cases and no deaths in 1946. The decline in the number of cases of this disease noted in the previous report has continued, with the lowest incidence in 1947 in the history of the Department.

The following is a summary of the cases reported in 1947:

Under 1 year	3
1 to 4 years	51
5 to 14 years	134
15 to 19 years	14
20 years or over	22
Age not stated	1
Total	225
Cases reported by cities	119
Cases reported by towns and villages	28
Cases reported by rural areas	78

There were 17 cases of Typhoid Fever and 10 cases of Paratyphoid Fever reported in 1947, as compared with 9 cases and 4 cases respectively in 1946. Two deaths were reported from Typhoid Fever in 1947.

I would again emphasize that the supervision and control of Typhoid and Paratyphoid carriers is a matter of vital importance to the public health. The full co-operation of all local health authorities is essential, not only in the investigation of sources of infection, but also in the supervision and control of Typhoid and Paratyphoid carriers. Constant vigilance in the supervision and control of local water, milk and food supplies is essential. Pasteurization of milk and milk products carried out under proper supervision has been proven a safeguard of first importance, providing protection not only against Typhoid and Paratyphoid, but also against other milk borne diseases.

Poliomyelitis.

In 1947, 84 cases of Poliomyelitis were reported, and 7 deaths occurred from this cause.

Under the provision made for free treatment of persons suffering from paralysis due to Poliomyelitis, 43 patients were admitted to the University Hospital, Edmonton, and 10 to the Junior Red Cross Hospital, Calgary.

Assistance was extended by the Department by which a number of patients were enabled to complete academic and secretarial courses and to take vocational training.

Tuberculosis.

During 1947, 263 deaths were reported from Tuberculosis, as compared with 302 deaths in 1946. Of these 263 deaths, 129 were deaths of Indians. The death rate for all forms of Tuberculosis in 1947 (including Indians) is 32. Excluding deaths of Indians, the death rate is 16.3 (per 100,000 population), as compared with 18 in 1946.

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 investigations relating to Sylvatic Plague, Spotted Fever and Tularaemia. The survey in connection with the migration of rats in Western Canada and in the Western United States was continued.

In connection with the survey relating to Rocky Mountain Spotted Fever, 5,921 drag ticks and 1,010 host ticks were taken in 134 collections. One collection taken on Section 21, Township 2, Range 17, W. 4th, near Milk River, was reported positive for Spotted Fever. This is a new area of infection south of the Lethbridge area and west of the Manyberries area.

There were 799 persons vaccinated against Rocky Mountain Spotted fever: 320 in the Manyberries District, 391 in the Redcliffe District, and 88 in the Thelma District.

During the course of the Sylvatic Plague survey, 303 collections were made consisting of 1,333 animals. These animals yielded 2,080 fleas and 151 tissue specimens. Nine positive reports for plague infection were submitted from the flea specimens and 4 from the tissue specimens. Some of the positive reports were on specimens taken in the area north of Gleichen which indicates an extension of the Plague area westward from Brooks.

No positive reports were submitted in connection with the Tularaemia investigations carried on in 1947. The details of the work carried on by the Division of Entomology covering a ten-year period from the inception of this service in 1938, will be found in the report of this Division.

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.

Diseases of the Heart and Circulatory System.

Diseases of the heart accounted for 1,756 deaths in 1947, as compared with 1,721 in 1946. These 1,756 deaths represent 28 per cent of the deaths from all causes reported for the year, giving a death rate of 213.5 (per 100,000 population), as compared with 214.3 in 1946.

Diseases of the arteries were reported as the cause of 117 deaths in 1947 as compared with 102 in 1946. As mentioned in previous reports, the aging of our population is a factor in the increased number of deaths from diseases of the heart and circulatory system. 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 circulatory system and would prolong many lives.

Cancer.

In 1947, 878 deaths were registered as due to Cancer, as compared with 860 during the previous year. The death rate from Cancer in 1947 is 106.7 (per 100,000 population), as compared with 107.1 in 1946. Cancer occupies second place in the list of causes of death, and in 1947 accounted for 13 per cent of the total deaths registered in the Province. Early recognition of Cancer and prompt and effective treatment by competent physicians would save many lives.

The importance of educational work in the Cancer program cannot be over-emphasized. Educational work has been carried on by the Division of Cancer Services 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 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 for the purpose of establishing the diagnosis. Free hospitalization is provided for this purpose for a period up to, but not exceeding, 14 days.

The following is a brief summary of the work done by the Diagnostic Clinics in 1947:

EDMONTON CLINIC:		
Examinations of new patients	1,852	
Re-examinations	1,780	
		3,632
CALGARY CLINIC:		
Examinations of new patients	1,064	
Re-examinations	635	
		1,699
Total of both Clinics.....	5,331	

Of the new patients examined at the Clinics, 43.8 per cent were found to be suffering from Cancer. There were 1,603 patients referred for X-ray diagnosis, 841 were referred for radium or X-ray treatment, and 1,344 referred for surgical treatment.

Deaths Due to Violence.

Deaths reported as due to violence (excluding suicides) numbered 484 in 1947 as compared with 456 in 1946, representing 7.4% of the total deaths registered in the Province for the year, and giving a death rate of 59.0 (per 100,000 population), as compared with 56.7 in 1946.

There were 67 suicides in 1947, as compared with 100 in 1946.

Highway accidents accounted for 118 deaths, of which 107 were due to motor vehicle accidents. It is apparent from these statistics that highway accidents constitute an important cause of death. When one considers the serious injuries suffered by other persons involved in highway accidents and the great expense incurred in hospital and medical care, this problem is one of major importance from the standpoint of public health.

There were 30 deaths reported from drowning in 1947, as compared with 31 in 1946. There is a great need for an effective educational programme in this field. Each year, a number of deaths occur as a result of the destruction of homes by fire, in some cases with parents absent from the home and children of tender years left to their own devices, with no responsible person in charge. There were 16 deaths due to conflagration in 1947.

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

Suicides	67	Hunger or thirst	3
Homicides	8	Excessive cold	1
Railway accidents excluding motor vehicles	16	Excessive heat	1
Motor vehicle accidents	107	Lightning	1
Street car and other transport accidents	11	Food poisoning	1
Water transport	7	Accidental absorption of poisonous gas	9
Air transport	9	Acute accidental poisoning of solids or liquids	8
Accidents in mine and sand quarries	15	Conflagration	16
Agriculture and forestry	39	Accidental burns (conflagration excepted)	13
Other accidents involving machinery	11	Accidents due to electric currents	1
Accidental drowning	30	Other accidents	35
Accidental mechanical suffocation	9	Legal executions	—
Accidental injury by firearms	19		551
Accidental injury by cutting or piercing instruments	2		—
Accidental injury by fall or crushing	107		
Injury by animals	2		

Infantile Mortality.

There were 915 deaths of children under one year of age registered in 1947, as compared with 945 such deaths in 1946, a decrease of 30 deaths. The infantile mortality for 1947 is 37, as compared with 43 for 1946.

Of the 915 deaths of children under one year of age in 1947, 560 or 59.2% occurred within the first month of life, of which number 453 occurred within the first week and 271 on the first day of life. In the continued expansion of our preventive health programme and through the organization of additional full-time District Health Units, the solution of this problem will be found. In districts which have had the advantage of the service provided by Full-time Rural Health Units for a number of years, it has been found that the infantile death rate gradually falls to approximately the same level as the rate for cities of the Province with full-time public health services. The Department plans to expand the service provided by Full-time District Health Units as rapidly as the medical and nursing personnel required for this purpose 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 1947 is 0.9 as compared with 1.44 in 1946. The average maternal death rate for the past five years is 2.3. The rate for 1947 (0.9) is

the lowest ever recorded in the Province. The next lowest rate, namely, 1.44 occurred in 1946.

The following are the chief causes of maternal deaths registered in 1947:

Abortion with mention of infection	3
Abortion without mention of infection	1
Ectopic gestation	2
Haemorrhage of pregnancy, death prior to delivery	2
Toxaemia of pregnancy, death prior to delivery	1
Other diseases and accidents of pregnancy, death prior to delivery	4
Haemorrhage of childbirth and puerperium	1
Infection during childbirth and the puerperium	3
Puerperal toxaeias following delivery	5
Other accidents of childbirth	—
Other and unspecified conditions of childbirth and the puerperal state	—
Total	22

The progressive reduction in the maternal death rate in recent years is most gratifying. We can look forward with every confidence to further reductions in our maternal and infant death rate as we go forward with the expansion of our preventive health programme in both rural and urban districts. Of the births registered in the Province in 1947, 93.1 per cent occurred in approved hospitals.

Full-time Rural Health Units.

The work of the eight first established 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, it has been necessary to continue part-time service of local medical officers of health in some of the District Health Units. During 1947, we were able to recruit full-time medical officers of health for four Rural Health Units. Frequent changes and shortages in the staff of public health nurses have created difficult problems for the District Boards of Health of our Health Units. The eight Health Units which were established in 1944, and one established early in 1945, with one public health nurse in charge of the service in each Unit, have continued to function. Owing to continued shortage of qualified public health nurses, it has not been possible to increase the number of nurses in the latter Health Units. In the summer of 1947, in co-operation with the Edmonton Rural Health Unit, the Department established a training centre for the purpose of providing field training for graduate nurses without public health experience desiring to undertake this work. Nurses completing the field training provided under this plan are placed in Health Units in which there are vacancies and where they work under the direction of experienced Public Health Nurses. It is hoped by this means to increase the number of nurses available for public health work. Under this plan, nurses whose work proves satisfactory will, in the course of two years, be granted leave-of-absence for the purpose of completing public health training and qualifying for the Certificate in Public Health Nursing.

The activities of Full-time District Health Units include the prevention and control of communicable diseases, child and maternal hygiene, health education, the supervision of water and milk supplies, food inspection, general sanitation, records and statistics, etc.

Health Education.

Health educational work is carried on through the publication of bulletins, pamphlets, articles in the press, and by means of

lectures, radio talks, movies, health exhibits, and demonstrations. Forty-five departmental bulletins and pamphlets and approximately 106 publications issued by various organizations are distributed by the Department. Twenty thousand copies of the special bulletin, "On the Alberta Health Horizon," were distributed during the year. Some 200,000 bulletins and pamphlets were distributed and a large number of lectures given by the Supervisor of Health Education in rural and urban districts.

Health education is a field of prime importance, and the Department plans on expanding this service to meet the ever increasing demand for more literature, films, radio talks and lectures dealing with various phases of health.

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

Nutrition.

In December, 1946, Miss E. M. Perdue, B.Sc., joined the staff as Director of the Division of Nutrition. Miss Perdue has worked in close co-operation with the staff of our District Health Units, the Division of Health Education, other Divisions of the Department, as well as other agencies in the Province interested in nutrition. There is a great need for continued educational work in this field, and it is important that the nutrition programme be soundly based and carefully planned.

A nutrition survey was carried on in the Foothills Health Unit, under the direction of Dr. L. B. Pett, Director of the Division of Nutrition, Department of National Health and Welfare, and his staff. Dr. H. K. Brown, Director of the Division of Dental Health of the Department of National Health and Welfare, also gave valuable assistance in this survey. The purpose of this survey was to discover whether any malnutrition existed among the people of the district and to advise on methods of correcting any serious conditions found, and to indicate what health services would be necessary in order to prevent malnutrition in future years. More than 450 people in the district co-operated by keeping records of their diets. Careful physical and dental examinations were made of 239 persons. The report of this survey has been completed and will shortly be available in printed form. Much interesting and valuable information will thus be made available, not only to the Foothills Health Unit, but to all those interested in nutrition problems. It is hoped to carry out a carefully planned follow-up campaign in the Foothills Health Unit, and it is hoped later on to have a similar nutrition survey made in another Health Unit in a different section of the Province. I wish to express the sincere appreciation of the Department for the assistance extended by Dr. Pett and his staff in connection with this survey. The details of the work of the Division of Nutrition will be found in the report of that Division.

Public Health Nursing.

There are 39 nurses on the staff of the Department (exclusive of 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 552 child hygiene clinics held in Edmonton, Calgary, Bowness, Medicine Hat, Redcliffe, Drumheller and Vegreville, with a total attendance of 20,519 infants and pre-school children.

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

Treatment Consultations	16,522
Miscellaneous Public Health Consultations	5,779
Antepartum Consultations	1,483
Postpartum Consultations	465
Infant and Pre-school Consultations	1,702
Miscellaneous Public Health Home Visits	945
Treatment Home Visits	4,269
Communicable Disease Home Visits	652
Maternal Welfare Home Visits	416
Infant and Pre-school Public Health Home Visits	595
Deliveries	88
Abortions	51
Cases sent to Hospital or Doctor	1,197
Deaths (under 1 year)	11
Deaths (over 1 years)	33
Communicable Disease cases reported	745
Public Health Literature Distributed	4,388
IMMUNIZATIONS:	
Diphtheria Toxoid	3,136
Scarlet Fever Toxin	1,600
Smallpox Vaccine	788
Whooping Cough Vaccine	2,530
Typhoid Fever Vaccine	232
Measles Prophylactic Serum	23
<hr/>	
Total number of doses	8,309

Owing to the shortage of well-qualified public health nurses, it has been difficult to find suitable replacements for vacancies occurring on our public health nursing staff. We have been fortunate in the high quality of the nurses who have served on the staff of this Department in this as well as previous years. Detailed information concerning the activities of the Division of Public Health Nursing will be found in the report of that Division.

Travelling Clinic.

As it was not possible to obtain the medical, dental and nursing staff required for the Travelling Clinic, this service did not operate in 1947.

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.

New cases under treatment in all clinics during 1947 were as follows: Syphilis 200, Gonorrhoea 1,476, making a total of 1,676.

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

The work of the Social Hygiene Division was carried on along much the same lines as in previous years. During the year, a follow-up of the patients treated in 1946 in the special treatment centre at Grouard was conducted.

Penicillin is now distributed free of charge for all persons infected with venereal diseases who require it. Detailed information

concerning the work of the Social Hygiene Division will be found in the report of that Division.

Provincial Laboratory.

The staff of the Provincial Laboratory made 160,772 examinations in 1947. The estimated value of the work done by the Laboratory in 1947 on the basis of minimum charges only is \$261,279.

The work of the Provincial Laboratory includes examinations of water, ice, sewage, milk, food, various examinations in connection with communicable disease control, bacteriological and pathological examinations of specimens submitted by physicians, local health authorities and hospitals, medico-legal examinations, as well as many other examinations.

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

All public health laboratory service is provided free of charge excepting only examinations which involve highly specialized procedures. Detailed information concerning the work of the Provincial Laboratory will be found in the report of the Laboratory.

Sanitary Engineering and Sanitation.

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

The tremendous expansion in waterworks and sewage disposal plants in cities, towns and villages, which has been in evidence in recent years, continued on an even wider scale in 1947. So great has been the activity in this field that it is estimated by 1951 the number of towns and villages served with community water and sewer systems will be approximately three times the number served in 1940. The efficient operation of such plants requires a great deal of skill and knowledge. The above mentioned unprecedented increase in the number of waterworks and sewerage systems has resulted in a tremendous increase in the amount of supervision necessary by the Sanitary Engineering Division. Such supervision is essential in order that proper maintenance and operation procedures and public health precautions are observed. An additional sanitary engineer and the appointment of additional sanitary inspectors are urgently required, and it is hoped to make provision for such additional personnel in the near future.

A tourist camp inspection and classification programme was inaugurated in 1947 in co-operation with the Department of Trade and Industry. An additional sanitary inspector was appointed, and made responsible for this service. Some 80 tourist camps were inspected and classified. While it is too early to assess the results of this work, there is every indication that the programme has been well worth while.

Owing to the tremendous increase in the number of plumbing installations, it was necessary to appoint an additional inspector to aid in both plumbing and sanitary inspection. The yearly revenue from fees received for plumbing permits gives some idea of the magnitude of this increase: 1945, \$2,008; 1946, \$2,928; 1947, \$5,237.

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 unless properly treated. Failure to make certain that water from such sources is safe for human consumption will almost inevitably result in a serious outbreak of water-borne disease.

It is also necessary to call the attention of municipal authorities to their responsibility of the control of milk supplies. Any municipality which permits the sale of unsafe milk is 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. Seven new pasteurization plants were installed in the Province during the year.

There were 211 complaints and requests for investigations received from various municipalities and referred to the Sanitary Engineering Division for attention. During the year, 32 inspections of lumber and saw-mill camps were made. Detailed information concerning activities of the Sanitary Engineering Division will be found in the report of that Division.

Dental Hygiene.

Owing to the continued shortage of dentists, it has been impossible to provide dental services in outlying districts by means of Travelling Clinics.

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

Hospital Inspection.

In 1947, 105 approved hospitals in Alberta received the Government grant, and 27 private hospitals were licensed and in operation under The Private Hospitals Act. In addition, the Lloydminster United Municipal Hospital and the Fort Smith Hospital in the Northwest Territories received the Government grant covering Alberta patients admitted to these hospitals. Three new municipal hospitals, namely, Two Hills, Elnora, and Tofield, opened in 1947, but did not operate for a complete year.

On the basis of returns from 102 approved hospitals, the total bed capacity, including cribs, was 5,151, and the total bed complement 5,317. There were, in addition, 902 bassinets.

On the basis of a population of 822,000, there was one hospital bed available (including cribs and bassinets) for every 135 of our population, or 7.3 beds per 1,000 population. Excluding bassinets, there was one hospital bed available for every 159 of our population, or 6.3 beds per 1,000 population.

There were 161,459 patients admitted to the above mentioned 102 approved hospitals. The daily average number of patients in hospital was 4,372, and the average stay in hospital was 9.1 days.

Construction of the following new hospitals was undertaken in 1947: Crows Nest Pass Municipal Hospital, Three Hills Municipal Hospital, Elnora Municipal Hospital, Rimbey Municipal Hospital, Tofield Municipal Hospital, and Two Hills Municipal Hospital.

Construction of additions to the following hospitals was undertaken in 1947: Wainwright Municipal Hospital, Lamont Hospital, Royal Alexandra Hospital, Edmonton; General Hospital, Edmonton; and Medicine Hat General Hospital.

There were 43 Municipal Hospitals in operation in 1947, providing accommodation for 40,985 patients.

The acute shortage of nurses to which reference was made in reports in previous years, has continued. While there has been some slight improvement in this situation in the larger hospitals, there has been no material change in the smaller hospitals, and many difficult problems have been experienced by hospital boards in endeavouring to cope with this situation.

The rise in the costs of hospital construction and equipment, and of practically every kind of supplies used by hospitals, has continued unabated. Great credit is due to the various hospital authorities for the manner in which they have faced these situations and discharged the duties for which they are responsible. Detailed statistical information concerning the various approved hospitals will be found in the report of the Division of Hospital and Medical Services.

Division of Tuberculosis Control.

The number of treatment beds available for Tuberculosis in 1947 was 467. Patient days for all sanatoria for 1947 total 128,942, as compared with 131,010 in 1946.

During the year the diagnostic services were extended to 133,455 persons in the Province. Of this number, 127,706 received diagnostic services from the Division of Tuberculosis Control; the remainder from the Indian Affairs Branch. This represents an increase of 30,745 over those examined in 1946.

There were 1,756 new cases of Tuberculosis reported in 1947. Of these, 330 or 18.7 per cent were considered active, and 1,426 or 80.2 per cent inactive, and .7 per cent non-pulmonary.

Excluding Indian patients, 1,073 new cases of active and inactive pulmonary Tuberculosis were reported and classified as follows:

Minimal	456	51.5%
Moderately advanced	217	24.5%
Far advanced	98	11.1%
Pleurisy	15	1.7%
Primary	100	11.2%

There were 403 patients admitted to the sanatoria in 1947, and 742 patients were treated in all sanatoria during the year.

The Indian Affairs Branch of the Department of National Health and Welfare has taken over the diagnosis and treatment of Treaty Indians. Those requiring treatment are admitted for the same to the Charles Camsell Hospital, Edmonton. This development marks a great forward step in dealing with the problem of tuberculosis among the Indian population.

With the two Mobile X-ray Clinics in operation, the total number of x-ray examinations made in 1947 was 118,144. These two completely equipped mobile x-ray units, gifts of the Alberta Tuberculosis Association, are operated by the Department, and have proven of great value in the campaign against Tuberculosis.

The Alberta Tuberculosis Association has carried on its programme of rehabilitation along much the same lines as in previous years. Under this programme, a number of persons have received academic and vocational training, and because of such training have subsequently obtained remunerative employment. The value

of this constructive programme is becoming more and more apparent. Detailed information concerning the activities of the Division of Tuberculosis Control will be found in the report of that Division.

Mental Health Division.

On January 1st, 1947, there were 3,129 patients in all Mental Institutions, and on December 31st, 3,214 patients, an increase of 85 patients. The rate of hospitalized mental patients to general population has increased from 156 per 100,000 population in 1921 to 391 in 1947.

There were 555 patients with psychoses, 54 patients without psychoses, and 31 mental defectives admitted to the Provincial Mental Hospital at Ponoka in 1947. There were 414 patients with psychoses, 46 without psychoses, and 14 mental defectives discharged. During the year 66 deaths occurred, of which number 46 were deaths of male patients and 20 of female patients.

There were 84 patients transferred from the Mental Hospital, Ponoka, to other mental institutions, including 41 male patients and 15 female patients transferred to the Provincial Mental Institute, Oliver, 4 female patients transferred to the Claresholm Auxiliary Mental Hospital, 12 female patients transferred to the Raymond Auxiliary Mental Hospital, 10 male patients and 2 female patients transferred to the Provincial Training School for Mental Defectives at Red Deer, and 24 patients from the Provincial Mental Hospital at Ponoka discharged and admitted to Rosehaven, the new home for chronic and incurable patients at Camrose.

There were 1,239 patients in the Provincial Mental Institute at Oliver at the beginning of 1947, and 1,287 at the end of the year. During the year, 99 patients with psychoses, 33 patients without psychoses and 7 mental defectives were admitted; 21 patients with psychoses were discharged, and 47 deaths of patients with psychoses occurred during the year. Of the 97 patients admitted to Oliver in 1947, 61 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 100 female patients on January 1st, 1947, and 99 at the end of the year. During the year, 7 patients were admitted, 2 discharged, 5 transferred to other hospitals, and one death occurred.

In the Auxiliary Mental Hospital at Raymond there were 114 female patients in residence on January 1st, 1947, and 118 at the end of the year. During the year, 11 patients were admitted who were transferred from the Provincial Mental Hospital at Ponoka, and one as a transfer from the Auxiliary Mental Hospital at Claresholm. Four patients were discharged and 5 deaths occurred.

During the year, 42 patients were admitted to the Training School for Mental Defectives at Red Deer, 13 were discharged, 3 transferred, and 9 deaths occurred. There were 272 patients in residence at the beginning of the year and 289 at the end of the year.

A survey of all Mental Institutions and Mental Hygiene Clinics in the Province was made by Dr. C. M. Hincks, General Director of the National Committee for Mental Hygiene, and Miss Marjorie Keyes, R.N., Secretary of the Committee. The report of this survey, which was made during the month of November, will, it is expected, be submitted early in 1948.

The construction programme planned to provide additional accommodation at Ponoka, Oliver, and Red Deer, got under way in the spring, and it is hoped that some of the buildings under construction may be available for occupancy by the end of the year. The work in remodelling and reconstructing the Camrose Normal School to provide suitable accommodation for chronic and incurable patients discharged from the Mental Institutions was completed in the fall of 1947, and the first patients were admitted before the end of the year. This Home is known as Rosehaven, and provides accommodation for 200 patients.

Guidance Clinics.

The year 1947 saw a considerable expansion in Provincial Guidance Clinics, particularly in southern Alberta. For the first time, a full-time clinic psychiatrist was appointed, beginning his duties in this capacity on September 1st, with headquarters in Calgary. Two full-time psychiatric social workers were appointed during the year. With this increased staff available, several clinics were re-opened and a number of new clinics established during the last four months of the year. The Department plans on establishing another full-time guidance clinic centre in Edmonton in 1948, and later, as the trained staff required become available, to establish additional guidance clinic centres in other districts.

This Province has pioneered in the field of mental health, the first Guidance Clinic having been established in Calgary in 1929. The establishment of these Travelling Guidance Clinics will enable the Department to develop an effective preventive programme in the field of mental health.

During the year, 106 Guidance Clinics were conducted, 487 new cases were presented, and there were 1,303 follow-ups and interviews. The total case-load for 1947 was 1,790. Since the inception of this service in 1929, 6,305 cases have been examined.

Eugenics Board.

The work of the Eugenics Board is carried on under authority of The Sexual Sterilization Act. Five meetings of the Board were held in 1947. During the year, 91 cases were presented to the Board. Since The Sexual Sterilization Act was proclaimed in 1929, 2,364 cases have been presented to the Board. During 1947, 16 male cases and 15 female cases were sterilized. The total number of cases operated on up to the end of December, 1947, was 1,090, 439 male and 651 female. All operations are performed at the Provincial Mental Hospital, Ponoka.

The Department desires to express to the members of the Eugenics Board, the honourary surgeons, and the staffs of the various Provincial Mental Institutions and Guidance Clinics its sincere appreciation of the splendid service rendered in the discharge of the duties for which they were responsible. Detailed information concerning the activities of the Mental Institutions, Guidance Clinics and Eugenics Board will be found in the reports of these services.

Board of Visitors.

It is with deep regret that we have to record the death on January 3rd, 1947, of Dr. E. G. Mason of Calgary, who served as a member of the Board of Visitors for more than twenty years. Dr.

Mason took a very keen interest in the work of all our Mental Institutions, and gave outstanding service to the Department and to the Province as a member of the Board. Dr. E. R. Selby of Calgary was appointed to fill the vacancy on the Board due to the death of Dr. Mason.

The Board is now constituted as follows: Dr. J. M. MacEachran, Dr. E. L. Pope, Dr. E. R. Selby, and Mrs. J. W. Field.

General Administration.

A statement of revenue and expenditure for the year ending March 31st, 1948, 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 \$4,729,833.78. The total revenue was \$597,960.59. The net expenditure of the Department was \$4,131,873.19. The sum of \$1,681,813.00 was expended for the maintenance and operation of the Mental Institutions coming under the administration of the Department. The sum of \$632,187.00 was expended in the maintenance and operation of the Central Alberta Sanatorium at Calgary in providing hospital accommodation and medical care for tuberculosis patients in Edmonton and other hospitals, and in providing diagnostic and other services for tuberculosis patients. The sum of \$1,063,947.00 was expended in grants to approved hospitals. The sum of \$684,880.00 was expended in providing free maternity hospitalization; \$210,159.00 was expended in providing cancer diagnostic and treatment services; \$85,999.00 in providing public health and district nursing services; \$65,744.00 in grants to full-time district health units; \$42,537.00 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 1947, I desire to express my sincere appreciation of the fine spirit of 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 Division of Communicable Diseases is responsible for the control of communicable diseases at the Provincial level. This involves the summarizing of information received from local health districts as to the incidence of various communicable diseases and the passing of this information to Ottawa.

The Division also acts in an advisory capacity to assist local boards of health in the control of communicable diseases, more especially in relation to the less common ones such as typhoid, smallpox and poliomyelitis.

Outside of the organized health districts, the Division is directly responsible for the control of communicable diseases, sometimes working through the local medical practitioners or district nurses and sometimes it is necessary for the Provincial staff actually to take responsibility for the control of these cases.

In outlying districts, an inoculating programme is carried out during the summer months by a Provincial inoculator whose report shows that the following work was done in thirty-eight school districts in the sparsely settled area of south-eastern Alberta.

Persons inoculated against Diphtheria	1,093
Persons inoculated against Whooping Cough ..	341
Persons vaccinated against Smallpox	1,123

A special inoculation programme for protection against Rocky Mountain Spotted Fever was also carried out in south-eastern Alberta, a more detailed report of which can be found in the report of the Provincial Entomologist.

TYPHOID FEVER

(Cases 17, Deaths 1)

This number of cases is the median for the past five years. These cases appeared at fourteen different locations, usually only one case at a time, which made the locating of the source of infection practically impossible.

This year the number of Paratyphoid cases reported increased from four to ten.

PULMONARY TUBERCULOSIS

(Cases 991 Deaths 215)

The number of cases of pulmonary tuberculosis reported continues to drop from 1,041 in 1946 to 991 in 1947. With increased activity in case finding, one can visualize a considerable drop in the cases which develop.

The deaths from this disease also continue to drop to a new low of 215 in 1947. Of these deaths, 106, or almost half, were among the Indians, who comprise only about one-fortieth of the population of the Province.

Further information may be found in the report of the Tuberculosis Division.

WHOOPING COUGH
(Cases 972, Deaths 9)

The number of cases of Whooping Cough has increased this year, although the number of deaths has decreased. This reduced case fatality rate is mainly due to the fact that there were very few cases among the Indians, which seems to be the natural result of a very heavy epidemic of Whooping Cough in all tribes during 1946.

MEASLES
(Cases 4,629, Deaths 21)

Although still an epidemic year, the number of cases was slightly down, while the deaths are up to more than double.

ACUTE ANTERIOR POLIOMYELITIS
(Cases 84, Deaths 7)

A small epidemic occurred of what was apparently a mild type of Poliomyelitis.

SCARLET FEVER
(Cases 225, Deaths 0)

This has been a record year in Scarlet Fever with only 225 cases, and for the first time in Alberta's history, no deaths.

SMALLPOX
(Cases 0, Deaths 0)

This makes four years without a single case of Smallpox, and a strong possibility that the cases reported in the four previous years were not really Smallpox.

DIPHTHERIA
(Cases 86, Deaths 7)

It is regrettable that this controllable disease still continues as a menace to the community. The increased incidence this year and the large increase in the number of carriers found was due almost entirely to an epidemic (40 cases) among some Hutterite Colonies in the southern part of the Province. This epidemic, although of considerable proportions, was a very mild type.

Other cases and carriers were almost entirely in the north of the Province.

Five cases of Actinomycosis were found scattered across the Province.

Two cases of Tularaemia were reported—one near Vermilion where the infection apparently occurred from handling a sick pig and one near Elk Point (not far away) where the infection occurred at the site of a barb wire scratch.

TABLE 1
COMMUNICABLE DISEASE CASES AS REPORTED FOR 1946 AND 1947

	1946	1947		1946	1947
Actinomycosis		5	Paratyphoid Fever	4	10
Chickenpox	2,159	2,836	Poliomyelitis	78	84
Diphtheria	48	86	Rubella	357	317
Diphtheria Carriers	6	29	Scarlet Fever	482	225
Encephalitis	9	4	Tuberculosis—Pulmonary	1,041	991
Erysipelas	6	24	Tuberculosis—Non-pulmonary	35	26
Infectious Hepatitis		6	Tularaemia		2
Infectious Mononucleosis		14	Typhoid Fever	9	17
Measles	5,449	4,629	Undulant Fever	49	46
Meningococcal Meningitis	10	12	Vincent's Angina		3
Mumps	2,093	1,075	Whooping Cough	308	972

TABLE 2
TOTAL DEATHS DUE TO COMMUNICABLE DISEASES IN THE PROVINCE OF
ALBERTA FOR 1946 AND 1947

	1946	1947		1946	1947
Chickenpox		1	Pneumonia(all forms)	362	374
Diphtheria	7	7	Poliomyelitis	8	7
Dysentery	1	6	Scarlet Fever	1	.....
Encephalitis Lethargica	4	7	Tuberculosis, Pulmonary	233	215
Erysipelas .....	.....	1	Tuberculosis (all other forms)	69	48
Influenza	89	72	Typhoid Fever .....	.....	1
Measles	8	21	Undulant Fever	1	.....
Paratyphoid Fever	1	.....	Whooping Cough	19	9

TABLE 3
DEATHS DUE TO COMMUNICABLE DISEASES IN THE CITIES OF EDMONTON
AND CALGARY FOR 1946 AND 1947

	Edmonton		Calgary	
	1946	1947	1946	1947
Diphtheria .....	.....	.....	1	.....
Dysentery .....	.....	.....	1	.....
Encephalitis	1	.....	1	.....
Influenza(all forms)	6	2	3	5
Measles	1	.....	.....	1
Poliomyelitis .....	.....	.....	2	2
Pneumonia (all forms)	47	51	34	42
Tuberculosis, Pulmonary	22	20	19	20
Tuberculosis (all other forms)	9	7	3	2
Typhoid Fever .....	.....	.....	.....	1
Whooping Cough .....	.....	2	.....	1

TABLE 4
DEATHS DUE TO COMMUNICABLE DISEASES IN THE SMALLER CITIES, TOWNS,
VILLAGES AND RURAL DISTRICTS FOR THE YEARS 1946 AND 1947

	1946	1947		1946	1947
Chickenpox .....	.....	1	Pneumonia (all forms)	281	281
Diphtheria	6	7	Poliomyelitis	6	5
Dysentery .....	.....	7	Scarlet Fever	1	.....
Encephalitis	2	7	Tuberculosis, Pulmonary	192	175
Erysipelas	4	1	Tuberculosis (all other forms)	57	39
Influenza (all forms)	80	65	Whooping Cough	19	6
Measles	7	20			

TABLE 5
DEATHS DUE TO COMMUNICABLE DISEASES AMONG INDIANS IN THE
PROVINCE FOR 1946 AND 1947

	1946	1947		1946	1947
Diphtheria	2	2	Pulmonary Tuberculosis	113	106
Influenza (all forms)	22	17	Tuberculosis (all other forms)	43	23
Measles	3	6	Whooping Cough	13	.....
Pneumonia (all forms)	91	87			

TABLE 6

	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate	Case Fatality Rate
Actinomycosis	5	.....	0.5	.....	.....
Chickenpox	2,836	1	335.2	0.1	0.03
Diphtheria	86	7	10.5	0.9	8.1
Diphtheria Carriers	29	.....	3.4	.....	.....
Encephalitis	4	7	0.4	0.8	.....
Erysipelas	24	1	2.8	0.1	4.1
Infectious Hepatitis	6	.....	0.7	.....	.....
Infectious Mononucleosis	14	.....	1.6	.....	.....
Measles	4,629	21	547.1	2.4	0.47
Meningococcal Meningitis	12	.....	1.4	.....	.....
Mumps	1,075	.....	127.6	.....	.....
Paratyphoid Fever	10	.....	1.2	.....	.....
Poliomyelitis	84	7	10.2	0.9	8.3
Rubella	317	.....	37.4	.....	.....
Scarlet Fever	225	.....	27.4	.....	.....
Tuberculosis, Pulmonary	991	215	117.1	25.3	21.6
Tuberculosis (all other forms)	26	48	3.07	5.6	.....
Tularaemia	2	.....	0.2	.....	.....
Typhoid Fever	17	1	2.07	0.12	5.8
Undulant Fever	46	.....	5.4	.....	.....
Vincent's Angina	3	.....	0.3	.....	.....
Whooping Cough	972	9	118.2	1.1	1.1

DEPARTMENT OF PUBLIC HEALTH

INCIDENCE OF SOME OF THE MORE SERIOUS COMMUNICABLE DISEASES
FOR THE TEN-PYEAR PERIOD 1937-1947

DIPHTHERIA

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
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
1947	822,000	86	7	10.5	0.9

TYPHOID FEVER

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
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	.....
1947	822,000	17	1	2.07	0.12

ACUTE ANTERIOR POLIOMYELITIS

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
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
1947	822,000	84	7	10.2	0.9

WHOOPIING COUGH

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
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
1947	822,000	972	9	118.2	1.1

SCARLET FEVER

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
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
1947	822,000	225	.....	27.4	.....

SMALLPOX

	Population	Total Cases	Total Deaths	Morbidity Rate	Mortality Rate
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	.....	.....	.....	.....
1947	822,000	.....	.....	.....	.....

CASES OF COMMUNICABLE DISEASES REPORTED IN 1947
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
			40	50	1	6	7	4	3	9	12	2	17	28	6	25	59	4	2			1
Cities:	40	50	1	6	7	4	3	9	12	2	17	28	6	25	59	4	2	1	90		
Calgary	315	305	10	41	31	48	65	76	47	64	99	102	89	210	314	4	2	1	620		
Edmonton	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Lethbridge	29	41	3	2	1	7	2	2	25	9	11	17	12	25	33	7	1	1	70		
Red Deer	85	105	3	6	13	7	2	3	10	42	52	52	23	48	101	7	11	11	190		
Towns and Villages																					
Rural Areas																					
Totals	470	502	14	18	23	55	70	90	94	118	179	200	130	309	508	11	2	12	972		

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
			117	135	29	13	5	1	4	21	14	3	5	35	55	67	6	28	204			5	9
Cities:	117	135	29	13	5	1	4	21	14	3	5	35	55	67	6	28	204	5	9	252	
Calgary	740	710	160	243	205	173	85	132	112	34	29	64	128	85	73	377	877	37	57	1450	
Edmonton	57	51	12	5	12	13	19	43	1	3	2	2	4	2	11	89	2	2	4	108	
Lethbridge	22	25	6	15	17	1	1	3	5	2	2	2	4	1	10	30	1	5	47	47	
Medicine Hat	42	36	2	1	1	1	1	3	5	2	1	16	19	30	3	11	57	2	2	78	
Red Deer	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Wetaskiwin	186	165	26	20	24	19	49	36	7	7	26	41	58	38	11	62	219	22	12	351	
Towns and Villages	285	264	67	50	34	37	36	46	21	8	30	80	33	107	16	85	384	21	20	549	
Rural Areas																					
Totals	1449	1387	303	346	297	244	193	281	160	57	93	238	297	327	112	585	1860	90	109	2836	

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
			4	9	5	2	1	1	1	2	2	9	6	4	12	7	7	39	59			8	11
Cities:	4	9	5	2	1	1	1	2	2	9	6	4	12	7	7	39	59	8	11	13	
Calgary	56	66	50	7	10	5	4	9	2	2	2	2	2	2	2	2	2	2	2	125	
Edmonton	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	
Lethbridge	24	54	13	32	8	1	3	3	1	1	2	2	16	13	6	16	40	6	1	3	
Red Deer	51	33	14	6	8	3	8	11	5	2	2	4	11	10	10	17	53	2	1	88	
Towns and Villages																					
Rural Areas																					
Totals	150	167	83	47	27	9	16	26	7	11	10	8	41	32	23	80	163	16	14	317	

UNDULANT FEVER

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	5	4	3	2								2	1	1					9		
Drumheller		1		1										2					1		
Edmonton	9				1			2	2		3	1					2		5	2	
Towns and Villages	6	3	1	3		1		1	1		1	1	2			1			6		
Rural Areas	12	6	3	1	1	1		2	2		1	1	2	3		1	1	15	1		
Totals	32	14	7	7	1	2	4	5	5	4	4	5	5	6	1	5	1	36	3		

VARIOUS OTHER DISEASES

ACTINOMYCOSIS

Rural Areas	5	2																		4	1
Totals	5	2																		4	1

ENCEPHALITIS

Cities:																					
Edmonton	1											1								1	
Lethbridge		1												2							
Rural Areas	1	1													1						
Totals	2	2										1	2	2	2					1	1

ERYSIPELAS

Cities:																					
Calgary	1	2					2		1											2	1
Edmonton	8	7			1		4	1	2	3		3	1			1				14	
Rural Areas	4	2		1	1		1					1	3							6	
Totals	13	11		1	2	2	4	2	2	3	3	2	3	1	1					22	1

INFECTIOUS HEPATITIS

City of Edmonton	1																				1
Rural Areas	3	2			1						1	1	3				2			3	
Totals	4	2			1						1	1	3			2				4	

Division of Entomology

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

General Introduction.

The following is a summary of the Fourth Annual Report of the Division of Entomology and the Tenth Annual Report of the Rocky Mountain Spotted Fever and Sylvatic Plague Survey for the year ending December 31, 1947.

During the course of the Spotted Fever survey, 134 collections were made consisting of 1,010 host and 5,921 drag ticks. The host ticks were taken from 597 host animals, of which 35 were trapped and 562 were shot. One positive collection, No. 1-27-47, taken on section 21, township 2, range 17, W. 4, near Milk River, was positive for Spotted Fever. This is a new area of infection south of the Lethbridge area and west of the Manyberries area. In fact, the known areas of infection now form a rough oblong with the corners located at Redcliff, Lethbridge, Milk River and Manyberries.

A total of 799 people were vaccinated against Rocky Mountain Spotted Fever. These consisted of 414 males and 385 females. Of the total persons vaccinated, 320 were from Manyberries, 391 from Redcliff and 88 from Thelma.

During the course of the Sylvatic Plague survey, 303 collections were made consisting of 1,333 animals, of which 935 were shot, 344 trapped, 52 live trapped, and 2 found dead. These animals yielded 2,080 fleas and 151 tissue specimens. Nine positives were found in the fleas and four in the tissue specimens. Some of the positives were taken in the area north of Gleichen which indicates a westward extension of the Brooks plague area.

Although the tularaemia investigational work was carried on, no new information was obtained.

A continuation of the investigation undertaken during 1946 into the probable occurrence of *Haplosporangium parvum* was carried on 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. During the course of this investigation, which was carried on in conjunction with the plague and spotted fever work, a large number of small rodents, mainly mice, were trapped. From the trapped specimens material was sent to the laboratory for mycological examinations. A number of positives were found.

In order to do the survey work efficiently, it was necessary that the field crews have information as to the species of animals present in the Province. As the animals had not been studied in detail, we were fortunate enough to be able to secure the services of W. H. Lawrence, a graduate of the University of Michigan, Ann Arbor, Michigan. Mr. Lawrence was specializing in the study of wild mammals in relation to public health, and arrangements were made with his advisors in the School of Forestry and Conservation for a transference of work to this Division under a scheme whereby we would supervise the field work as a part of his requirements for a master's thesis. This arrangement was of great advantage to this

Division, as Mr. Lawrence collected and mounted and named a large collection of small mammals native to this Province.

Considerable new equipment was obtained for the laboratory and an increase in the stenographic staff was made. It is now necessary for further trained personnel to be added to the staff in order that the various functions of the Division can be properly carried out.

The Director and the staff were able to attend the Second Annual International Conference of the Diseases of Animals Transmittable to Men, which was held at the Rocky Mountain Laboratory at Hamilton, Montana, during August 13th to 16th, 1947.

Personnel.

Mr. G. J. Nicholson, B.Sc., third year Medical student, University of Alberta, was Officer-in-Charge of Crew No. 1. Mr. C. E. Collins, University of British Columbia, was Officer-in-Charge of Crew No. 2. Mr. W. T. Boyar, B.Sc., second year Medical student, University of Alberta, was assistant on Crew No. 1. Mr. W. V. Goresky, B.Sc., second year Medical student, was assistant on Crew No. 2.

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

Statistical Summary of the Tenth Annual Report of the Rocky Mountain Spotted Fever and Sylvatic Plague Survey.

As this is the tenth year of operation for the Rocky Mountain Spotted Fever and Sylvatic Plague Survey operated under the Department of Public Health, the following is a statistical summary of the activities, and results obtained, by the survey during the period 1938-47.

ROCKY MOUNTAIN SPOTTED FEVER

TABLE 1

RESULTS OF SPOTTED FEVER SURVEY WITH TICK COLLECTIONS AND NUMBER OF COLLECTIONS POSITIVE FOR TULARAEMIA AND SPOTTED FEVER, 1938-1947

Year	Year of Colls.	Host	Drag	Total	Positive Tul.	Colls. S.F.
1938	57	351	20,539	20,890	.....	.....
1939	79	886	11,531	12,417	1	2
1940	92	730	10,273	11,003	1	.....
1941	101	1,876	10,609	12,485	1	.....
1942	87	325	5,598	5,923	5	.....
1943	8	456	4	460	1	.....
1944	28	.....	1,148	1,148	.....	3
1945	65	792	1,740	2,532	1	1
1946	34	187	2,226	2,413	.....	.....
1947	134	1,010	5,921	6,931	.....	1
Total	685	6,613	69,589	76,202	10	7

TABLE 2

HUMAN CASES OF SPOTTED FEVER, 1935-1947

Year	Sex	Age	Location	Result	Died	Recovered
1935	M	65	Manyberries	Death	1	.....
1935	F	35	Aden	Recovered	.....	1
1936	M	61	Manyberries	Death	1	.....
1936	M	44	Manyberries	Death	1	.....
1936	M	55	Manyberries	Recovered	.....	1
1937	.....	.....	.....	.....	.....	.....
1938	.....	.....	.....	.....	.....	.....
1939	.....	.....	.....	.....	.....	.....
1940	M	18	Medicine Hat	Recovered	.....	1
1940	M	21	Calgary	Recovered	.....	1
1940	M	35	Calgary	Recovered	.....	1
1942	M	82	Manyberries	Death	1	.....
1943	M	55	Orion	Recovered	.....	1
1944	M	68	Redcliff	Death	1	.....
1944	F	55	Redcliff	Recovered	.....	1
1945	.....	.....	.....	.....	.....	.....
1946	.....	.....	.....	.....	.....	.....
1947	.....	.....	.....	.....	.....	.....
Total	12	.....	.....	.....	5	7

DEPARTMENT OF PUBLIC HEALTH

TABLE 3

NUMBER OF PERSONS ATTENDING R.M.S.F. VACCINATION CLINICS*, 1938-1947

Year	Manyberries			Redcliff			Thelma-Elkwater			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
1941	84	77	161	.....	.....	.....	.....	.....	.....	84	77	161
1942	92	89	181	.....	.....	.....	.....	.....	.....	92	89	181
1943	123	113	236	.....	.....	.....	.....	.....	.....	123	113	236
1944	256	195	451	245	211	456	.....	.....	.....	501	406	907
1945	213	212	425	282	226	508	58	51	109	553	489	1042
1946	195	173	368	277	302	579	42	42	84	514	517	1031
1947	165	155	320	200	191	391	49	39	88	414	385	799
Total	1128	1014	2142	1004	930	1934	149	132	281	2281	2076	4357

*Clinics started in 1941.

TABLE 4

AREAS WHERE R.M.S.F. IS PRESENT AND YEAR FOUND, 1938-1947

Area	Year	Area	Year
Manyberries	1939	Orion	1943
Lethbridge	1939	Redcliff	1944
Medicine Hat	1940	Milk River	1947

TABLE 5

TULARAEMIA

NUMBER OF HUMAN CASES OF TULARAEMIA, 1931-1947*

Year	Sex			Result	
	M.	F.	T.	Recovered	Died
1931	1	.....	1	1	.....
1932	.....	.....	.....	.....	.....
1933	.....	.....	.....	.....	.....
1934	5	3	8	8	.....
1935	.....	1	1	1	.....
1936	2	.....	2	2	.....
1937	.....	.....	.....	.....	.....
1938	.....	.....	.....	.....	.....
1939	1	.....	1	1	.....
1940	2	4	6	5	1
1941	6	2	8	8	.....
1942	7	.....	7	6	1
1943	2	.....	2	2	.....
1944	3	1	4	3	1
1945	.....	.....	.....	.....	.....
1946	.....	.....	.....	.....	.....
1947	2	.....	2	2	.....
Total	31	11	42	39	3

*As the first case of tularaemia in Alberta was reported in 1931 it was decided to start at that point.

TABLE 6

SOURCES OF INFECTION FOR ABOVE REPORTED CASES, 1931-1947

Source	No. cases	Source	No. cases
Rabbit	21	Swine	2
Ground Squirrel	2	Skunk	1
Cats	2	Unknown	8
Ticks	3	Barbed Wire	1
Grouse	1		
Mink	1	Total	42
Sheep	1		

TABLE 7
LOCATION OF TULARAEMIA CASES, 1931-1947

Location	No. cases	Location	No. cases
South of the Red Deer River:			
Macleod	1	Jasper	1
Taber	1	Lac La Biche	1
Walsh	1	Lake Isle	1
Whitla	2	Nakaman	1
	—	Pibrook	1
	5	Perryvale	1
	—	Plamondon	1
South of the N. Saskatchewan River:			
Elk Point	1	Prosperity	1
Mulhurst	1	Radway	1
Tofield	1	St. Paul	1
Vegreville	1	Wabamun	1
Vermillion	1	Winterburn	2
	—		—
	5		25
	—		—
South of the Athabasca River:			
Anton Lake	1	South of the Peace River:	
Athabasca	2	Prairie Echo	2
Barrhead	1	North of the Peace River:	
Berrymore	1	Berwyn	1
Cold Lake	1	Grimshaw	3
Edmonton	3	Notikiwin	1
Fort Assiniboine	1		—
Gainford	1		5
Grassland	1		—
	—	Total	42
	—		—

TABLE 8

BIRDS, MAMMALS, ETC., KNOWN TO BE CARRIERS OF TULARAEMIA
IN ALBERTA, 1931-1947

Carrier	How Known
Barbed wire	Source of a human case
Jack Rabbit	Source of a human case
Brush Rabbit	Source of a human case
Cat	Source of a human case
Grouse	Source of a human case
Gulls	Laboratory determination
Mink	Source of a human case
Mice	Laboratory determination
Sheep	Laboratory determination
Ground Squirrels	Laboratory determination
Skunk	Source of a human case
Swine	Source of a human case
Ticks	Laboratory determination

SYLVATIC PLAGUE

TABLE 9
RESULTS OF PLAGUE SURVEY, 1938-1947

Year	No. of Colls	Animals	Fleas	Tiss.		Flea		Positives		Total
				Spec.	Index	Flea	Tiss.			
1938	34	821	2,025	...	2.46	...	...	...	...	...
1939	93	1,415	1,865	43	1.32	1	1	...	...	2
1940	80	1,302	3,556	81	2.73	5	1	...	...	6
1941	126	1,865	1,883	144	1.01	...	1	...	...	1
1942	110	1,574	3,295	181	2.09	10	1	...	...	11
1943	13	327	340	20	1.04	...	...	...	...	...
1944	50	502	2,010	54	4.0	...	...	...	...	...
1945	99	1,227	3,217	85	2.62	12	2	...	...	14
1946	321	3,061	5,729	57	1.87	...	...	...	...	...
1947	303	1,333	2,080	151	1.56	9	4	...	...	13
Total	1,229	13,427	26,000	816	1.93	37	10	...	...	47

DEPARTMENT OF PUBLIC HEALTH

TABLE 10

TOWNSHIPS INFECTED, GIVING NAMES OF NEAREST POST OFFICES,
AND YEAR INFECTION WAS FOUND, 1938-1947

Year	Post Office	Twp.	Rge.	Mer.
1938	.....	.....	.....	.....
1939	Reist	31	10	W4
1940	Sancroft	32	10	W4
	Stanmore	31	11	W4
	West Wingham	32	11	W4
1941	Colholme	27	9	W4
1942	Burfield	26	15	W4
	Carolside	27	13	W4
	Colholme	27	9	W4
	Dowling	32	14	W4
	Lonebutte	28	15	W4
	Rose Lynn	28	13	W4
	Stanmore	31	11	W4
	Suffield	15	9	W4
	West Wingham	32	118	W4
1943	.....	.....	.....	.....
1944	.....	.....	.....	.....
1945	Benton	28	3	W4
	Brooks	17	14	W4
	Cabin Lake	24	9	W4
	Carolside	26	12	W4
	Excel	28	5	W4
	Heathdale	26	6	W4
	Kinmundy	24	8	W4
	Oyen	28	4	W4
	Pollockville	25	12	W4
	Rose Lynn	28	14	W4
	Sedalia	30	5	W4
	Sibbald	29	2	W4
1946	.....	.....	.....	.....
1947	Brooks	19	13	W4
	Cassils	19	15	W4
	Makepeace	23	21	W4
	Naco	31	6	W4
	Scandia	16	14	W4
	Sibbald	27	2	W4
	Southesk	20	16	W4

TABLE 11

PLAGUE—POSITIVE COLLECTIONS, 1938-1947

Year	No. of Colls	Animals	Fleas	Tiss. Spec.	Flea Index	Flea	Positives		Total
							Tiss.		
1939	1	1	2	1	2.0	1	1	2	
1940	6	175	450	5	2.6	5	1	6	
1941	1	1	.....	1	.....	.....	1	1
1942	10	212	551	24	2.4	10	1	11	
1943	10	.....	.....	.....	.....	.....	.....	.....
1944	.....	.....	.....	.....	.....	.....	.....	.....
1945	12	161	508	12	2.6	12	2	14	
1946	.....	.....	.....	.....	.....	.....	.....	.....
1947	9	77	112	8	1.5	9	4	13	
Total	39	627	1,623	51	2.58	37	10	47	

TABLE 12

HUMAN CASES OF PLAGUE, 1937-1947

Year—1937. Location—Stanmoree.
 Sex—Male. Contact—R.G.S.
 Age— Result—Death.

EQUINE ENCEPHALOMYELITIS

TABLE 13

EQUINE ENCEPHALOMYELITIS SURVEY, 1938-1947

(a) Brain collections for western encephalomyelitis virus tests

Year	Animals	No. of Specimens			Positives	
		Brain	Blood	Total	Brain	Blood
1939—	R.G.S.	38	.....	38	8	.....
	Jack Rabbit	3	.....	3	.....	.....
	Weasel	1	.....	1	.....	.....
	Sheep	1	.....	1	.....	.....
	Birds:					
	Horned Lark	2	.....	2	.....	.....
	Curlew	1	.....	1	.....	.....
	Wading Bird	1	.....	1	.....	.....
	Burrowing Owl	1	.....	1	.....	.....
	Hawk	3	.....	3	.....	.....
	Chicken	1	.....	1	.....	.....
	Total	52	.....	52	8	.....
1941—	Animals:					
	R.G.S.	79	.....	79	.....	.....
	Jack Rabbit	2	.....	2	.....	.....
	Pig	2	.....	2	.....	.....
	Cat	3	.....	3	.....	.....
	Birds:					
	Chicken	5	.....	5	.....	.....
	Burrowing Owl	3	.....	2	.....	.....
	Wild Duck	2	.....	2	.....	.....
	Total	96	.....	96	.....	.....
1942—	Animals:					
	R.G.S.	170	14	184	4	.....
	Sheep	.....	1	1	.....	.....
	Badger	1	.....	1	.....	.....
	Weasel	2	.....	2	.....	.....
	Jack Rabbit	1	1	2	.....	.....
	Pig	1	.....	1	.....	.....
	Fox	1	1	2	.....	.....
	Birds:					
	Burrowing Owl	2	.....	2	.....	.....
	Hawk	6	.....	6	.....	.....
	Crow	3	.....	3	.....	.....
	Meadow Lark	8	.....	8	.....	.....
	Horned Lark	1	.....	1	.....	.....
	McCow's Lonspur	3	.....	3	3	.....
	Curlew	3	.....	3	.....	.....
	Redwinged Blackbird	1	.....	1	.....	.....
	Blackbird	3	.....	3	.....	.....
	Hungarian Partridge	3	.....	3	.....	.....
	Prairie Chicken	3	.....	3	.....	.....
	Frogs	16	.....	16	.....	.....
	Insects:					
	Diptera	50	.....	50	.....	.....
	Odonata	46	.....	46	.....	.....
	Total	324	17	341	7	.....
	Grand Total	472	17	489	15	.....

Equine encephalomyelitis field work discontinued in 1943.

(b) Human cases of Equine Encephalomyelitis investigated, 1938-1947

Year	Age	Sex	Contact	Result		Bloods tested for virus		
				Recovered	Died	Not Tested	Pos.	Neg.
1939	60	F	Horse	1	.....	1	.....	.....
		F	Horse	1	.....	1	.....	.....
	40	M	Horse	1	.....	.....	1	.....
		M	Horse	1	.....	.....	1	.....
		M	Horse	1	.....	1	.....	.....
	20	M	Horse	1	.....	.....	1	.....
	40	M	Horse	1	.....	.....	1	.....
		M	Horse	1	.....	.....	1	.....
		M	Horse	1	.....	1	.....	.....
	62	F	Cats	1	.....	.....	.....	.....
	46	M	Horse	1	.....	1	.....	.....
	23	M	Pigs	1	.....	.....	.....	1
	24	M	Horse	1	.....	1	.....	.....
	49	M	Horse	1	.....	1	.....	.....
	Total			13	1	8	5	1

Investigations discontinued 1940.

TABLE 14
LOCATION OF EQUINE ENCEPHALOMYELITIS COLLECTIONS WITH
POSITIVES FOUND, 1938-1947

Year	Location	No. of Specimens			Total	Positive	
		Animal	Bird	Insects, etc.		Animal	Bird
1939	Brooks	1	.....	.....	1	.....	.....
	Cardston	8	.....	.....	8	.....	.....
	Hanna	5	4	.....	9	.....	.....
	Manyberries	16	2	.....	18	.....	.....
	Medicine Hat	8	.....	.....	8	8*	.....
	Milk River	1	1	.....	2	.....	.....
	Taber	1	.....	.....	1	.....	.....
	Turin	2	2	.....	4	.....	.....
	Youngstown	1	.....	.....	1	.....	.....
	Total	43	9	.....	52	8	.....
*R.G.S.							
1941	Milk River	14	.....	.....	14	.....	.....
	Medicine Hat	31	.....	46	77	.....	.....
	Bow Island	19	2	.....	21	.....	.....
	Brooks	23	2	.....	25	.....	.....
	Bassano	19	.....	.....	19	.....	.....
	Vulcan	8	1	.....	9	4*	3
	Cessford	5	3	.....	8	.....	3†
	Hussar	48	13	.....	61	.....	.....
	Hanna	5	1	.....	6	.....	.....
	Youngstown	8	7	.....	15	.....	.....
	Drumheller	29	7	50	86	.....	.....
Total	209	36	96	341	4	3	
Grand Total	252	45	96	393	12	3	
*R.G.S.							
†McCown's Longspur.							

TABLE 15
REPORTS OF RATS BEING SEEN, 1938-1947

Year	No. of reports	Year	No. of reports
1938	3	1943	12
1939	2	1944	15
1940	1	1945	20
1941	5	1946	24
1942	6	1947	35

TABLE 15

PUBLICATIONS, FILMS, PAMPHLETS, ETC., 1938-1947
SCIENTIFIC PUBLICATIONS

- 1943—Tularaemia in Southern Alberta. J. H. Brown, M.Sc. Canadian Journal of Medical Technology. 5 (2) June, 1943.
Tularaemia in the 'Seven Persons Coulee,' Alberta. M. R. Bow, B.A., M.D., C.M., D.P.H., and J. H. Brown, B.Sc. (Agric.), M.Sc., Canadian Journal of Public Health, September, 1943.
The Richardson Ground Squirrel *Citellus richardsonii* Sabine, in Southern Alberta. Its Importance and Control. J. H. Brown, M.Sc., G. D. Roy. 24 (4) December, 1943.
- 1944—Water-borne Tularaemia in Western Canada. M. R. Bow, B.A., M.D., C.M., D.P.H., and J. H. Brown, B.Sc. (Agric.), M.Sc., Can. Med. Assoc. Jour. 50 14-16. 1944.
The Susceptibility of Fur-Bearing Animals and Game Birds to Tularaemia. J. H. Brown, B.Sc. (Agric.), M.Sc. Can. Field Naturalist, 58: (2) March-April, 1944.
Mallophaga of Alberta: A List of Species with Hosts. J. H. Brown and A. L. Wilk. Canadian Entomologist, June, 1944.
The Spotted Fever and Other Albertan Ticks. J. H. Brown, M.Sc. Canadian Journal of Research. D,22: 36-51. April, 1944.
Sylvatic Plague: The Recovery of Fleas from the Burrowing Owl and Its Burrow in a Plague Area in Alberta. J. H. Brown, M.Sc. Entomological News. LV:(1), January, 1944.
Sylvatic Plague: A Note on the Finding of Large Numbers of Fleas on Ground Squirrels (Gophers) in Alberta. J. H. Brown. Bulletin of the Brooklyn Entomological Society. XXXIX:(3). p. 80-82. June, 1944.
The Fleas (Siphonaptera) of Alberta, with a list of the Known Vectors of Sylvatic Plague. J. H. Brown, M.Sc. Annals of the Entomological Society of America. XXXVII:(2). June, 1944.
Sylvatic Plague: A Note on the Probable Relationship of Flea Index to Epizootic Plague in Ground Squirrels in Alberta. J. H. Brown, M.Sc. Journal of Entomology and Zoology. 36:(3). 1944.
- 1945—Tick-Borne Diseases of Man in Alberta. M. R. Bow, B.A., M.D., C.M., D.P.H., and J. H. Brown, B.Sc. (Agric.), M.Sc. Can. Med. Assoc. Journal. 53:459-465. 1945.
Sylvatic Plague: Infection in Richardson Ground Squirrel, *Citellus richardsonii* Sabine, in Alberta. M. R. Bow, B.A., M.D., C.M., D.P.H., and J. H. Brown, B.Sc. (Agric.), M.Sc. Can. Jour. of Medical Technology. 7:(1). March, 1945.
The Rabbit Tick, *Haemaphysalis leporis-palustris* Pack., as an Ectoparasite of Man. J. H. Brown, B.Sc. (Agric.), M.Sc. Canadian Entomologist. September, 1945.
- 1946—Tularaemia: A Report on 40 cases in Alberta, Canada, 1931-1944. M. R. Bow, M.D., D.P.H., F.A.P.H.A., and J. H. Brown, M.Sc. Amer. Journal of Public Health. 35:(5). 1946.

PAMPHLETS

- 1941—Tick-Borne Diseases of Man and Methods of Prevention.
- 1944—Sylvatic Plague.
- 1945—Louse Control.
Methods of Control of Cockroaches and Silverfish.
Control of Bedbugs in the Home.
- 1946—Flea Control.
Housefly Control.
Mosquito Control.
The Spotted Fever Tick in Alberta.
- 1944—Fighting Plague in Alberta.
Rocky Mountain Spotted Fever.

TABLE 16
PERSONNEL, 1938-1947

Name	Period of Employment	Academic Attainment	Present Employment
G. P. Holland	May 1st to Aug. 1st, 1938	B.A., M.A.	Dominion Entomological Service, Kamloops, B.C.
F. O. Morrison	May 1st to Aug. 1st, 1938	B.A., B.Sc., M.Sc., Ph.D.	Macdonald College, Montreal, P.Q.
G. C. Walkey	Aug. 1st to Sept. 1st, 1939	B.Sc., D.D.S.	Private Practice, Drumheller, Alberta.
	May 1st to Sept. 1st, 1940		
G. D. Roy	May 1st to July 1st, 1941	B.Sc., M.D.	Private Practice, Lethbridge, Alberta.
	May 1st to Sept. 1st, 1940		
	May 1st to Sept. 1st, 1941		
W. R. Fraser	May 1st to May 31st, 1942	M.D.	Private Practice, Calgary, Alberta.
	May 1st to Sept. 1st, 1940		
	May 1st to May 15th, 1941		
J. L. Macleod	May 1st to Sept. 15th, 1941	B.Sc., M.D.	Private Practice, Powell River, B.C.
	May 1st to May 31st, 1942		
J. W. Duggan	July 1st to Sept. 1st, 1941	B.Sc., M.D.	University of Alberta Hospital, Edmonton.
J. W. Taylor	May 1st to Sept. 10th, 1942	B.Sc. (Agriculture)	Agricultural Representative, U.G.G., Edmonton, Alta.
	May 1st to Sept. 10th, 1943		
J. C. Carney	May 1st to Sept. 10th, 1942	D.V.Sc.	Private Practice, Lethbridge, Alberta.
O. D. Williams	May 1st to Sept. 10th, 1942	B.Sc., M.Sc.	Petroleum Chemistry, Calgary, Alberta.
	May 1st to Aug. 1st, 1944		
H. B. Hall	May 1st to Sept. 10th, 1944	B.Sc., M.D.	White Memorial Hospital, Los Angeles, California.
	May 1st to Aug. 1st, 1945		
	May 1st to Sept. 10th, 1946		
G. J. Nicholson	Aug. 1st to Sept. 10th, 1944	B.Sc., M.D.	Misericordia Hospital, Edmonton, Alberta.
	May 1st to Sept. 15th, 1945		
	May 1st to Sept. 15th, 1946		
R. F. Scott	May 1st to Sept. 15th, 1947	B.Sc.	Medical Student, University of Alberta, Edmonton.
	May 1st to Sept. 15th, 1945		
D. W. McMillan	Aug. 1st to July 15th, 1946	B.Sc., M.D.	University Hospital, Edmonton.
	May 1st to Sept. 15th, 1945		
W. V. Goresky	Aug. 1st to Sept. 15th, 1946	B.Sc.	Medical Student, University of Alberta, Edmonton.
	July 15th to Sept. 15th, 1946		
W. T. Boyar	May 1st to Sept. 15th, 1947	B.Sc.	Medical Student, University of Alberta, Edmonton.
C. E. Collins	May 1st to Sept. 15th, 1947	B.Sc.	Student, University of British Columbia, Vancouver.

TABLE 17
EXTENSION AND EDUCATION, 1938-1947

Year	Lecture	Films	Exhibits	Pieces of Literature	Total Attendance	Radio Talks and Interviews
1938 .....	.....	.....	.....	.....	.....	2
1939 .....	.....	.....	.....	.....	.....	3
1940	10	.....	.....	1,750	2,300	4
1941	12	.....	.....	3,250	2,800	4
1942	2	.....	.....	1,500	2,600	5
1943	10	.....	.....	1,850	2,000	6
1944	25	2	5	2,800	3,500	5
1945	45	4	6	5,000	8,000	6
1946	50	5	8	6,500	9,500	8
1947	46	8	12	5,000	10,800	9
Total	206	19	31	27,650	30,700	52

Cancer Services

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

The Provincial Cancer Clinics in Edmonton and Calgary have shown increasing activity during the year 1947. Since the establishment of a second Edmonton Clinic on April 5, 1946, held on Fridays, the attendance has been increasing gradually. This additional clinic has justified itself in several ways not only to the benefit of the clinics, but to the public as well.

From time to time we have been receiving unsolicited donations from patients and their friends, sometimes from anonymous sources. These donations are being placed to the credit of a Government sponsored Cancer Research Trust Fund. The total amount received and credited during 1947 was \$107.00. This fund will be retained for future donations until such time as it has assumed sufficient dimensions to make possible some plan of research which will be worthy of the great cause of fighting Cancer.

The following figures indicate the activities of the Edmonton and Calgary Clinics for the year 1947:

	NUMBER OF PATIENTS EXAMINED		
	New	Follow-up	Total
Edmonton	1,852	1,780	3,632
Calgary	1,064	635	1,699
Totals	2,916	2,415	5,331

It will be noted that the total number of new cases is 2,916, compared with 2,258 in 1946, 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, 1,738 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, 1,278 in number.

The total number of surgical operations authorized for 1947 was as follows:

Edmonton	1,183
Calgary	555
	1,738

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

Edmonton	1,010
Calgary	334
	1,344

The total number of cases referred to hospitals:

Edmonton	1,168
Calgary	228
	1,396

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

Edmonton	487
Calgary	354
	841

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

Edmonton	1,291
Calgary	312
	<hr/>
	1,603

The total number of miscellaneous examinations and treatments authorized by the Edmonton Cancer Clinic was 306.

The total number of cases referred to Dr. H. Orr, Edmonton Clinic, for biopsies and treatment was 107.

The total number of cases referred to Drs. Ellis, Tucker and Conroy, Edmonton Clinic, for cystoscopies and examinations was 132.

The total number of cases referred to Dr. H. C. Jamieson, Edmonton Clinic, for complete blood counts, gastric analysis, etc., was 201.

Since the opening of the clinics in 1941, the total number of cases examined, exclusive of re-examinations, is 12,692. Of these, 6,452 were diagnosed as cancer, or 50.8%.

1947 ANATOMICAL DISTRIBUTION OF CANCEROUS LESIONS IN ORDER OF FREQUENCY

EDMONTON		CALGARY	
Skin	121	Skin	130
Breast	87	Breast	94
Lip	53	Cervix	62
Stomach	52	Stomach	57
Rectum	41	Colon	37
Colon	39	Lip	35
Cervix	38	Rectum	30
Lung	30	Prostate	25
Uterus	16	Mouth	20
Mouth	14	Bladder	19
Prostate	13	Lung	19
Brain	12	Uterus	19
Bladder	10	Abdomen	12
Kidney	9	Ovary	11
Larynx	9	Kidney	10
Bone	8	Hodgkin's	9
Testicle	8	Parotid	9
Pancreas	6	Bone	6
Oesophagus	6	Pancreas	5
Ovaries	6	Oesophagus	4
Parotid	4	Caecum	4
Thyroid	3	Neck	4
Carcinomatosis	3	Eye	3
Gall Bladder	3	Leukemia	3
Not known	3	Legs	3
Salivary Gland	3	Liver	3
Fibro sarcoma	3	Nose	3
Liver	2	Larynx	2
Mandible	2	Testicle	2
Vulva	2	Thyroid	2
Retro-peritoneal	2	Chest	2
Axilla	1	Penis	2
Chondro-sarcoma	2	Throat	2
Eosinophile Granuloma	1	Arm	1
Epiglottis	1	Back	1
Metastatic	1	Buttocks	1
Myeloma	1	Finger	1
Myxosarcoma	1	Gail Bladder	1
Penis	1	Groin	1
Pharynx	1	Urethra	1
Rectus sheath sarcoma	1	Wrist	1
Vccal cord	1		
Synovioma	1		
Vagina	1		
			<hr/>
			656

Health Education

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

Motivation in Health Education.

"Nothing in education is so astonishing as the amount of ignorance it accumulates in the form of inert facts," so observed the author over a decade ago in the "Education of Henry Adams." The progressive efforts in the schools today to provide opportunities for youth to acquire more than "inert facts" are going on everywhere. This indeed is significant. The emphasis in education upon health is no longer a frill.

The task of motivation, however, is going to be rather more difficult in the future than it has been in the past. Health education started with objectives that were designed for the individual. The thought that held the vogue twenty years ago was the protection of one individual against contagion from another. That is motivation which is not too difficult. Nobody wants the germ of communicable disease introduced into his life or that of his family. We are working with easy motivation there, but the future holds problems where the motivation is of a more complex pattern.

The chief causes of death of tomorrow may not be germ diseases where the motive of protection against infection is vital, but rather the causes will lie in the individual and his social environment. Our educational objectives will be aimed at more distant targets and become less obvious than the concept of spreading germs by droplet infection.

The future trend in the public health movement will probably treat causes of death as minor parts of the problem. The success of this movement should not be measured by changes in the death rate. The ideal will be health and not merely keeping out of the mortality records. It is going to be that sort of thing William James said, that "merely to live, move and breathe should be a delight." That is what we mean by health.

We know of alleviative medicine and preventive medicine. We are not satisfied with the former and should not be with the latter. We haven't very much preventive medicine; but even if we had, we must take the next step, which is a positive one leading into constructive medicine—that upbuilding of health—probably the most advanced thought in man's achievement.

And if health is constructive, it must include mental and social well-being along with the physical. These states are harder to conceive, and particularly so because they have not the compelling force of direct danger to one person from another. The type of motivation which justifies financial support for housing and medical care and social security will be much more difficult to obtain than that for protection against epidemics.

The thought "am I my brother's keeper?" does not exonerate us from our responsibilities when any part of society lacks the essential decencies of normal life. It is the difficult task of the health educator in the future to convince the public that this is true,

"that the existence of a substandard slum area is a menace to a city in the sense that the social life, the communal life of the community is going to be poisoned by these gross inequalities in social structure."

The emphasis in education upon health results from the strong conviction that the first concern of the individual is to live and the corollary, the great need for the individual and society that he live well.

This introduction to our annual report on health education is mainly a digest of an article, "Health Education Grows Up," by Dr. C. E. A. Winslow.

Health Education Activities, 1947.

January, 1947, found us ready with keen interest to open the door on another year of expansion in public health education. One of our first contacts was to attend a conference in Edmonton of the National Film Board representatives from Alberta and the central office at Ottawa. An outline of the services of the Division of Health Education was presented at one session. Discussion centred around the co-ordination of National Film Board productions in the health field with our public health programme in this Province. The initial steps for the National Film Board to assist us in the preparation of a film strip were taken. We also expressed the wish that a film be produced in Alberta on the need for a Rat Exclusion Programme. We were assured that a film would be made on rats, but not necessarily in Alberta.

The assistance given by the Alberta Division of the National Film Board to visual education in health has been most valuable and timely. We appreciate the effort and time expended on service to many of our remote areas where contact would otherwise be impossible.

The field men of the National Film Board in Alberta have always shown an interest in health education. During the year six itineraries in conjunction with this Division were arranged by the personnel of the N.F.B. in different regions of the Province. The programme consisted of films and talks on various phases of public health. These educational services were carried to 45 school groups and 13 adult meetings through this arrangement.

School Health.

The thought that the child has the most flexible and impressionable mind has served as a guide in determining our programme in health education. We try to prepare our pamphlets so that the school child will profit directly through reading or indirectly from the teaching which is based on the material as reference. In the selection of health films the emphasis is placed first on comprehension by the child, accuracy of information and, finally, interest. We have discovered that what is of value and interest to the child is a valuable film to be shown to teachers and parents. Our radio programmes are arranged to appeal to the school-age audience as well as adult listeners. Short dramatizations have been successful in this respect.

This Division has co-operated with the Department of Education in preparing certain reference material to be made available to teachers and pupils in the high schools of Alberta.

This past year we have appeared before 6,114 pupils and teachers of the Province, presenting lessons in health information to grades from one to twelve inclusive. The nutritionist from the Provincial Department of Public Health accompanied me on one trip. She spoke to school groups about the nutrition services which are now available to school children in Alberta.

We cannot hope to reach all the schools by direct contact, but through the health education programmes of the 18 health units and the 36 district nurses, most of the school children of this Province will receive help in developing proper health attitudes.

Educational Media.

The Division of Health Education maintains a small public health library, health pamphlets and posters and a growing film library. The selection and preparation of these materials presupposes a fundamental knowledge of public health needs and educational psychology. The reference library, an adjunct to the public health library, consists of current articles on a wide variety of health topics. The service in this field is available to public health workers and through them to teachers and other interested groups in the Province.

Lecture material from our files is often requested by medical men, nurses and teachers for use in local communities. Through this service, University students also obtain considerable help in preparation of reports.

A new Health Education Service Catalogue was published during the year. This booklet, lists and describes films, filmstrips, literature, informational displays, posters and other informational services available through the Division of Health Education.

Radio scripts, articles and the Provincial Department of Health Annual Report are edited by the staff of this branch.

Each year the Division of Health Education prepares a display of exhibits for the summer fair in Edmonton. This part of our programme endeavours to reinforce the work of the whole Department by directing the focus of attention to each division through attractive display supplemented by direct personal contact with the public. Thousands of people are thus given an opportunity to share in a form of incidental teaching.

This year we featured sanitation through the use of models. A miniature farmstead conveyed an impression of realism. The arrangement of the well, septic tanks, garden and buildings with respect to each other was an object lesson in good sanitation which was inexpensive and effective. A lot of good public health fare was digested in record time.

Films shown at the Exhibition again were a centre of interest for hundreds of fellow travellers seeking a place to rest.

A color film entitled "Tuberculosis Can Be Wiped Out," produced by the Division of Tuberculosis Control and Health Education and photographed by the Department of Economic Affairs, was released for Alberta audiences. This is a 15-minute picture of the Alberta Public Health Services in the detection, treatment and control of tuberculosis. The story is that of an Alberta citizen who has been discovered through the mobile x-ray unit to have active tuberculosis. The continuity follows him through the various stages

of examination, treatment, recreation and rehabilitation in the Provincial Sanatorium at Calgary.

Public Health Information.

Service of this nature is constant and far reaching. Most of our requests come from people in Alberta, but frequently we receive correspondence from the North and South American republics, and occasionally from Europe. The greatest value of this service is to keep the people of Alberta informed about health services and trends in public health. Matters of a local nature are referred to the health units or public health field staff in our nursing districts. This provides a contact between the local resident and our nearest health service and at the same time acquaints citizens with their programme in public health.

Radio Broadcast.

Each week over station CKUA, and later through CJOC at Lethbridge, CJCJ Calgary, and CFGP Grande Prairie, a 15-minute programme on health is broadcast to the people. The presentations are usually dramatic in form, with here and there a dialogue, talk or question and answer period substituted to spice the general fare.

Spots on health are made available to nine provincial radio stations for sporadic release.

Scripts are prepared through the Publicity Branch of the Department of Economic Affairs, and referred to this Division before being presented.

Lecture Service.

Lecture service in conjunction with voluntary agencies was called upon quite frequently. Talks were given to parent-teacher groups, the summer school in constructive medicine for teachers, the Masonic Lodge, and various community organizations. With a reduction in staff this part of our programme was somewhat limited in its scope.

In August of this year our staff was reduced in number by the resignation of Mrs. S. Russell. During the two years that she was with this Division she assisted greatly in placing the Division of Health Education on a sound basis. Among the many tasks she performed should be mentioned the organizing of a satisfactory filing system for our reference library and the preparation of a booklet outlining a quarter century of progress in public health in Alberta. We were sorry to lose the very valuable services of Mrs. Russell.

During 1947 the Division of Health Education has participated in many activities with the co-operation of many people and agencies. We wish to extend our thanks to those who have assisted us and our support for future mutual enterprise.

Nutrition Division

ELVA M. PERDUE, B.Sc. (H.Ec.), *Public Health Nutritionist*)

The function of the Provincial Department of Public Health is to provide leadership, direction and assistance to the people in order to maintain a high standard of public health service throughout the Province. Any programme in constructive medicine embraces a number of public health services which include that of nutrition. To complement the other activities of the Department of Public Health, a Nutrition Division was organized in February, 1947, with the appointment of a nutritionist.

Much of the time in the past eleven months has been spent in organizing and filing the materials, on various phases of nutrition, that were available from the library of the Health Education Division. The next step in building up the library of the Nutrition Division was the procuring of new and additional materials. This work, it is felt, is most important as the nutritionist must maintain a working knowledge of current scientific developments in her field and select the materials suitable for inclusion in the public health programme. Methods must be developed for the utilization of materials that will influence the people's dietary habits. Opportunities are taken to develop proper attitudes in human nutrition pertinent to all phases of the public health programme.

In March, 1947, the Lamont Public Hospital Training School for Nurses requested assistance in the presentation of a course in normal and modified diets. The Public Health Nutritionist visited the hospital to instruct the student nurses in this programme.

While the Nutritionist was connected with the hospital at Lamont a number of Well Baby Clinics and schools were visited with the Health Unit personnel.

In June a hospital dietary survey was conducted in Westlock, Lacombe and Bentley. The Nutrition Division of the Department of National Health and Welfare made the services of Miss Helen Sackville available to the Provincial Department of Health for this work. Miss Sackville and the Public Health Nutritionist visited the main kitchens and other diet dispensing units in each hospital. Individual reports were prepared for each hospital indicating the conditions that obtained and suggestions for increased efficiency.

The Matrons in the hospitals visited stated that they did not have the necessary time for menu planning, the buying of food, etc., so these responsibilities were left largely to the cooks. The hospital personnel were in favor of any dietary assistance that a trained person could give them. Two noteworthy suggestions that came from this survey were: (1) A travelling dietitian among three to five small hospitals would, it was felt, give increased efficiency and lower food costs; (2) a periodic newsletter dealing with the solution of various problems as related to hospital dietary services. An example of this might be the availability of various items used in institutional cookery and quantity recipes using seasonal foods. The stenographic assistance in the Nutrition Division to date has

not been available for an undertaking of this kind, but we hope that conditions in the future will allow for this service.

The Division has prepared mimeographed recipe books for twenty to fifty servings which have been distributed to hospitals in the Province.

A family dietary survey was started in the Foothills Health Unit in July, 1947. The Nutritionist worked with the Nurses in the Health Unit to contact the people in order to explain the purpose of the survey and to enlist their co-operation. The Nutrition Specialist of the Alberta Department of Agriculture gave freely of her time and effort during this preliminary phase of the survey.

Four areas in the Health Unit were chosen for the survey (Milo and Queenstown, Okotoks and Okotoks rural, the Royalties, Mercury and Longview area and High River). In these four areas a total of 236 families were contacted, and 122 families agreed to take part in the survey.

The summer dietary records were taken in August, 1947, by a survey team of four nutritionists from the Nutrition Division, Department of National Health and Welfare and the Public Health Nutritionist.

A diet form was left with the families, and instructions for filling it out were given, so that a complete one-week food record was forthcoming from each family. The nutritionists attempted, where possible, to revisit the homes during the week and thereby clear up any uncertainties that the homemakers had regarding the forms.

The winter dietary records will be taken early in the new year, and the physical and biochemical examinations will be completed in the spring of 1948.

A real effort has been and will be made to combine a service programme with the survey, not only because it aids in the success of the survey itself, but also because a survey without some service and follow-up has little positive value in stimulating improved nutrition. This service and follow-up needs considerable amplification and development, and will be given increasing attention.

During the year a number of schools in the Province were visited. The Nutritionist spoke to the students at the schools, and then films dealing with related topics were shown. It is felt that this is a valuable service especially in schools where there is not a home economics teacher. When the nutrition programme is more developed and a fuller use made of the Health Unit facilities these visits will be more effective if they are co-related with the health education programme in the Health Units.

The value of visual aids in this type of programme, while not actually measured, seems to make for increased interest and enthusiasm in the programme, especially when a talk precedes the film and a discussion period follows.

For schools where the Nutritionist is not able to make a direct contact, the teachers and students may receive a kit of nutrition materials, including pamphlets, booklets, charts and posters.

Considerable nutrition literature has been distributed throughout the Province both directly and indirectly—directly in response to requests received from private citizens, and indirectly through distribution to interested parties by the Health Unit personnel. The bulk of the materials used are produced by the Nutrition Division,

Department of National Health and Welfare. Before the literature is completed it is sent in draft form to the Provincial nutritionists by the Federal Nutrition Division for their acceptance or suggested changes. This method of producing materials reduces cost, standardizes information, and results in a better publication than would be available if each Province had to produce its own.

To further the cause of nutrition in this Province, articles were published and radio broadcasts given on timely nutrition topics.

The Nutritionist attended a combined meeting of the Dominion-Provincial Nutrition Committee and the Canadian Public Health Association in Quebec City, P.Q. This afforded the Nutritionist the opportunity of meeting and discussing with the other Provincial and Dominion Nutritionists their programmes and plans.

The visitors to this Division from the Nutrition Division, Department of National Health and Welfare, Ottawa, in 1947, were:

Dr. L. B. Pett, Chief.

Miss Mary J. Angus, Chief Nutritionist.

Miss Pauline Goode, School Lunch Specialist.

Miss Helen Sackville, Nutritionist.

Miss Pauline Jegard, Nutritionist.

Public Health Nursing Division

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

The year 1947 has been a satisfactory one for the Division of Public Health Nursing from several points of view. Many goals have been reached from the point of general administration, though, as in the preceding year, staff fluctuations and shortages have continued to be a major problem. No new centres have been established for this reason, though several requests for information regarding the organization of districts have been received. Two centres were closed for the entire year, and 13 were closed for part of the year or had only part-time service. The Edmonton Child Welfare Clinic, which from the time of its organization in 1920 had been under the joint sponsorship of the Provincial and City Health Departments, was transferred to the complete jurisdiction of the Edmonton City Health Department on April 1. In lieu of the Provincial Department's share in this Clinic, which had consisted of the nurse's salary and transportation, an annual honoraria to the medical personnel and the printing of records, an annual grant is now paid to the City of Edmonton.

Organized Centres.

As has been mentioned, no new centres were opened during the year. On the other hand, the Child Welfare Centre in Edmonton was transferred to the complete jurisdiction of the City Health Department in the interests of better administration in that agency.

The organized centres are as follows:

Urban: Calgary, Drumheller, Medicine Hat, Vegreville, Alder Flats, Blueberry Mountain, Bonanza, Bow Island, Breton, Breynat.

Rural: Grouard, Hemaruka, Hilda, Hines Creek, Kinuso, Lindale, Plamondon, Smith, Sunnynook, Tangent, Tulliby Lake, Valley View, Craigmyle, Dixonville, Fawcett, Foremost, Fort Assiniboine, Grassland, Lomond, Mackay, Maloy, New Brigden, Newbrook, Peers, Vauxhall, Whitecourt, Whitemud Creek, Worsley, Youngstown.

With the expansion and enlargement of municipalities in the Province, several of our nursing districts, which up to now have been predominantly located in unorganized territory, have been partly included in municipal districts. In each case an agreement has been made whereby the service has been continued by the municipal district carrying its share of the cost calculated on a population basis.

The Division of Public Health Nursing has continued to provide supervision for the one-nurse Health Units in the Province. These include: Athabasca Health District at Colinton; Brooks Health District at Brooks; High Prairie Health District at High Prairie; McLeod-Pincher Creek Health District at Granum; Rocky Mountain Health District at Rocky Mountain House; Pembina Health District at Westlock; Spirit River Health District at Spirit River; Wainwright Health District at Wainwright; Wheatland Health District at Strathmore.

Staff.

The Division acquired the services of a full-time Assistant during 1947. On August 1, Mrs. Sheila Russell (née MacKay), who had been part-time assistant in the Division and part-time Assistant in the Division of Health Education, left our service to take up home-making in Red Deer. She was succeeded by Miss M. Augusta Evans, R.N., B.Sc., M.A., a former district nurse on this staff and a veteran of the Second World War. During 1946-47, Miss Evans completed the work for her Master's Degree at Columbia University, New York, in Personnel Administration and Guidance. The office routine has now been divided so that the Director has assumed mainly the administrative work, with the assistant assuming the supervisory and educational work.

Other staff changes included 11 full-time appointments, three appointments for part-time work, 17 resignations, 4 transfers and seven leaves of absence. Two were granted to staff members to take the course in Advanced Obstetrics, University of Alberta; two leaves were granted to staff members to take University work in Public Health Nursing; two leaves were granted to staff members to take temporary positions in the Edmonton and Calgary Child Welfare Clinics, which they later accepted as permanent appointments, and one leave was granted to a staff member who went to another Province for experience.

Our sincere thanks are extended to six of our former staff members, who have married in the districts, for their willingness to carry a part-time service in their areas until such time as full-time nurses are available. Only with this co-operation has it been possible to keep the service operating in these districts this year.

Changes in Staff Policies.

During this year, two new salary schedules became effective on behalf of our staff, which brought the salaries paid to the nurses in line with prevailing salaries in other agencies.

The Order in Council relating to holidays was amended so that district nurses are now paid in lieu of holidays not taken at the time resignations become effective; this is the policy which prevails for other civil servants, but was not effective for district nurses.

Opportunities were made available this year to our staff members for further training to better equip them to carry on their duties in the field.

(1) A maximum of three nurses annually, who have served the Division for a period of one year will be granted leave of absence for four months on half pay in order to take the Course in Advanced Obstetrics, University of Alberta, provided they return to the staff for a further period of one year on the completion of the course.

(2) Any registered nurse who indicates that she will work on the Health Unit or District Nursing staffs for a period of one year upon completion of her course in Public Health Nursing, University of Alberta, will have her fees for this course paid by the Department of Public Health.

Staff Education.

The Division has continued to issue quarterly news letters to all staff members, of approximately 15 mimeographed pages. These news letters keep the staff up-to-date on administrative matters, and are designed to bring to them the latest information on medical and public health developments.

Again an annual Staff Conference was held during the week following Easter, with all but two nurses in attendance. The Director and assistant led discussions on Division matters, and outside speakers presented papers on the following topics: Rat Survey in Western Canada, Dental Problems, Handling of Retarded Children, Care of Rheumatic Fever, Work of the Council of Social Agencies, Newer Drugs, Student Field Experience and Nutrition.

A general Manual for Public Health Nurses was introduced to the staff at the time of Spring Conference. The Manual is a revision and enlargement of the former Blue Book of Regulations. It outlines the personnel policies and also the programme carried by the nurses in the field and, therefore, is most useful as a reference for employees and also as an introduction for new staff members.

During the fall, work was started on revising the Obstetric Manual, which was first introduced during 1944. The supply of these Manuals was almost depleted, and certain parts of the Manual had become outdated.

Supervision.

With the advent of a full-time assistant in the Division, more supervisory visits during the year were possible. Thirty-one areas were paid one or more visits. The value of these visits cannot be overemphasized, both from the point of building up morale and also improving the standard of the service. They assist, too, in keeping the office staff cognizant of field problems.

A more satisfactory orientation period has been inaugurated. Each new staff member spends three days in Edmonton visiting associated clinics and becoming acquainted with Division record and report forms and general policies. We feel that new staff have been sent out with greater confidence and a better understanding to assume their district duties.

Considerable supervision and guidance was given, as always, 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 and the acknowledgment of same.

Field Committees.

One important part of a field visit to a nursing district is the contact that is made with the members of the nurse's home committee and representatives of the community in general. District nursing service is under the joint sponsorship of the Department of Public Health and the local community, in that we depend on the local community to supply the nurse's cottage, and the nurse's home committee to see that it is maintained, and adequate supplies of fuel and water provided. A friendly and co-operative relationship, then, between the nursing office and the local nurse's home committee is imperative. To this end, the policy of editing an annual Nurse's Home Committee Bulletin was inaugurated in 1947. The activities of each committee over the past year were briefly reviewed. The Bulletin has received favourable reception, and we hope it will prove stimulating.

Interrelationship With the University of Alberta.

Close co-operation with the members of the staff of the University of Alberta School of Nursing has been much appreciated. Many

of our staff have availed themselves of professional reading and reference material from the School of Nursing library. The course in Advanced Obstetrics was again offered last fall, and two of our district nurses were granted leave to take the course. A third student of the course subsequently joined our staff. The services of Mrs. Barbara Eben, sessional instructor in Advanced Obstetrics, were made available to Miss Evans in undertaking the revision of the Obstetrics Manual. Two weeks field experience in district nursing was arranged during the spring and fall for 27 University students in public health nursing; many of this class were veterans of the Second World War.

The Director of the Division was again requested to act as sessional instructor of Vital Statistics during the 1946-47 University term.

Programme in Rural Areas.

In Table 1 is presented a composite report showing the work done in our districts during 1947 and 1946. There would appear to be a dropping off of service, but the fact that a number of districts did not operate for part of the year, and two of the districts did not operate all year, must be kept in mind.

The nurses charge a sliding scale of fees for treatment services given. Our aim is that fees collected in the district will offset our drug and equipment account against that district, on an annual basis. This objective was realized in all but eight of the districts during 1947, though the overall figures show a substantial credit balance:

Fees collected	\$9,206.43
Total cost of drugs and equipment	7,627.29
Balance	\$1,579.14

A report of the school work done in the districts is presented in Table 2.

As has been mentioned, agreements exist between the Department of Public Health and several municipalities covering district nursing service in part of their areas. Revenue from this source during 1947 amounted to \$9,022.50.

Programme in Urban Areas.

The nurses in the four Child Welfare Centres have continued to carry on a full prevention programme in Child Health as shown in Table 3 at the conclusion of this report. The cities provided an assistant nurse in the Drumheller and Medicine Hat Clinics during 1947. 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 programme in their respective towns and surrounding areas, while the nurse at Medicine Hat has assisted with the school programme in that city.

Miss Wilson of Drumheller resigned from the staff during September to re-enter the hospital field. Although no full-time replacement was made before the end of the year, local arrangements were made whereby the clinics were continued. The Drumheller Clinic served also as headquarters for the Tuberculosis and Mental Hygiene Clinics when they were in that district.

Miss Hagerman of Medicine Hat held regular clinics at Redcliff and at the old Airport, and organized and assisted with the Rocky

Mountain Spotted Fever Clinics. She also held weekly Venereal Disease Clinics and one-day Child Welfare Clinics at Iddesleigh, Walsh and Manyberries.

Miss Lavell in Calgary continued to carry the responsibility of inspecting Provincial Baby Shelters and private hospitals in that city. In 1947 she made 281 inspections of Baby Shelters and paid 28 visits to private hospitals. She also made seven insulin investigations, and conducted monthly Well Baby Clinics at Bowness up until November.

Miss Black at Vegreville has resumed the role of school nurse for the Lavoy School District, which responsibility was carried by this Department up until 1941. Two applications for insulin was investigated.

Field experience has been provided to students from four Schools of Nursing, trainees from the School for Nursing Aides and outsiders in the four Child Welfare Centres for periods varying from one day to one month in each.

Miscellaneous.

Office.—In addition to their usual duties of administration and supervision, the Director and the assistant inevitably become involved in a number of related activities.

During the Edmonton Exhibition, the Assistant Director was on duty all week with the Department Exhibit and arranged the schedule for nursing service in the Emergency Hospital. Addresses were given to four outside groups, and lectures were given to eight groups of hospital students. Scripts were prepared for three radio broadcasts, in which staff members participated.

The Nursing Office was again pleased to act as custodian of the Alberta Maternity cupboard, a project sponsored by three Provincial women's organizations, the W.I., the U.F.W.A., and the I.O.D.E. Through our Provincial district nurses, forty-one layettes were distributed needy mothers in this Province from the cupboard in 1947.

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. Their leadership and participation in community projects has, in many cases, been highly commendable.

Conclusion.

In conclusion, the Division of Public Health Nursing would like to express appreciation to all those who have assisted in the furtherance of the 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 thanks go to the members of the medical profession for their help and support, to the members of the nurses' home committees for their co-operation, and to the 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.

DEPARTMENT OF PUBLIC HEALTH

TABLE 1

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

	1947	1946
Number of Districts	33	36
Treatment Consultations	16,522	20,003
Miscellaneous P.H. Consultations	5,779	7,449
Antepartum Consultations	1,483	1,937
Postpartum Consultations	465	624
Infant and Pre-school Consultations	1,702	4,003
Treatment Home Visits	4,269	4,678
Miscellaneous P.H. Home Visits	945	1,863
Communicable Disease Home Visits	652	486
Maternal Welfare Home Visits	416	657
Infant and Pre-school P.H. Home Visits	595	899
Deliveries	88	148
Abortions	51	61
Cases sent to Hospital or Doctor	1,197	1,375
Deaths (under 1 year)	11	90
Deaths (over 1 year)	33	45
Cases Communicable Disease Reported	745	809
Pieces P.H. Literature Distributed	4,388	5,646
Fees Collected	\$2,206.43	\$8,385.46
IMMUNIZATIONS:		
Diphtheria Toxoid	3,136	4,641
Scarlet Fever Toxin	1,600	6,919
Smallpox Vaccine	788	2,093
Whooping Cough Vaccine	2,530	3,747
Typhoid Fever Vaccine	232	34
Measles Prophylactic Serum	23	.....
Total Number of Doses	8,309	17,494

TABLE 2

SCHOOL WORK—DIVISION OF PUBLIC HEALTH NURSING
(Including that done by both District Nurses and Child Welfare Clinic Staffs)

26 District	1947	1946
1. Visits to Schools	345	432
2. Individual Inspections	5,624	5,231
3. Suspected Defects	3,721	2,791
(a) Defective Vision	835	727
(b) Defective Hearing	136	80
(c) Diseased Tonsils	1,557	1,366
(d) Unsound Teeth	2,453	2,077
(e) Eye Diseases	27	4
(f) Ear Diseases	24	9
(g) Enlarged Cervical Glands	642	553
(h) Enlarged Thyroid Glands	130	164
(i) Malnutrition	916	536
(j) Nervous Disorders	54	185
(k) Faulty Posture	435	260
(l) Orthopaedic Defects	13	2
(m) Ringworm	4	7
(n) Impetigo	18	15
(o) Scabies	34	67
(p) Pediculosis	66	199
(q) Other Skin Conditions	131	82
(r) Exclusions, Suspect Comm. Disease	65	115
4. Correction of Defects	630	419
5. Classroom Talks	117	154
6. Sanitary Inspection of Schools	190	181
7. Consultations with Teachers	267	287
8. Consultations with Parents	359	336
9. School Follow-up Home Visits	154	158
1. Total number of doses of the following:		
(a) Diphtheria Toxoid	1,702	2,411
(b) Scarlet Fever Toxin	450	2,188
(c) Smallpox Vaccine	462	1,005
(d) Whooping Cough Vaccine	532	1,003
(e) Typhoid Fever Vaccine .....	.....	4
Total	3,246	6,811
Throat Culture Taken	31	
Films Shown	2	
Letters and Circulars	20	

TABLE 3

REPORT OF CHILD WELFARE CLINICS, 1947 (EXCLUSIVE OF WORK
DONE IN SCHOOLS)

Clinics, 1947	Calgary (including Bowness)	Drumheller (including Rosedale and East Coulee)	Edmonton 3 months	Medicine Hat including Redcliff	Vegreville
Baby Clinic:					
Names on roll	4,492	468	4,229	1,948	95
New cases admitted	1,786	80	545	473	74
Old cases readmitted				2	
Referred to family doctor	67	-2	4	71	15
Discharged	24		7	8	
Deaths	8		7	2	
Transferred to pre-school clinic		1	3	1	1
Attendance	9,319	95	45	119	17
Breast fed	1,670	1,786	1,951	2,508	550
Bottle fed	4,488	107	361	835	141
Other feedings	3,170	865	1,134	1,915	365
Pre-School Clinic:					
Names on roll	4,610	726	456	758	44
New cases admitted	590	337	1,375	1,120	
Old cases readmitted			73	53	4
Referred to family doctor			21	22	
Discharged			3	25	1
Deaths	2		1	54	16
Attendance	2,534				
Visits:					
Baby visits	5,302-122	1,770	299	821	113
Pre-school visits			356	350	66
Pre-natal visits			46	93	
Special visits				42	
Summary:					
Total home visits	5,424			222	
Total clinics held	260		402	707	65
Total in attendance	11,507	64	50	137	46
Total seen by doctor	3,105	1,770	2,250	4,329	663
Letters written on work	10,465		362		
Immunizations:					
Children completing inoculations for:					
Diphtheria	44		14	197	16
Scarlet Fever		631		208	134
Whooping Cough		106		140	19
Typhoid Fever		528		38	122
Diphtheria and Whooping Cough combined		64		302	2
Doses given different Sera				3,635	942
Vaccinated for Smallpox	4	208		494	69
Shick tests		2			
Dick tests		3			
T.B. tests		27			

Division of Social Hygiene

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

No outstanding procedures were initiated during the year. The work of the Division, however, was continued much as it had been during the war. The general trend of venereal disease in our Province is down. There were 2,196 patients with gonorrhoea as compared with 2,424 for the preceding year, a reduction of 228 cases. There were 483 cases of syphilis, which was 20 fewer than in the preceding year.

Penicillin is now being distributed free for all venereally infected patients requiring it.

During the year a follow-up of the patients treated in 1946 at the special treatment centre at Grouard was conducted.

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

ALLEGED CONTACTS AND SOURCES OF VENEREAL INFECTIONS

For the Period January 1st, 1947—December 31st, 1947

Location of Sources or Contacts	Number of Sources of Infection or Contacts Reported	Number of Sources of Infection or Contacts Located	Percentage of Sources of Infection or Contacts Located
Edmonton	546	484	89%
Calgary	271	214	78%
Lethbridge	29	21	72%
Medicine Hat	10	6	60%
Rest of Province	565	484	86%
Alberta Totals Only	1421	1209	85%
Sources of Infection or Contacts reported outside of Alberta	114	64	56%
Total	1535	1273	83%

Unit Forwarding Information	Number of Sources of Infection or Contacts Reported	Sources of Infection or Contacts Located	Percentage Sources of Infection or Contacts Located
Army and R.C.N.V.R.	71	56	79%
R.C.A.F.	32	27	84%
U.S. Forces	6	5	83%
Private Doctors and Provincial Clinics	1332	1130	85%
Other Provinces	94	55	58%
Totals	1535	1273	83%

Inadequate information on cases in Alberta 212
 Sources of Infection that could not be located by authorities outside of Alberta, 50.

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.
Pickups	434 31%	Restaurant or Beer Parlor....	221 16%
Introduction	109 8%	Dance Hall	129 9%
Friend	73 5%	Street	236 17%
Marital Partner and Com- mon-law wife	60 4%	Friend	104 7%
House of Prostitution	10 1%	Hotel	74 5%
Pimp	13 1%	Marital Partner	64 4%
No data available	722 59%	Recreation, Private Party....	126 9%
		Train, Railway Station, Bus Depot	13 .98%
		House of Prostitution	10 .7%
		Taxi, Taxi Office	12 .84%
		Service Station, Garage	2 .14%
		No data available	430 30%

DETAILS OF INFORMATION OBTAINED ON THE CONTACT INVESTIGATION

Place of Exposure	Approx.	Occupation of Source of Infection or Contact	Approx.
Rooming House	173 12%	Waitress	235 17%
Private House	285 20%	Housewife	84 5%
Hotel	188 13%	Prostitute or Street Walker	49 3%
Outdoors	146 10%	Domestic, Hotel, Hospital Maid, Porter	115 8%
Car or truck	152 10%	Clerk, Salesman, Steno., Teacher	65 5%
Train, boat, auto camp	4 .2%	Factory or Plant Worker	27 1%
House of Prostitution	10 .7%	Service Personnel	4 .3%
House or Room	49 3%	Unemployed	16 1%
Taxi	2 .1%	Laundress and Dry Cleaners	16 1%
No data available	412 21%	Truck and Taxi Driver	18 1%
		Farmers, Trappers, Fishermen	24 2%
		Student	8 1%
		Dressmaker and Hairdresser	8 1%
		Labourer	35 2%
		Mechanic, Electrician, Scale Inspector	9 1%
		House of Prostitution	9 1%
		Messenger and Mail Carrier	3 .2%
		Business Man	4 .3%
		No data available	692 49%

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)					1	29	44	497	105				676
Syphilis (congenital)										1			1
Acquired—Primary						3	2	28	12				45
Acquired—Secondary							4	8	9				21
Acquired—Latent									1				1
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined													
Totals					1	32	50	533	128				744

Number of cases of syphilis—Male 39, Female 29 68

Number of cases of gonorrhoea—Male 50, Female 141 676

Number and results of Kahn and Wassermann tests: 6,665 (of which 552 were positive).

Number and results of Cerebrospinal Fluid tests: 108, of which 6 were positive.

Number and results of Bacteriological tests for gonococci: 10,461, of which 894 were positive.

Number and results of Cultures: 4,467, of which 214 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			12	58	293	185				552
Syphilis (congenital)													
Acquired—Primary								12					12
Acquired—Secondary							1	9	9				19
Acquired—Latent							3	18	12				33
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)								1					1
Type Undetermined								1	2				3
Totals			1			16	62	334	208				620

Number of cases of syphilis—Male 41, Female 27 68

Number of cases of gonorrhoea—Male 309, Female 243 552

Number and results of Kahn and Wassermann tests: 3,388, of which 401 were positive.

Number and results of Cerebrospinal Fluid tests: 27, of which 4 were positive.

Number and results of Bacteriological tests for gonococci: 3,846, of which 289 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)									9	4			13
Syphilis (congenital)	1		1										2
Acquired—Primary									2				2
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (Cardiovascular)							1			1			2
Acquired—Tertiary (other)									1	1			2
Type Undetermined													
Totals	1		1				1		12	6			21

Number of cases of syphilis—Male 5, Female 3..... 8

Number of cases of gonorrhoea—Male 9, Female 4..... 13

Number and results of Kahn and Wassermann tests: 192, of which 128 were positive.

Number and results of Cerebrospinal Fluid tests: 8, of which none were positive.

Number and results of Bacteriological tests for gonococci: 49, of which 11 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.	
Gonorrhoea (all forms)							7		2	39			48
Syphilis (congenital)									1				1
Acquired—Primary									3	4			7
Acquired—Secondary									1	4			5
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined													
Totals							7		7	47			61

Number of cases of syphilis—Male 5, Female 3..... 13

Number of cases of gonorrhoea—Male 2, Female 46..... 48

Number and results of Kahn and Wassermann tests: 1,257, of which 72 were positive.

Number and results of Cerebrospinal Fluid tests: 14, of which none were positive.

Number of results of Bacteriological tests for gonococci: 3,741, of which 149 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.	
Gonorrhoea (all forms)									6		1		7
Syphilis (congenital)									1				1
Acquired—Primary									2				2
Acquired—Secondary									7				7
Acquired—Latent									1				1
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined													
Totals									11				11
Totals									28		1		29

Number of cases of syphilis—Male 22..... 22

Number of cases of gonorrhoea—Male 7..... 7

Number of prisoners examined..... 1010

Number and results of Kahn and Wassermann tests: 1,061, of which 102 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)			1		1		12	16	107	29		4	170
Syphilis (congenital)													
Acquired—Primary									8	3			11
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)										1			1
Type Undetermined													
Totals			1		1		12	16	115	33		4	182

Number of cases of syphilis—Male 8, Female 4

Number of cases of gonorrhoea—Male 119, Female 51

Number and results of Kahn and Wassermann tests: 370, of which 10 were positive.

Number and results of Cerebrospinal Fluid tests: 10, of which none were positive.

Number onf results of Bacteriological tests for gonococci: 150, of which 65 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)									7	3			10
Syphilis (congenital)													
Acquired—Primary									3	1			4
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined													
Totals									10	4			14

Number of cases of syphilis—Male 3, Female 1

Number of cases of gonorrhoea—Male 7, Female 3

Number of results of Kahn and Wassermann tests: 324, of which 18 were positive.

Number and results of Cerebrospinal tests: 1, of which none were positive.

Number and results of Bacteriological tests for gonococci: 75, of which 40 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.	
Gonorrhoea (all forms)							3	15	11		2		31
Syphilis (congenital)													
Acquired—Primary										1			1
Acquired—Secondary													
Acquired—Latent													
Acquired—Tertiary (Cardiovascular)													
Acquired—Tertiary (Neurosyphilis)													
Acquired—Tertiary (other)													
Type Undetermined									2	2			4
Totals							3	17	14		2		36

Number of cases of syphilis—Male 2, Female 3

Number of cases of gonorrhoea—Male 17, Female 14

Number and results of Kahn and Wassermann tests: 200, of which 30 were positive.

Number and results of Cerebrospinal Fluid tests: 18, of which none were positive.

Number and results of Bacteriological tests for gonococci: 86, of which 13 were positive.

DEPARTMENT OF PUBLIC HEALTH

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)	1	1	2		4	16	34	384	126	54	38			660
Syphilis (congenital)	2	4	1		1	1	1		1	1	2		14
Acquired—Primary						1	47	16		6	5		75
Acquired—Secondary						1	6	14	23	6	3		53
Acquired—Latent							3	15	21	10	9		58
Acquired—Tertiary (Cardiovascular)								4	1	1			6
Acquired—Tertiary (Neurosyphilis)								17	5	5	1		28
Acquired—Tertiary (other)								4	1		1		6
Type Undetermined								6	7	13	14		40
Totals	3	5	1	2	1	5	18	44	492	201	97	71	940

Number of cases of syphilis—Male 157, Female 123 280
 Number of cases of gonorrhoea—Male 455, Female 205 660
 Number of doctors in the Province receiving consultative service 247
 Number of doses of arsenicals distributed to private physicians 7777
 Number of doses of bismuth distributed to private physicians 13,558
 Number of units of Penicillin distributed to private physicians—1734 (vials), 2,000,000
 units; 115 (vials), 3,000,000 units in Oil and Wax.

RECAPITULATION

NEW PATIENTS ADMITTED TO THE VARIOUS CLINICS OF THE DIVISION
OF SOCIAL HYGIENE IN 1947

Sex	Syphilis	Gonorrhoea	Totals
Males	125	974	1099
Females	75	502	577
Totals	200	1476	1676

CASES REPORTED BY DOCTORS AND MILITARY AUTHORITIES

	Private Physicians	Armed Forces	Total
Syphilis	280	3	283
Gonorrhoea	660	60	720
Totals	940	63	1003

Total number of cases of syphilis reported in Alberta 483
 Total number of cases of gonorrhoea reported in Alberta 2196
 2679
 Total number of new cases of syphilis reported in Alberta exclusive of armed
 forces personnel 480
 Total number of new cases of gonorrhoea reported in Alberta exclusive of armed
 forces personnel 2136
 2616

Report of the Provincial Laboratory

(R. M. SHAW, *Director*)

In September, 1947, Dr. J. A. Romeyn, Associate Professor of Bacteriology and a valued member of the staff of the Provincial Laboratory, resigned for purposes of pursuing research work in Oxford University, England.

On authority granted by the Board of Governors, our chief serological technician, Mrs. Jean Maddison, was despatched to take special instruction in the serology of syphilis under Dr. Reuben L. Kahn at the University of Michigan Hospital, Ann Arbor, Michigan. Two months were spent with Dr. Kahn, and short periods of observation were also taken at the Provincial Laboratory of Ontario in Toronto and the Laboratory of Hygiene, Ottawa. This course of study has been very valuable to us in ensuring that our serological tests will better conform to the rules of performance and reading as laid down by the authors of the tests in use.

During 1947 a Dominion Order in Council was passed appointing the Directors of Provincial Laboratories of Health of the nine Provinces members of a committee for purposes of advising the Minister of Health on laboratory methods and related subjects.

A meeting of the committee was held in Ottawa, December 11-13, 1947, under the chairmanship of the Acting Director of the Laboratory of Hygiene. The members were addressed by the Hon. Paul Martin, Minister of Health, and Dr. G. D. W. Cameron, Deputy Minister. Discussions concerned methods of examination and reporting results of tests to physicians, hospitals, etc. Considerable advance has been made also in coordinating the efforts of the Laboratory of Hygiene with those of the Provincial Laboratories. The Laboratory of Hygiene has given very valuable assistance to the Provincial Laboratories in supplying antigens and sera for tests and in acting as distributing centre for information and certain supplies.

The meeting herein mentioned is the third in which the Directors of Provincial Laboratories have met in Ottawa on the invitation of the Dominion Department of Health and Welfare, but it is the first under the Order in Council.

During the year the Provincial Laboratory submitted to a Dominion wide survey of technique and efficiency in serological tests for syphilis. Bloods were collected by the Laboratory of Hygiene in Ottawa and distributed to the nine Provincial Laboratories. Drs. Reuben L. Kahn and John A. Kolmer, the authors of the respective tests, acted as referees in these tests.

This was the third survey of this kind undertaken within the past four or five years. Its intention is to bring about uniformity of test and improvement in efficiency and accuracy. The results were very favourable, and improvement in the rating over those of previous years is gratifying.

The attached tables give a very complete picture of the amount of work carried out during the year. Total number of specimens

examined amounted to 160,772, as compared with 176,417 for the year 1946, a drop of 15,645, or 8.87%. The decrease took place mainly in the number of specimens examined for syphilis and gonorrhoea, viz., 24,853 and 2,830 respectively. Increases, however, occurred in those tests requiring more manipulation and other labour, viz., bacteriological cultures of public health and clinical importance, notably for diphtheria, typhoid fever, tuberculosis, etc., and histopathological examination and autopsies.

There was a marked increase in the demand for animal inoculation and culture for evidence of tuberculous infection. A new table, No. 4, is introduced showing the volume and variety of specimens received for these tests.

Rh testing was carried on for a part of the year, but when the Red Cross Blood Transfusion Service became established in Edmonton the need for this service by the Provincial Laboratory ceased, and such tests were discontinued.

The testing of sensitivity of antibiotics of bacteria isolated from persons under medical care has continued. See Table No. 5.

The tables showing the isolations of members of the Salmonella and Shigella groups of bacteria (typhoid fever, dysentery and related infection) are again included.

The construction work presently being carried on in the east wing of the Medical Building has hampered considerably the office and technical staffs in their daily tasks. In spite of difficulties and distractions, all members of the staff have cheerfully and efficiently carried on their respective tasks.

TABLE 1

WORK PERFORMED IN THE PROVINCIAL LABORATORY DURING THE YEAR 1947

	Total, 1946	Total, 1947	Increase	Decrease
Sputum Examinations	768	680	.....	88
Diphtheria and Haemolytic Streptococci	1,788	3,278	1,490	.....
Typhoid Fever (Agglutination test)	881	1,433	552	.....
Milk	912	1,146	234	.....
Water	3,188	4,038	850	.....
Guinea Pig Inoculations	911	1,377	466	.....
Miscellaneous Examinations	5,685	7,040	1,355	.....
Plasma Cultures	150	.....	.....	150
Blood Cultures .....	.....	701	701	.....
Enterobacteria and Intestinal Parasites .....	.....	915	915	.....
Urinalysis	34	19	.....	15
Medico-Legal Examinations (Blood, seminal, etc.)	9	8	.....	1
Cerebro-Spinal Fluids for the Wassermann Test	3,097	2,849	.....	248
Bloods for Quantitative Kahn test	1,556	2,741	1,185	.....
Bloods for the Wassermann Test	9,221	9,256	35	.....
Bloods for the Standard Kahn Test	8,697	8,810	113	.....
Bloods for the Presumptive Kahn Test	99,009	74,156	.....	24,853
Smears for the Gonococcus	17,577	15,482	.....	2,095
Cultures for Gonococcus	5,269	4,554	.....	735
Van Den Bergh Determinations	288	269	.....	19
Bloods for Rh factor	622	3,078	2,456	.....
Pathological Histological Material	9,321	10,761	1,440	.....
Blood Smear Examinations	154	175	21	.....
Post-mortem Examinations	280	310	30	.....
Asheim-Zondek Examinations	383	472	89	.....
Comparative Series	41	38	.....	3
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	3,284	3,024	.....	260
Bacteriological Examinations (P.M.)	89	111	22	.....
B. abortus Examinations (Agglutination test)	881	1,433	552	.....
B. tularensis (Agglutination test)	881	1,433	552	.....
Cattle Blood (Bang's Disease Agglutination test)	1,421	1,185	.....	236
Total	176,417	160,772		

TABLE 2

DETAIL OF EXAMINATIONS OF MILK PERFORMED THROUGHOUT THE YEAR	1947	
	1946	1947
Number of milks examined bacteriologically	846	951
Number of milks examined for butterfat	116	116
Number of milks examined for B. coli	98	178
Number of milks test by the Phosphatase test	29	27
Number of ice creams examined	58	123
Number of rinse waters examined bacteriologically .....	.....	72

TABLE 3

DETAILS OF THE BACTERIOLOGICAL AND CHEMICAL EXAMINATIONS OF WATER PERFORMED THROUGHOUT THE YEAR	1947	
	1946	1947
Number of samples of water examined bacteriologically and found fit for human consumption	1,577	1,987
Number of samples of water examined bacteriologically and found unfit for human consumption	498	818
Number of samples of water examined bacteriologically and chemically and found fit for human consumption	240	198
Number of samples of water examined bacteriologically and chemically and found unfit for human consumption	239	258
Number of samples of water examined chemically and found fit for human consumption	417	544
Number of samples of water examined chemically and found unfit for human consumption	201	218
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 TUBERCULOSIS

Specimen	Examined by smear, animal inoculation and culture	Positive	% Positive	Negative	% Negative
Sputum and Gastric Washings	310	45	14.5%	265	85.5%
Urine	272	47	17.3%	225	82.7%
Pleural Fluids	135	36	26.7%	99	73.3%
C.S.F.	73	12	16.4%	61	83.6%
Joint Fluids	44	1	2.3%	43	97.7%
Abdominal Fluids	13	2	15.4%	11	84.6%
Miscellaneous Specimens ¹	95	20	21.1%	75	78.9%
Total	942	163	17.3%	779	82.7%
Sputums examined by smear only	680	64	9.41%	616	90.59%
Grand Total	1,622	227		1,395	

¹Miscellaneous specimens include swabs and pus of unspecified or unique origin, stools, milks, etc.

TABLE 5

TESTS MADE IN RESPECT TO THE USE OF ANTIBIOTICS PENICILLIN AND STREPTOMYCIN

Determination	No. Done
Penicillin sensitivity of a variety of organisms isolated from cases of infection	46
Penicillin blood level	35
Streptomycin sensitivity of Mycobacterium tuberculosis isolated from cases	20
Streptomycin sensitivity of other bacteria	37
Streptomycin blood level	26
Streptomycin urine level	14

TABLE 6

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

Stool and urine cultures	915
Blood cultures for typhoid (including culture of clots from bloods submitted for agglutination test. It does not include blood cultures made for other diseases)	1,467
Bloods examined by agglutination test for typhoid and related fevers, undulant fever and tularaemia	1,433

Source	Details of Results				
	Salmonella Typhi	Other Salmonella	Shigella (Dysentery bacilli)	Negative	Total
Stool cultures	28	31	17	815	891
Urine cultures .....	.....	4*	.....	20	24
Blood cultures	3	.....	.....	.....	.....
Culture from blood submitted for agglutination test	8	1**	.....	1455	1464
Cerebro-spinal fluid .....	.....	1†	.....	.....	.....
Brain (autopsy) .....	.....	1†	.....	.....	.....
Liver (autopsy) .....	.....	1†	.....	.....	.....
Food (chicken) .....	.....	.....	1‡	.....	.....
Bowel (autopsy) .....	.....	.....	1‡	.....	.....
Ankle joint .....	.....	1	.....	.....	.....
Total isolation	39	40	19	.....	.....
No. of cases	18	20	16	.....	.....
	(including 2 carriers)				

NOTE: *S. typhi-murium 3, S. bonariensis 1; **S. bonariensis; †S. typhi-murium, all from one case; ‡Shigella paradysenteriae (Flexner).

Details of Salmonella Isolated from the 38 Cases

S. typhi (including 2 carriers)	18	S. bonariensis	1
S. typhi-murium	9	S. newport	1
S. paratyphi B	2	Not further identified	1
S. senftenberg var newcastle	2		
S. bareilly	2		
S. oranienberg	2		
			38

Details of Shigella Infections (Dysentery Bacilli)

"Boyd's 88"	5
Sh. flexner	4
Sh. alkalescens	2
Sh. sonnei	1
Not further identified	4
	16

TABLE 7

BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS DURING THE YEAR 1947

Bloods Examined—Presumptive Kahn	74,156
Standard Kahn	8,810
Quantitative Kahn	2,741
Wassermann (Kolmer)	9,256
Cerebro-spinal fluids examined by Wassermann (Kolmer) test	2,849
Bloods and cerebro-spinal fluids unsuitable for examination (N.S.Q., A.C., Haem., Accidentally broken)	1,025
Bloods broken and leaked in transit	231
Bloods and cerebro-spinal fluids "Positive" to reaction	2,969
Bloods and cerebro-spinal fluids "Negative" to reaction	71,454
Bloods and cerebro-spinal fluids giving "Doubtful Please Repeat" reaction	1,263
Bloods giving "Please Repeat" reaction	1,613
Bloods giving "Report as is"	163
Bloods giving "N.S.Q. Please Repeat"	261
Number of bloods and cerebro-spinal fluids examined in 1946	102,106
Number of bloods and cerebro-spinal fluids examined in 1947	77,005
Decrease in number of specimens examined	25,101
Decrease in per cent	24.58%

TABLE 8

BLOOD AND CEREBRO-SPINAL FLUID EXAMINATIONS BY SEROLOGICAL TESTS FOR THE DIAGNOSIS OF SYPHILIS, BY THE MONTH, DURING THE YEAR 1947

	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	5,470	554	205	566	186	53
February	5,617	614	227	652	228	142
March	6,782	972	321	1,018	266	125
April	6,203	780	238	879	259	69
May	6,337	819	233	842	260	53
June	7,412	870	216	890	233	72
July	6,542	757	221	803	251	99
August	5,689	596	177	637	195	81
September	6,590	681	203	712	241	94
October	6,158	930	287	957	276	60
November	6,282	644	225	662	231	92
December	5,074	593	188	638	223	85
Total	74,156	8,810	2,741	9,256	2,849	1,025

TABLE 9

PREMARITAL BLOODS SUBMITTED FOR SEROLOGICAL TESTS FOR SYPHILIS DURING THE YEAR 1947

	Negative	Positive	Doubtful Please Repeat	Please Repeat	N.S.Q. Please Repeat	Report as is	Unsuit- able	Total
January	810	5	5	10	3	1	14	848
February	775	10	2	8	2	.....	25	822
March	993	5	2	13	1	1	30	1,045
April	1,053	6	3	19	1	.....	15	1,097
May	1,217	4	5	19	1	.....	6	1,252
June	1,727	11	4	16	.....	.....	25	1,783
July	1,507	7	.....	8	3	.....	32	1,537
August	1,264	4	2	5	2	.....	20	1,297
September	1,128	2	1	7	1	.....	25	1,164
October	1,356	5	3	11	3	1	14	1,393
November	1,429	5	2	6	.....	.....	22	1,464
December	889	4	5	5	1	.....	19	923
Total	14,148	68	34	127	18	3	247	14,645

TABLE 10

SEROLOGICAL TESTS FOR SYPHILIS DONE FOR THE MILITARY AUTHORITIES DURING THE YEAR 1947

Wassermanns:	Airforce	Army	Navy	Total
Bloods	37	99	.....	136
C.S.F.	2	16	.....	18
Kahns:				
Presumptive	1,062	1,930	.....	2,992
Standard	36	99	.....	135
Quantitative	10	22	.....	32
Total	1,147	2,166	.....	3,313

TABLE 11

S ERA AND VACCINE DISTRIBUTED—JANUARY 1947 TO DECEMBER 1947

Smallpox Vaccine:		Strength "D"—30 doses (large)	90
1 point	2,172	Strength "E"—30 doses (large)	262
10 points	4,114	Dick Test: 10 persons	610
Diphtheria Antitoxin, in syringe:		Tetanus Toxoid: 1 person	185
1,000 units	457	Tetanus Antitoxin:	
5,000 units	94	1,500 units	561
20,000 units	343	5,000 units	17
Diphtheria Toxoid:		10,000 units	30
1 person	4,073	Pertussis Vaccine:	
3 c.c.	630	1 person (3 x 2 c.c. ampoules) ..	3,618
6 c.c.	801	6 persons (6 x 6 c.c. ampoules) ..	429
Diphtheria Toxoid and Pertussis		Pertussis Vaccine, New:	
(combined):		1 person (4 x 1 c.c. ampoules) ..	298
1 person (3 x 2 c.c. ampoules) ..	8,557	9 persons (6 x 6 c.c. ampoules) ..	11
6 persons (6 x 6 c.c. ampoules) ..	1,872	Staphylococcus Toxoid:	
Diphtheria Toxoid and Pertussis		2 c.c. vial	226
(combined), New:		Staphylococcus Antitoxin:	
1 person (4 x 1 c.c. ampoules) ..	784	10,000 units	2
9 persons (6 x 6 c.c. ampoules) ..	179	Gas Gangrene Antitoxin:	
Schick Test: 25 persons	517	4,000 units	110
Scarlet Fever Antitoxin:		10,000 units	94
3,000 units (syringe)	292	Typhoid-Paratyphoid Vaccine:	
9,000 units (vial)	82	1 person	602
9,000 units (syringe)	105	10 c.c.	1,207
Scarlet Fever Toxin:		Anti-Measles Serum: 5 c.c.	808
1 person	2,694	Diluted Diphtheria Toxoid:	
6 persons	1,809	1 person	9
3 c.c. (Tannic Acid Precip.) ..	100	Anti-H. Influenza Serum, Type B	
Scarlet Fever Toxin:		(Serum-Rabbit)	5
Strength "A"—30 doses (large)	69	Other Vaccines:	
Strength "B"—30 doses (large)	169	Autogenous Vaccine, 25 c.c.	
Strength "C"—30 doses (large)	88	bottle	35
		Stock Vaccine, 25 c.c. bottle	11

TABLE 12

AMOUNT OF AUTOGENOUS AND OTHER VACCINE PREPARED AND DISTRIBUTED DURING THE YEAR 1947

	Total, 1946	Total, 1947	Increase	Decrease
Autogenous Vaccine (25 c.c. quantity).....	23	35	12	.....
Stock Vaccine (25 c.c. quantity)	3	11	8	.....
	26	46		

TABLE 13

COMMERCIAL VALUE OF WORK IF MINIMUM CHARGE WERE MADE 1947

Sputum Examinations	680	\$ 1.00	\$ 680.00
Diphtheria and Haemolytic Streptococci	3,278	1.00	3,278.00
Typhoid Fever (Agglutination tests)	1,433	1.00	1,433.00
Milk	1,146	3.00	3,438.00
Water	4,038	10.00	40,380.00
Guinea pig inoculations	1,377	3.00	4,131.00
Miscellaneous	7,040	3.00	21,120.00
Blood cultures	701	3.00	2,103.00
Enterobacteria and Intestinal Parasites	915	3.00	2,745.00
Urinalysis	19	1.00	19.00
Medico-Legal (Blood, seminal, etc.)	8	5.00	40.00
Cerebro-Spinal Fluids for Wassermann Test	2,849	1.00	2,849.00
Bloods for the Quantitative Kahn Test	2,741		
Bloods for Wassermann Test	9,256	1.00	9,256.00
Bloods for Standard Kahn Test	8,810	1.00	8,810.00
Bloods for Presumptive Kahn Test	74,156	1.00	74,156.00
Smears for the Gonococcus	15,482	1.00	15,482.00
Cultures for Gonococcus	4,554	1.00	4,554.00
Van Den Bergh Determination	269	1.00	269.00
Bloods for Rh factor	3,078	.50	1,539.00
Pathological Histological material	10,761	5.00	53,805.00
Blood Smear Examinations	175	2.00	350.00
Ascheim-Zondek Tests	472	5.00	2,360.00
Comparative Series	38	3.00	114.00
Cerebro-Spinal Fluid Examinations (Colloidal Gold, Pandy)	3,024	2.00	6,048.00
Bacteriological Examinations (P.M.)	111	5.00	555.00
B. abortus Examinations	1,433	.50	716.50
B. tularensis Examinations	1,433	.50	716.50
Cattle Blood Examinations	1,185	.10	118.50
Autogenous Vaccine	35	5.00	175.00
Stock Vaccine	11	3.50	38.50
Total			\$261,279.00

*Report of Routine Mycology carried out at the Provincial
Laboratory during the year 1947.*

The tissues and exudates of 270 patients were examined for the presence of fungi, and in 66 of them pathogenic fungi were demonstrated.

Sanitary Engineering Division

(D. R. STANLEY, B.Sc., S.M. (C.E.), *Director*)

The prolonged post-war building boom has very greatly increased the sanitation problems in the Province. Communities are being built up and as a result the disposal of sewage, refuse, etc., has become a more acute problem. To make matters worse, the shortages and subsequent high cost of labour and materials has made it very difficult for small communities to organize effective sanitation programs. These conditions, coupled with the general awakening of the people to existing unsatisfactory sanitary conditions and their demands for better conditions in restaurants, water supply, milk supply, sewage disposal and general sanitation has increased greatly the demands on the sanitary engineering division.

In 1947 the staff was increased by the appointment of Mr. W. A. Milligan, Licensed Plumber and C.S.I. (C.), as a Sanitary and Plumbing Inspector, and Mr. L. E. Stewart, C.S.I. (C), as a Sanitary Inspector. Mr. Stewart's main responsibility in the summer months was to organize tourist camp inspection and classification in administering the Tourist Camp Regulations of the Department of Trade and Industry. Mr. Milligan's responsibilities were to aid in both plumbing and sanitary inspection.

Generally, as in previous years, except for plumbing inspection, investigations and inspections were made mainly in response to specific complaints. The administration of Provincial Health Regulations was left up to the local Boards of Health.

Seven new pasteurizing plants were installed in the Province during the year.

During the year, there were 211 complaints and requests for inspection which were attended to by inspectors of the Division. Many of these requests for inspection were for complete inspections of towns and/or villages, including restaurants, milk supply, and general sanitation. During the winter months, 32 lumber and saw-mill camps were inspected, mostly as routine inspections.

A tourist camp inspection and classification programme was inaugurated in co-operation with the Department of Trade and Industry, and 89 tourist camps were inspected and classified. This programme was started during July and, although it is difficult to assess the results on the basis of the two or three months of operation, every indication is that the program has been well worth while. It is expected that a more accurate assessment may be possible after the program has been in operation for about two years.

During the year, reports of 2,160 bacteriological analyses and 726 chemical analyses reached the Division. In cases of waters indicating contamination, the persons were advised as to procedures to follow in order to restore the quality of the water to a safe condition and how to protect their supply from contamination.

The water supply and sewage disposal problems as in the previous year were acute because of the tremendous building pro-

gramme. Most small spread-out communities became more built up, thereby creating more of a sanitation problem. In a great many of these communities, the problem was being solved by the construction of community waterworks and sewerage systems. So great has been the activity in this field that by 1951 it is estimated that the number of towns and villages served with community sewer and water systems will be about three times the number served in 1940. In 1945, there was only one town in Alberta with a filtration plant for treating surface water. In May, 1947, the Town of Grande Prairie commenced operation of a new filtration plant. By 1950, there should be nine such plants in operation. The operation of these plants requires a great deal of skill and knowledge and, as trained men are not available for such jobs, more supervision should be supplied by this Division. This, coupled with the great increase in the number of waterworks and sewerage systems in the Province, will greatly increase the supervision required. The present need is for routine supervision to assure that proper maintenance procedures and public health precautions are being adhered to. If, even the minimum of such a service is to be provided, it would be necessary to appoint another sanitary engineer to the staff.

During the year 1947, the Towns of Barrhead, Ponoka, Vermilion and Westlock undertook construction on waterworks and sewerage systems. The Village of Penhold installed a waterworks system.

The following certificates were issued by the Provincial Board of Health covering waterworks, sewerage and hospital construction:

1. City of Calgary, Certificate No. 554-47. Proposed Sewer Connections. Estimated cost, \$6,100.00.
2. Village of Provost, Certificate No. 555-47. Proposed Water and Sewerage Systems. Estimated cost, \$93,630.00.
3. Town of Leduc, Certificate No. 556-47. Proposed Waterworks Construction. Estimated cost, \$40,000.00.
4. Town of Leduc, Certificate No. 557-47. Proposed Sewerage Construction. Estimated cost, \$32,000.00.
5. City of Calgary, Certificate No. 558-47. Proposed Water and Sewer Connections. Estimated cost, \$70,000.00.
6. Village of Carbon, Certificate No. 559-47. Proposed Waterworks Construction. Estimated cost \$32,000.00.
7. Municipal Hospital Board No. 28, Brooks, Certificate No. 560-47. Proposed extension to be installed in hospital. Estimated cost, \$19,074.00.
8. Town of Westlock, Certificate No. 561-47. Proposed Waterworks Construction. Estimated cost, \$88,220.00.
9. Town of Westlock, Certificate No. 562-47. Proposed Sewerage Extensions. Estimated cost, \$23,500.00.
10. City of Calgary, Certificate No. 563-47. Proposed Sewer and Water Connections. Estimated cost, \$73,436.55.
11. City of Calgary, Certificate No. 564-47. Proposed Sewers. Estimated cost, \$27,947.01.
12. City of Calgary, Certificate No. 565-47. Proposed Sewers. Estimated cost, \$993.29.
13. Town of Peace River, Certificate No. 566-47. Proposed Water System. Estimated cost, \$83,950.00.
14. Town of Peace River, Certificate No. 567-47. Proposed Sewer System. Estimated cost, \$35,420.00.
15. Town of Rocky Mountain House, Certificate No. 568-47. Proposed Waterworks System. Estimated cost, \$62,811.00.
16. Town of Rocky Mountain House, Certificate No. 569-47. Proposed Sewerage System. Estimated cost, \$26,484.00.
17. Village of Two Hills, Certificate No. 570-47. Proposed Waterworks Construction. Estimated cost, \$29,926.00.

18. Village of Two Hills, Certificate No. 571-47. Proposed Sewer Utilities. Estimated cost, \$21,411.00.
19. Lamont Public Hospital, Lamont, Certificate No. 572-47. Proposed Extension. Estimated cost, \$270,000.00.
20. Town of Nanton, Certificate No. 273-47. Proposed Sewerage System. Estimated cost, \$56,600.00.
21. Town of Bow Island, Certificate No. 574-47. Proposed Sewerage System. Estimated cost, \$16,900.00.
22. City of Calgary, Certificate No. 575-47. Proposed Sewer Extensions. Estimated cost, \$49,800.00.
23. Village of Rycroft, Certificate No. 576-47. Proposed Waterworks System. Estimated cost, \$40,000.00.
24. Town of Barrhead, Certificate No. 577-47. Proposed Waterworks and Sewerage System. Estimated cost, \$88,000.00.
25. Town of Taber, Certificate No. 578-47. Proposed Construction of Waterworks. Estimated cost, \$70,000.00.
Town of Taber, Certificate No. 578-A. Proposed Construction of Waterworks. Estimated cost, \$75,000.00.
This Certificate supersedes Certificate No. 578.
26. Galt Hospital, Lethbridge, Certificate No. 579-47. Proposed Construction of Boiler House. Estimated cost, \$
27. Town of Strathmore, Certificate No. 580-47. Proposed Waterworks System. Estimated cost, \$51,283.00.
28. Town of Strathmore, Certificate No. 581-47. Proposed Sewerage System. Estimated cost, \$41,585.00.
29. Town of Brooks, Certificate No. 582-47. Proposed Waterworks System. Estimated cost, \$40,802.00.
30. Town of Brooks, Certificate No. 583-47. Proposed Sanitary Sewerage System. Estimated cost, \$18,031.92.
31. Village of Trochu, Certificate No. 584-47. Proposed Waterworks System. Estimated cost, \$68,050.00.
32. Village of Trochu, Certificate No. 585-47. Proposed Sewerage System. Estimated cost, \$38,430.00.
33. Town of Camrose, Certificate No. 586-47. Proposed Sewer Construction. Estimated cost, \$65,102.00.
34. City of Calgary, Certificate No. 587-47. Proposed Sewer Extensions. Estimated cost, \$1,600.00.

The plumbing inspection work carried out by the Division has increased tremendously in the past few years. The yearly revenues are very good indications of the magnitude of this increase. The revenues for 1945, 1946 and 1947 were, respectively, \$2,008, \$2,928, and \$5,237. The 1945 income was considered at the time to be very high.

A breakdown of the work carried out is shown in the following tables:

TABLE 1

Inspections Made	New Construction Total No. Fixtures	Reconstruction and Extensions	Permits Granted	Charges Made
Provincial	4,290	203	864	\$5,236.75
Edmonton	7,430	504	1,473	5,715.10
Calgary	6,535	2,520	1,160	7,690.20
Lethbridge	1,400	272	232	541.25
Medicine Hat	669	165	248	420.50
Drumheller	24	5	14	100.50
Red Deer	464	12	69	121.50
High River	114	25	28	
Wetaskiwin	44	44	11	55.50
Claresholm	109	3	28	56.00
Hanna	56		21	42.00
Grande Prairie	33	6	11	24.75
Banff	366	83	50	139.25
Jasper	38	169	23	121.50
Waterton	48		11	25.00
	<u>21,620</u>	<u>4,011</u>	<u>4,243</u>	<u>\$20,289.80</u>

TABLE 2

Location	W.C.	Lavatory Basin	Showers and Bath	Sinks	Laundry Tubs	Special Fixtures	Septic Tanks	Outside Toilets Eliminated
Provincial	1,211	1,403	835	830	60	154	344	423
Edmonton	2,236	2,088	1,688	1,715	107	136	6	34
Calgary	2,780	1,800	1,800	2,575	40	60	4	15
Lethbridge	397	417	247	320	8	283	3	45
Medicine Hat	256	222	146	178	3	29	.....	47
Drumheller	10	7	4	8	.....	.....	.....	1
Red Deer	130	144	65	99	10	28	.....	6
High River	36	40	23	29	8	3	1	5
Claresholm	37	33	16	19	.....	7	.....	11
Hanna	17	17	9	13	.....	.....	.....	10
Grande Prairie	12	11	8	7	.....	1	.....	6
Wetaskiwin	13	12	7	7	.....	5	.....	.....
Banff	81	90	36	55	12	33	1	.....
Jasper	56	55	41	52	2	1	.....	.....
Waterton	11	11	13	11	2	.....	8	3
Totals	7,283	6,350	4,938	5,918	252	740	367	606

Hospital and Medical Services Division

DR. M. G. McCALLUM, D.P.H., *Director*

During the year there were three new municipal hospitals added to our list of approved hospitals in the Province. These are Two Hills, Elnora and Tofield, with a total of 63 beds and 19 bassinets. During their period of operation they had a total of 3,551 patient hospital days. There were 530 patients admitted to these hospitals with a total of 3,551 patient days.

The number of nurses of all kinds in 1947 remained very much the same as in 1946 and continues to be a serious problem. A school for nursing aides was opened in Calgary with the object of relieving to a degree the demand for graduate nurses in the private and hospital nursing field.

Approved Hospitals.

There was, as outlined above, an increase of three approved hospitals in 1947. The approved hospitals are divided as follows:

	1947	1946
Catholic	28	29
Protestant	6	6
Catholic (with Municipal Agreement)	4	.....
Municipal	45	46
Municipally operated	8	10
Community	2	2
Industrial	6	5
Service Group	2	2
University	1	1
	<u>*102</u>	<u>101</u>

*Lloydminster and Fort Smith not included.

Private Hospitals.

In 1947 there was a decrease in the number of private hospitals operating. At December 31st, 1947, 27 hospitals were in operation.

Statistics.

The following statements are submitted, giving the details of each approved hospital in the Province:

- (1) Bed capacity, bed complement, patients under care during the year, admissions, discharges, deaths and stillbirths.
- (2) Patient days, patients discharged or died, average stay in hospital, and bed occupancy.
- (3) Staff.
- (4) Operating expenditure.
- (5) Operating revenue.
- (6) Costs and earnings per patient day with percentage costs.

For convenient reference the statistical totals appearing in the above mentioned statements are condensed herewith.

The totals for the year 1946 are also shown so that comparisons can be made.

The following hospitals are not included in these statistical totals: Fort Smith, N.W.T., and Lloydminster, Saskatchewan. Also the new hospitals—Two Hills, Elnora, and Tofield—are not included due to the fact that they did not operate for a complete year.

DEPARTMENT OF PUBLIC HEALTH

HOSPITAL BEDS

	1947		1946	
	Capacity	Complement	Capacity	Complement
Adult beds	4602	4654	4676	4822
Cribs	549	663	464	543
Bassinets	902	1014	892	1015
	<u>6053</u>	<u>6331</u>	<u>6032</u>	<u>6380</u>
Beds per thousand population (excluding Bassinets)	6.3	6.5	6.4	6.7
Patients accommodated per bed per year		25.5		25.3

PATIENT DAYS

	1947	1946
Adults and children	1,377,193	1,405,820
Newborn	218,632	210,878
All patients	1,595,825	1,616,698

PATIENTS UNDER CARE DURING THE YEAR

	1947	1946
Adults and children	139,085	140,634
Average stay	9.1	9.0
Town patients	22,374	20,761
Average stay	9.7	10.1
Newborn	161,459	161,395
Average stay	9.1	9.2
Average in hospital daily	4,372	4,423
% of population in hospital daily .....	.53	.55
% of population admitted per year	18.8	20.9

STAFF

	1947	1946
Administration:		
Executive	122	106
Clerical	284	266
Professional:		
Salaried doctors	35	30
Internes	37	61
Technicians	116	117
Nurses:		
Total	2015	1953
Graduate	920	927
Student	862	781
Probationers	208	224
Affiliates	25	21
Dietitians:		
Graduate	24	20
Student	14	6
Orderlies and ward helpers	590	565
Other employees	1464	1418
Total Staff	4701	4542

BIRTHS (EXCLUDING INDIANS) IN APPROVED HOSPITALS)

	1947	1946
Total live births	21,823	20,168
Total stillborn	373	351
Percentage of births in hospitals to total births in Province (excluding Indians)	93.1	95.9

NURSES TRAINING

	1947	1946
Number of schools	*10	11
Number graduated	275	275

*Excludes Mental Hospital, Ponoka.

FINANCIAL

	1947	1946
Total operating revenue	\$8,783,193.46	\$7,608,291.01
Total operating cost	8,784,464.07	7,762,342.00
Revenue per patient day	5.50	4.70
Cost	5.50	4.80
Salaries and wages	47.02%	44.4%
Supplies	36.52%	34.5%
Purchased services	4.50%	4.2%
Insurance .....	.93%	
Depreciation	3.58%	
Repairs and replacements	4.29%	16.9%
Interest and exchange	1.73%	
Miscellaneous	1.43%	

TABLE No. 1

Hospitals	Bed Capacity			Bed Complement			Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths
	Number			Number			M.	F.		M.	F.		M.	F.		M.	F.		
	Adult	Crib	Bassinet	Total	Adult	Crib		Bassinet	Children and Adults		Newborn			Children and Adults			Newborn		
							M.		F.	M.	F.	M.	F.	M.	F.	M.	F.		
Athabasca, Municipal	31	3	5	37	406	564	79	66	485	630	1,115	949	139	945	143	9	5		
Banff, Mineral Springs	75	1	4	88	372	447	33	28	405	475	880	741	59	739	56	15	1		
Barrhead, St. Joseph's	30	4	10	44	454	657	104	91	538	748	1,306	1,088	193	1,082	192	15	4		
Bassano, Municipal	24	2	6	33	152	255	35	30	187	285	472	398	64	382	64	14	3		
Beaverlodge, Municipal	9	5	14	10	227	340	39	51	266	391	657	563	89	544	88	11	1		
Bentley, Municipal	7	4	18	11	138	229	28	25	166	254	420	363	52	361	52	1	1		
Berwyn, R. A. P.	11	4	18	15	163	233	48	34	211	267	478	390	82	377	78	7	2		
Bonnyville, K. H. P.	13	5	18	17	165	254	38	41	203	295	498	411	79	409	71	3	5		
Bonnyville, St. Louis	26	7	38	34	316	508	41	52	357	560	917	805	91	807	89	8	2		
Brooks, Municipal	20	4	7	31	279	373	112	102	391	675	1,066	838	211	825	210	9	2		
Cadomin	9	2	3	13	8	141	34	24	118	165	283	220	58	216	53	6	4		
Calgary, General	295	27	60	382	4,330	6,995	900	817	5,230	7,812	13,042	11,098	1,672	10,725	1,645	354	29		
Calgary, Holy Cross	268	27	40	335	3,182	5,802	942	888	4,124	6,690	10,814	8,760	1,795	8,528	1,751	248	46		
Calgary, Isolation	78	12	40	90	63	66	74	63	57	66	129	123	77	120	78	4	...		
Calgary, Junior Red Cross	17	50	63	50	57	74	...	...	...	...	...	...	...	...	...	...	...
Calgary, Salvation Army Grace	17	17	28	53	628	302	284	284	302	912	1,214	605	560	606	560	47	5		
Camrose, St. Mary's	44	4	17	66	932	1,615	188	193	1,120	1,808	2,928	2,509	369	2,643	364	47	3		
Canmore, Canmore Hospital	12	1	4	16	157	104	13	13	170	117	287	253	26	256	23	2	3		
Cardston, Municipal	28	2	12	42	424	792	104	95	528	887	1,415	1,196	192	1,189	187	19	1		
Carmangay, Little Bow Municipal	18	2	4	24	112	162	19	13	131	175	306	267	31	261	29	4	2		
Castor, Our Lady of the Rosary	23	2	7	32	360	473	49	50	409	532	923	823	33	816	94	8	2		
Cereai, Municipal	9	5	15	15	85	138	16	17	101	155	256	219	33	212	29	5	3		
Clareholm, Municipal	29	4	37	37	360	660	64	49	242	709	1,133	997	106	984	106	17	4		
Cold Lake, John Nell	18	3	6	27	74	175	34	28	108	203	311	243	62	242	60	4	1		
Coleman, Miners' Union	13	1	13	14	176	165	1	1	177	165	342	336	1	325	9	1	...		
Consort, Municipal	18	2	7	27	79	203	24	26	103	229	332	272	49	264	50	7	1		
Coronation, Municipal	21	2	4	27	184	274	48	36	232	310	542	451	83	445	80	11	4		
Daysland, Providence	20	4	6	30	239	323	34	32	273	355	628	556	66	545	60	10	4		
Desmarais, St. Martin's	18	2	2	20	14	26	2	2	16	28	44	38	3	38	4	2	...		
Didsbury, Municipal	25	2	10	35	416	547	69	59	485	606	1,091	947	125	942	124	9	1		
Drumheller, Municipal	82	4	14	100	1,300	1,601	200	171	1,500	1,772	3,272	2,846	361	2,801	361	44	2		
Eckville, Municipal	16	2	6	24	...	...	Not Reported	...	...	...	...	...	Not Reported	...	...	...	...
Edmonton, Beulah Rescue Home	10	4	8	22	2,203	3,697	399	390	2,602	4,087	6,689	5,760	767	5,635	761	114	13		
Edmonton, General	357	34	25	416	...	...	Not Reported	...	...	...	...	...	Not Reported	...	...	...	...

TABLE No. 1—Continued

Hospitals	Bed Capacity			Bed Complement			Patients Under Care During Year						Admissions		Discharges		Deaths		Stillbirths
	Number			Number			Adults and Children			Newborn			Total		Adults and Children		Newborn		
	Adult	Cribs	Bassnets	Adult	Cribs	Bassnets	Total	M.	F.	Total	M.	F.	Total	Children and Adults	Newborn	Children and Adults	Newborn		
	Total	Total		Total		Total		M.	F.	M.	F.	M.	F.	Children and Adults	Newborn	Children and Adults	Newborn		
Edmonton, General, T.B. Division	201	45	64	310	194	45	303	161	180	923	812	1310	161	180	212	174	34	32	24
Edmonton, Misericordia	385	103	79	567	385	103	567	4,293	6,076	1,395	1,310	5,688	2,577	2,400	11,979	11,651	138	32	45
Edmonton, Royal Alexandra								257	240	257	240	485	38	52	497	456	18	7	59
Edmonton, Isolation								38	52	38	52	90	38	52	55	50	7		
Edmonton, Isolation, T.B. Division								3,498	3,937	406	376	3,904	3,904	4,313	7,220	764	756	198	12
Edmonton, University of Alberta:								3,046	122	3,046	122	3,168	3,046	122	3,014	2,991	35		10
(a) D.V.A.								29	28	29	28	57	29	28	20	20			
(b) Polio								40	542	86	89	628	647	1,275	1,075	166	9	6	1
Edson, St. John's	34	3	5	42	32	3	40	542	558	86	89	628	647	1,275	1,075	166	9	6	1
Elk Point, Municipal	29	7	36	42	4	10	56	525	819	91	76	616	895	1,511	1,320	164	129	3	1
Empress, Municipal	25	2	6	33	20	5	25	377	362	23	31	400	393	733	724	53	50	12	2
Fairview, Community	13	1	5	19	13	1	15	385	596	45	55	430	651	1,081	966	96	94	14	2
Ft. McMurray, St. Gabriel's	14	4	4	22	15	6	25	268	326	37	32	305	358	663	586	69	57	5	2
Ft. Vermilion, St. Theresa	9	4	4	13	8	2	14	67	124	24	11	91	135	226	188	33	5	2	
Galahad, St. Joseph's	25	3	6	34	16	8	32	299	452	37	38	336	490	826	751	75	73	3	1
Grande Prairie, Municipal	36	6	6	42	42	2	60	631	917	158	127	789	1,044	1,833	1,521	279	1,490	12	3
Grimshaw, Battle River	10	4	4	14	12	2	19	113	243	40	35	153	278	431	352	74	341	7	2
Hanna, Municipal	46	4	9	59	41	11	52	284	537	97	94	381	631	1,012	793	185	773	12	2
Hardisty, St. Anne's	20	1	7	28	20	2	30	240	395	50	39	290	434	624	624	86	621	3	1
High Prairie, Providence	60	8	13	81	49	9	70	961	1,178	119	121	1,080	1,299	2,379	2,090	234	2,080	21	5
High River, Municipal	48	9	17	74	46	7	68	624	1,034	115	125	739	1,159	1,898	1,629	234	1,609	27	8
Innisfail, Municipal	33	3	8	44	36	3	47	286	513	96	92	382	605	987	770	182	175	20	4
Islay, Municipal	10	10	10	10	10	10	10	125	169	16	12	141	181	322	293	28	287	3	1
Jasper, Seton	15	4	4	19	15	4	19	177	124	17	12	194	136	330	289	28	293	4	1
Killam, General	16	1	3	20	22	4	32	330	435	50	63	380	498	878	748	109	733	18	4
Lacombe, Municipal	31	2	10	43	30	3	44	509	801	138	124	647	925	1,572	1,285	258	1,051	28	6
Lac la Biche, St. Catherine's	18	5	8	31	25	11	44	302	555	82	83	384	638	1,022	844	161	1,256	17	4
Lamont, Public	64	8	8	80	64	8	80	940	1,470	92	89	1,032	1,559	2,591	2,367	176	2,333	34	4
Lethbridge, Galt	106	8	18	132	97	6	18	121	2,142	262	233	1,503	2,375	3,878	3,307	479	3,226	79	9
Lethbridge, Isolation	14	2	16	14	14	2	16	5	5	5	5	5	5	10	10	10	10	10	15
Lethbridge, St. Michael's General	120	12	36	168	115	16	38	1,666	2,536	319	310	1,985	2,846	4,831	4,133	611	612	71	8
Macleod, General	14	8	22	16	16	2	23	184	232	27	38	211	270	481	405	63	401	61	4
McLennan, Sacred Heart	25	4	4	33	27	8	43	508	791	115	93	623	884	1,507	1,280	202	1,253	197	13
Magrath, Municipal	16	6	6	22	16	1	21	108	182	21	27	129	209	338	287	47	277	46	2

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Mannville, Municipal	21	3	8	32	21	3	5	29	213	362	53	56	266	418	684	569	108	555	105	5	2	4	
Mayerthorpe, Municipal	20	6	11	37	23	6	11	40	214	406	70	56	284	462	746	610	122	601	121	6	3	3	
Medicine Hat, General	111	12	25	148	139	16	35	190	1,627	2,343	319	354	1,946	2,697	4,645	3,883	657	3,768	650	114	9	12	
Medicine Hat, Isolation	9	2		11	9	2		11	1	1	1				2	2		2					
Mundare, General	24	2	4	30	24	4	4	32	380	448	38	29	418	477	895	814	65	807	64	13	1	1	
Myrnam, Municipal	17	1	5	23	20	1	5	26	243	422	30	44	273	466	739	644	69	644	71	7	1	1	
Nordegg, General	13	1	2	16	14	1	3	18	148	97	24	19	172	116	288	242	43	230	42	9			
Olds, Municipal	21	2	6	29	19	2	10	31	200	434	101	90	301	524	825	620	187	608	183	16	6	1	
Oyen, Municipal	15	2	5	22	15	2	5	22	97	179	27	28	124	207	331	270	54	260	51	8	1	2	
Peace River, Municipal	20	4	4	24	23	3	6	32	313	502	59	65	372	567	939	788	121	789	121	7	4	4	
Pincher Creek, St. Vincent's	23	2	6	31	23	2	7	32	346	506	57	70	403	576	979	837	124	813	124	18	1	2	
Ponoka, Municipal	26	4	9	39	24	4	12	40	350	613	89	90	439	703	1,142	946	172	934	172	14	4	4	
Provost, Municipal	20	2	8	30	20	2	8	30	302	423	62	60	364	483	847	715	120	699	113	11	4	3	
Radway, St. Joseph's	14	3	6	20	20	1	6	27	232	399	73	66	305	465	770	619	136	614	135	8	3	1	
Raymond, Municipal	20	3	6	29	16	3	7	26	158	293	68	47	226	340	566	445	113	447	113	1	1	2	
Red Deer, Municipal	50	2	10	62	56	9	19	84	Not Reported														
Rimbey, St. Paul's	17	1	6	24	21	3	6	30	188	271	33	44	221	315	536	452	75	446	74	5	1	1	
Rocky Mountain House, Municipal	20	2	4	26	20	2	5	27	260	376	64	68	324	444	768	623	129	610	126	11	4	3	
Smoky Lake, George McDougall	11	4	7	22	16	3	6	25	161	257	36	39	197	296	493	412	73	403	72	5	1	1	
Spirit River, Holy Cross	14	3	4	21	15	5	5	25	260	296	36	46	296	342	638	545	81	533	81	15	3	3	
Stettler, Municipal	33	2	10	45	36	4	10	50	585	936	122	112	707	1,048	1,755	1,487	228	1,439	228	56	3	5	
Turner Valley, Oilfields General	30	5	5	40	43	8	12	63	626	964	130	96	756	1,060	1,816	1,571	220	1,544	217	28	6	5	
Vegreville, General	22	5	4	31	29	7	8	44	626	631	117	121	489	752	1,241	986	228	958	228	19	1	2	
St. Paul, St. Theresa	20	2	6	28	20	2	6	28	198	421	66	77	264	498	762	600	140	602	137	8	4	2	
Taber, Municipal	13	6	12	99	70	9	16	95	209	274	55	40	264	314	578	470	92	470	92	5	2	1	
Trochu, St. Mary's	81	6	8	12	99	2	8	26	740	1,341	130	133	870	1,474	2,344	2,034	252	2,015	253	34	5	5	
Vermillion, Municipal	33	3	8	44	42	2	10	54	522	801	99	94	621	895	1,516	1,306	188	1,296	189	16	2	2	
Viking, Municipal	24	2	8	34	21	3	7	31	212	339	51	33	263	372	635	544	81	531	79	9	3	1	
Vilna, Our Lady's	13	4	3	20	15	3	4	22	116	277	48	49	164	326	490	390	96	382	91	3	4	1	
Vulcan, Municipal	16	2	8	24	20	1	6	27	314	398	53	60	367	458	825	700	109	699	103	7	6	2	
Wainwright, Municipal	17	2	4	23	24	3	7	34	360	570	67	73	427	643	1,070	916	139	896	134	15	3	1	
Wayne, General	13	3	4	13	20	3	3	26	261	195	18	13	279	208	487	452	31	445	29	4	2	1	
Westlock, Immaculata	26	4	9	39	38	6	9	53	857	1,185	173	129	1,030	1,314	2,344	2,025	300	1,995	285	17	8	5	
Wetaskiwin, Community	44	3	10	57	41	6	15	62	780	1,205	174	175	954	1,380	2,334	1,951	340	1,904	327	42	12	8	
Willingdon, General	24	5	5	34	25	6	6	37	284	450	53	38	337	488	825	718	88	706	88	11	1	1	
Total	4,602	549	902	6,053	4,654	663	1,014	6,331	55,501	83,584	11,547	10,827	67,048	94,411	161,459	135,884	21,823	133,043	21,472	2,845	450	373	
Less D.V.A., Orthopaedic, Polio, and T.B. Division cases									3,331	456			3,331	456	3,787	3,409					76		
Bed Capacity									52,170	83,128	11,547	10,827	63,717	93,955	157,672	132,475	21,823	129,730	21,472	2,769	450	373	

N.B.—Not included: Fort Smith, Lloydminster, Elnora, Tofield and Two Hills.
Bed Capacity 46 67 21 29 32

TABLE No. 2

Hospitals	TOTAL OF ALL PATIENT DAYS										Occu- pancy
	Total of all Patients, 1947			Total Patients Discharged or Died			Average Stay of Patients Dis- charged or Died			Total	
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total		
	5,566	1,373	6,939	5,591	1,393	6,984	5.9	9.7	6.4		
Athabasca, Municipal	25,868	469	26,337	24,262	470	24,732	32.2	8.0	30.4	46.3	
Barrhead, St. Joseph's	7,148	2,025	9,173	7,193	2,020	9,213	6.6	10.5	7.2	90.0	
Bassano, Municipal	5,314	598	5,912	5,304	595	5,899	13.4	9.3	12.8	50.0	
Beaverlodge, Municipal	3,286	384	3,670	3,226	380	3,606	5.8	7.1	6.0	78.6	
Bentley, Municipal	2,366	384	2,750	2,360	380	2,740	6.5	7.3	6.6	63.6	
Berwyn, R. A. P.	3,151	975	4,126	3,121	960	4,081	8.1	12.2	8.8	73.3	
Bonnyville, K. H. P.	2,930	905	3,835	2,935	890	3,825	7.1	11.7	7.8	55.5	
Bonnyville, St. Louis	6,610	1,115	7,725	6,660	1,120	7,780	8.2	12.2	8.6	55.3	
Brooks, Municipal	6,023	1,723	7,746	6,003	1,728	7,731	7.2	8.1	7.4	67.7	
Cadomin, General	1,236	492	1,728	1,246	487	1,733	5.6	8.5	6.2	35.7	
Calgary, General	104,223	17,603	121,826	101,013	17,234	118,247	9.1	10.2	9.3	87.4	
Calgary, Holy Cross	91,150	15,852	107,002	90,067	15,848	105,915	10.3	8.8	10.0	87.8	
Calgary, Isolation	1,661	.....	1,661	1,621	.....	1,621	14.0	.....	13.6	5.5
Calgary, Junior Red Cross	19,846	.....	19,846	19,966	.....	19,966	255.9	.....	255.9	108.0
Calgary, Salvation Army Grace	6,455	6,660	13,115	6,460	6,685	13,145	10.7	11.8	11.2	105.8	
Canmore, St. Mary's	16,044	3,661	19,705	16,049	3,666	19,715	6.4	9.9	6.8	90.0	
Canmore, Canmore	1,806	188	1,994	1,831	188	2,019	7.1	7.5	7.1	35.2	
Cardston, Municipal	7,443	1,706	9,149	7,503	1,736	9,239	6.2	8.8	6.6	59.5	
Carmanagay, Little Bow Municipal	2,010	244	2,254	2,000	242	2,242	7.3	7.8	7.6	25.0	
Castor, Our Lady of the Rosary	5,775	1,074	6,849	5,780	1,069	6,849	7.0	11.1	7.4	59.3	
Cereal, Municipal	2,334	303	2,637	2,224	298	2,522	10.2	9.3	10.1	50.0	
Claresholm, Municipal	9,060	1,137	10,197	9,080	1,157	10,237	9.1	10.5	9.2	84.8	
Cold Lake, John Neil	1,535	578	2,113	1,550	568	2,118	6.3	9.5	6.9	22.2	
Coleman, Miners' Union	2,459	.....	2,459	2,464	.....	2,464	7.4	.....	7.4	50.0
Consort, Municipal	3,807	550	4,357	3,802	556	4,358	14.0	11.1	13.6	44.4	
Coronation, Municipal	4,610	841	5,451	4,723	853	5,576	10.4	10.2	10.3	55.5	
Daysland, Providence	3,227	526	3,753	3,222	516	3,738	5.8	8.1	6.0	33.3	
Desmarais, St. Martin's	537	43	580	547	48	595	13.7	12.0	13.5	9.0	
Didsbury, Municipal	5,326	1,171	6,497	5,346	1,172	6,518	5.6	9.4	6.1	72.0	
Drumheller, Municipal	20,180	3,178	23,358	20,175	3,188	23,363	7.1	8.8	7.3	64.0	
Eckville, Municipal	5,314	1,350	6,664	.....	.....	.....	Not Reported	.....	.....	.....
Edmonton, Beulah Home	2,267	2,262	4,529	2,259	2,251	4,510	18.1	18.0	18.0	54.5	
Edmonton, General	57,255	7,229	64,484	54,781	7,174	61,955	9.5	9.3	9.5	74.0	
Edmonton, General, T.B. Division	48,003	.....	48,003	68,992	.....	68,992	331.7	.....	331.7	80.6
Edmonton, Misericordia	76,358	14,969	91,327	76,273	23,772	91,197	8.7	8.8	8.7	.....

Edmonton, Royal Alexandra	121,390	145,294	129,910	23,772	153,682	10,5	8,9	10,5	78,6
Edmonton, Isolation	5,443	5,443	5,674	.....	5,674	12,0	.....	12,0	.....
Edmonton, Isolation (T.B. Division)	12,041	12,041	14,080	.....	14,080	247,0	.....	247,0	.....
Edmonton, University of Alberta:	97,641	106,137	96,717	8,521	105,238	13,2	11,1	13,2	76,1
(a) D.V.A.	69,826	69,826	74,295	.....	74,295	24,6	.....	24,6	.....
(b) Folio	3,265	3,265	3,466	.....	3,466	173,3	.....	173,3	.....
Edson, St. John's	1,868	10,348	8,495	1,883	10,378	8,3	10,9	8,3	66,7
Elk Point, Municipal	4,464	12,558	11,094	1,474	12,568	8,4	8,9	8,4	94,4
Empress, Municipal	5,752	4,992	4,501	519	5,020	6,1	9,9	6,4	42,4
Fairview, Community	4,734	6,634	5,732	875	6,607	6,2	9,1	6,2	138,4
Ft. McMurray, St. Gabriel's	7,000	5,434	4,704	700	5,404	8,1	10,1	8,3	68,2
Ft. Vermillion, St. Theresa	1,931	2,248	1,946	327	2,273	10,2	9,3	10,1	46,2
Galahad, St. Joseph's	5,346	6,038	5,316	677	5,993	7,3	9,4	7,3	50,0
Grande Prairie, Municipal	11,915	14,273	11,915	2,358	14,298	7,1	8,4	7,9	92,8
Grimshaw, Battle River	2,890	3,651	2,895	766	3,661	8,2	10,2	8,6	71,4
Hanna, Municipal	7,800	9,720	7,850	1,925	9,775	9,8	10,3	9,8	45,8
Hardisty, St. Anne's	5,578	6,416	5,593	848	6,441	9,0	9,6	9,0	64,3
High Prairie, Providence	17,629	19,641	17,674	2,007	19,681	8,4	8,6	8,4	66,6
High River, Municipal	12,285	14,402	12,320	2,127	14,447	7,5	9,0	7,7	52,7
Innisfail, Municipal	7,851	9,887	7,891	2,021	9,912	10,1	11,3	10,4	61,4
Islay, Municipal	2,206	2,468	2,191	262	2,453	9,0	12,6	9,0	70,0
Jasper, Seton	2,485	2,844	2,575	364	2,939	8,7	9,8	8,3	95,0
Killam, General	6,043	7,108	6,058	1,065	7,123	8,1	9,8	8,2	81,4
Lacombe, Municipal	10,213	12,751	10,200	2,513	12,713	7,9	9,8	8,9	77,4
Lac la Biche, St. Catherine's	6,891	8,699	6,966	1,828	8,784	8,4	11,5	8,9	71,2
Lamont, Public	19,216	20,645	19,132	1,435	20,567	8,1	8,2	8,1	80,3
Lethbridge, Gait	33,789	38,606	33,779	4,852	38,631	10,2	10,0	10,2	1,8
Lethbridge, Isolation	105	105	105	.....	105	10,5	.....	10,5	.....
Lethbridge, St. Michael's	32,935	39,405	32,920	6,515	39,435	8,0	10,5	8,3	64,3
Macleod, General	3,378	4,040	3,418	667	4,085	8,3	10,3	8,5	50,0
McLennan, Sacred Heart	9,176	10,856	9,056	1,665	10,721	7,2	8,4	7,3	90,9
Magrath, Municipal	1,630	1,952	1,610	317	1,927	5,7	6,9	5,9	22,7
Mannville, Municipal	4,293	5,405	4,248	1,107	5,355	8,0	10,3	8,0	46,9
Mayerthorpe, Municipal	4,513	5,887	4,498	1,384	5,882	7,4	11,2	8,0	43,2
Medicine Hat, General	51,997	60,116	51,992	8,129	60,121	13,3	12,3	13,2	111,5
Medicine Hat, Isolation	22	22	22	.....	22	11,0	.....	11,0	.....
Mundare, General	4,730	5,402	4,760	672	5,432	5,8	10,3	6,1	50,0
Myrnam, Municipal	3,881	4,627	3,896	761	4,657	6,0	10,6	6,4	56,5
Nordegg, General	1,345	1,748	1,330	388	1,718	9,2	9,2	6,1	31,3
Olds, Municipal	5,957	7,831	5,977	1,884	7,861	9,6	10,0	9,7	72,4
Oyen, Municipal	2,196	2,726	2,186	520	2,706	8,2	10,0	8,5	33,3
Peace River, Municipal	8,341	9,571	8,381	1,215	9,596	10,5	10,0	10,5	108,3
Pincher Creek, St. Vincent's	6,273	7,577	6,243	1,309	7,552	7,5	10,5	7,9	67,7
Ponoka, Municipal	6,332	7,784	6,342	1,472	7,814	8,4	8,4	6,9	53,8
Provost, Municipal	5,835	6,879	5,810	1,029	6,839	8,2	8,8	8,3	63,3
Radway, St. Joseph's	4,708	6,209	4,833	1,507	6,340	7,8	10,9	8,3	85,0
Raymond, Municipal	3,041	4,204	3,056	1,173	4,229	6,8	10,3	7,5	41,4
Red Deer, Municipal	19,854	24,178	19,854	.....	24,178	Not Reported	.....	Not Reported	.....
Rimby, St. Paul's	3,269	4,129	3,264	860	4,124	7,2	11,5	7,8	45,8

TABLE No. 2—Continued

Hospitals	PATIENT DAYS										Occu- pancy
	Total of all Patients, 1947			Total Patients Discharged and Died			Average Stay of Patients Dis- charged and Died			Total	
	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total	Adults and Children	Newborn	Total		
Rocky Mountain House, Municipal	5,185	1,217	6,502	5,175	1,322	6,497	8.3	10.2	8.7	69.2	
Smoky Lake, George McDougall	2,319	607	2,926	2,299	607	2,906	5.6	8.3	6.0	36.4	
Spirit River, Holy Cross	4,229	822	5,051	4,244	827	5,071	7.7	10.1	8.0	66.6	
Stettler, Municipal	13,233	2,246	15,479	14,273	2,261	16,534	9.5	9.8	9.6	93.3	
St. Paul, St. Theresa	10,327	2,128	12,455	10,332	2,143	12,475	6.6	9.6	6.9	85.0	
Taber, Municipal	7,311	1,892	9,203	7,259	1,902	9,161	7.4	8.3	7.6	80.7	
Trochu, St. Mary's	4,569	1,391	5,960	4,619	1,396	6,015	7.6	9.9	8.0	57.1	
Turner Valley, Oilfields General	4,177	966	5,143	4,202	976	5,178	8.8	10.4	9.1	73.7	
Vegreville, General	14,523	2,316	16,839	14,598	2,341	16,939	7.1	9.1	7.3	46.5	
Vermilion, Municipal	8,790	2,067	10,857	8,820	2,082	10,902	6.7	10.9	7.3	68.2	
Viking, Municipal	4,646	884	5,530	4,626	889	5,515	8.6	10.8	8.9	44.1	
Vilna, Our Lady's	2,520	1,043	3,563	2,496	1,034	3,530	6.5	10.9	7.4	50.0	
Vulcan, Municipal	4,212	1,109	5,321	4,242	1,109	5,351	6.0	10.2	6.6	62.5	
Wainwright, Municipal	7,107	1,379	8,486	7,082	1,369	8,451	7.8	9.9	8.1	100.0	
Wayne, General	2,946	169	3,115	2,931	169	3,100	6.5	5.5	6.5	69.2	
Westlock, Immaculata	13,888	2,793	16,681	13,823	2,758	16,581	6.9	9.4	7.2	117.9	
Wetaskiwin, Community	12,293	2,765	15,058	12,278	2,760	15,038	6.3	8.1	6.6	71.9	
Willington, General	4,722	906	5,628	4,717	911	5,628	6.6	10.2	7.0	44.1	
Total	1,377,193	218,632	1,595,825	1,380,621	212,626	1,593,247	9.1	9.7	9.1	65.3	
Less D.V.A., Orthopaedic, Polio and T.B. Division cases	152,981		152,981	180,799		180,799					
	1,224,212	218,632	1,442,844	1,199,822	212,626	1,412,448					

Estimated for Red Deer and Eckville.

N.B.—Not included: Fort Smith, Lloydminster, Elnora, Tofield and Two Hills.

Patient Days ... 5,732

227 288

19,540

2,420

TABLE No. 3—Continued

Hospital	STAFF														Medical Staff	No. of Doctors	Training School	Affiliation with other Institutions	Graduated during the year	
	Administr'n		Professional			Nurses				Dietitians			Others							Total
	Executive	Clerical	Salaries	Interns	Technicians	Graduate	Student	Probationers	Affiliates	Graduate	Student	Orderlies and Ward Helpers	All other Employees							
Edmonton, Misericordia	7	13	7	7	13	41	87	38	5	2	3	25	98	341	Yes	116	Yes	22		
Edmonton, Royal Alexandra	4	45	3	8	25	113	147	26	5	3	3	56	180	615	Yes	161	Yes	62		
Edmonton, University of Alberta	5	56	9	12	16	91	109	24	7	7	9	109	189	643	Yes	87	Yes	34		
Edson, St. John's	1	1	1	1	1	6	3	1	1	1	1	1	10	17	No	1	No	1		
Elk Point, Municipal	1	1	1	1	1	3	4	1	1	1	1	3	7	18	No	1	No	1		
Empress, Municipal	1	1	1	1	1	4	4	1	1	1	1	4	5	13	No	1	No	1		
Fairview, Community	1	1	1	1	1	6	6	1	1	1	1	4	4	15	No	1	No	1		
Ft. McMurray, St. Gabriel's	1	1	1	1	1	1	1	1	1	1	1	2	4	10	No	1	No	1		
Ft. Vermilion, St. Theresa	2	1	1	1	1	3	3	1	1	1	1	4	6	5	No	1	No	1		
Galahad, St. Joseph's	2	2	1	1	1	11	3	1	1	1	1	8	9	16	No	1	No	1		
Grande Prairie, Municipal	2	1	1	1	1	5	5	1	1	1	1	5	9	22	No	1	No	1		
Grimshaw, Battle River	1	1	1	1	1	3	3	1	1	1	1	4	4	8	Yes	1	No	1		
Hanna, Municipal	2	1	1	1	1	4	4	1	1	1	1	5	9	22	No	1	No	1		
Hardisty, St. Anne's	1	1	1	1	1	4	4	1	1	1	1	6	6	12	Yes	2	No	1		
High Prairie, Providence	3	2	1	1	1	6	6	1	1	1	1	13	14	38	No	2	No	1		
High River, Municipal	1	1	1	1	1	16	16	1	1	1	1	14	14	31	No	1	No	1		
Innisfail, Municipal	1	1	1	1	1	9	9	1	1	1	1	1	3	19	No	3	No	1		
Islay, Municipal	1	1	1	1	1	3	3	1	1	1	1	2	3	8	Yes	3	No	1		
Jasper, Seton	1	1	1	1	1	5	5	1	1	1	1	3	4	9	No	1	No	1		
Killiam, General	1	1	1	1	1	4	4	1	1	1	1	3	4	12	No	1	No	1		
Lacombe, Municipal	1	1	1	1	1	9	9	1	1	1	1	5	9	26	No	1	No	1		
Lac la Biche, St. Catherine's	1	1	1	1	1	4	4	1	1	1	1	3	8	16	No	1	No	1		
Lamont, Public	1	6	1	1	3	7	37	1	1	1	1	3	24	79	Yes	6	Yes	10		
Lethbridge, Galt	3	7	1	1	3	18	36	1	1	1	1	16	39	123	Yes	29	Yes	9		
Lethbridge, Isolation	4	7	1	1	6	32	7	1	1	1	1	18	37	104	Yes	30	No	1		
Lethbridge, St. Michael's	2	1	1	1	1	5	5	1	1	1	1	6	3	17	No	1	No	1		
Macleod, General	4	7	1	1	6	32	7	1	1	1	1	8	10	24	No	1	No	1		
McLennan, Sacred Heart	2	1	1	1	1	5	5	1	1	1	1	4	3	11	No	1	No	1		
Magrath, Municipal	1	1	1	1	1	3	3	1	1	1	1	4	3	11	No	1	No	1		
Mannville, Municipal	1	1	1	1	1	4	4	1	1	1	1	3	3	10	No	1	No	1		
Mayerthorpe, Municipal	1	1	1	1	1	6	6	1	1	1	1	3	6	17	No	1	No	1		
Medicine Hat, General	3	6	1	1	1	16	43	1	1	1	1	6	49	124	Yes	12	Yes	13		
Medicine Hat, Isolation	1	1	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported	Not Reported										
Mundare, General	1	1	1	1	1	3	3	1	1	1	1	3	7	15	No	1	No	1		

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 4—OPERATING EXPENDITURES

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Athabasca, Municipal	17,876.56	13,794.83	1,722.28	516.53	1,968.77	909.86	1.52	133.37	36,923.72
Banff, Mineral Springs	88,921.57	58,702.14	5,072.42	1,586.89	9,345.58	2,826.49	100.60	3,411.75	169,967.44
Barrhead, St. Joseph's	19,586.89	10,324.30	1,725.43	262.57	1,100.00	1,110.97	736.26	409.15	35,455.57
Bassano, Municipal	13,461.96	9,215.06	3,328.60	202.05	1,587.73	1,470.95	9.79	18.20	29,294.34
Beaverlodge, Municipal	10,709.18	8,502.62	1,266.72	148.01	1,711.60	962.29	297.63	75.00	23,673.05
Bentley, Community	7,169.57	8,623.42	510.95	131.00	1,518.91	1,006.86	95.08	61.80	18,110.73
Berwyn, R. A. P.	8,082.61	6,324.04	1,639.45	91.00	2,500.00	401.22	11.35	1,715.00	21,570.31
Bonnyville, K. H. P.	9,254.53	8,106.56	879.09	267.20	4,41.03	4,41.03	3,240.00	964.82	19,606.22
Bonnyville, St. Louis	14,567.60	10,563.62	1,716.11	222.20	2,820.00	2,440.46	2,603.59	199.55	34,995.11
Brooks, Municipal	20,178.46	15,821.57	1,334.92	222.20	2,820.00	2,440.46	2,603.59	199.55	34,995.11
Cadomin, General		Not Reported			Not Reported			Not Reported	45,421.20
Calgary, General	359,749.42	265,991.50	18,322.42	6,071.27	49,464.18	45,119.93	8,908.58	17,554.67	721,717.79
Calgary, Isolation	305,681.55	232,140.10	12,666.77	4,973.40	49,464.18	28,272.47	6,121.40	19,112.04	658,431.91
Calgary, Holy Cross	13,227.42	6,533.60	824.41	203.20	552.58	1,607.57	3,951.84	723.44	27,071.40
Calgary, Junior Red Cross	45,738.66	24,702.61	5,289.06	394.85	704.95	3,067.09	191.55	295.28	76,973.04
Calgary, Salvation Army Grace	17,494.51	17,099.80	746.86	255.83	704.95	4,674.49	191.55	1,528.10	40,897.14
Camrose, St. Mary's	48,999.10	37,456.68	3,611.68	431.56	6,693.90	4,674.49	3.20	4,949.35	102,624.28
Canmore, Canmore Hospital	2,239.33	2,238.72	437.42	22.58	3,495.18	2,818.01	482.58	8.10	52,419.56
Cardston, Municipal	22,630.50	19,209.41	2,355.95	295.04	728.34	2,818.01	482.58	1,132.89	15,650.73
Carmanagay, Little Bow Municipal	8,516.70	5,070.09	1,065.28	270.32	1,495.00	2,636.14	48.93	264.01	31,466.25
Castor, Our Lady of the Rosary	14,103.70	12,826.20	1,172.90	463.30	1,495.00	1,142.74	282.32	282.32	17,292.94
Cereal, Municipal	7,482.72	5,397.45	1,345.28	88.50	463.77	2,263.14	463.77	1,147.34	48,543.45
Clareholm, Municipal	24,329.43	18,206.50	1,957.29	175.98	1,495.00	1,702.75	1.41	633.38	12,991.42
Cold Lake, John Neil	6,426.32	3,688.74	538.82	134.50	1,495.00	659.26	128.95	17,796.32	17,796.32
Coleman, Miners' Union	10,398.54	5,047.86	1,400.21	261.08	1,495.00	636.22	1,009.11	335.80	20,992.87
Consort, Municipal	9,046.10	8,788.83	915.73	165.66	1,373.87	1,792.54	218.97	247.32	27,237.77
Coronation, Municipal	13,803.30	7,924.38	1,959.05	279.51	3,054.10	2,739.10	218.97	97.50	29,015.00
Daysland, Providence	11,287.41	9,109.49	2,298.07	133.75	100.00	125.00	97.50	247.32	8,128.68
Desmarais, St. Martin's	3,120.00	3,387.00	1,165.43	133.75	100.00	125.00	97.50	247.32	29,015.00
Didsbury, General	18,345.36	13,725.59	3,748.01	284.08	5,561.84	1,570.64	3,969.81	663.50	47,868.83
Drumheller, Municipal	71,444.09	48,832.15	6,369.05	2,134.79	5,041.12	10,822.01	122.00	3,262.88	148,028.09
Eckville, Municipal									
Edmonton, Beulah Rescue Home	9,737.60	9,875.64	503.15	75.00	1,587.22	925.64	3,995.30	683.94	23,388.19
Edmonton, General	283,430.97	199,171.81	17,278.46	7,653.93	33,661.86	8,534.01	3,995.30	1,621.56	553,347.90
Edmonton, Misericordia	189,407.75	184,599.91	13,729.05	724.37	21,042.65	16,443.80	139.00	7,341.78	433,428.31
Edmonton, Royal Alexandra	501,368.25	342,819.38	29,104.61	27,418.99	18,861.04	39,936.95	32,420.35	6,175.08	998,104.65
Edmonton, University of Alberta	626,280.62	433,685.68	44,940.49	4,635.11	63,775.33	26,993.96	26,993.96	12,256.66	1,214,567.85
Edson, St. John's	19,885.85	15,219.85	1,704.55	334.50	3,166.70	1,226.30	36.35	41,795.74	41,795.74
Elk Point, Municipal	16,190.80	21,497.88	2,906.51	205.31	1,118.13	3,090.07	387.01	2,260.62	47,656.33
Empress, Municipal	11,914.10	12,671.49	1,098.02	301.38	1,118.13	2,225.94	387.01	633.78	28,844.71

Fairview, Community	12,102.51	1,572.29	139.74	2,032.52	951.22	1,771.92	742.15	29,258.83
Ft. McMurray, St. Gabriel's	13,420.60	1,895.73	17.82	2,780.00	1,176.02	1,771.92	742.15	26,739.24
Fort Vermilion, St. Theresa	4,214.00	779.73	17.82	430.00	150.00	3,288.75	37.00	10,143.88
Galahad, St. Joseph's	8,421.53	861.86	274.59	430.00	1,523.10	3,288.75	347.97	25,511.93
Grande Prairie, Municipal	32,283.72	2,685.85	266.78	5,275.45	1,965.73	2.04	600.00	65,620.60
Grimshaw, Battle River	6,617.07	1,528.53	483.63	2,705.30	604.75	62.85	1,654.82	20,235.75
Hanna, Municipal	24,571.48	2,761.79	512.03	2,705.30	698.00	1,206.41	234.00	57,833.54
Hardisty, St. Anne's	10,932.20	1,264.01	146.00	1,783.65	698.00	557.45	190.70	20,640.68
High Prairie, Providence	29,972.52	5,298.51	311.01	4,272.85	2,107.10	1,733.00	79,078.56	79,078.56
High River, Municipal	35,156.50	4,742.62	394.36	4,272.85	1,917.10	682.50	234.00	70,677.86
Innisfail, Municipal	20,810.25	1,895.51	530.46	1,540.00	1,462.59	35.50	599.85	40,925.55
Islay, Municipal	8,410.92	2,763.60	109.42	669.43	798.32	500.00	500.00	17,806.02
Jasper, Seton	11,118.51	8,424.55	465.00	1,536.35	2,374.38	3,740.00	30.12	28,604.90
Killam, General	7,922.20	1,036.60	585.00	210.16	4,903.53	3,322.41	544.68	29,218.72
Lacombe, Municipal	26,512.95	2,937.52	967.05	3,930.21	583.62	825.39	140.00	62,795.88
Lac la Biche, St. Catherine's	7,740.00	1,635.82	158.00	1,400.00	1,880.00	310.00	742.76	30,490.80
Lamont, Public	48,421.22	2,480.91	108.47	2,101.16	4,597.50	66.49	1,812.66	103,303.83
Lethbridge, Galt	84,571.35	9,226.58	579.24	1,857.24	5,288.90	687.49	1,812.66	105,776.67
Lethbridge, Isolation	1,926.69	242.97	14.68	91.86	10.08	140.22	2,697.61	2,697.61
Lethbridge, St. Michael's General	124,648.35	87,630.28	1,091.73	9,023.40	5,954.48	9,824.44	1,593.48	246,051.47
Macleod, General	17,194.84	15,988.17	167.50	2,016.61	3,388.62	3,300.00	1,348.65	40,735.68
McLennan, Sacred Heart	14,110.59	20,174.76	1,884.47	890.06	6,005.56	242.47	253.00	48,603.08
Magrath, Municipal	9,977.25	861.33	29.00	1,420.37	914.19	53.20	53.20	20,995.13
Mannville, Municipal	10,552.14	1,239.55	124.97	1,420.37	747.33	2,891.93	14,823.75	14,823.75
Mayrthorpe, Municipal	92,222.12	9,710.28	1,574.10	7,864.40	6,085.26	1,148.63	2,700.00	217,955.56
Medicine Hat, General	12,711.88	1,499.54	59.87	1,363.76	3,237.40	6.51	2,689.95	30,879.96
Medicine Hat, Isolation	22,664.27	1,481.76	419.86	2,853.73	1,277.25	43.63	490.70	42,433.76
Mundare, General	13,707.17	4,255.83	273.21	4,732.81	2,982.50	2,300.12	1,727.95	31,715.51
Myrnam, Municipal	16,024.87	2,093.68	349.23	4,732.81	2,159.70	2,300.12	45,443.17	45,443.17
Nordogg, General	21,406.20	2,396.91	226.47	1,891.18	1,793.05	319.95	1,514.37	18,363.28
Olds, General	14,395.00	1,117.75	93.00	5,690.70	5,690.70	621.89	27,962.40	47,200.28
Oyen, Municipal	22,332.63	2,371.88	965.63	8,596.21	2,125.37	5,112.38	766.48	55,593.87
Peace River, Municipal	17,562.50	2,261.76	25.05	2,125.89	2,093.13	109.25	41,383.45	41,383.45
Pincher Creek, St. Vincent's	13,443.00	1,753.71	176.34	1,416.06	278.87	134.16	199.19	26,588.47
Ponoka, Municipal	9,187.14	1,228.88	149.66	2,166.40	654.32	1,856.61	181.40	26,865.29
Provost, Municipal	9,291.19	1,228.88	605.00	6,805.00	4,139.00	874.00	114,053.00	114,053.00
Radway, St. Joseph's	49,965.00	47,147.00	381.06	1,885.46	264.32	1,000.00	157.41	21,288.35
Raymond, Municipal	10,967.64	837.94	276.47	1,885.46	1,983.21	1,299.92	450.80	33,579.40
Red Deer, Municipal	14,462.23	2,062.65	248.70	887.58	4,788.80	1,090.24	613.24	26,578.80
Rimbeey, St. Paul's	14,887.96	1,738.64	991.09	1,000.00	4,788.80	1,090.24	3,749.00	30,502.97
Rocky Mountain House, Municipal	8,448.00	1,320.19	248.70	1,749.05	1,532.53	417.80	71,992.56	71,992.56
Smoky Lake, George McDougall	33,461.32	1,676.34	991.09	3,344.17	823.18	1,330.24	196.16	53,022.35
Spirit River, Holy Cross	25,518.21	2,586.44	574.21	2,895.68	2,397.19	2,607.76	51,300.46	51,300.46
Stettler, Municipal	23,585.80	1,962.59	404.75	2,895.68	2,397.19	2,607.76	34,047.18	34,047.18
St. Paul, St. Theresa	16,585.60	893.68	219.15	5,545.19	1,631.08	605.11	127.50	23,144.70
Taber, Municipal	28,544.83	4,936.68	233.88	8,354.44	4,206.01	233.88	74,420.05	74,420.05
Turner Valley, Oilfields General	16,585.60	8,440.17	219.15	5,545.19	1,631.08	605.11	127.50	23,144.70
Trochu, St. Mary's	28,544.83	4,936.68	233.88	8,354.44	4,206.01	233.88	74,420.05	74,420.05
Turner Valley, General	16,585.60	8,440.17	219.15	5,545.19	1,631.08	605.11	127.50	23,144.70
Vegreville, General	28,544.83	4,936.68	233.88	8,354.44	4,206.01	233.88	74,420.05	74,420.05

TABLE No. 4—OPERATING EXPENDITURES—Continued

Hospitals	Salaries and Wages	Supplies	Purchased Services	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	Total Expenditure
Vermilion, Municipal	17,259.74	13,313.18	2,484.67	121.21	2,858.68	1,448.16	464.45	57.25	38,007.34
Viking, Municipal	13,350.44	9,634.66	1,309.84	298.48	796.71	928.84		561.44	26,880.41
Vilna, Our Lady's	9,149.98	5,652.91	695.92	150.14	1,377.15	1,890.57	15.30	357.49	19,289.46
Vulcan, Municipal	13,083.40	7,565.47	1,484.88	234.00		2,182.97		465.53	25,006.26
Wainwright, Municipal	16,921.22	19,791.67	67,442.47	278.40	403.06	1,366.28	292.32	785.00	107,280.42
Wayne, General	12,733.09	11,897.96	1,447.28	196.19	1,236.20	1,444.64	60.49	26.50	29,042.35
Westlock, Immaculata	25,602.25	23,037.62	2,765.17	279.50	1,820.40		3,652.95	1,239.16	58,397.05
Wetaskiwin, Community	26,196.18	27,496.71	3,073.73	218.53	6,167.45	1,750.96	15.68	115.60	65,134.84
Willingdon, General	13,097.95	9,452.82	547.05	125.40	713.79	887.81		3,851.48	28,676.30
Total	\$4,085,325.74	\$3,172,959.50	\$ 391,320.61	\$ 80,782.14	\$ 311,295.49	\$ 373,034.11	\$ 149,934.09	\$ 123,854.72	\$8,784,464.07

Not Reported—Estimated for Coleman, Eckville, Mayerthorpe, Medicine Hat Isolation, Oyen and Turner Valley

TABLE No. 5—OPERATING REVENUE

Hospitals	Day Rate Services	Special Services	Gross Earnings	Deductions	Net Earnings	Grants	Out-Patient Earnings	Other Revenue	Total Revenue
Athabasca, Municipal	\$ 11,633.95	\$ 1,649.55	\$ 13,283.50	\$ 648.47	\$ 12,635.03	\$ 19,023.19	\$ 381.00	\$ 198.00	\$ 32,237.22
Banff, Mineral Springs	94,444.60	32,663.17	127,107.77	10,590.76	116,517.01	9,370.65	45,015.34	41.00	170,944.00
Barrhead, St. Joseph's	22,976.02	8,231.92	31,207.94	1,500.00	29,707.94	5,753.60		3,580.32	35,920.08
Bassano, Municipal	19,844.50	1,217.38	21,061.88	11,608.99	9,452.89	14,048.12		1,104.86	27,081.33
Beaverlodge, Municipal	7,399.20	3,566.04	10,965.24	629.06	10,336.18	13,944.52	1,820.40		27,205.96
Bentley, Municipal	9,919.00	4,127.96	14,046.96	1,687.11	12,359.85	6,942.73			19,302.58
Berwyn, R. A. P.	6,582.45	1,395.75	7,978.20		7,978.20	12,072.08	408.90	1,689.06	22,148.24
Bonnyville, K. H. P.	7,234.60	1,881.80	9,116.40		9,116.40	12,582.11		1,095.00	22,793.51
Bonnyville, St. Louis	34,693.60	7,209.75	41,903.35	18,577.77	23,325.58	4,964.40	1,864.00	5,408.60	35,562.58
Brooks, Municipal	13,885.90	7,413.95	21,299.85		21,299.85	23,267.28		1,476.00	46,043.13
Cadomin, General		Not Reported			Not Reported			Not Reported	
Calgary, General	363,320.87	158,798.64	522,119.51	121,096.48	401,023.03	261,763.91		9,914.29	662,786.94
Calgary, Holy Cross	397,512.23	220,159.57	617,671.80	39,234.19	578,437.61	66,340.80			654,692.70
Calgary, Isolation	944.00	63.25	1,007.25		1,007.25	25,246.08		54,507.97	76,973.04
Calgary, Junior Red Cross						22,465.07		3,000.00	102,846.70
Calgary, Salvation Army Grace	19,433.40	2,085.65	21,519.05	999.84	20,519.21	17,152.64		1,315.33	40,671.85
Camrose, St. Mary's	54,585.70	42,123.74	96,709.64	7,412.07	89,297.57	12,233.80			102,846.70
Canmore, Canmore						327.70			5,452.31
Cardston, Municipal	12,015.50	5,124.61	17,140.11		17,140.11	38,633.09	2,069.00	1,299.54	57,900.01
Carmangay, Little Bow Municipal	4,482.60	3,882.88	8,365.48		8,365.48	9,778.85		178.39	15,928.04
Castor, Our Lady of the Rosary	16,557.07	1,488.20	18,045.27		18,045.27	11,017.70		3,673.18	31,247.95
Cereal, Municipal	2,228.40	1,191.50	3,419.90	31.67	3,388.23	5,500.00		6,971.50	15,859.73
Claresholm, Municipal	15,743.03	9,090.18	24,833.21		24,833.21	6,488.25			50,166.77
Cold Lake, John Neil	4,464.60	144.61	4,609.21	527.50	4,081.71	1,636.30	107.50	1,022.00	11,699.46
Coleman, Miners' Union	9,746.41	1,860.07	11,606.48		11,606.48	1,636.30	1,742.95	2,002.22	16,987.95
Consort, Municipal	5,133.60	1,112.67	6,246.27		6,246.27	15,951.89		297.93	22,496.09
Coronation, Municipal	6,567.10	2,327.05	8,894.15	81.69	8,812.46	27,123.90		1,056.00	36,992.36
Daysland, Providence	12,620.20	5,990.47	18,610.67	579.32	18,031.35	2,584.25		1,763.16	22,378.76
Desmarais, St. Martin's	3,477.90	3,477.90	6,955.80		6,955.80				3,477.90
Didsbury, Municipal	11,897.65	6,835.23	18,732.88		18,732.88	28,269.45		125.15	47,127.48
Drumheller, Municipal	45,823.35	20,797.58	66,620.93	2,407.09	64,213.84	77,517.78		1,408.43	143,140.05
Eckville, Municipal									
Edmonton, Beulah Rescue Home	5,119.70		5,119.70		5,119.70	10,319.70		6,464.18	21,903.58
Edmonton, General	172,070.33	118,271.69	290,342.02	22,417.82	267,924.20	60,494.20		201,258.98	529,677.38
Edmonton, Misericordia	199,314.57	191,627.90	390,942.47	101,582.79	289,359.68	94,517.52	4,149.05	35,969.89	423,996.14
Edmonton, Royal Alexandra	484,501.70	286,054.39	771,456.29	64,563.96	706,892.33	223,661.10		12,358.81	942,912.24
Edmonton, University of Alberta	812,636.15	278,889.00	1,091,525.15	104,793.27	986,731.88	192,849.53	79,243.64		1,258,825.05
Edson, St. John's	29,074.20	9,024.36	38,098.56	2,611.64	35,486.92	6,150.75		16.09	41,653.76
Elk Point, Municipal	18,740.80	4,688.51	23,429.31		23,429.31	27,637.95		331.65	51,067.26
Empress, Municipal	16,920.76	5,305.41	22,226.17		22,226.17	6,365.40			28,923.22
Fairview, Community	14,644.10	7,022.38	21,666.48		21,666.48	14,141.35	1,493.02	425.00	37,725.85

Spirit River, Holy Cross	18,698.40	3,856.00	22,554.40	1,466.00	21,088.40	3,072.00	676.60	3,525.00	27,685.40
Stettler, Municipal	25,427.60	3,514.40	28,942.00	1,814.15	27,127.85	47,543.82	.....	305.57	75,653.84
St. Paul, St. Theresa	30,650.83	4,352.08	35,002.91	1,500.00	33,502.91	15,103.58	.....	.....	48,606.49
Taber, Municipal	18,223.80	4,888.39	23,112.19	.....	23,112.19	30,226.32	.....	.....	53,338.51
Trochu, St. Mary's	17,000.71	5,739.74	22,740.45	1,014.42	21,726.03	4,234.95	.....	2,457.10	28,418.08
Turner Valley, Oilfields General	19,745.15	8,262.82	28,007.97	8,526.67	19,481.30	39,692.37	1,464.05	6,000.00	24,410.00
Vegreville, General	16,363.05	3,930.55	20,293.60	120.00	20,173.60	22,694.15	.....	144.68	66,637.72
Vermilion, Municipal	9,299.35	396.26	9,695.61	.....	9,695.61	19,029.50	302.92	777.88	43,012.43
Viking, Municipal	8,523.35	3,443.23	11,966.58	465.94	11,500.64	2,056.35	.....	813.84	29,805.91
Vilna, Our Lady's	7,709.80	811.00	8,520.80	.....	8,520.80	21,745.63	.....	695.69	14,370.83
Vulcan, Municipal	16,189.40	6,415.75	22,605.15	.....	22,605.15	24,472.19	1,534.55	123,547.78	30,962.12
Wainwright, Municipal	17,394.75	4,373.75	21,768.50	.....	21,768.50	11,099.20	.....	651.03	172,159.67
Wayne, General	51,374.71	14,756.01	66,130.72	11,348.94	54,781.78	11,099.20	1,506.63	2,453.84	22,419.53
Westlock, Immaculata	41,016.10	13,738.95	54,755.05	800.00	53,955.05	9,034.20	139.50	42.55	69,841.45
Wetaskiwin, Community	14,302.00	5,963.50	20,265.50	9,036.17	11,228.73	6,780.60	.....	13,048.33	63,171.30
Willington, General .....	.....	.....	.....	.....	.....	.....	.....	.....	31,057.66
Total	\$4,271,925.16	\$1,910,525.67	\$6,182,450.83	\$ 654,995.39	\$5,527,455.44	\$2,318,969.49	\$ 156,657.19	\$ 651,884.43	\$8,783,193.46

Not Reported—Estimated for Eckville, Mayerthorpe, Medicine Hat Isolation, Oyen and Turner Valley.

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 6

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	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange		Miscellaneous
Athabasca, Municipal	\$ 5.32	48.41	37.36	4.66	1.39	5.33	2.46	0.3	.36	4.65
Banff, Mineral Springs	6.45	52.32	34.54	2.98	.93	5.49	1.67	.06	2.01	6.49
Barrhead, St. Joseph's	3.87	55.24	29.68	4.87	.74	3.11	3.13	2.08	1.15	3.91
Bassano, Municipal	4.95	45.95	31.46	11.37	.69	5.42	5.02	.03	.06	4.58
Beaverlodge, Municipal	6.03	45.24	35.92	5.35	.63	7.23	4.07	1.26	.30	6.93
Bentley, Municipal	6.58	39.59	47.61	2.82	.73	8.39	4.67	5.2	.34	7.02
Berwyn, Municipal	5.23	37.47	29.25	7.60	.42	11.59	2.05	.05	7.95	5.37
Bonnyville, Katherine H. Prittle	5.11	47.20	41.35	4.48	..	..	2.05	..	4.92	5.94
Bonnyville, St. Louis	4.53	41.63	30.19	4.90	.76	..	12.69	9.26	.57	4.60
Brooks, Municipal	5.86	44.42	34.84	2.94	.49	6.21	5.37	..	5.73	5.94
Cadomin, General	..	Not Reported	..	..	..	..	..	Not Reported	..	..
Calgary, General	5.92	49.85	36.86	2.54	.84	..	6.25	1.23	2.43	5.44
Calgary, Holy Cross	6.15	46.43	35.26	1.92	.76	7.51	4.29	.93	2.90	6.12
Calgary, Isolation	16.30	48.86	24.13	3.05	.75	..	..	..	38	3.87
Calgary, Junior Red Cross	3.88	59.43	32.09	6.87	.51	.72	5.94	14.60	2.67	16.40
Calgary, Salvation Army Grace	3.37	42.78	41.81	1.82	.63	1.72	7.50	..	.38	3.87
Camrose, St. Mary's	5.21	47.75	36.50	3.52	.42	6.52	4.55	.19	3.74	3.36
Canmore, Canmore	2.48	45.24	45.23	8.84	.46	..	..	.06	.55	5.22
Cardston, Municipal	5.73	43.17	36.65	4.49	.56	6.67	5.38	.06	.16	2.73
Cardston, Municipal	6.94	54.42	32.40	6.81	1.73	4.65	..	.92	2.16	6.33
Carmanagay, Little Bow Municipal	4.59	44.82	40.76	3.73	1.47	..	..	..	..	7.07
Castor, Our Lady of the Rosary	6.56	43.27	31.21	7.78	.51	8.65	8.38	..	.84	4.56
Cereal, Municipal	4.76	50.12	37.50	4.04	.36	..	6.61	.28	1.69	6.01
Clareholm, Municipal	6.15	49.45	28.39	4.15	..	..	4.66	.96	2.36	4.92
Cold Lake, John Nell	7.23	43.09	28.41	7.88	.76	..	13.12	.02	4.87	5.54
Coleman, Miners' Union	4.82	43.09	41.87	4.36	1.24	..	..	..	.72	6.91
Consort, Municipal	5.00	50.68	29.09	7.19	.61	5.04	3.03	4.81	1.60	5.16
Coronation, Municipal	7.73	38.90	31.40	7.92	.96	10.53	6.58	.81	4.87	6.79
Daysland, Providence	14.01	38.37	41.67	14.34	1.65	1.23	..	..	.85	5.60
Desmarais, St. Martin's	7.37	38.33	28.67	7.83	.59	11.62	3.28	8.29	1.39	7.25
Didsbury, Municipal	6.34	48.26	32.99	4.30	1.44	3.41	7.31	.09	2.20	6.13
Drumheller, Municipal	5.54	..	..	..	..	..	..	..	..	5.76
Eckville, Municipal	5.16	41.64	42.22	2.15	.32	6.79	3.96	..	2.92	4.84
Edmonton, Beulah Home	8.61	51.04	35.86	3.11	1.38	6.06	1.54	.72	2.29	8.21
Edmonton, General	4.74	43.70	42.59	3.17	.17	4.85	3.79	.04	1.69	4.64
Edmonton, Misericordia	6.13	50.23	34.35	2.91	2.75	1.89	4.00	3.25	.62	5.79
Edmonton, Royal Alexandra	6.63	51.56	35.87	3.70	.39	..	5.25	2.22	1.01	6.88
Edmonton, University of Alberta	4.04	47.58	36.41	4.08	.80	7.58	2.93	.09	.53	4.02

TABLE No. 6—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	Insurance	Depreciation	Repairs and Replacements	Interest and Exchange	Miscellaneous	
Turner Valley, Oilfields General	4.50	38.36	37.51	6.63	.31	11.23	5.65	.....	.....	4.75
Vegreville, General	4.42	45.41	35.03	6.54	.32	7.52	3.81	.....	.31	3.95
Vermilion, Municipal	3.49	49.67	35.84	4.87	1.12	2.96	3.45	1.22	.15	3.94
Viking, Municipal	4.86	47.43	29.30	3.61	.79	7.14	9.80	.08	2.09	5.38
Vilna, Our Lady's	5.41	52.32	30.25	5.94	.90	.38	8.73	.27	1.85	4.03
Vulcan, Municipal	4.70	15.78	18.45	62.86	.26	4.26	1.27	.21	1.86	5.81
Wainwright, Municipal	12.64	43.84	40.97	4.98	.68	3.11	4.97	6.25	.73	20.28
Wayne, General	9.32	43.86	39.46	4.72	.48	9.50	2.68	.02	.09	7.20
Westlock, Immaculata	3.50	40.22	42.37	4.71	.33	2.49	3.10	.....	2.12	4.18
Wetaskiwin, Community	4.36	45.67	32.96	1.91	.44	.....	.....	.....	.17	4.19
Willingdon, General	5.10	.....	.....	.....	.....	.....	.....	.....	13.43	5.51
Total	\$ 5.50	47.02	36.52	4.50	.93	3.58	4.29	1.73	1.43	\$ 5.50

Not Reported—Estimated for Eckville, Mayerthorpe, Medicine Hat Isolation, Oyen and Turner Valley.

Division of Tuberculosis Control

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

In presenting the report of the Division of Tuberculosis, acknowledgment is made of the magnificent contribution of other major organizations to its program. The respective fields of activity are as follows:

1. Division of Tuberculosis Control provides:
 - (a) Free treatment,
 - (b) Free diagnosis.
2. The Alberta Tuberculosis Association:
 - (a) Assists in diagnosis.
 - (b) Engages in rehabilitation.
3. The Indian Affairs Branch provides:
 - (a) Free treatment for Indians.
 - (b) Free diagnosis.
4. The Department of Veterans' Affairs:
 - (a) Maintains pensioners in Sanatoria.
 - (b) Has a rehabilitation service.
5. The Nursing Branch of the Department of Health takes care of the field work.

Through the combined efforts of these bodies, all residents of Alberta have available facilities for free diagnosis and for free treatment for Tuberculosis.

The Aims of the Division of Tuberculosis.

1. Efficient treatment of all requiring the same.
2. The discovery of all cases of Tuberculosis in our population by the periodic examination of contacts, suspects and by mobile X-Ray surveys of the general population.
3. The supervision of all known cases of Tuberculosis.
4. The information of the general public, medical and nursing professions, on what is being done in Tuberculosis work.
5. The rehabilitation of those requiring same.

To further these ends, the Division enjoys the very valuable assistance of other agencies which augment and supplement its efforts, and grateful acknowledgment is made of these services.

The medical staff carrying out the work of the Division comprises 10 full-time physicians—six in Calgary and four in Edmonton. Division and clinic offices are maintained in Central Alberta Sanatorium and in the General Hospital, Edmonton.

During the year 1947, diagnostic services were extended to some 133,455 people in this Province. Of this number, 127,706 people received services from the Division of Tuberculosis, the remainder from the Indian Affairs Branch. This total number was an increase of 30,745 over those examined in 1946. This means that diagnostic service was extended to approximately one-sixth of the population.

Treatment Services.

Sanatorium treatment was provided for 1,108 residents of this Province during 1947. Of this number 742 were treated in the Provincial sanatoria; 366 in the Charles Camsell Hospital of the Department of Indian Affairs.

The sanatorium beds are giving modern, efficient treatment. More and more attention is being paid to surgical procedures and this at an earlier stage in an effort to decrease the period of hospitalization, and to return an increasing number of people to remunerative employment.

Streptomycin, a relatively new antibiotic, is in limited use and seems to give favourable results in certain types of disease. It cannot be said to be a real cure, but one is justified in stating that it is of definite value in many instances.

The Division continues to maintain pneumothorax centres in the Province so that ex-sanatorium patients may receive necessary treatment without remaining in an institution. Some 5,204 pneumothorax refills were given to ex-patients.

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			
STATIONARY CLINICS:								
Calgary	49	7	39	.....	.....	210	169	379
Central Alberta Sanatorium	78	56	240	2	2	1343	1283	2626
Drumheller	9	1	10	.....	.....	151	101	252
Edmonton	169	82	171	.....	5	1507	1466	2973
Lethbridge	6	8	17	.....	.....	190	176	366
Medicine Hat	7	8	11	.....	.....	119	173	292
Red Deer	6	8	10	.....	.....	77	138	215
Stettler	2	1	2	.....	.....	14	13	27
Total	326	171	500	2	7	3611	3619	7130

TRAVELLING CLINICS:

None during 1947.

TUBERCULIN SURVEYS CONDUCTED BY PUBLIC HEALTH NURSES, TEACHERS AND BUSINESS FIRMS

	No. Tested	Positive	X-rayed	New Cases of T.B.
Canadian Industries Ltd., Calgary	2	1	2	.....
College Heights	50	5	5*	1*
Faculty of Education, Calgary	182	24	20	.....
High River Schools	568	30	30	.....
Ingram and Bell, Calgary	14	8	14	.....
Medicine Hat Kinsmen Club .....	.....	.....	159	.....
Nurses' Aide Students	61	6	61	.....
Salvation Army Booth Memorial Home, Calgary	75	6	.....†	.....
Stettler	376	.....	31	.....
Edmonton	159	64	64	.....
Total	1487	144	386	1

*These five X-rays were made at a regular clinic and therefore show in the clinic figures. The one new case also shows in clinic figures.

†Referred to Mobile Unit.

MOBILE UNIT, 1947

Place	Number X-Rayed	Probable Tub.		Admission Advised	Admitted	Further Exam. Required	Non-Tub.	Pleurisy		No Disease
		Active	Inactive					Active	Inactive	
Alliance	823		3			2	5		2	811
Andrew	2134	2 (2R)	17 (2R)	2		27	15		8	2065
Bow Island	1163		2 (1R)			29	23		14	1092
Bruderheim	765	3 (2R)	8 (6R)	1	1	5	6		3	718
Cadomin	183		4 (4R)			10			4	165
Calgary	49254	53 (3R)	447 (81R)	10	7	830	876	2	425	45472
Cereal	578		2			8	11		8	545
Chipman	1249		12 (9R)			5	7		6	1219
Consort	1270	4 (1R)	6 (2R)			23	14		21	1191
Edmonton	22892	19 (11R)	136 (65R)	2		90	118		65	22464
Empress	945		4			23	6		10	901
Foremost	1672		12 (1R)			20	35	1	10	1585
Forestburg	1566		8 (4R)			6	6		5	1541
Fort Vermillion	971	19 (1R)	13 (3R)	15		20	11		3	905
Gadsby	586	1 (1R)	4 (4R)			2	2		3	574
Galahad	670	3 (2R)				1	6		1	658
Hairy Hill	614	1	3			3	1			606
Hussar	426		1			5	6		2	411
Innisfree	940		4 (3R)			4	3		4	925
Jasper	952	2 (1R)	9 (1R)			5	7		3	926
Lamont	1910	2 (1R)	18 (18R)	1		14	6		5	1865
Magrath	1841	1	17			19	25		16	1753
Manville	1012	1 (1R)	3 (3R)				7		4	997
Milo	283		2 (1R)			4	5		2	270
Minburn	509		2 (2R)			1	2		3	501
Mountain Park	195		5 (3R)			5			4	181
Mundare	2161	2 (2R)	12 (11R)			5	24		5	1822
Myrnam	2141		20 (13R)			4	24		14	2079
New Brigden	475	3	5	1		9	15		3	437
Oyen	843	2 (1R)	4			23	22		7	771
Patricia	502		1 (1R)			10	9		5	477
Pincher Creek	2584	2 (1R)	24 (3R)			104	66		18	2366
Raymond	2791	5	22			43	41		35	2641
Standard	787		5			25	15		50	717
Sterling	719		3			19	6		6	682
Two Hills	1804	4 (3R)	15 (8R)	1	1	11	10		4	1760
Vauxhall	1173		5 (3R)			29	14		18	1107
Vegreville	2882	1 (1R)	14 (12R)	1		1	21		12	2833
Vermillion	2254	1 (1R)	17 (11R)			2	13		7	2214
Willingdon	1258	2	17 (13R)	1		14	14		1	1210
Youngstown	367	1 (1R)	1			3	8		6	348
	118144	134 (43R)	907 (293R)	35	9	1463	1505	3	822	111805

SUMMARY—CLINICS AND SURVEYS

	No. Sessions	New Cases Tuberculosis				Total Exam. & Surveyed
		Pulmonary Active	Pulmonary Inactive	Non-Pulmonary Active	Non-Pulmonary Inactive	
Stationary Clinics	326	171	500	2	7	7130
Travelling Clinics School, Kinsmen, P.H. Nurses Surveys	10	.....	.....	.....	.....	1487
Indian Surveys (Dept. National Health and Welfare)	13	20	12	2	.....	5749
Staff, Central Alberta San- and Edmonton Sanatoria.....	.....	1	.....	.....	.....	845
Mobile Unit Surveys	41	134	907	.....	.....	118144
	390	326	1419	4	7	133355

There were 130 persons reported to the Central Alberta Sanatorium for X-ray who were not referred by general practitioners or who had had no contact with a tuberculosis case. These films were reported verbally. If the film appeared abnormal the patient was examined.

Diagnostic Services.

The majority of new cases discovered were considered clinically inactive, and not needing institutional treatment. However, they will require re-checking from time to time to make sure that there are no relapses. New cases discovered and proven numbered 1,073, practically the same number as in 1946.

CLASSIFICATION OF NEW CASES OF TUBERCULOSIS

Active Pulmonary Tuberculosis	467
Inactive Pulmonary Tuberculosis	563
Non-pulmonary Tuberculosis	43
Total	1073

STAGE OF DISEASE WHEN DISCOVERED (INDIANS OMITTED)

Minimal	456 or 51.5%
Moderately Advanced	217 or 24.5%
Far Advanced	98 or 11.1%
Primary Tuberculosis	100 or 11.2%
Tuberculous Pleurisy	15 or 1.7%

Examination of Contacts of New Cases of Tuberculosis.

The examination of known contacts was 1,174, or 64.4% of those listed. This is an improvement over last year, with only 41.4% being reported as examined.

X-Ray Surveys with Mobile Units.

The two units were in operation throughout the entire year, under the auspices of the Division of Tuberculosis Control, and 41 places were visited. The number X-rayed was 118,144, 30,000 more than in 1946. The Calgary survey was completed in May, 1947, a total of 68,976 passing through the unit. The Edmonton survey, likewise a city-wide survey, was begun in the fall of 1947 and completed in May, 1948. Some 90,000 people were X-rayed.

The details of these surveys may be found in the Statistical Section of this report. The value of these surveys lies in the fact that they discover not only active cases of Tuberculosis, but latent and inactive cases which require re-checking from time to time as a preventive measure.

STAGES OF DISEASE ON ADMISSION TO SANATORIUM OF ACTIVE CASES OF PULMONARY TUBERCULOSIS

Minimal	22%
Moderately Advanced	38%
Far Advanced	40%

Fifty-nine per cent. of the cases of Tuberculosis of the respiratory system had a positive sputum on admission to sanatorium.

Of the patients admitted to sanatorium, 69 were re-admissions, namely, 17% of the total.

The Central Registry.

The work of the Registry has increased very much. The number of new cases and contacts has all but swamped the facilities available in this Department. Tuberculosis in Alberta is reaching a stage of detailed attention to the known case and his or her immediate associates and to their living conditions.

Careful re-checking is essential if spreaders of disease, both actual and potential, are to be kept track of.

Work Among the Indians.

As announced last year, the Indian Affairs Branch of the Department of National Health and Welfare has taken over the diagnosis and treatment of Treaty Indians. Regular X-ray surveys are conducted on many of the Reserves, and those needing treatment receive the same in the Charles Camsell Hospital, Edmonton. The following table, prepared by Dr. Meltzer of the Charles Camsell Hospital, speaks for itself as to the valuable work being carried on in this Province. It is expected that its value in bringing about a reduced death rate will soon be apparent.

ALBERTA INDIAN SURVEYS—CHARLES CAMSELL INDIAN HOSPITAL
(Department of National Health and Welfare)

Agency	Date 1947	No. X-Rayed		Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis		Indians tub. adm. to Chas. Camsell. 1947
		Ind.	White	Active	Inactive	Active	Inactive	
Athabasca								15
Blackfoot	Oct.	804	7	19	102	1	2	8
Blood	June	1221		35	118			19
Edmonton	Nov.	226	6	4	76			18
Ft. Vermilion	Aug.	546	26	26	61	1	1	3
Hobbema	July	1054		25	74		1	27
	Dec.	127	18	1	52			
Lesser Slave Lake	Nov.	318	26	10	55			33
Peigan	Apr.	156		1	17			1
	Oct.	55		4	4			
Rocky Mt. House								3
Sarcee	Mar.	105		1	22			3
	Sept.	56	3		7			
Saddle Lake	June	475		11	41			12
Stony	Sept.	503	17	3	11			3
		5646	103	140	640	2	4	145

Educational Work.

The Division is grateful to the Alberta Tuberculosis Association for its general educational work throughout the Province, under the supervision of C. Robert Dickey, the Executive Secretary. Further details of their work appears later in this report.

As in former years, sanatorium physicians have given lecture courses on Tuberculosis to some of the nursing training schools in Edmonton, Calgary and Lethbridge.

In Edmonton, sanatorium patients afford clinical opportunities for medical students to become familiar with the methods of diagnosis and treatment of Tuberculosis. The patients volunteer for this service, which is conducted by Dr. G. R. Davison and staff of the General Hospital, and Dr. H. Meltzer and staff of the Charles Camsell Hospital.

Students from the Nursing Aide School in Calgary are accepted at the Sanatorium for a two months' period of practical work and instruction. Regular lectures and demonstrations are given. A number of those receiving diplomas have returned as nurses' assistants, and have proven very satisfactory help.

The Alberta Tuberculosis Association.

This organization continues to wage an active campaign in anti-Tuberculosis work, and co-operates very fully with the Division of Tuberculosis. Its two mobile units are in constant operation by the Division of Tuberculosis. It employs an Occupational Therapy worker, both in Edmonton and in Calgary. It employs a full-time clinic organizer and is responsible for getting the public to report at all the X-ray mobile clinics. A forward step has been made this year in the appointment of a full-time rehabilitation officer in the person of Mr. Stan Cameron. Mr. Cameron is a veteran of the last war and has had extensive experience in the problem of restoring disabled persons to useful, remunerative employment. All sanatorium patients are interviewed, their individual adaptability estimated and assistance given while still in sanatorium, to make them useful citizens upon discharge. When indicated, assistance is given in re-training and also providing suitable employment. This is a very valuable factor in the Tuberculosis work of this Province.

Field Work.

In Calgary and Edmonton nurses employed by the Alberta Tuberculosis Association carry on a most active service of social work and medical supervision of tuberculous families. Elsewhere this work is conducted by the staffs of the Health Units and by the District Public Health nurses. These nursing agencies are advised of all cases of Tuberculosis and suspects in their respective districts.

Services Rendered by the Division to Practising Physicians and Hospitals.

1. Laboratory: 1,459 specimens were sent in for examination.
2. Tuberculin for diagnosis was sent regularly to 13 Health Units and clinics, 11 hospitals, and to physicians asking for the same. In a Province where many people do not react to the tuberculin test, its use is of invaluable assistance in the diagnosis of Tuberculosis.
3. Interpretations of X-Ray films sent in numbered 5,924.

Shortage of Staff.

For the first time since the war, the medical staff was complete for a few months.

Nurses are still procured with difficulty on account of the lack of sufficient numbers. However, by using auxiliary helpers, the work has been carried on.

Displaced Persons.

Ten displaced young women from Europe were lodged with the Central Alberta Sanatorium by the Federal authorities to assist as domestics. This has proven satisfactory. These young women have proven themselves good workers, intelligent, co-operative and anxious to learn Canadian customs.

The New Infirmary.

The new building at Central Alberta Sanatorium, which was completed in 1945, was opened for patients in November of this year. This added 50 beds to the institution.

Vaccination with B.C.G.

Results throughout the world suggest that this vaccine has some value in preventing the development of Tuberculosis disease in

those not already infected. It has accordingly been offered to individuals in certain groups, such as nurses in training, medical students, and non-infected members of a family where Tuberculosis exists. It is not believed that it is indicated as a procedure in the general population at present, but it is recommended in certain groups as outlined.

Administrative Section.

FISCAL YEAR ENDING MARCH 31, 1948

Sanatorium Patient Days:	
Central Alberta Sanatorium	70,384
Edmonton General Hospital	48,051
Royal Alexandra Hospital	12,367
	130,802
Gross Operating Cost—Central Alberta Sanatorium	\$334,381.77
Revenue	42,155.83
Net Operating Cost	292,225.94
Gross Cost per patient day	4.75
Net Cost per patient day	4.15
Hospital Costs—Edmonton and elsewhere	251,023.06
Cost of Clinic Service:	
Treatment—Out-patient Pneumothorax	3,685.00
Mobile Units	21,726.77
Other Diagnostic Services	10,450.39
Total Clinic Costs	\$ 35,862.16
Gross Cost under Tuberculosis Act	\$621,266.99

On the basis of a population of 803,330, the per capita cost for Tuberculosis Control was \$0.77.

The total number of meals served at Central Alberta Sanatorium was 341,635. The cost of food per meal was \$0.2304, an increase of \$0.0268 over that of last year.

Recommendations.

1. As the year closes we urgently recommend the construction of the Sanatorium in Edmonton at the earliest possible moment.
2. The enlargement of the scope of the Tuberculosis Act to include all forms of Tuberculosis. It is believed that the beds are now available to make this possible.
3. Proper recreation building for staff and patients is urgently required at Central Alberta Sanatorium.
4. At least two houses for physicians at Central Alberta Sanatorium. There is an ever-present difficulty in procuring junior physicians, many of whom are married, to work at the Sanatorium on account of the fact that there is no living accommodation.
5. The addition of two physicians to the staff to supervise the clinic work. The volume of this work has become so great that it is impossible for Sanatorium physicians to attend to their institutional work and at the same time carry on the clinic activities.

Acknowledgments.

Grateful acknowledgment is made of the sympathetic consideration given by the Honourable Dr. W. W. Cross to all questions under discussion, and to Dr. M. R. Bow, Deputy Minister, who has assisted in every possible way in promoting the work of the Division.

The success of the effort and the volume of work accomplished has been made possible only through the loyal and enthusiastic efforts of the medical, nursing, administrative and general staffs, both in Edmonton and Calgary. I wish to thank the voluntary organizations and all others who contributed to the anti-tuberculosis work of Alberta. The appreciation of the Division is also due to the Medical Superintendent of the Royal Alexandra Hospital, Dr. A. F. Anderson, and to the Sister Superior of the Edmonton

General Hospital, for the very fine care given our patients throughout the year.

The Statistical Section of the year's work follows, and is presented in detail.

SOURCES OF DISCOVERY OF NEW CASES OF TUBERCULOSIS

	1946	%	1947	%
Clinics	590	56.1	690	64.3
Referred for Admission by family physicians	120	11.42	113	10.5
Surveys	2	.19	.....	.....
Indians (work carried out by Dept. Health and Welfare (National))	163	15.5	165	15.4
Referred by D.V.A.	139	13.2	54	5.0
Provincial Laboratory	17	1.6	11	1.0
Staff, Central Alberta Sanatorium	1	.1	.....	.....
Staff, Edmonton General Hospital .....	.....	.....	1	.1
Other sources	19	1.8	39	3.6
	<u>1051</u>		<u>1073</u>	

N.B.—Mobile Unit data not included in above table as Mobile Unit diagnoses only tentative. When established these diagnoses are included in one of above classifications.

CLASSIFICATION OF 1,073 NEW CASES OF TUBERCULOSIS

Active pulmonary tuberculosis	467
Inactive pulmonary tuberculosis	563
Non-pulmonary tuberculosis	43
	<u>1073</u>

CLASSIFICATION OF 886 NEW CASES OF ACTIVE AND INACTIVE PULMONARY TUBERCULOSIS (Indians not included)

		%
Minimal	456	51.5
Moderately advanced	217	24.5
Far advanced	98	11.1
Primary	100	11.2
Tuberculous pleurisy with effusion	15	1.7
Tuberculous pleurisy without effusion .....	.....	.....
	<u>886</u>	
Number non-residents diagnosed as having tuberculosis	8	.7%
Number advised to have Sanatorium care (exclusive of Indians)	256	.....
Number accepted for treatment	241	94.2%
Number admitted	236	92.1
Number clinic cases advised to have Sanatorium care	118	.....
Number clinic cases accepted for treatment	106	89.8
Number clinic cases admitted	99	83.9

EXAMINATION OF CONTACTS OF NEW CASES OF TUBERCULOSIS

Number known contacts	1824	
Number checked	1174	64.4%

TUBERCULIN MAILING LIST, 1947

Clinics and Health Units:

Calgary Clinic	City Hall, Calgary, Alberta.
University Outdoor Clinic	Edmonton, Alberta.
Stettler Health Unit	Stettler, Alberta.
Edmonton Rural Health Unit	Edmonton, Alberta.
Red Deer Health Unit	Red Deer, Alberta.
Rosebud Health Unit	Didsbury, Alberta.
Two Hills Health Unit	Two Hills, Alberta.
Nursing Mission	Lethbridge, Alberta.
Foothills Health Unit	High River, Alberta.
Public Health Nurse	Rocky Mountain House, Alberta.
Clover Bar Health Unit	Edmonton, Alberta.
Health Unit	Strathmore, Alberta.
Public Health Nurse	Black Diamond, Alberta.

Hospitals:

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

Miscellaneous:

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

In addition to the above, nine bottles of No. 2 dilution, 115 bottles of No. 3 dilution, and one bottle of No. 4 dilution were sent out as well as 940 patches.

STATISTICAL SECTION OF SANATORIA

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	Total
Patients under treatment Jan. 1, 1947	175	129	35	339
Patients admitted, 1947	161	188	54	403
Patients treated	336	317	89	742
Discharged and died	145	199	34	378
Transferred in	191	118	55	364
Transferred out	10	24	1	35
Transferred out	201	142	56	399
Patients under treatment Dec. 31, 1947	3	9	23	35
Patients under treatment Dec. 31, 1947	198	133	33	364
Patient days, 1947	68,873	48,009	12,060	128,942

DEPARTMENT OF PUBLIC HEALTH

DIAGNOSIS ON ADMISSION OF 403 PATIENTS ADMITTED—1947

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
No disease	1	.....	1
For diagnosis	2	15	17
Non-Tuberculous	4	4	8
Pleural Effusion	1	5	6
Tuberculosis, Inactive	2	.....	2
Childhood Tuberculosis .....	.....	14	14
Tuberculous Pleurisy	1	.....	1
Non-Pulmonary Tuberculosis	3	1	4
Pulmonary Tuberculosis:			
Minimal	16	45	61
Moderately advanced	57	83	140
Far advanced	74	72	146
Miliary .....	.....	3	3
	<u>161</u>	<u>242</u>	<u>403</u>
Number with positive sputum on admission	113	109	222
Number with negative sputum on admission, positive later	8	11	19
Number persistently negative	40	122	162
	<u>161</u>	<u>242</u>	<u>403</u>
Of the above 403 admissions, re-admission were	38	31	69

OPERATING ROOM REPORTS

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	Total
Summary of Pneumothorax Cases:				
Under treatment Jan. 1, 1947	140	92	20	252
Started during 1947	60	49	7	110
Under treatment on Admission	23	16	1	40
	<u>223</u>	<u>157</u>	<u>28</u>	<u>408</u>
Cases discontinued	46	51	7	104
Number transferred out of Province	2	1	.....	3
Number transferred to other sections of Division	21	10	6	37
	<u>69</u>	<u>62</u>	<u>13</u>	<u>144</u>
Under treatment Dec. 31, 1947	154	95	15	264
Unsuccessfully attempted	14	5	4	23
Refills:				
Resident	4,475	2,024	357	6,856
Out patient	2,039	1,127	191	3,357
Total	<u>6,514</u>	<u>3,151</u>	<u>548</u>	<u>10,213</u>

In addition to the above, 1,874 refills were given to 145 ex-sanatorium patients at the following places: Drumheller, Lethbridge, Medicine Hat, Lacombe, Lamont, Stettler, Red Deer, Beaverlodge, High Prairie, Elk Point, Innisfail.

	Central Alberta Sanatorium	Edmonton General Hospital	Royal Alexandra Hospital	Total
THORACOPLASTIES:				
Number stages	35	.....	.....	35
Number cases	15	.....	.....	15
Pneumo peritoneum	106	26	.....	132
Pneumolysis (closed)	18	11	.....	29
Phrenicophraxis	18	19	.....	37
Intravenous injections	88	5	.....	93
Aspirations from pleural space	609	88	.....	697
Other aspirations	6	18	.....	24
Intercostal drainages	2	.....	.....	2
Bronchoscopic examinations	1	2	.....	3
Lipiodol instillations .....	.....	3	.....	3
Pelvic examinations	10	.....	.....	10
Thoroscopies .....	.....	3	.....	3
Intracavity pressure and Monaldi drainage	3	2	.....	5
Lumbar punctures	3	6	.....	9
Vital capacities	14	24	.....	38
Plaster casts	4	.....	.....	4
Cystoscopy	1	.....	.....	1
Paracentesis .....	.....	1	.....	1
Blood transfusions and plasma	4	1	.....	5
Spinal fusions	2	.....	.....	2
Removal shoulder cyst .....	.....	1	.....	1
Removal ingrown toenail	2	.....	.....	2
Drainage ischio-rectal abscess	1	.....	.....	1
Introduction intra-pleural trochar & canula	1	.....	.....	1
Injection of novocaine (ankle and spine)	3	.....	.....	3
Excision and cauterization of papiloma in mouth	1	.....	.....	1
Removal of mole from clavicular region	1	.....	.....	1

X-RAY REPORT**RADIOGRAPHS MADE:**

Thorax	4,105	3,891	197	8,193
Spine	58	26	6	90
Pelvis	11	10	.....	21
Knee	2	11	1	14
Skull	3	.....	.....	3
Sinuses	3	3	3	9
Teeth	10	34	1	45
Shoulder	5	1	.....	6
Hand	4	.....	.....	4
Ribs	4	.....	.....	4
Jaw	1	.....	.....	1
Elbow	1	.....	.....	1
Ankles	1	11	.....	12
Feet	2	.....	.....	2
Sacrum	1	.....	.....	1
Hips	1	.....	.....	1
Kidney	6	1	.....	7
Pyelogram	6	.....	.....	6
Abdomen	5	.....	1	6
Gastro Intestinal Tract	7	.....	.....	7
Stomach	2	.....	.....	2
Colon	1	.....	.....	1
Pregnancy	2	.....	.....	2
Basal Metabolism Rate	9	4	1	14
Gall Bladder .....	.....	.....	1	1
Thumb .....	.....	1	.....	1
	<u>4,250</u>	<u>3,993</u>	<u>211</u>	<u>8,454</u>

FLUOROSCOPIC EXAMINATIONS:

Pneumothorax cases	6,793	3,683	606	11,082
Gastro Intestinal Tract	7	43	.....	50
	<u>6,800</u>	<u>3,726</u>	<u>606</u>	<u>11,132</u>
Films referred for Interpretation	2,947	2,977	.....	5,924

LABORATORY REPORTS

	Central Alberta Sanatorium				Edmonton General Hospital	Royal Alexandra Hospital	Total
	In Pts.	Out Pts.	Staff	Total C.A.S.			
SPUTUM EXAMINATIONS:							
Positive	1,113	101	....	1,214	832	271	2,317
Negative	1,547	743	....	2,290	1,084	366	2,740
URINE EXAMINATIONS	2,796	61	24	2,881	503	1,905	5,289
BLOOD EXAMINATIONS:							
Blood Count	337	16	17	370	662	55	1,087
Sedimentations	575	383	....	958	699	115	1,772
Blood Sugar	39	....	....	39	1	61	101
Non-protein nitrogen	3	....	....	3	....	....	3
Bleeding and clotting and Blood typing	18	....	....	18	....	....	18
Calcium	....	....	....	....	....	....	....
MISCELLANEOUS:							
Pleural fluid	28	15	....	43	59	....	102
Gastric lavage	4	....	....	4	74	....	78
Gastric analysis	....	....	....	....	5	1	6
Guinea pig inoculation	52	140	....	192	30	....	222
Spinal fluid	3	....	....	3	7	....	10
Abdominal fluid	....	....	....	....	3	....	3
Cultures	56	....	....	56	46	....	102
Others	222	....	....	222	131	....	353
WASSERMAN REPORTS:							
Positive	11	....	....	11	8	1	20
Negative	156	....	16	172	165	39	360
	6,960	1,459	57	8,476	4,309	2,814	15,599

HELIO THERAPY REPORT

Patients treated	21	....	....	....	16	....	37
Number of treatments	1,265	....	....	....	95	....	1,360

DENTAL REPORT

Number of patients examined	....	....	....	8	130	58	188
Number patient treatments	....	....	....	19	259	82	341
Number prophylactic treatments	....	....	....	18	20	16	36
Number of fillings	....	....	....	81	144	49	193
Number of extractions	....	....	....	3	84	10	94
Number new dentures	....	....	....	5	10	6	16
Number of bridges	....	....	....	....	1	1	2

I.—CLASSIFICATION OF 378 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	18	9	9	....	....	16	2	....
3. Non-tuberculous	9	7	2	....	....	5	3	1
4. Inactive tuberculosis	....	....	....	....	....	....	....	....
	28	16	12	....	....	31	6	1
5. Childhood tuberculosis	10	1	9	1	....	8	....	1
6. Adult type pulmonary Tuberculosis Clinical:								
Minimal	64	15	49	10	14	32	8	....
Moderately advanced	59	14	45	4	16	29	7	3
Far advanced	11	3	8	....	....	4	1	6
Positive:								
Minimal	12	....	12	....	6	5	....	1
Moderately advanced	81	6	75	....	17	43	14	7
Far advanced	104	12	92	1	12	31	15	45
Miliary	1	1	....	....	....	....	....	1
7. Tuberculosis pleurisy	2	....	2	....	1	1	....	....
8. Non-pulmonary Tuberculosis	6	2	4	....	....	4	2	....
Total active Tuberculosis	350	54	296	16	66	157	47	64
Total treated	....	....	308	9	62	164	31	42
Total untreated	....	70	....	7	4	14	22	23
Grand total	378	70	308	16	66	178	53	65

Explanation of abbreviations and terms used: The standard classification is that of the National Tuberculosis Association: "Minimal", "Moderately advanced", and "Far advanced" refer to the 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 OF ADMISSION OF 378 DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
No Disease	1	.....	1
Observation	2	16	18
Non-Tuberculous	4	5	9
Tuberculosis, Inactive .....	.....	.....	.....
Childhood Tuberculosis .....	.....	10	10
Pulmonary Tuberculosis, Active	133	199	332
Tuberculous Pleurisy	2	.....	2
Non-Pulmonary Tuberculosis	3	3	6
	<u>145</u>	<u>233</u>	<u>378</u>

III.—DIAGNOSIS ON DISCHARGE OF 28 NON-TUBERCULOSIS AND INACTIVE CASES:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
No Disease	1	5	6
Pneumonia .....	.....	3	3
Pulmonary Sepsis .....	.....	1	1
Non-Tuberculous Pleurisy	2	2	4
Septic Tracheitis .....	.....	1	1
Adenoma .....	.....	1	1
Bronchial Asthma .....	.....	1	1
Hyperthyroidism .....	.....	1	1
Rheumatic Endocarditis	1	.....	1
Pulmonary Fibrosis	1	.....	1
Suspected Malignancy (ribs)	1	.....	1
Obstruction of bronchus	1	.....	1
Tuberculosis .....	.....	5	5
Undiagnosed .....	.....	1	1
	<u>7</u>	<u>21</u>	<u>28</u>

IV.—CLASSIFICATION ON DISCHARGE OF 296 TREATED CASES OF ACTIVE TUBERCULOSIS AND TUBERCULOUS PLEURISY:

On Admission:	Number	On Discharge		Died
		Improved	Not Improved	
Minimal	61	58	2	1
Moderately Advanced	120	105	9	6
Far Advanced	100	42	22	36
Childhood Tuberculosis	9	9	.....	.....
Miliary .....	.....	.....	.....	.....
Non-Pulmonary Tuberculosis	4	1	1	2
Tuberculosis Pleurisy	2	2	.....	.....
	<u>296</u>	<u>217</u>	<u>34</u>	<u>45</u>

V.—SEX:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Male	77	115	192
Female	68	118	186
	<u>145</u>	<u>233</u>	<u>378</u>

VI.—SOCIAL STATUS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Single	64	108	172
Married	76	111	187
Divorced .....	.....	1	1
Widowed	3	11	14
Separated	2	2	4
	<u>145</u>	<u>233</u>	<u>378</u>

VII.—OCCUPATIONS—WOMEN:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
At Home	4	16	20
Bookkeeper	1	.....	1
Cook .....	.....	1	1
Comptometer Operator	1	.....	1
Domestic .....	.....	10	10
Hairdresser	1	.....	1
Housewife	39	57	96
Infants .....	.....	2	2
Mail Clerk	1	.....	1
Nurse (Graduate)	5	1	6
Nurse (Student) .....	.....	5	5
Nurses' Aides	1	.....	1
Religious .....	.....	1	1
Sales Clerk	3	4	7
Stenographer	3	1	4
Student	5	15	20
Teacher	2	.....	2
Teller .....	.....	1	1
Telephone Operator .....	.....	1	1
Waitress	2	1	3
Ward Aide .....	.....	2	2
	<u>68</u>	<u>118</u>	<u>186</u>

MEN:

Accountant	1	.....	1
At home .....	.....	7	7
Attendant .....	.....	1	1
Baker	1	.....	1
Baker's Helper	1	.....	1
Bar Tender	1	.....	1
Blacksmith .....	.....	1	1
Bookkeeper	1	.....	1
Brakeman .....	.....	1	1
Butcher .....	.....	1	1
Caretaker	1	1	2
Cafe Owner .....	.....	1	1
Carpenter	1	.....	1
Chiropractor	1	.....	1
Clerk (Office)	4	6	10
Clerk (Store)	1	.....	1
Cook	3	2	5
Farmer	25	39	64
Fox Farmer	1	.....	1
Filter Man (Water Co.)	1	.....	1
Expressman .....	.....	1	1
Hog Rancher .....	.....	1	1
Hotel Manager	1	.....	1
Interpreter .....	.....	1	1
Infants and pre-school .....	.....	3	3
Labourer	6	16	22
Lumberman .....	.....	2	2
Lumber Salesman	1	.....	1
Lineman	2	.....	2
Machinist's Helper	1	.....	1
Mechanic	2	1	3
Miner	3	4	7
Motorman (Street Railway)	1	.....	1
Occupational therapist .....	.....	1	1
Physician	2	.....	2
Plasterer .....	.....	1	1
Porter .....	.....	1	1
R.C. Army .....	.....	5	5
R.C. Air Force .....	.....	1	1
Retired .....	.....	4	4
Salesman	1	1	2
Shipping Clerk	2	.....	2
Service Station Attendant	1	.....	1
Stone Cutter	1	.....	1
Student	4	6	10
Taxi Driver .....	.....	1	1
Teacher .....	.....	1	1
Trainman	2	1	3
Timber Cruiser	1	.....	1
Trapper .....	.....	2	2
Trucker	3	1	4
	<u>77</u>	<u>115</u>	<u>192</u>

XIII.—RESIDENCE OF DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
CITIES:			
Calgary	47	1	48
Drumheller	1	.....	1
Edmonton	16	79	95
Lethbridge	6	.....	6
Medicine Hat	4	.....	4
Red Deer	3	.....	3
Wetaskiwin	1	3	4
	<hr/> 78	<hr/> 83	<hr/> 161
TOWNS:			
Athabasca .....	.....	1	1
Barrhead .....	.....	1	1
Camrose	1	.....	1
Coronation	1	2	3
Didsbury	1	.....	1
Edson	1	2	3
Granum	1	.....	1
Hardisty .....	.....	1	1
Innisfail	1	.....	1
Macleod	1	.....	1
Morinville .....	.....	1	1
Okotoks	1	.....	1
Peace River .....	.....	3	3
Ponoka .....	.....	1	1
St. Albert .....	.....	2	2
Stettler .....	.....	1	1
St. Paul .....	.....	1	1
Sylvan Lake	1	.....	1
Tofield	1	2	3
Vegreville .....	.....	1	1
	<hr/> 10	<hr/> 19	<hr/> 29
VILLAGES:			
Andrew .....	.....	1	1
Bashaw .....	.....	1	1
Black Diamond	1	.....	1
Bonnyville .....	.....	3	3
Bruderheim .....	.....	6	6
Carstairs	1	.....	1
Eckville .....	.....	1	1
Elk Point	1	.....	1
Elnora	1	.....	1
Forestburg	1	.....	1
Forest Lawn	1	.....	1
Grimshaw .....	.....	1	1
High Prairie .....	.....	3	3
Holden .....	.....	1	1
Lac La Biche	1	1	2
Legal .....	.....	2	2
Lamont .....	.....	3	3
Mayerthorpe .....	.....	1	1
Mundare .....	.....	1	1
New Norway	1	.....	1
Provost	1	.....	1
Rockyford	1	.....	1
Sedgewick .....	.....	2	2
Trochu	2	.....	2
Two Hills .....	.....	1	1
Viking	1	1	2
Vilna .....	.....	1	1
	<hr/> 13	<hr/> 30	<hr/> 43
INDIANS:			
Sarcee	1	.....	1

ENLARGED MUNICIPAL DISTRICTS:

No.	Central Alberta Sanatorium	Edmonton Sanatoria	Total
5	2	.....	2
25	.....	1	1
28	1	.....	1
31	6	.....	6
32	1	.....	1
43	1	.....	1
44	1	.....	1
45	1	.....	1
48	1	.....	1
49	1	.....	1
52	1	3	4
54	1	.....	1
55	1	.....	1
61	.....	1	1
62	.....	3	3
63	1	1	2
64	3	1	4
66	.....	1	1
71	.....	1	1
73	.....	1	1
74	.....	1	1
75	.....	1	1
78	.....	1	1
81	.....	1	1
82	1	3	4
84	.....	1	1
86	.....	2	2
87	.....	2	2
88	1	.....	1
89	1	6	7
90	.....	2	2
91	.....	2	2
92	.....	2	2
93	1	6	7
94	.....	5	5
127	2	4	6
135	.....	1	1
	<u>28</u>	<u>53</u>	<u>81</u>

LOCAL IMPROVEMENT DISTRICTS:

No.	Central Alberta Sanatorium	Edmonton Sanatoria	Total
3	1	.....	1
15	1	.....	1
21	1	.....	1
22	1	.....	1
28	1	.....	1
42	3	.....	3
46	1	.....	1
65	.....	2	2
69	1	1	2
76	.....	1	1
78	.....	3	3
79	.....	3	3
85	.....	1	1
95	.....	3	3
101	.....	2	2
102	1	.....	1
107	.....	6	6
122	.....	2	2
124	.....	1	1
125	.....	5	5
128	1	.....	1
130	.....	2	2
132	.....	2	2
143	.....	2	2
144	.....	3	3
145	.....	1	1
Special Areas	2	9	11
	<u>14</u>	<u>48</u>	<u>62</u>
Non-Residents	1	.....	1

SUMMARY OF RESIDENCE OF DISCHARGED PATIENTS:

	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Cities	78	83	161
Towns	10	19	29
Villages	13	30	43
Indian Reserves	1	...	1
Enlarged Municipal Districts	28	53	81
Local Improvement Districts	14	48	62
Non-residents	1	...	1
	<hr/> 145	<hr/> 233	<hr/> 378
IX.—RELIGION:			
Apostolic .....	...	1	1
Baptist	11	5	16
Church of England	27	23	50
Confucian	1	...	1
Greek Catholic	4	22	26
Greek Orthodox .....	...	20	20
Latter Day Saints	3	...	3
Lutheran	9	24	33
Methodist .....	...	1	1
Nazarene	1	1	2
Pentecostal	3	1	4
Presbyterian	15	10	25
Roman Catholic	25	84	109
Salvation Army	1	...	1
Seventh Day Adventist	2	1	3
United	34	38	72
Undenominational	9	2	11
	<hr/> 145	<hr/> 233	<hr/> 378
X.—AGE ON ADMISSION:			
From 1 to 9 years .....	...	9	9
From 10 to 14 years	1	5	6
From 15 to 19 years	13	35	48
From 20 to 29 years	55	76	131
From 30 to 39 years	34	39	73
From 40 to 49 years	20	34	54
From 50 to 59 years	11	18	29
From 60 to 69 years	8	15	23
From 70 and over	3	2	5
	<hr/> 145	<hr/> 233	<hr/> 378
XI.—NATIVITY:			
Alberta	67	128	195
Canada (other Provinces)	33	30	63
Austria	1	6	7
China	2	2	4
Czechoslovakia	2	1	3
England	3	11	14
Germany	1	1	2
Hungary	1	2	3
India	1	...	1
Ireland	1	1	2
Italy .....	...	1	1
Jugoslavia .....	...	1	1
Lithuania	1	2	3
Newfoundland	1	1	2
Norway	2	4	6
Poland	1	20	21
Roumania .....	...	1	1
Russia	1	2	3
Scotland	5	3	8
Sweden	1	1	2
Ukraine .....	...	4	4
United States	21	11	32
Wales	1	...	1
	<hr/> 145	<hr/> 233	<hr/> 378
XII.—RESIDENCE IN ALBERTA:			
Born in Alberta	62	128	190
Alberta 1 year or less	4	6	10
Alberta 1 to 5 years	5	3	8
Alberta 6 to 9 years	6	10	16
Alberta 10 to 14 years	8	8	16
Alberta 15 to 19 years	15	21	36
Alberta 20 to 30 years	24	30	54
Alberta 30 or more years	21	27	48
	<hr/> 145	<hr/> 233	<hr/> 378

XIII.—RACIAL ORIGIN:	Central Alberta Sanatorium	Edmonton Sanatoria	Total
Austrian	.....	1	1
American	.....	1	1
Belgian	.....	1	1
Chinese	2	2	4
Czechoslovakian	3	1	4
Danish	2	.....	2
Dutch	4	3	7
English	34	35	69
Finnish	1	1	2
French	6	16	22
German	6	6	12
Greek	1	.....	1
Hungarian	1	2	3
Esthonian	.....	2	2
Indian	1	.....	1
Italian	.....	1	1
Irish	17	10	27
Jugoslavian	.....	1	1
Lithuanian	1	2	3
Metis	3	39	42
Norwegian	7	12	19
Negro	1	.....	1
Polish	1	18	19
Russian	5	2	7
Scottish	28	20	48
Swedish	5	6	11
Ukrainian	7	48	55
Welsh	3	1	4
Unknown	6	2	8
	145	233	378

LENGTH OF STAY IN SANATORIUM OF 378 DISCHARGED PATIENTS:

DEATHS:			
Number in Sanatorium under 31 days	4	17	21
Number of patient days	56	167	223
Average number patient days	14	9.8	10.6
Number in Sanatorium 31 or more days	20	24	44
Number of patient days	13,490	7,503	20,993
Average number patient days	674.5	312.6	477.1
DISCHARGES:			
Number in Sanatorium under 31 days	15	34	49
Number of patient days	252	784	1,036
Average number patient days	16.8	23.1	21.1
Number in Sanatorium more than 31 days	106	158	264
Number of patient days	47,020	75,193	122,213
Average number patient days	443.6	475.9	462.9
Total number deaths and discharges	145	233	378
Total number patient days	60,818	83,647	144,465
Average number patient days	419.4	359	382.2

CENTRAL ALBERTA SANATORIUM

ENTERTAINMENT—Canadian Red Cross Society, Christmas Party Concert; Elks Concert Party, Concert; Hallowe'en Party; Whist Party; Cribbage Tournament; Billiard Tournament; Picture Shows.

DONATIONS—Canadian Legion, Calgary Division, gifts; Department Veterans' Affairs, gifts; Canadian Red Cross Society, gifts; Women's Auxiliary Canadian Bank of Commerce, Calgary, gifts; Catholic Women's League, gifts; Mother's Group, Calgary, gifts; Lakeside Social Workers, Lacombe, scrap books; Anglican Women's Auxiliary, Calgary, gifts; Lethbridge, gifts and beer; Sisters of Ste. Famille, Calgary, gifts; Evening Auxiliary Women's Missionary Society, Hillhurst United Church, Calgary, gifts; Ontario Laundry, Calgary, chocolates and cigarettes; McGavin's Bakery, short-bread; MacLeod Brothers, Calgary, smoking stands; Lethbridge Nursing Mission, gifts; Highway Women's Institute, Red Deer, gifts; Children's Hospital Aid, Calgary, gifts; Samaritan Club, Calgary, cheque \$25.00; Mrs. J. H. Wood, cheque \$100.00; Ladies' Auxiliary, Canadian Legion, Olds, cheque \$37.75; Masonic Sick Committee, candy; Simmons Ltd., Winnipeg, Man., candy; Mrs. J. MacKirdey, holly; Mr. Toni Barna, Barnwell, Alberta, vegetables; Miss Eileen McCann, candy; Mr. Trevor L. Morgan, Bashaw, Alberta, books; Junior Red Cross, Coleman, Alberta, magazines; Station CHAT, Medicine Hat, Alberta, recording.

EDMONTON GENERAL HOSPITAL

ENTERTAINMENT—Cribbage Tournament; Valentine Party; Picture Shows; Hallowe'en Party; Christmas Party; Church Choirs.

DONATIONS—Mrs. Patzig, cash; Selen family, cash; Gilt Edge Ladies, Wainwright, cash; Leo Weyner, cash; Mr. Kvill, cash; I.O.D.E., magazine subscription; United Travellers Aid, magazine subscription; Patients' Recreation Fund, magazine subscriptions; Alberta Tuberculosis Association, library books; Dr. McPherson, library books; Ladies' Junior Chamber of Commerce, gifts; MacDougall United Church, gifts; Knox Church, gifts, Catholic Women's League, gifts; Mr. Ed. Berg, gifts; Ukrainian Ladies' Goodwill Club, gifts; Edmonton Gospel Temple, gifts; Mr. W. Broad, radio donation; Jennie Maruszewski, radio donation.

ROYAL ALEXANDRA HOSPITAL

ENTERTAINMENT—Picture Shows.

DONATIONS—Rene's Flower Shop, flowers; Winodausis Society, flowers; Soroptomist Club, flowers; R.A.H. Ladies' Hospital Auxiliary, bridge tables; Ukrainian Ladies' Aid, fruit; Salvation Army, gifts.

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;
Provincial Mental Hospital, Raymond;
Auxiliary Mental Hospital, Raymond;
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 1,404 patients—799 male and 605 female cases—in residence on January 1, 1947. On December 31, 1947, there were 1,421 patients in residence—810 males and 611 female—representing an overall increase of some 17 patients. During the year, 84 patients—51 males and 33 females—were transferred to various other Institutions under the jurisdiction of the Division of Mental Health: 56 patients, 41 males and 15 females, were transferred to the Provincial Mental Institute, Edmonton; 4 female patients were transferred to Claresholm Auxiliary Mental Hospital; 12 females were transferred to the Raymond Auxiliary Mental Hospital; 12 patients, 10 males and 3 females, were transferred to the Red Deer Training School; and 24 female patients were transferred to Rosehaven, Camrose. Transfers to this Hospital from the latter Institutions were as follows: 3 female patients from the Raymond Auxiliary Mental Hospital; 4 females from the Claresholm Auxiliary Mental Hospital; 2 patients, 1 male and 1 female, from the Provincial Mental Institute, Edmonton; and 13 patients, 10 males and 3 females, from the Red Deer Training School. Transfers to this Hospital were necessary in order that the patients concerned receive more active psychiatric medical or surgical treatment than was possible in the Auxiliary Hospitals.

About 10% of the admissions were elderly patients, male and female, suffering from senility or the effects of cerebral arteriosclerosis. Approximately 50 Mental Defectives were admitted during the year—the majority of these were not psychotic.

Admission of Patients.

The total number of admissions for the year exclusive of transfers to this Hospital from other Institutions was 618—318 males and 300 females. This would represent 24 more admissions than in 1946.

The number of admissions and transfers appears on Table 1. Some 77 patients were admitted on a Voluntary basis; 131 were admitted by medical certificates; 215 committed by Warrant of the Attorney General, and 4 were admitted under The Mental Defectives' Act.

Some 50 patients suffering from various types of syphilis of the nervous system were admitted, being referred chiefly by the Division of Social Hygiene.

Some 20 patients were admitted for treatment of various alcoholic disorders, and some 4 patients were treated for drug addiction.

Fifty per cent (50%) of the patients admitted were Canadian born. The next greatest number, or approximately 9%, were born in the United States. The balance were born in European countries. The nativities of the patients appear in Table 3 in detail.

Separations of Patients.

Separations for the year totalled 624—322 males and 302 females. The discharge rate was approximately 77% of the admission rate.

There were 84 transfers, 51 males and 33 females.

There were 66 deaths, 46 males and 20 females. The death rate based on the total number of patients under treatment would be approximately 3.2%. The commonest causes of death were those associated with cardio-vascular diseases and respiratory diseases, including tuberculosis.

Accidents and Elopements.

The patients sustained some 10 fractures and there were many minor injuries, all of which received appropriate treatment. There were no suicidal deaths.

Twenty patients eloped. With few exceptions, they were returned with the aid of authorities and members of the staff.

General Health.

As in former years, the general health of the patients was very good throughout the year, and there were no epidemics. The medical staff, while not up to full strength, was able to give good care and attention to the patients.

Routine Chest X-Ray examinations were done as before. All suspected cases of tuberculosis were isolated for further examination and preparation. Those suffering from active tuberculosis were placed in the wards set aside for such cases.

Weather permitting, all ambulatory patients in the hospital were taken out on walking parties or into the airing courts or open verandahs.

Clinical Work.

With the improvement in medical staff numbers, more clinical work was possible and there was a decided increase in the number of special treatments given.

Treatment of the Patients.

Patients were carefully examined and observed on admission, and active treatment was prescribed in accordance with the indications. Routine Blood Tests, Urinalysis, Spinal Fluid Tests, and X-Ray Examinations were done on all newly admitted patients.

Psychotherapy.

It was possible for the medical staff to devote more time to this type of treatment than formerly due to improvement in staff conditions.

Electric Shock Therapy.

Some 400 patients were given courses in Electro-Shock treatments during the year. The results obtained were satisfactory in many cases and compared favourably with other psychiatric hospitals. This form of treatment was given in conjunction with Insulin Shock treatment in a number of instances.

Insulin Shock Treatment.

By virtue of increase in medical staff numbers it was possible to increase activities in the field of Insulin Shock Therapy. As aforementioned, this treatment was combined with Electro-Shock Therapy in many instances, and more extensive Occupational and Recreational Therapy was carried out as well.

Fever Therapy.

Some 52 patients were given courses of Fever Therapy in the form of malarial fever and Typhoid Vaccine Fever during the year for neurosyphilitic conditions. These fever treatments were combined with Penicillin injections. The results obtained were quite satisfactory. It has been observed that there has been an inclination to a steady decrease in the number of neurosyphilitics which are being discovered and admitted for treatment. This observation has been made in other parts of this country.

Hydrotherapy and Physiotherapy.

These therapies were used extensively, especially in conjunction with other forms of active treatment. They are considered of very definite value, especially when given in this manner.

Occupational Department.

This Department completed a heavy programme, including supervision of Recreational Activities. It gave valuable assistance in the after-treatment of patients receiving Insulin and Electro-Shock Therapy. Over 160 patients attended the Occupational Classes daily, and during the year some 486 newly admitted patients passed through the Department. As formerly, certain studios were set aside for classes for patients in the continued treatment wards.

Recreational Activities.

Many parties, concerts and sports events were held for the patients.

During the winter months there was curling, skating, sleigh rides, concerts and card parties in the wards. Many of these were mixed parties. Dances and picture shows were held for the patients on alternate weeks.

During the summer, there were many picnics, garden parties, baseball games and some four sports days set aside for various parts of the Institution. There was also bowling and tennis, and some patients played golf from time to time.

The Hospital Bazaar was held and was very successful. An exhibit was entered in the Edmonton Exhibition, which was well patronized by the public.

The Occupational Department assisted with the decorations for the staff dances and staff card parties.

The student nurses and the post-graduate nursing students spent a certain amount of time under instruction in the Occupational Department, and during the summer several internes from the School of Occupational Therapy of the University of Toronto worked under the supervision of the Occupational Therapist.

The patients' library, which is open several hours each day, had a circulation of nearly 4,000 books. Some 50 new books were added during the year.

The Canteen, operated by the Occupational Department, showed some profit, which was invested in new books and in comforts and various other items for the patients.

Beauty Parlour.

The Beauty Parlour was used extensively during the year. New equipment was added which made it possible to give more treatments. The Shampoos, Finger Waves, Manicures and Facials numbered in the thousands. A considerable number of Permanent Waves were given in the Beauty Parlour by professional beauticians from the nearby Town of Ponoka.

Religious Services.

Religious services, including Communion, of all major denominations were held regularly throughout the year. All patients desirous of attending Church Services were permitted to do so where their mental conditions warranted it. Many pastoral visits were made to the patients by the Parish Priest and the Clergymen.

Social Service Department and Guidance Clinics.

The Chief Psychiatric Social Worker for the Province spent a considerable amount of time at this Hospital, giving assistance in the nature of Psychometric Examinations and Field Reports.

Members of the medical staff, accompanied by the Chief Psychiatric Social Worker, held Guidance Clinics at a number of different centres in the Province. With the opening of a full-time Guidance Clinic in Calgary, the need for the medical staff to hold Clinics in the southern part of the Province ended.

Eugenics Services.

The Eugenics Board held five meetings at this Hospital during the year. Some 91 cases, 38 male and 53 female, were examined by the Board. The cases were presented to the Board by the Hospital medical staff and social workers.

This Hospital deeply regrets the death of Dr. E. G. Mason, of Calgary, who was so closely associated with its activities for so many years. Dr. Mason was a member of the Eugenics Board and the Visiting Board of the Province, in which capacities he paid innumerable visits to the Institution for over a quarter of a century. His sympathetic interest in the Mental Health field of the Province was greatly appreciated and will be keenly missed.

Surgical Service.

Dr. J. W. Richardson and Dr. Ross Vant acted as Honorary Surgeons during the year, assisted by the medical staff of this hospital. Patients undergoing various operations responded well to

them. Uneventful convalescence testified to the effective post-operative care given to them. The following is a summary of the operations performed:

Operations	Male	Female	Total
Amputation of Leg	1	.....	1
Appendectomy	2	.....	2
Cholecystectomy	2	1	3
Hemorrhoidectomy .....	.....	1	1
Herniotomy	9	1	10
Hydrocele	1	.....	1
Leucotomy .....	.....	8	8
Orchidectomy	3	.....	3
Oophorectomy .....	.....	1	1
Salpingectomy .....	.....	14	14
Vasectomy	13	.....	13
Laparotomy	1	.....	1
Other operations:			
Removal of Sebaceous Cyst from Scalp .....	.....	1	1
Sigmoidoscopy	1	.....	1
Totals	33	27	60

Claresholm and Raymond Auxiliary Mentals Hospitals.

Separate Annual Reports are submitted for these hospitals, which are under the Superintendency of this Institution, but whose immediate affairs have been handled by their respective Matrons. The work of the Institutions was carried out very efficiently. Each Institution has an Honorary Physician, who makes regular visits to them and attends to all emergency cases. Where indicated, patients in these Institutions who require special medical, surgical or psychiatric attention are transferred to the parent Institution at Ponoka.

Dental Department.

The work of this Department was done by a full-time Dentist, who was successful in completely serving the patient population and bringing the work up to date. All new patients were carefully examined by him and treated in accordance with their requirements. The large number of treatments given the patients clearly indicates the need for the full-time service in this respect.

The Auxiliary Hospital at Claresholm and Raymond are indebted to the Dentist of this Hospital for the care and attention given to their patients.

The following is a table of the examinations:

Patient Appointments	2645	Sundry Operations (X-Rays, Denture Adjustments, etc.)....	362
Operations (all types)	4340	New Dentures	53
Operations are divided as follows:		Repair Dentures	29
Examinations, including New		Bridges (new)	2
Admissions	1657	Bridges (repaired)	2
Teeth Filled	761	Inlays	1
Extractions	475	Total	4340
Scalings and Prophylaxis	669		
Periodental Treatments	347		

X-Ray Department.

The work of this Department was done by an experienced and very capable Nurse Technician. Regular X-Ray examinations of the patients and staff were made, and X-Rays of the patients scheduled for shock treatment were done prior to initial treatments. The X-Ray Technician also does the Basal Metabolic Rate determinations. The following is a table of the X-Ray and B.M.R. examinations:

Chests	2328	Foot	15
Dorsal Spine	705	Toe	4
Lumbar Spine	28	Stomach .....	.....
Cervical Spine	7	Abdomen	15
Skull	48	K.U.B.	2
Nose	1	Pyelogram	1
Jaw	12	Barium Series	4
Ribs	16	Colon (Barium)	6
Shoulder	25	Gall Bladder	11
Arm	5	Dental	114
Elbow	4	Scapula	7
Wrist	22	Thumb	1
Hand	37	Sacro-iliac	3
Finger	15	Heel	5
Pelvis	53	Heart-Shadow	2
Hip	1	Sinus (Max)	1
Femur	2	Encephalogram	1
Knee	23	Alimentary Tract	1
Lower-leg	2		
Ankle	22	Total	3549

B.M.R. Examinations—72.

Laboratory Service.

The work of this Department was carried out very efficiently by the Technician. The Technician also assisted with the post-mortem examinations and attended to the specimens taken. The Provincial Laboratory made such examinations and tests as were not possible in the Hospital Laboratory.

The following is a table of the examinations done during the year:

Urinalysis	1979	B.M.R.	67
Blood Counts	1301	Miscellaneous: Grouping, feces, etc.	71
Blood Smears	160		
Blood Chemistry	214	Total	5018
Cerebral Spinal Fluid	1020		
Sputa	206		

Nurses' Training School.

It was impossible to obtain the services of a fully qualified Instructor for the fall term. However, the situation was covered by taking advantage of two trained and experienced Registered Nurses with Psychiatric Training.

Miss Barbara Beattie, Superintendent of Nurses since January, 1941, resigned November 15, 1947 to accept the position of Superintendent of Nurses, Moncton General Hospital, Moncton, New Brunswick. Her resignation was accepted with keen regret. Miss Beattie had the difficult task of supervising the Nurses' Training and Nursing Services during the period of the war, and too high a tribute cannot be paid to her for the outstanding manner in which she carried on during this time.

The shortage of nursing staff continued to be a handicap to nursing services during the year, the situation being extremely acute during the fall months. Despite the continued increase in the amount of active treatment, the shortage of qualified nursing staff and the rapid turnover of the same, the care of the patients was carried out satisfactorily. The urgent need for skilled nursing was met to some extent by the graduates of our own School of Nursing and others with post-graduate training. We are grateful for their interest and willingness to assist during difficult times.

Teaching of Medical Students.

The Medical Superintendent lectured to the senior medical students in Clinical Psychiatry, and the Assistant Medical Superintendent gave a course of lectures in Abnormal Psychology to the junior medical students.

Five medical students acted as undergraduate internes on the staff during the summer months. One post-graduate student in the Specialty of Psychiatry joined the staff during the year.

Medical Library.

Subscriptions to the Medical Journals were renewed and a number of new books added to the Library during the year.

Visitors to the Hospital.

Dr. W. W. Cross, Minister of Health, visited the hospital on several occasions, and was in attendance at the Nurses' Graduation Exercises. During his visits he made rounds, visiting various departments of the Institution, enquiring into the care and welfare of the patients, and seeking information as to how conditions might be improved. His interest and advice and assistance were greatly appreciated.

Dr. Malcolm R. Bow, Deputy Minister of Health visited the hospital on many occasions. During his visits, rounds were made and discussions in connection with administrative problems were held. By virtue of his advice and assistance, it has always been possible to bring about improvement in conditions where these have been indicated. Dr. Bow attended the Graduation Exercises as well.

The hospital was visited daily by friends and relatives of the patients and staff. Many of the visitors took advantage of the opportunity to compliment the staff of the hospital generally on the good care and attention afforded the patients.

The Eugenic Board, acting as a Visiting Committee, made rounds of the hospital, observed the care given the patients, enquired into diets and scrutinized the food and the serving of the meals. This Board expressed general satisfaction in respect to the manner in which the various Departments render services to the patients.

Dr. Hincks, Chairman for the National Committee of Mental Hygiene, and his secretary, Miss Marjorie Keyes, conducted an exhaustive survey of the Mental Institutions and of the Mental Hygiene Clinics in the Province of Alberta during the month of November, and submitted a complete report on their findings. This report is too long to summarize adequately for purposes of this hospital report; however, the Surveying Committee stated, "Alberta Mental Institutions have attained a creditable standard of humanitarian care." Recommendations made by the Surveying Committee were in accordance with the general problems observed in Institutions throughout the Continent which consisted of shortage of trained personnel in the Psychiatric field and inadequate accommodation for the patient population. The hospital has appreciated the assistance given it by Dr. Hincks and Miss Keyes.

Department of Maintenance.

This Department, operating under the Department of Public Health, again completed a heavy programme of maintenance, replacement of roofs with 20-year bonded covers, relaying of floors with linoleum and tile, installation of air conditioning systems and much redecorating and re-equipping of the Institution as a whole. An addition was made to the sheep shed and work was commenced on two new staff houses and the new laundry. Some 1,200 requisitions for general repairs were given attention.

Fire Protection.

Regular fire practices were held throughout the year. The interior fire fighting equipment was carefully checked and kept in proper working order.

Business Office.

The Superintendent and his office staff completed a year of heavy responsibilities, but were able to cope with situations arising from continued shortage of certain goods as a result of the war and the rising costs of materials.

The maintenance accounts were kept in good order.

Farms.

Crops generally were not as heavy as in former years. Notwithstanding this, the farm operated to the advantage of the Institution.

Cannery.

Over 2,100 No. 10 cans of fruits and garden products were processed. This aided materially in the operation of the Institution. Some 2,600 cans of processed products were delivered to other Provincial Institutions.

Print Shop.

This Department took care of the greater portion of the printing and bookbinding for this hospital. It did a considerable amount of work for other branches of the Health Department.

Garden Department.

Vegetables of all sorts and small fruits such as raspberries and strawberries were produced in good supply. Enough honey was harvested by the Apiary to meet the needs of the Institution. There was a liberal supply of flowers and potted plants for the hospital wards. The grounds, roads and lawns were maintained satisfactorily.

Stores Department.

The hospital stores and supplies were well taken care of during the year. This Department handles a good deal of the supplies for the Auxiliary Hospitals as well.

Laundry.

This Department handled a heavy year's work. A new Laundry is under construction which should result in even greater efficiency and economy.

Tailor Shop.

The work of this Department was carried out satisfactorily. The service was improved by the addition of several special power machines.

Carpenter Shop.

The furniture generally was kept in good repair. New equipment was added to this Department also.

Shoe Shop.

It was possible as usual, through the medium of this Department, to keep the patients' shoes in good repair.

Department of Housekeeping.

Inventories were brought up to date and a careful check made of the hospital equipment. The records kept by the Housekeeping Department proved very valuable during the survey made by the National Committee for Mental Hygiene. The Housekeeping Department took care of the distribution of housekeeping supplies and concerned itself also with the care and protection of hospital furniture and patients' belongings. The general cleanliness of the Institution can be attributed to a great extent to this Department. It also gave assistance in the patients' and staff entertainments.

Linen Room.

A considerable volume of work, consisting of sorting, mending and distributing hospital linen, is done by this Department. Some 3,500 pieces are handled each week.

Sewing Room.

This Department, which makes patients' clothing, staff uniforms and several other items, had a busy year. Some 25,000 articles were made in the Sewing Room.

Dietary Department.

The general diet of the Institution was of good quality. The supply of various items of diet improved to some extent following the war, but some articles continued difficult to obtain. The Dietitian gave courses of instruction to the nursing students and visiting student dietitians.

Department of Chief Engineering.

The services and assistance given the Institution by this Department were quite satisfactory. There was adequate heating, water and light, and many mechanical installations were made during the year. A heavy programme of maintenance was carried out.

This Department checked and maintained the fire fighting equipment.

The programme of air conditioning was continued. Some 12 single rooms were given such attention by separate contract.

Conclusion.

A review of the year's activities would appear to warrant the conclusion that improvement had taken place in the services and activities of the various Departments. There is good reason to believe that the Institution is well on the way to recovery from the difficult times produced to a great extent by the war.

Attached hereto are the Annual Reports of Claresholm and Raymond Auxiliary Hospitals.

DEPARTMENT OF PUBLIC HEALTH

TABLE 1
MOVEMENT OF PATIENT POPULATION DURING 1947

	Male	Female	Total	Male	Female	Total
In residence December 31, 1946				799	605	1404
On leave or otherwise absent				9	4	13
Admissions:						
First Admissions:						
(a) Voluntary	39	38	77			
(b) Certificates	56	75	131			
(c) Warrant	140	75	215			
(d) M.D. Act	3	1	4			
				238	189	427
Re-Admissions:						
(a) Voluntary	24	28	52			
(b) Certificates	13	34	47			
(c) Warrant	42	47	89			
(d) M.D. Act	1	2	3			
				80	111	191
Transfers	11	11	22			
				11	11	22
				1137	920	2057
Total Admissions	329	311	640			
Separations:						
Discharges:						
(a) As recovered	77	86	163			
(b) As improved	80	102	182			
(c) As unimproved	68	61	129			
Total Discharges	225	249	474			
Transfers	51	33	84			
Deaths	46	20	66			
				322	302	624
				815	618	1433
On leave or otherwise absent				5	7	12
In residence December 31, 1947				810	611	1421

TABLE No. 2
PSYCHOSSES OF THE PATIENT POPULATION, DECEMBER 31, 1947

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis) ..	54	14	68
02	Psychoses with other forms of syphilis of the central nervous system ..	1	1	2
021	Meningo-vascular type	3	...	3
022	With intracranial gumma	1	...	1
023	Other types (Taboparesis)	1	...	1
03	Psychoses with epidemic encephalitis	2	3	5
04	Psychoses with other infectious diseases	1	1	2
05	Alcoholic psychoses	2	...	2
052	Delirium tremens	1	...	1
053	Korsakow's psychosis	1	...	1
054	Acute hallucinosis	7	...	7
055	Other types (Chronic Hallucinosis)	2	...	2
06	Psychoses due to drugs or other exogenous poisons	1	...	1
07	Traumatic psychoses	4	...	4
08	Psychoses with cerebral arteriosclerosis	37	20	57
09	Psychoses with other disturbances of circulation:			
091	With cerebral embolism	1	1	2
093	Other types (specify)	1	...	1
10	Psychoses with convulsive disorders	20	20	40
11	Senile psychoses:			
111	Simple deterioration	1	...	1
112	Presbyophrenic type	17	13	30
113	Delirious and confused	1	...	1
114	Depressed and agitated	3	...	3
115	Paranoid types	7	3	10
12	Involitional melancholia:			
121	Melancholia	2	13	15
13	Psychoses due to other metabolic, etc., diseases:			
131	With diseases of the endocrine glands	2	...	2
15	Psychoses associated with organic changes of the nervous system:			
153	Vascular accident	2	2	4
154	Subarachnoid haemorrhage	6	2	8
16	Psychoneuroses:			
162	Psychasthenia or compulsive states .....	...	2	2
163	Neurasthenia .....	...	1	1
164	Hypochondriasis .....	...	1	1
167	Mixed Psychoneuroses	1	...	1
17	Manic-depressive psychoses:			
171	Manic type	22	29	51
172	Depressive type	8	31	39
174	Mixed type	1	3	4
177	Other types	1	7	8
18	Dementia Praecox (Schizophrenia):			
181	Simple type	4	18	22
182	Hebephrenic type	24	17	41
183	Catatonic type	238	220	458
184	Paranoid type	157	80	237
19	Paranoia and Paranoid conditions:			
191	Paranoia	16	...	16
192	Paranoid conditions	39	34	73
20	Psychoses with psychopathic personality	6	2	8
21	Psychoses with mental deficiency	58	30	88
22	Undiagnosed psychoses	3	13	16
23	Without psychoses	5	...	5
231	Epilepsy	7	8	15
232	Alcoholism	1	...	1
234	Mental deficiency	37	20	57
236	Psychopathic personality	1	...	1
237	Parkinsonism .....	...	1	1
Totals		810	611	1421

DEPARTMENT OF PUBLIC HEALTH

PSYCHOSES BY ADMISSION, 1947

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis) ..	13	9	22
02	Psychoses with other forms of syphilis of the central nervous system:			
023	Other types (Taboparesis)	7	2	9
03	Psychoses with epidemic encephalitis	1	.....	1
05	Alcoholic psychoses	2	.....	2
053	Korsakow's psychosis	7	1	8
054	Acute hallucinosis	3	1	4
055	Chronic hallucinosis	2	.....	2
06	Psychoses due to drugs or other exogenous poisons	2	2	4
07	Traumatic psychoses	3	3	6
08	Psychoses with cerebral arteriosclerosis	25	18	43
10	Psychoses with convulsive disorders	2	1	3
102	Epileptic clouded states	13	6	19
11	Senile Psychoses	1	.....	1
111	Simple deterioration	9	6	15
113	Delirious and confused types	1	.....	1
114	Depressed and agitated .....	.....	1	1
12	Involuntional psychoses:			
121	Melancholia	4	12	16
14	Psychoses due to new growth:			
141	With intracranial neoplasms .....	.....	1	1
15	Psychoses associated with organic changes:			
153	With Huntington's chorea	1	.....	1
154	Subarachnoid haemorrhage	2	.....	2
16	Psychoneuroses:			
161	Hysteria	1	.....	1
162	Psychasthenia	1	2	3
163	Neurasthenia	2	3	5
164	Hypochondriasis	1	.....	1
165	Reactive depression	4	8	12
166	Anxiety state .....	.....	2	2
17	Manic-depressive psychoses:			
171	Manic type	11	19	30
172	Depressive type	20	34	54
173	Circular type .....	.....	2	2
174	Mixed type	1	.....	1
177	Other types (Hypomania)	7	7	14
18	Dementia praecox (Schizophrenia):			
181	Simple type	1	1	2
182	Hebephrenic type .....	.....	1	1
183	Catatonic type	83	90	173
184	Paranoid type	23	17	40
185	Undefined	3	3	6
19	Paranoia and paranoid conditions	2	.....	2
191	Paranoia	4	3	7
192	Paranoid conditions	4	4	8
20	Psychoses with psychopathic personality	1	2	3
21	Psychoses with mental deficiency	7	8	15
22	Undiagnosed psychoses	4	11	15
23	Without psychoses	10	5	15
231	Epilepsy	3	2	5
232	Alcoholism	2	2	4
234	Mental deficiency	16	15	31
235	Disorder of personality	2	.....	2
236	Psychopathic personality	2	2	4
241	Tabes Dorsalis	5	2	7
242	Neurosyphilis	10	2	12
24	Primary behaviour disorders	1	3	4
241	Simple adult maladjustment	1	.....	1
Totals		329	311	640

TABLE No. 3
NATIVITIES OF PATIENTS ADMITTED DURING 1947

Nativities	Male	Female	Total	Nativities	Male	Female	Total
Austria	9	5	14	Jugoslavia	2	.....	2
Belgium	2	1	3	Norway	3	5	8
Canada	162	195	357	Poland	13	10	23
China	4	.....	4	Roumania	1	.....	1
Czechoslovakia	9	3	12	Russia	7	6	13
Denmark	5	.....	5	Scotland	9	11	20
England	21	23	44	Sweden	5	6	11
Finland	1	.....	1	United States	46	27	73
France	1	.....	1	Other British Posses- sions	1	.....	1
Germany	5	5	10	Other Countries	2	2	4
Holland	3	.....	3	Totals	329	311	640
Hungary	11	3	14				
Ireland	7	6	13				
Italy .....	.....	1	1				

TABLE No. 4
AGES OF PATIENTS ADMITTED DURING 1947

Ages	First Admissions			Re-admissions			Totals			
	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Under 15 years .....	.....	1	1	2	.....	2	2	2	2	4
15 to 19 years	9	12	21	2	2	4	11	14	25	
20 to 24 years	25	14	39	8	8	16	33	22	55	
25 to 29 years	25	22	47	12	10	22	37	32	69	
30 to 34 years	19	25	44	9	18	27	28	43	71	
35 to 39 years	22	23	45	8	9	17	30	32	62	
40 to 44 years	34	22	56	20	23	43	54	45	99	
45 to 49 years	23	17	40	8	15	23	31	32	63	
50 to 54 years	20	15	35	6	13	19	26	28	54	
55 to 59 years	21	13	34	5	10	15	26	23	49	
60 to 64 years	9	9	18	5	6	11	14	15	29	
65 to 69 years	11	8	19	4	7	11	15	15	30	
70 and over	20	8	28	2	1	3	22	9	31	
Total	238	189	427	91	112	203	329	311	640	

DISCHARGES, CLASSIFIED WITH REFERENCE TO PRINCIPAL PSYCHOSES AND CONDITION ON DISCHARGE
FOR THE YEAR 1947

	Recovered			Improved			Unimproved			Totals		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Psychoses												
01. Psychoses with syphilitic meningoen- cephalitis (general paresis)				2	2	4	4	2	6	6	4	10
02. Psychoses with other forms of syphilis of the central nervous system:												
023 Other types (Taboparesis)				2		2	3	3	6	5	3	8
05. Alcoholic psychoses:												
052 Delirium tremens	6		6		1	1				6	1	7
054 Acute hallucinosis	3	1	4	1		1				4	1	5
055 Chronic hallucinosis				3		3				3		3
06. Psychoses due to drugs or other exo- genous poisons	2		2	1	1	2	1		1	2	1	3
07. Traumatic psychoses	1		1	2	2	4	1	4	4	4	4	8
08. Psychoses with cerebral arteriosclerosis	5	1	6	6	5	11				11	10	21
09. Psychoses with other disturbances of circulation												
10. Psychoses with convulsive disorders	2	1	3		3	3				2	4	6
101 Epileptic deterioration	1		1							1		1
102 Epileptic clouded states	4		4	1	1	2	1		1	6	1	7
11. Senile psychoses												
111 Simple deterioration							1	1	1	1	1	1
114 Depressed and agitated types							1	6	7	1	6	7
115 Paranoid types							1	1	1	1	1	1
12. Involutional psychoses:							1	1	2	1	2	3
121 Melancholia	2	3	5	6		6				4	10	14
14. Psychoses due to new growth								1	1		1	1
15. Psychoses associated with organic changes:												
153 With Huntington's chorea							1		1	1		1
154 With other brain or nervous diseases							1		1	1		1
16. Psychoneuroses												
162 Psychasthenia or compulsive states	1		1		2	2				1	2	3
163 Neurasthenia				2		2				2	1	3
164 Hypochondriasis				1		1			1	2		2
165 Reactive depression		4	4	1	5	6	1	1	1	2	9	11
166 Anxiety state					2	2				2	2	2
17. Manic-depressive psychoses:												
171 Manic type	14	10	24	2	8	10		1	1	16	19	35
172 Depressive type	8	11	19	9	10	19	1	7	8	18	28	46
173 Circular type												
177 Other types (Hypomania)	3	6	9	2	2	4	3		3	8	8	16

TABLE No. 7
RECORD OF DEATHS DURING 1947

Register No.	Sex.	Age.	Time in Hospital			Cause of Death
			Years.	Months.	Days.	
11215	M	72	5	9	6	Lobar pneumonia.
12142	F	79	2	9	16	Hypostatic Pneumonia, Chronic Myocarditis.
8125	M	62	10	9	6	Huntington's Chorea.
5625	M	58	14	9	28	Myocarditis, Arteriosclerosis of the Coronary Vessels.
13661	F	36	....	....	6	Chronic Myocarditis— Myocardial Denegeration.
12599	M	80	1	11	19	Hypostatic Pneumonia, Chronic Myocarditis.
13271	F	41	1	4	29	Cerebral Softening, Hemorrhage and Oedema (Post Operative).
9263	M	63	8	7	1	General Paresis of the Insane.
12398	M	63	2	5	2	Chronic Myocarditis, Right sided pleural Effusion and Pulmonary Oedema.
5692	F	60-70	15	4	....	Cerebral Haemorrhage.
13694	F	50	....	....	15	Pulmonary Embolism due to Femoral Thrombophlebitis.
13209	M	72	1	....	4	Broncho-pneumonia, Influenza.
13059	M	82	1	2	23	Chronic Myocarditis.
12196	M	64-65	2	10	12	Influenza with Intestinal Complications.
12705	M	76	1	11	1	Influenza.
13119	M	66	1	2	10	Chronic Myocarditis.
10110	M	71	7	1	29	Influenza with Intestinal Complications.
10469	M	81	6	5	29	Chronic Myocarditis, Influenza.
13626	M	85	....	3	5	Cerebral Hemorrhage due to Arteriosclerosis.
399	F	82	33	9	19	Generalized Arteriosclerosis with massive Gangrene of left leg.
13690	M	40	....	2	4	Exhaustion.
12402	M	83	2	7	1	Chronic Myocarditis.
13017	F	62	1	7	3	Cerebral Softening due to Hemorrhage and Oedema (Post Operative).
4376	F	66	26	3	17	Ulcer of Stomach, Perforated.
3556	M	64	19	8	18	Chronic Myocarditis.
9885	M	56	9	3	6	Taboparesis.
12739	M	76	2	11	7	Chronic Myocarditis.
13829	F	64	....	....	7	Exhaustion due to Manic Excitement.
13844	M	62	....	....	9	Taboparesis.
9793	M	47	6	11	8	Chronic Endocarditis and Chronic Myocarditis.
11341	F	65	4	10	14	Pulmonary Tuberculosis.
13556	M	90	....	7	2	Cerebral Hemorrhage, Hypertension, Senility.
9357	M	58	8	8	12	Pulmonary Tuberculosis, Taboparesis.
13879	F	60	....	....	12	Terminal Broncho-pneumonia.
13598	M	75	....	6	14	Chronic Myocarditis, Broncho-pneumonia.
13043	M	72	1	7	5	Senility with Arteriosclerosis and Myocarditis.
13882	F	73	....	1	7	Cerebrovascular accident with Hemiplegia
13767	F	73	....	3	14	Lobar Pneumonia, Senility.
12429	M	86	2	9	16	Chronic Myocarditis, Senility.
13927	M	52	....	....	25	Cerebral Hemorrhage, General Paresis of the Insane.
8526	F	57	10	3	6	Sepsis, Arteriosclerosis.
13302	F	75	1	3	11	Cerebral Arteriosclerosis with recent Cerebral Thrombosis, Pneumonia.
10870	M	57	6	....	3	Pulmonary Tuberculosis, Exhaustion due to Depression.
13896	M	84	....	2	15	Generalized Arteriosclerosis, Simple Deterioration, Senility.
8706	M	80	10	....	16	Generalized Arteriosclerosis, Psychosis with Cerebral Arteriosclerosis, Senility.
13961	M	77	....	1	4	Senility, Chronic Myocarditis.
13150	F	61	1	10	12	Hypertensive Cardiovascular Disease, Chronic Cholecystitis.
9208	M	59	9	3	7	Septicemia, Pylonephritis, Carcinoma of the Bladder.
13967	M	73	....	1	24	Influenza with Pulmonary Complications.
13920	M	78	....	3	3	Lobar Pneumonia, Cardiac Decompensation.
11871	M	60	3	....	4	Chronic Myocarditis.
13919	M	77	....	3	13	Hypertensive Cardiovascular Disease.
14060	M	62	....	....	4	Chronic Myocarditis.
13369	M	75	1	3	29	Lobar Pneumonia, Senility.
10970	F	74	16	7	24	Coronary Occlusion due to Arteriosclerosis.
13587	F	76	....	11	9	Chronic Myocarditis.
13181	M	36	1	9	....	Asphyxia due to Epileptic Seizure.
14096	M	62	....	....	16	Exhaustion due to Psychosis with Cerebral Arteriosclerosis.
794	M	67	32	4	27	Cerebral Arteriosclerosis with Thrombosis.
14041	F	69	....	2	5	Exhaustion due to Psychosis with Cerebral Arteriosclerosis.
13912	M	21	....	5	10	Inanition and Sepsis.
12739	M	60	2	6	25	Pernicious Anaemia, Tuberculosis of the Lungs.
13424	M	75	1	4	8	Hypostatic Pneumonia with Senile Dementia.
13604	M	76	1	....	5	Arteriosclerosis with intracranial hemorrhage.
14140	M	80	....	....	23	Generalized Arteriosclerosis, Senility.
14009	F	57	....	3	13	Congestive Heart Failure with Pericardial Effusion.

Total—66.

TABLE No. 8
DEATHS DURING 1947 BY PSYCHOSES

Psychoses		Male	Female	Total
01	Psychoses with syphilitic meningoencephalitis (general paresis).....	2	.....	2
02	Psychoses with other forms of syphilis of the central nervous system:			
023	Other types (Tagoparesis)	3	.....	3
08	Psychoses with cerebral arteriosclerosis	8	5	13
09	Psychoses with other disturbances of circulation	1	.....	1
10	Psychoses with convulsive disorders:			
102	Epileptic clouded states	1	.....	1
11	Senile psychoses:			
111	Simple deterioration	17	3	20
115	Paranoid types	1	.....	1
12	Involuntional psychoses:			
121	Melancholia	1	1	2
13	Psychoses due to other metabolic, etc., diseases:			
131	With diseases of the endocrine glands	1	.....	1
15	Psychoses associated with organic changes:			
153	With Huntington's chorea	2	.....	2
16	Psychoneuroses		1	1
165	Reactive depression	1	2	3
17	Manic-depressive psychoses:			
171	Manic type		1	1
172	Depressive type	1	3	4
18	Dementia Praecox (Schizophrenia):			
183	Catatonic type	3	2	5
184	Paranoid type		1	1
19	Paranoia and Paranoid conditions:			
191	Paranoia	1	.....	1
192	Paranoid conditions	2	.....	2
21	Psychoses with mental deficiency	1	1	2
23	Without psychoses:			
234	Mental deficiency	—	—	—
	Totals	46	20	66

AUXILIARY MENTAL HOSPITAL, CLARESHOLM

Movement of Patients.

On January 1st, 1947, there were 100 patients in residence. In residence on December 31st, 1947, there were 99 patients. There were 6 patients transferred to this hospital, 5 of these patients being transferred from the Provincial Mental Hospital, Ponoka. One patient was transferred from the Provincial Auxiliary Hospital at Raymond. There was one voluntary re-admission to this hospital.

There were 4 patients transferred to the Provincial Mental Hospital, Ponoka. Three of these patients were transferred because of physical disabilities and for further medical care. One patient was transferred because she was disturbed.

There were two discharges, one patient was discharged as improved and the other as unimproved.

There was one death during this year.

Accidents and Elopements.

There were no elopements during the year nor were there any accidents of a serious nature.

General Health.

The general health of the patients and staff has been good during the past year. There was one death due to degenerative causes.

Dentistry.

Dr. Palmer from the Provincial Mental Hospital, Ponoka, visited this hospital and gave the necessary dental care. Emergency dental work was done by the local dentist.

Occupational Therapy.

This Department has done excellent work. An increased number of patients have been interested in this form of endeavour.

During the summer months, a large number of patients worked in the garden and grounds under the supervision of a Ward Aide. This work is enjoyed by many of the patients.

Religious Services.

Religious services were conducted three or four times a month by the local clergymen.

Recreation and Entertainment.

Regular matinees were held twice a month at the local theatre. These outings are greatly enjoyed by the patients.

There were musical programs presented by the United Church Choir at Christmas and Easter.

Parties were held for the patients during the year as well as the annual Sports Day.

Gardens and Grounds.

The gardens were good this year, and sufficient vegetables were grown for the entire year.

Staff Changes.

There have been numerous staff changes and a shortage of staff at times.

Visitors.

Visits were made to the hospital by Dr. R. R. MacLean, General Superintendent of the Provincial Mental Hospital.

Relatives and friends of patients visited the hospital.

TABLE No. 1
MOVEMENT OF PATIENT POPULATION DURING 1947

	Male	Female	Total	Male	Female	Total
In residence January 1, 1947:						
Admissions:				100	100	
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) Order						
(e) Transfers		6	6			
Re-Admissions:		1	1			
(a) Voluntary						
(b) Certificate						
(c) Warrant						
(d) Order						
(e) Transfers				7	7	
				107	107	
Discharged during the year:						
(a) As Recovered						
(b) As Improved		1	1			
(c) As Unimproved		1	1			
(d) As Without Psychoses						
(e) Transferred to other hospitals		5	5			
(f) Eloped						
(g) Deported to other countries						
(h) Deaths		1	1			
				8	8	
In residence December 31, 1946				99	99	

TABLE 2
SHOWING THE PSYCHOSES OF PATIENTS IN RESIDENCE IN 1947

	Female
03 Psychoses with epidemic encephalitis	1
08 Psychoses with cerebral arteriosclerosis	5
10 Psychoses with convulsive disorders:	
102 Epileptic clouded states	2
11 Senile psychoses:	
111 Simple deterioration	2
115 Paranoid types	1
12 Involuntal melancholia:	
121 Melancholia	4
16 Psychoneuroses:	
163 Neurasthenia	1
17 Manic-depressive psychoses:	
172 Depressive type	1
18 Dementia praecox (Schizophrenia):	
181 Simple type	2
182 Hebephrenic type	4
183 Catatonic type	22
184 Paranoid type	26
19 Paranoia and paranoid conditions:	
192 Paranoid conditions	8
21 Psychoses with mental deficiency	11
23 Without psychoses:	
234 Mental deficiency	9
Total	99

TABLE 3
RECORD OF DEATHS DURING THE YEAR 1947

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
10300	F	80	7	6	16	Failure of Compensation; Contributing cause, Cardial Renal Disease.

AUXILIARY MENTAL HOSPITAL, RAYMOND

Movement of Patients.

On January 1, 1947, there were 114 patients in residence. During the year there was one first admission by medical certificates. One patient was transferred to the Mental Hospital at Claresholm, and three patients were transferred to the Mental Hospital at Ponoka. One patient was admitted by transfer from Claresholm, and 11 patients were admitted by transfer from the Mental Hospital at Ponoka. There were five deaths during the year, leaving in residence on December 31, 1947, 118 patients.

Accidents and Elopements.

There were no elopements during the year.

There were two accidents to patients during the year which required medical attention. One elderly lady of 77 years slipped while skipping about in an excited state, striking her right hand on the floor. X-Ray showed a crack in the third metacarpal. The hand was placed in plaster of paris cast, and healed uneventfully. The second accident was to one of the patients while working in the laundry. Her sweater became caught in the mangle and drew her right hand partly in when she tried to release it. The second phalanx of the index finger was fractured, and the thumb, index finger and ring finger lacerated and burned. Repairs were done at the Municipal Hospital under general anaesthetic and index finger placed in cast. After cast was removed three skin grafts were done on back of index finger. Finger remains stiff at the first and second phalanx joint, with some drawing of the tendons. Finger remains tender and of no use to patient.

General Health.

All patients and staff were innoculated against Typhoid Fever in March-and early April. The patients receive Cod Liver Oil and Mineral Capsules daily during the winter months, and there were few colds, influenza or intestinal upsets at any time during the year. Their general health is good.

Dentistry.

In June, Dr. Palmer from the Mental Hospital at Ponoka visited the hospital for several days, examining and doing the necessary work on all patients with teeth. All repairs necessary on dentures have been done by the Lethbridge Dental Laboratory during the year. Since June no further dental care has been necessary, and it would appear that a yearly visit of one week by a dentist would be satisfactory.

Occupational Therapy.

The Occupational Therapy Parlour for needlework, sewing, knitting, etc., was re-decorated this year, and is bright and sunny. It is invaluable during the winter months, especially in that it is a bright, peaceful place for many of the patients, and relieves considerable congestion in the day rooms when the weather is too cold for patients to be outside.

Some other patients are occupied in the kitchen, laundry, sewing room, nurses' home and ward and dormitory cleaning. One patient is employed in the root cellar picking over vegetables during the winter and works in the garden during the summer. Another patient takes care of the chickens, collecting eggs and keeping their water supply fresh. During the summer several patients enjoy raking the lawns and generally keep the grounds free from papers, etc. The work of mowing the lawns is too heavy for them, and they are not capable of doing any work in the flower beds. There are only two patients who are of any help in the vegetable gardens for hoeing and weeding.

Library.

The Library is situated in the Occupational Parlour, and one patient has the responsibility of listing new books and checking books in and out to the patients. Books that become torn are mended and some re-covered. The Occupational Parlour Fund buys one new book each month, and this year several books have been received from relatives of patients. The Ladies' Missionary Society in Lethbridge and some local citizens have donated several large collections of magazines and Sunday School papers. Many of the patients receive magazines monthly so they are well supplied with reading material.

Religious Services.

The United Church minister, Rev. Ward of Magrath, holds Church services for the patients the first Sunday of each month. One of the patients plays the piano for the services, and they are looked forward to with anticipation and well received. The Catholic priest holds services for Catholic patients once each month also.

Recreation and Entertainment.

Twice each month the nurses escort about 50 patients to town to a special afternoon picture show. These shows of the current pictures are quite a stimulant to these ladies. They dress up in their best clothes, have their hair curled for the occasion, and enjoy the long walk to and from town. The picture shows are well discussed, especially the new styles of clothes and hair dress.

The Instructress who came to the hospital and gave the patient "Keep Fit" exercises last year moved to another town, so these had to be discontinued.

A Valentine and a Hallowe'en Party and Dance were given to the patients. The wards were suitably decorated, and a pianist was engaged from town to play the piano for the dancing. Lunch was served, and on Hallowe'en candy and apples were also given.

The Sports Day and Picnic held in July was a big success again this year. Group games were played and a full programme of races run, with three prizes for each event. Fresh fruit, ice cream, candy and punch were distributed all afternoon, and then supper was served out of doors. A peanut scramble ended the afternoon sport.

During the summer the wards were cleared and all the patients were taken out on the lawns whenever the weather permitted. Several patients had afternoon parole and evening parole. There are two croquet sets for the lawns and a large swing.

At Christmas time the wards, day rooms and dining hall were suitably decorated. A large Christmas tree was trimmed in the day room, and the gift for each from the hospital was placed under the Xmas tree on Xmas Eve, and given out with the stocking of candies and fruit after breakfast the next morning. Parcels from relatives were held until Xmas Day also.

A special party was held in the Occupational Parlour for all of those patients who do any work, and fruit, candy, lunch and a gift for each was bought out of the Occupational Therapy Fund. The Women's Music Club again visited the hospital, bringing a 22-voice choir. They gave a two-hour programme, and brought the patients ice cream cones and candy balls.

There are two radios in the wards, one in the Occupational Therapy Parlour, and a piano in the ward also.

Staff Changes.

There has been a total of three staff changes during the year. The position of Assistant Matron is now filled by Mrs. M. E. Schneidt, who was the Assistant Matron when this hospital opened.

Visitors.

The hospital has been visited periodically by Dr. R. R. MacLean, General Medical Superintendent for Mental Hospitals. The hospital was also visited by Mr. J. L. Blackmore, M.P., accompanied by the M.L.A. from Warner. Mr. Blackmore said that he was well pleased with the hospital. Dr. Hincks and Miss Keyes inspected the hospital in November accompanied by Dr. MacLean. The hospital and buildings were inspected twice this year by the Fire Inspectors. The vegetable gardens were inspected by a member of the Department of Agriculture, and the potatoes inspected for ring-rot. The cows were inspected and tested for Tuberculosis and Bang's disease.

Many patients have been visited by relatives and have been conducted through the hospital upon request. All remarked on the bright and airy dormitories and wards.

Gardens and Grounds.

The harvest from the vegetable garden was abundant except for the potato crop. Most of the potato crop was drowned out due to a three-inch rain shortly after they had been irrigated. The lawns and flower beds are most neglected, and considerable work should be done on them. Mowing the lawns with hand mowers is too hard for these women patients. The flower beds and trees need expert attention.

Conclusion.

The general health of the patients has remained very good, and the hospital capacity has been contained throughout the year.

MOVEMENT OF PATIENT POPULATION DURING 1947

	Male	Female	Total	Male	Female	Total
In residence January 1, 1947	114	114
Admissions:						
(a) Voluntary						
(b) Certificates		1	1			
(c) Warrant						
(d) Order						
(e) Transfers		12	12			
				13	13
				127	127
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		4	4			
(e) Eloped						
(f) Deported						
(g) As without Psychoses						
(h) Deaths		5	5			
				9	9
				118	118
In residence December 31, 1947	118	118

TABLE 2
SHOWING THE PSYCHOSES IN THOSE ADMITTED IN 1947

Psychoses		Male	Female	Total
02	Psychoses with other forms of syphilis of the central nervous system:			
021	Meningo-vascular (cerebral)	1		1
05	Alcoholic psychoses:			
054	Acute hallucinosis	1		1
08	Psychosis with cerebral arteriosclerosis	3		3
10	Psychoses with convulsive disorders:			
101	Epileptic deterioration	2		2
103	Other epileptic types (arteriosclerotic)	1		1
11	Psychoses—senile:			
111	Simple deterioration	4		4
115	Paranoid types	3		3
17	Manic-depressive psychoses:			
171	Manic type	1		1
172	Depressive type	4		4
173	Circular type	1		1
18	Dementia praecox (Schizophrenia):			
182	Hebephrenic type	7		7
183	Catatonic type	20		20
184	Paranoid type	29		29
19	Paranoia and paranoid conditions:			
192	Paranoid conditions	11		11
21	Psychoses with mental deficiency	11		11
23	With psychoses:			
234	Mental deficiency:			
234b	Imbecile	6		6
234d	Unspecified	11		11
234e	Mongoloid	1		1
235	Disorders of personality due to epidemic encephalitis	1		1

TABLE 3
RECORD OF DEATHS DURING 1947

Register No.	Sex	Age	Time in Hospital			Cause of Death
			Years	Months	Days	
5525	F	74	15	1	11	Coronary Thrombosis.
8065	F	76	8		21	Acute Congestive Cardiac Failure.
9918	F	43	7	6	23	Typhoid Fever.
4386	F	72	17	3	6B	Cerebro-Vascular Accident.
6003	F	56	13	2	14	Acute Congestive Cardiac Failure.

PROVINCIAL MENTAL INSTITUTE, EDMONTON

Patient Population Changes.

There were 1,239 patients in residence on January 1, 1947—1,000 males and 239 females. At the end of the year there were 1,029 males and 258 females, a total of 1,287, and an increase of 48 for the year. During the year there were 97 male admissions and 42 female admissions, a total of 139. These included 61 transfers from the Provincial Mental Hospital, making actually a direct admission total of 78. During the previous year 45 new cases had been admitted. During the year 34 patients were discharged.

General Health.

The general health of patients throughout the year was good. Nothing of note occurred under this heading. T.A.B. injections were given to all patients.

Treatment of Patients.

Shock therapy was used more frequently and an increased number of patients were given this treatment. Approximately 150 were given electric shock treatment. Insulin therapy was begun on both the male and female sides. Combined electric shock and insulin shock was also carried out on some cases.

Hydrotherapy—The use of prolonged baths and wet packs was also instituted with very good results.

Occupational Therapy—The use of occupational therapy was increased. We were fortunate in being able to obtain Miss Wize from the D.V.A. Considerable assistance in reorganizing the work was also given by Miss Schwartz of the D.V.A. Increased space was also given to this Department.

Recreational Activities—In addition to movies, which continued throughout the winter months, dances were begun for the patients which appeared to be much enjoyed. Some stage shows were also held, and a Christmas tree was held before Christmas.

Beauty Parlour—A beauty parlour was organized and treatments were given to selected patients.

Library—A library was founded and is now in constant use.

Religious Services—Religious services were held every Sunday with Roman Catholic services on Monday, once a month.

Dental Department—On November 1st a full time dentist was appointed, the first time a regular dentist has been available here. A total of 527 patients were examined and the work was completed for 145.

X-Ray Department—A considerable number of chest plates were done. All patients on shock treatment were given an X-Ray examination before treatment. A total of 1,014 major X-Ray examinations were carried out.

Laboratory—Urinalysis and blood examinations were done on all new patients and on a considerable number of other cases. During the year 3,400 examinations were carried out. Mantoux tests were carried out on all staff, and B.C.G. vaccine administered when required.

Training School.

The work of the training school continued with large numbers in all classes.

Department of Building Maintenance.

The construction of a building for juvenile delinquents, and also a new 100 bed female ward, was started. Otherwise little repair work was done during the year because of difficulty in obtaining staff.

Fire Protection.

Monthly fire practises were held.

Farm.

The milk production was satisfactory throughout the year except for a short period in the fall. Considerable damage was done to the farm by a severe hail storm in August.

Garden.

This Department continued to function with its usual efficiency. Mr. Paton retired on November 30th and was replaced by Mr. Blakeley, who had been his assistant for many years.

Stores Department.

There was difficulty in getting a considerable number of articles, but this was because of shortages and was unavoidable.

Laundry.

The laundry was extremely busy and did excellent work. New machines are being added early in 1948.

Tailor Shop.

The tailor shop did a large amount of work and functioned very well.

Sewing Room.

This Department did a very large amount of work during the year.

Department of Chief Engineer.

Heat and light were provided throughout the year. At times the water supply was rather short, but this was because of the connection with the city. This pipe line is very old, and has been giving considerable trouble. It is apparently the intention of the city to replace it whenever it can obtain new pipes.

Guidance Clinic.

The Guidance Clinic in Edmonton was run by the medical staff of the Institution throughout the year. In the latter part of the year, the time spent at the Clinic was increased. As far as possible, two days a week were devoted to the Clinic. In addition, the Clinic at Lamont was visited monthly. Psychiatric services were also given to the Police Court throughout the year.

Staff.

The staff situation on the male side has been good. There are no vacancies, and the quality of the new staff has been reasonably high. The situation in the female side remains bad. It is almost impossible to get graduate nurses, and ward aides come and go with great frequency. A total of 88 staff left during the year and 105 were taken on.

TABLE No. 1
MOVEMENT OF POPULATION

	Males	Females	Total
Patients on books January 1, 1947:			
In Hospital	797	231	1210
On Probation	8	7	15
Elopedments	2	.....	2
On Special Parole	11	1	12
Total	1000	239	1239
Admissions During Year:			
First Admissions	37	17	54
Re-admissions	14	10	24
Transfers	46	15	61
Total	97	42	139
Total Received During Year:			
Transfers	46	15	61
Re-admissions	14	10	24
Warrant	11	4	15
Voluntary	3	1	4
Certificates	14	6	20
Mental Defectives Act	9	6	15
Total	97	42	139
Discharged During Year:			
Recovered	3	3	6
Improved	10	9	19
Unimproved	7	2	9
Without psychosis .....	.....	.....	.....
Transfers .....	.....	1	1
Died	48	8	56
Total	68	23	91
Patients on Books End of Year:			
In Hospital	1007	251	1258
On Probation	9	4	13
Elopedments	2	.....	2
On Special Parole	11	3	14
Total	1029	258	1287
Total admitted since opening	1954	349	2303
Total discharged since opening	566	61	627
Total deaths since opening	503	25	528

TABLE No. 2
NUMBER OF OFFICERS AND EMPLOYEES

	Males	Females	Total
Medical Superintendent	1	.....	1
Assistant Medical Superintendent	1	.....	1
Medical Officers	2	.....	2
Dentist	1	.....	1
Laboratory and X-ray Technician	1	.....	1
Business Superintendent	1	.....	1
Stenographers and Clerks	3	5	8
Graduate Nurses .....	.....	6	6
Other Female Nurses .....	.....	5	5
Ward Aides .....	.....	41	41
Male Nursing Staff	100	.....	100
Tailor	1	.....	1
Seamstresses .....	.....	2	2
Shoemaker	1	.....	1
Occupational Therapists	2	1	3
Bakers and Cooks	10	.....	10
Laundry	2	3	5
Gardeners	4	.....	4
Engineers and Mechanics	16	.....	16
Other Employees	16	2	18
Total	162	65	227

TABLE No. 3

PSYCHIATRIC AND INDUSTRIAL CLASSIFICATION OF PATIENTS

	Males	Females	Total
Psychiatric:			
Patients insane	896	207	1103
Epileptics (not insane)	19	7	26
Mental Deficiency (not insane)	110	41	151
Alcoholics (not insane)	.....	1	1
Drug Addicts (not insane)	.....	.....	.....
Neurosyphilitics (not insane)	.....	.....	.....
All other types (not insane)	4	2	6
Total	1029	258	1287
Industrial:			
Industrial Workers	108	47	155
Garden Workers	66	.....	66
Internal Workers	365	76	441
Doing no Work	468	128	596
On Probation, Parole, etc.	22	7	29
Total	1029	258	1287

TABLE No. 4

NATIVITY OF PATIENTS IN RESIDENCE

Males			Females			Total		
Australia	1	.....	1	.....	2	1	3
Austria	72	9	81	.....	28	4	32
Belgium	4	.....	4	.....	53	25	78
Canada	366	130	496	.....	8	2	10
China	7	.....	7	.....	39	13	52
Denmark	9	1	10	.....	31	9	40
England	97	14	111	.....	23	1	24
Finland	4	1	5	.....	7	1	8
France	9	.....	9	.....	126	24	150
Germany	32	6	38	.....	7	1	8
Holland	3	1	4	.....	41	8	49
Hungary	8	3	11	.....	17	.....	17
Ireland	23	3	26	.....	.....	.....	.....
Italy	12	1	13	.....	.....	.....	.....
Japan	.....	.....	.....	.....	2	1	3
Norway	.....	.....	.....	.....	28	4	32
Poland	.....	.....	.....	.....	53	25	78
Rumania	.....	.....	.....	.....	8	2	10
Russia	.....	.....	.....	.....	39	13	52
Scotland	.....	.....	.....	.....	31	9	40
Sweden	.....	.....	.....	.....	23	1	24
Switzerland	.....	.....	.....	.....	7	1	8
United States of America	.....	.....	.....	.....	126	24	150
Wales	.....	.....	.....	.....	7	1	8
Other Countries	.....	.....	.....	.....	41	8	49
Unascertained	.....	.....	.....	.....	17	.....	17
Total	1029	258	1287	.....	1029	258	1287

TABLE No. 5

CITIZENSHIP OF PATIENTS IN RESIDENCE

	Males	Females	Total
Citizen by Birth	396	129	525
Citizen by Naturalization	94	49	143
Aliens	354	49	403
Unascertained	34	1	35
British Birth out of Canada	151	30	181
Total	1029	258	1287

TABLE No. 6

DENTAL REPORT

Number of Patients	527	Periodontal Treatments	46
Examinations of Dental and Oral conditions and requirements and charting of same	204	Dentures Repaired	5
Complete Dentures	9	Reline Dentures	1
Extractions	243	Consultations	211
Local Anesthetics Administered	115	Fillings, Amalgam	17
General Anesthetics (Dr. Gish)	2	Cement	7
Scaling	247	Miscellaneous	137
Prophylaxis	187	Number of patients for whom all required dental work has been completed	145

TABLE No. 9
ENVIRONMENT OF FIRST ADMISSIONS BY PRINCIPAL PSYCHOSES

Psychoses	Total			Urban 2500 and over						Rural			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
01. General Paresis	43	4	47	23	1	24	20	3	23	1	2	23	1	2	23
02. With other forms of Syphilis	5	1	6	3	3	6	2	2	5	2	7	2	2	4	6
03. With Epidemic Encephalitis	3	1	4	2	2	4	1	1	2	1	2	2	1	1	3
04. With other Infectious Diseases	3	1	4	2	1	3	1	1	2	1	2	1	1	1	2
05. Alcoholic	3	1	4	2	1	3	1	1	2	1	2	1	1	1	2
06. Due to Drugs, etc.	3	1	4	1	1	2	2	2	3	1	3	1	1	2	3
07. Traumatic	24	4	28	11	2	13	12	2	14	1	1	13	1	1	14
08. Cerebral Arteriosclerosis	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
09. With other Disturbances of Circulations	30	7	37	8	1	9	22	6	28	1	1	29	1	1	30
10. With Epilepsy	29	7	36	10	3	13	19	4	23	1	1	20	1	1	21
11. Senile	1	2	3	1	2	3	1	2	3	1	1	2	1	1	2
12. Involutional	3	2	5	1	2	3	2	2	4	1	1	2	1	1	2
13. Due to other Metabolic Diseases	4	1	5	3	1	4	1	1	2	1	1	2	1	1	2
14. Due to New Growth	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2
15. With Organic Changes of Nervous System	46	24	70	16	7	23	29	17	46	1	1	47	1	1	48
16. Psychoneurosis	572	120	692	178	46	224	375	74	449	19	19	449	19	19	468
17. Manic Depressive	56	6	62	19	4	23	37	2	39	1	1	39	1	1	40
18. Schizophrenia	2	2	4	1	1	2	1	1	2	1	1	2	1	1	2
19. Paranolia and Paranoid Conditions	64	24	88	13	5	18	49	19	68	2	2	70	2	2	72
20. Psychopathic Personality	5	2	7	1	1	2	4	1	5	1	1	5	1	1	6
21. With Mental Deficiency	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
22. Undiagnosed	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
23. Without Psychoses:															
230	19	7	26	3	2	5	15	5	20	1	1	20	1	1	21
231	110	41	151	38	12	50	71	29	100	1	1	100	1	1	101
232	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
233	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
234	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
235	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
236	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2
24. Behaviour Disorders: 2423	1029	258	1287	335	91	426	669	167	836	25	25	836	25	25	861
Total	1029	258	1287	335	91	426	669	167	836	25	25	836	25	25	861

TABLE No. 10
ECONOMIC CONDITION OF FIRST ADMISSIONS BY PRINCIPAL PSYCHOSES

Psychoses	Total			Dependent			Living on Daily Earnings			Comfortable for Four Months			Unknown		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
01 General Paresis	43	4	47	16	4	20	19	...	19	6	...	2	...	...	2
02 With other forms Syphilis	5	...	5	3	...	3	1	...	1	1	...	...	...	...	...
03 With Epidemic Encephalitis	3	1	4	3	1	4	...	...	...	...	...	...	...	...	...
04 With other Infectious Diseases	3	1	4	2	1	3	1	...	1	...	...	...	...	...	...
05 Alcoholic .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
06 Due to Drugs, etc.	3	...	3	...	...	...	3	...	3	...	...	...	...	...	...
07 Traumatic	24	4	28	13	5	16	6	1	7	5	3	1	...	...	1
08 Cerebral Arteriosclerosis	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...
09 With other Disturbances of Circulation	30	7	37	21	7	28	8	...	8	1	...	1	...	...	1
10 With Epilepsy	29	7	36	21	5	26	7	2	9	1	...	...	...	...	...
11 Senile	1	2	3	1	2	3	1	...	1	...	...	...	...	...	...
12 Involutional	3	2	5	1	1	2	1	...	1	...	...	...	...	...	...
13 Due to other Metabolic Diseases .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14 Due to New Growth	4	1	5	3	1	4	...	...	...	1	...	...	...	...	...
15 With Organic Changes of Nervous System	2	2	4	14	21	35	23	2	25	6	1	3	...	...	3
16 Psychoneuroses	46	24	70	1	1	2	1	1	2	44	2	18	...	...	18
17 Manic Depressive	572	120	692	208	100	308	302	18	320	44	4	46	...	...	46
18 Schizophrenia	56	6	62	19	5	24	33	1	34	4	...	...	...	...	...
19 Paranoia and Paranoid Conditions	2	...	2	1	...	1	1	...	1	...	...	...	...	...	...
20 Psychopathic Personality	64	24	88	37	19	56	23	5	28	3	...	1	...	...	1
21 With Mental Deficiency	5	2	7	1	2	3	4	...	4	...	...	...	...	...	...
22 Undiagnosed .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23 Without Psychoses:	1	1	2	1	1	2	...	...	...	...	...	...	...	...	...
230	19	7	26	13	7	20	4	...	4	1	1	1	...	...	1
231	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...
232	110	41	151	92	41	133	14	...	14	3	1	3	...	...	3
233	2	1	3	1	1	2	1	...	1	...	...	...	...	...	...
234	1	1	2	1	1	2	...	...	...	...	...	...	...	...	...
235	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...
236	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...
24 Behaviour Disorders: 2423	1	...	1	1	...	1	...	...	...	...	...	...	...	...	...
Total	1029	258	1287	473	223	696	453	30	483	76	5	81	27	...	27

TABLE No. 11
USE OF ALCOHOL BY FIRST ADMISSIONS BY PRINCIPAL PSYCHOSES

Psychoses	M.		F.		Total		Abstinent		Temperate		Intemperate		Unknown	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
01 General Paresis	43	4	47	1	7	31	2	2	2	2	6	1	7	1
02 With other forms Syphilis	5	1	5	1	1	3	1	1	1	1	1	1	1	1
03 With Epidemic Encephalitis	3	1	4	1	1	3	2	1	3	1	1	1	1	1
04 With other Infectious Diseases	3	1	4	1	1	3	2	1	3	1	1	1	1	1
05 Alcoholic	3	1	4	1	1	3	2	1	3	1	1	1	1	1
06 Due to Drugs, etc.	3	1	4	1	1	3	2	1	3	1	1	1	1	1
07 Traumatic	24	4	28	5	9	16	16	4	16	2	2	2	1	1
08 Cerebral Arteriosclerosis	24	4	28	5	9	16	16	4	16	2	2	2	1	1
09 With other Disturbances of Circulation	30	7	37	10	14	17	10	4	14	2	2	2	1	1
10 With Epilepsy	29	7	36	9	14	14	9	5	14	2	2	2	1	1
11 Senile	1	2	3	1	1	2	1	1	2	1	1	1	1	1
12 Involutional	1	2	3	1	1	2	1	1	2	1	1	1	1	1
13 Due to other Metabolic Diseases	3	2	5	2	4	1	2	2	4	1	1	1	1	1
14 Due to New Growth	4	1	5	1	1	2	1	1	2	2	1	1	1	1
15 With Organic Changes of Nervous System	2	2	4	1	2	3	1	1	2	1	1	1	1	1
16 Psychoneuroses	46	24	70	11	23	33	11	11	44	2	2	2	1	1
17 Manic Depressive	572	120	692	84	127	397	67	67	464	35	35	35	9	65
18 Schizophrenia	56	6	62	6	9	32	3	3	35	12	12	12	6	6
19 Paranoia and Paranoid Conditions	2	2	4	1	1	2	1	1	3	1	1	1	1	1
20 Psychopathic Personality	64	24	88	19	25	34	10	10	44	5	5	5	4	10
21 With Mental Deficiency	5	2	7	1	1	2	2	2	4	1	1	1	1	1
22 Undiagnosed	19	7	26	12	6	18	1	1	4	3	2	2	2	2
23 Without Psychoses:	19	7	26	12	6	18	1	1	4	3	2	2	2	2
230	19	7	26	12	6	18	1	1	4	3	2	2	2	2
231	19	7	26	12	6	18	1	1	4	3	2	2	2	2
232	19	7	26	12	6	18	1	1	4	3	2	2	2	2
233	19	7	26	12	6	18	1	1	4	3	2	2	2	2
234	110	41	151	56	29	85	6	6	39	3	3	3	4	22
235	2	1	3	1	1	2	1	1	3	1	1	1	1	1
236	1	1	2	1	1	2	1	1	3	1	1	1	1	1
24 Behaviour Disorders: 2423	1	1	2	1	1	2	1	1	3	1	1	1	1	1
Total	1029	258	1287	226	120	346	627	109	736	73	103	11	84	18

TABLE No. 13
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	4	4	8	6	2	8	1	1	2	3	3	6
02. With other forms of syphilis	1	1	2	1	1	2	1	1	2	1	1	2
03. With Epidemic Encephalitis	2	2	4	2	2	4	1	1	2	1	1	2
04. With other infectious Diseases	11	2	13	6	2	8	1	1	2	3	3	6
05. Alcoholic	2	2	4	2	2	4	1	1	2	1	1	2
06. Due to Drugs, etc.	11	2	13	6	2	8	1	1	2	3	3	6
07. Traumatic	2	2	4	2	2	4	1	1	2	1	1	2
08. Cerebral Arteriosclerosis	11	2	13	6	2	8	1	1	2	3	3	6
09. With other Disturbances of Circulations	2	2	4	2	2	4	1	1	2	1	1	2
10. With Epilepsy	11	2	13	6	2	8	1	1	2	3	3	6
11. Senile	1	1	2	1	1	2	1	1	2	1	1	2
12. Involutional	1	1	2	1	1	2	1	1	2	1	1	2
13. Due to Other Metabolic Diseases	1	1	2	1	1	2	1	1	2	1	1	2
14. Due to New Growth	3	4	7	4	3	7	2	2	4	1	1	2
15. With Organic Changes of Nervous System	35	16	51	4	3	7	5	5	10	26	8	34
16. Psychoneuroses	3	3	6	2	2	4	1	1	2	1	1	2
17. Manic Depressive	3	3	6	2	2	4	1	1	2	1	1	2
18. S-hizophrenia	3	3	6	2	2	4	1	1	2	1	1	2
19. Paranoia & Paranoid Conditions	3	3	6	2	2	4	1	1	2	1	1	2
20. Psychopathic Personality	3	3	6	2	2	4	1	1	2	1	1	2
21. With Mental Deficiency	3	3	6	2	2	4	1	1	2	1	1	2
22. Undiagnosed	3	3	6	2	2	4	1	1	2	1	1	2
23. Without Psychoses:	4	4	8	2	2	4	1	1	2	1	1	2
230	4	4	8	2	2	4	1	1	2	1	1	2
231	2	2	4	1	1	2	1	1	2	1	1	2
232	12	8	20	5	6	11	2	2	4	5	1	6
233	2	2	4	2	2	4	1	1	2	1	1	2
234	2	2	4	2	2	4	1	1	2	1	1	2
24. Behaviour Disorders	1	1	2	1	1	2	1	1	2	1	1	2
Total	97	42	139	37	17	54	14	10	24	46	15	61

TABLE No. 14
DECREASE OF PATIENTS DURING THE YEAR, BY PRINCIPAL PSYCHOSES

Psychoses	Total		Discharged				Unimproved		Transfer		Death				
	M.	F.	M.	F.	T.	M.	F.	T.	M.	F.	T.				
	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.	T.				
01. General Paresis	1	1										1	1		
02. With other forms of syphilis															
03. With Epidemic Encephalitis	1	1										1	1		
04. With other infectious Diseases															
05. Alcoholic															
06. Due to Drugs, etc.															
07. Traumatic															
08. Cerebral Arteriosclerosis	7	7	1	1								6	6		
09. With other Disturbances of Circulation															
10. With Epilepsy	1	2			1	1						1	1		
11. Senile	15	2	1	1								15	2		
12. Involutional															
13. Due to Other Metabolic Diseases															
14. Due to New Growth															
15. With Organic Changes of Ner. System	3	3										3	3		
16. Psychoneuroses	1	1			1	1									
17. Manic Depressive	5	3	1	1	2	1	1	1	1	1	1	2	4		
18. Schizophrenia	16	6	4	4	8	3	3	3	3	3	3	9	2		
19. Paranoia & Paranoid Conditions	5	5				1	1	1	1	1	1	3	3		
20. Psychopathic Personality															
21. With Mental Deficiency	3	1	1	1								3	3		
22. Undiagnosed	2	2			1	1						1	1		
23. Without Psychoses:															
231	1	2				1	1	1	1	1	1	1	2		
231	2	1	1	1		1	1	2	1	1	1	2	3		
234	5	4				1	1	1	1	1	1	3	3		
235	1	1				1	1	1	1	1	1	1	1		
236	1	1													
Total	68	23	91	3	3	6	10	9	19	7	2	9	48	8	56

TABLE No. 15
CAUSE OF DEATH, BY PRINCIPAL PSYCHOSES, WITH AGE AT DEATH AND DURATION OF HOSPITAL LIFE

Psychoses	M.	F.	T.	Cause of Death	Age Years	Hospital Life		
						Years	Months	Days
01 General Paresis	1	1	3	Peri-renal Abscess	57	15	2	7
03 Kith Epidemic Encephalitis	1	1	1	Bronchopneumonia	68	5	2	22
08 Cerebral Arteriosclerosis	6	.....	6	Ca. Mesentery and Peritoneum	69	4	11	21
				Bronchopneumonia (Terminal)	82	.....	.....	8
				Cerebral hemorrhage	66	2	4	2
				Pemphigus	64	11	7	17
				Apoplexy of the Brain	57	1	7	6
				Bronchopneumonia	65	.....	7	7
10 With Epilepsy	1	.....	1	Cerebral hemorrhage	57	24	6	25
11 Senile	15	2	17	Bronchopneumonia	74	.....	.....	22
				Bronchopneumonia	85	.....	.....	20
				Bronchopneumonia	89	.....	4	2
				Bronchopneumonia	72	5	2	2
				Bronchopneumonia	68	1	3	3
				Bronchopneumonia	71	.....	2	16
				Cerebral Hemorrhage	67	.....	.....	.....
				Chronic Myocarditis	66	3	8	.....
				Chronic Myocarditis	81	1	5	21
				Chronic Myocarditis	77	.....	11	19
				Chronic Myocarditis	87	4	2	26
				Chronic Myocarditis	69	4	6	27
				Chronic Myocarditis	76	3	5	13
				Chronic Myocarditis	76	1	4	23
				Hypostatic Pneumonia	74	.....	.....	8
				Senility with Senile Dementia	70	.....	7	14
				Infection and Septicemia	66	1	6	.....
15 With Organic Changes of Nervous System	3	.....	3	Cancer of the Maxilla	67	.....	.....	25
				Lobar Pneumonia	52	5	5	.....
				Cerebral Hemorrhage	44	2	8	7
				Disseminated Sclerosis	72	8	5	.....
17 Manic Depressive	2	2	4	Coronary Occlusion	78	32	5	4
				Coronary Occlusion	72	8	6	11
				Pulmonary Tuberculosis	31	8	7	2
18 Schizophrenia	9	2	11	Bronchopneumonia	70	12	10	26
				Toxic reaction to Pontocaine	72	35	1	.....
				Bronchiectasis	55	6	10	.....
				Addison's Disease	60	20	10	17
				Carcinoma of the Stomach	66	22	8	8
				Chronic Myocarditis	63	28	5	5
				Rupture of the Left Ventricle	61	22	7	27
				Coronary Occlusion	67	16	5	3
				Coronary Occlusion	66	21	1	27
				Pulmonary Tuberculosis	27	3	8	4
				Pulmonary Tuberculosis	55	28	10	15

19	Paranoia and Paranoid Conditions	3	.....	3	.....	58	.....	1	.....	20
	Cerebral Hemorrhage					86		9		16
	Cerebral Hemorrhage					70		5		11
	Pleurisy with Effusion (TB)	3	.....	3	.....	61		10		16
21	With Mental Deficiency	3	.....	3	.....	75		6		.....
	Lobar Pneumonia					54		8		.....
	Chronic Myocarditis	1	.....	1	.....	70		3		25
	Bilateral Pulmonary TB	1	.....	1	.....	58		4		18
	Bronchopneumonia	1	.....	1	.....		3	4		
	Bronchopneumonia	2	.....	2	.....		5	9		.....
22	Undiagnosed	2	.....	2	.....	22		5		.....
23	Without Psychoses:	2	.....	2	.....	23		3		7
231	.....					69		5		17
234	.....					20		5		26
	Pulmonary Hemorrhage						2			
	Pulmonary Tuberculosis						4			
	Pulmonary Tuberculosis						4			
	Bronchopneumonia						4			
	Addison's Disease						2			
	Total	48	8	56						

DEPARTMENT OF PUBLIC HEALTH

TABLE No. 16
RELIGION OF PATIENTS IN RESIDENCE

	Males	Females	Totals
Baptists	25	6	31
Episcopalians	124	38	162
Jews	8	3	11
Presbyterians	91	16	107
Roman Catholics	259	60	319
United Church	97	29	126
Other Denominations	358	100	458
Unascertained	67	6	73
Total	1029	258	1287

TABLE No. 17
OCCUPATION OF PATIENTS IN RESIDENCE

	Males	Females	Total
Professional	4	4	8
Commercial	23	7	30
Agricultural	319	.....	319
Mechanics, Outdoor	18	3	21
Mechanics, Indoor	40	.....	40
Domestic Service	8	170	178
Miners, Engineers, Carpenters, Painters, etc.	73	1	74
Labourers	389	.....	389
No Occupation	121	68	189
Unascertained	27	1	28
Total	1029	258	1287

TABLE No. 18
X-RAY REPORT

Roentgenograms of:	
Chest	808
Bone	152
Spine	27
Gastro-intestinal	27
Total	1014

TABLE No. 19
LABORATORY REPORT

Examinations of:	
Blood	1076
Urinalysis	2182
Bacteriological	42
Blood Chemistry and complement fixation	113
Spinal Fluid	5
Total	3418

In addition, Mantoux tuberculin tests were made on all staff and B.C.G. vaccine administered where necessary.

All admissions and staff were immunized with T.A.B. vaccine.

TABLE No. 20
EXPENDITURE AND REVENUE ENDING MARCH 31st, 1948

ADMINISTRATION:	
Salaries	\$ 13,147.33
Telephone and Telegraph	176.48
Postage	340.00
Travelling Expenses	81.04
Printing, Stationery and Office Supplies	1,069.62
Advertising	72.60
Books and Binding	2.50
Freight	40.00
	\$ 14,929.57
Less Sundry Revenue	126.03
	\$ 14,803.54

PROFESSIONAL CARE OF PATIENTS:

Salaries	\$260,527.02
Hospital and Medical Supplies	9,388.56
Medical Services	444.00
Clothing	27,198.37
Travelling Expenses	527.14
Newspapers and Periodicals	43.38
Smoking Supplies	6,900.90
Entertainment	731.49
Church Services	330.00
Burials	393.00
Grants	15.00
Photographic Supplies	440.10
Books	41.40
	<hr/>
	\$306,980.36
Less Sundry Revenue	153.49
	<hr/>
	\$306,826.87

OCCUPATIONAL ACTIVITIES:

Salaries	\$ 5,643.51
Miscellaneous	41.45
	<hr/>
	\$ 5,684.96

KITCHEN AND DINING ROOM:

Salaries	\$ 20,241.53
Food	105,721.05
	<hr/>
	\$125,962.58
Add Vegetables from Garden	7,335.79
	<hr/>
	\$133,298.37
Add Milk, Cream and Meat from Farm	20,268.91
	<hr/>
	\$153,567.28
Less Sundry Revenue	10,149.67
	<hr/>
	\$143,417.61

GENERAL HOUSE:

Salaries	\$ 14,442.51
Repairs and Renewals to Equipment	1,503.80
Laundry and Cleaning	7,353.96
Sewing Room	219.82
Bedding and Linen	12,396.73
Crockery and Cutlery	3,346.88
Kitchen Equipment	963.02
Brooms, brushes, etc.	817.29
	<hr/>
	\$ 41,044.01
Less Sundry Revenue	1,906.56
	<hr/>
	\$ 39,137.45

TRANSPORTATION:

Salaries	\$ 2,040.00
Gasoline and Oil	596.60
Repairs and Renewals	731.55
Insurance	1,007.01
	<hr/>
	\$ 4,375.16
Less Sundry Revenue	110.56
	<hr/>
	\$ 4,264.60

GARDEN AND GROUNDS:

Salaries	\$ 7,090.44
Seeds	246.64
Repairs to Equipment	415.94
	<hr/>
	\$ 7,753.02
Less Sundry Revenue	2,110.84
	<hr/>
	\$ 5,642.18
Less Vegetables to Kitchen	7,335.79
	<hr/>
	Cr. \$ 1,693.61

STORES:

Salaries	\$ 4,055.00
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INVENTORIES:

Stock on Hand—March 31st, 1948	\$ 40,849.18
Stock on Hand—March 31st, 1947	28,950.35
	<hr/>
	Cr. \$ 11,898.83

Net Expenditure	\$504,597.57
Hospital Days	462,371
Cost per Patient per Day	109.1c

PROFIT AND LOSS STATEMENT—FOR PERIOD ENDING MARCH 31, 1946

EXPENSE		
Inventories, March 31, -947:		
Livestock	\$ 19,132.00	
Stores	16,613.37	\$ 35,745.37
Inventories, March 31, 1948:		
Livestock	\$ 17,398.00	
Stores	15,055.22	32,453.22
Decrease in Inventories		\$ 3,292.15
Buildings and Fences		176.80
Drugs and Veterinary Supplies		223.00
Dairy Supplies		234.19
Expense Sundry		463.05
Freight, Express and Cartage		12.78
Feed		3,762.04
Gas Oil and Repairs		1,492.14
Hardware and Implements		4,614.41
Registrations and Transfers		40.00
Seed		487.65
Twine		480.60
Wages		13,845.18
Depreciation (Estimate)		500.00
Net Profit		11,894.36
		\$ 41,238.35
EXPENSE		
Sales:		
Milk and Cream	\$ 19,753.14	
Livestock	11,139.82	
Miscellaneous	173.05	
Vegetables	10,172.34	
		\$ 41,238.35

STATISTICS

Milk	751,210 lbs.	Barley	300 bus.
Pork	51,953 lbs.	Turnips	100,723 lbs.
Beef	20,108 lbs.	Beets	46,240 lbs.
Potatoes	547,980 lbs.	Greenfeed	107 $\frac{3}{4}$ tons
Oats	3,404 bus.	Flax	100 bus.
Wheat	629 bus.	Hay	155 tons

PROVINCIAL TRAINING SCHOOL, RED DEER

In Residence, Admitted, Paroled, etc.

The year opened with 272 patients (148 male, 124 female) in residence and closed with 289 (157 male, 132 female), an increase of 17 (9 male, 8 female).

There were 42 first admissions (23 male, 19 female), 10 more than in 1946. There were no re-admissions. Twelve of the first admissions were idiots, fifteen imbeciles, twelve morons and three of borderline intelligence. Eight were spastics, 10 epileptics and 2 had been repeatedly before the Juvenile Courts. The three borderline cases were refractory adolescents, as were some of the morons. The most favorable age period for admission, excepting for the infirm type, is from 5 to 10 years of age. Some other types admitted were 2 hemiplegics, 1 mongol, 1 albino, 1 blind, 1 case of infantilism, and 1 congenital G.P.I. Six of the admissions were wards of the Department of Child Welfare.

Outgoing patients numbered 25 (14 male, 11 female), as against 29 in 1946. Thirteen (7 male, 6 female) were paroled (5 to work and 8 to their own homes), (2 male, 1 female) were transferred to Ponoka, and 9 (5 male, 4 female) died. Details of these groups are given in Tables 9a, b, c. One of the paroled cases, a girl of 20, had been with us for over 17 years; another a boy of 19, for over 14 years.

Patient days totalled 102,707, as against 98,868 for the previous year.

As we had no staff to run the Gaetz House (farm dormitory) and very few farm boys left, the house was closed in May and the boys transferred to the main building. This decrease of 17 in the number of beds in use was more than made up by filling Ward 9 to capacity with transfers from the main building and new admissions.

Types of Patients in Residence.

Table 5b gives the number of idiots, imbeciles and morons in residence at the end of the year as:

Idiots	90	31%
Imbeciles	130	45%
Morons	69	24%

Interesting as such a classification may be clinically or legally, it is not very helpful from the administrative point of view. The following table is better:

	Adults	Growing	Totals	%
Infirmary Type (bedridden, need hospital care)	36 (16M 20F)	15 (9M 6F)	51	17.6
Custodial Type (mentally helpless)	71 (45M 26F)	28 (17M 11F)	99	34.3
Workers:				
(a) Permanently institutional	82 (42M 40F)	10 (7M 3F)	92	31.8
(b) Trainable for discharge	21 (4M 17F)	26 (17M 9F)	47	16.3
	210 (107M 103F)	79 (50M 29F)	289	
			(157M 132F)	

"Adult" means over 15 years of age, "growing" means over 5 and under 15. It is worth noting that 51% of all patients in residence belong to either physically helpless (infirmary) or mentally helpless (custodial) types. Also, that 35% of the "workers" are sense training or grade school children, and therefore only potential not actual workers. Finally, that grouping of the "adult workers" is only approximate, some quite capable epileptics being classed as permanently institutional, whilst some temperamentally unstable and some persistently delinquent morons are classed as trainable though the outlook for discharge in their case is very poor.

This table does, however, give a very much better picture of the Training School and some of its problems than a classification into idiots, imbeciles and morons. I would again point out that included in the permanently institutional group of workers are some patients whose work is of value only to themselves, as they would rapidly deteriorate into purely custodial cases if not encouraged to do what they can.

For other types in residence such as Mongols, epileptics, etc., see Table 10.

Applications for Admission.

There were 52 (27 male, 25 female) applications for admission; 18 (10 male, 8 female) were admitted, and 34 (17 male, 17 female) names were added to the waiting list.

As seen from Table 11, there are still 283 names on the waiting list after making all deletions and necessary corrections as against 282 a year ago. Thirty-nine of these cases have been waiting between 10 and 20 years.

Table 12 shows an increase of 31 (from 515 to 546) in the number of reported or known defectives, over and above those whose names are on the waiting list.

Patients Sexually Sterilized.

Only one patient, a female, was sterilized during the year, as against 12 the previous year. A summary of this phase of our work is given in Table 13.

Patient Activities.

The staff situation, though not normal, was so much better than the previous year, especially during the staff holiday period, that it was possible to send patients to camp, to their great delight. With the exception of a sports day, most other, health recreational, entertainment and character building activities were maintained.

Six groups of boys and five of girls—143 in all—went to camp for a week each between the middle of June and the end of the first week in September. The break from institutional routine, the afternoon hikes and games, the nightly bonfires with hot cocoa and the Friday evening weiner roast at the East Bridge (10 miles from the Training School) are great morale boosters, and live long in the patients' memories.

The usual seasonal festivities were held. Sixty-nine younger or slower patients attended the New Year's party in the gym during the afternoon and 76 workers at night, a total of 145. The school children of both groups, 33 in number, and occupational groups, 44 in number, had special picnics during the year, in addition to the usual school children's Valentine Party. The afternoon Hallowe'en Party was attended by about the usual number (85), but the evening masquerade fancy dress dance had to be cut from about 100 to 76 to give reasonable room to move about in the gym. Some 245 patients (in addition to staff and some guests) were crowded into the gym for the Christmas Concert—143 in the afternoon and 102 in the evening; 93 of the highest grade and most active boys and girls for the Christmas party in the gym on the afternoon of Christmas day. Distribution of presents took place from four Christmas trees, the main one in the gym, the others in three of the wards.

The more regular daily and weekly activities were maintained with about the usual number of participants: 22 children in the sense training class; 19 (6 male, 12 female) in the grade school; girls in the occupational classes from 3 to 4 p.m. for knitting and embroidery, etc.; groups of 5 and 6 in the dressmaking class from 4 to 5 p.m.; 17 boys in the carpentry class, split this year into a Senior Group (school boys) from 1 to 3:15 p.m., and a Junior Group from 3:15 to 4:30 p.m. The average attendance at Sunday school ran from 70 to 75, with a slight preponderance of boys; Church services from 80 to 90. The weekly picture shows in the gym averaged 130 to 150 patients. Two active and very successful groups were the Girls' Club run by the Matron and the C.G.I.T. run by the Assistant Matron with 20 to 30 girls in each. Both groups in addition to their usual meeting (very varied in nature) had some enjoyable outings: picnics at the East Bridge and Gaetz Lake, walks, sleighing parties, attendance at Church concerts (21), Vesper service (28), a Guide rally, group suppers and a district banquet, etc. A scout extension group was taken by one of the charge attendants. Two girls, in the fall, joined the United Church choir and attended choir practices and Sunday evening services regularly.

Skating and ball games in the fall suffered badly through the loss of our larger skating rink, and much of our ballfield—the ground being needed for new buildings. Outdoor activities were as well maintained as possible summer and winter owing to this and other difficulties (lack of necessary clothing). Great interest was taken by the high grade girls in Princess Elizabeth's wedding. A number were allowed to get up at 4:00 a.m. to listen to the broadcast from Westminster Abbey.

All these activities involving the supervision of many children and childlike adults may help convey some idea of the great amount of work devolving on the staff and faithfully carried out by them.

In addition to these intra-institutional activities many of the staff, in their own time and at their own expense, took individuals or small groups of patients on little outings to town, shopping or to a show, a concert, a dance revue, young people's groups, for car rides, etc, more so this past year than in any ordinary year (approximately 30 boys and 100 girls).

Other extra-institutional experiences enjoyed by the children were two regular picture shows in town, 101 boys and girls to one and 127 to the other; the Red Deer Fair with free seats for the evening show for 101 boys and girls; and 59 patients did their Christmas shopping in small supervised groups, the children spending their own money.

Ex-Patients.

A number of former patients have been in touch with us during the year—too many to list their doings individually—but most are happy and doing well.

Staff Changes and Activities.

Turnover in staff was again very heavy but less than last year: 77 left, 82 were appointed; but at the end of the year (Table 11) we were 13 female staff short, which is 20% below strength. This was a fairly average figure for the year, as we ran from 10 to 16 short most of the time. At no time had we a full staff. Nine of the staff had to be dismissed.

Fortunately we had enough summer relief staff to let us give the regular staff their summer holidays. Very fortunate indeed is that the summer relief staff included 10 University students, 2 of them premeds and the rest going in for Education and social service work. They not only made good interested nurses and attendants, but contributed a great deal in other ways to the life of the institution. They buckled in and did the ordinary work of the ordinary staff.

Miss Una Dale, R.N., our Matron for a year, resigned in July. Miss Gertha Butler, R.N., took her place. In August we were fortunate in securing the services of Miss R. M. Blaikie, S.R.N., R.R.C., who had extensive psychiatric hospital service in the Royal Navy, and came highly recommended. Three of our Charge M.D.Gs. left, two went to general hospital duty and one to private nursing. Four left to get married. The majority left with a multiplicity of reasons given, but mostly to better themselves at more attractive work.

Social activities were well maintained, socials, picnics and treasure hunts, etc. The ladies' softball team had a particularly active season. Enthusiasm ran high and permeated the whole staff, especially when the team won its way into the playoffs. They lost

by only a small margin. Outstanding was a play put on in one of the picture houses in Red Deer to raise money for the Red Deer Memorial Fund. About 20 of the staff were engaged in this endeavour, which played to full houses for two nights, and thrilled 107 of the patients who saw and still talk about the final, full-dress rehearsals.

Health of the Patients and Staff.

This was, on the whole, very good throughout the year.

Amongst the patients there was, of course, the usual run of minor accidents and ailments, but apart from a widespread epidemic of 'flu in March, when for several weeks we had 30 to 40 patients in bed daily as well as a number of the staff, there were no widespread outbreaks of scarlet fever, measles or other infectious diseases that have plagued us in other years. One boy broke his thumb, another a metacarpal; one girl gashed her arm badly on the bacon slicer (cleaning it), and one small boy developed Perthes' disease of the hip. Five patients (4 male, 1 female) were sent to Ponoka for hernia operations. One small boy for double inguinal and an umbilical.

The lack of a dentist is still keenly felt, and once again a tonsil and adenoid clinic had to be foregone for want of a full staff.

The usual inoculations against Typhoid, Diphtheria and Whooping Cough were given, Wasserman's taken, routine urines examined and other specimens as necessary.

New glasses were provided for 11 patients and 80 pairs of glasses repaired. Apart from the many who had teeth extracted by ourselves 18 patients were sent to one of the dentists in Red Deer.

Amongst the staff, three had operations for acute appendicitis. Several had tonsillectomies, and one elderly attendant had an operation for hernia. One of our senior girls was off six weeks with Pneumonia, and another with a nervous breakdown. One of the office staff suffered concussion and back injury after slipping on ice, then developed Pneumonia. For various reasons our office staff was reduced to one stenographer for all the business and correspondence of the Business and Medical Superintendent's offices for several weeks before Christmas.

INSTITUTIONAL ACTIVITIES

New Construction.

The tank house at the base of the water tower, begun the previous fall, was completed and put into use after some alterations and improvements by our own maintenance staff. Later, eavestroughing was installed on this building, the cow barn, the carpenter shop and the pasteurizing plant.

Early in the fall work was commenced on two new units, located east of the main building, to accommodate 75 male and 75 female patients.

Repairs and Maintenance.

The chicken house and hog barn seriously damaged in the incendiary fires of December, 1946, and temporarily patched up, then properly dealt with when milder spring weather permitted—roofs repaired or largely replaced, holes which had been cut or burned in

walls and ceilings were repaired, broken windows and storm sash replaced.

The gaping hole in the outside wall of Wards 7 and 8, caused by steam from the bathroom in frosty weather, was bricked up and restuccoed.

A separate tunnel was dug from the laundry to the pasteurizing plant for the cold water line, till then running alongside steam and hot water lines in the original tunnel. The cooling tank in the plant was insulated, copper pipes fitted and a Freon compressor engine installed, but other technical hitches were still preventing its use at the end of the year.

In accordance with the Fire Inspector's recommendations, a concrete vault with heavy iron door was made in the basement of the main building for safekeeping of inflammable and possibly explosive materials and liquids.

Fluorescent lights were installed in the sewing room, and the long, vexatious ventilation and heating problems overcome in December.

Some replacements of equipment were made, and there were the usual routine repairs too numerous to record—an uneventful but exceedingly busy year.

Garden.

Except for a very severe hailstorm on June 28th, and two lesser ones on the 29th and on July 2nd, the weather all year was good, and we had a good average crop of vegetables. The hail ruined about a ton of spinach on the point of being cut and shipped to Ponoka for canning, and damaged peas and lettuce.

Four acres of potatoes had to be dug early in September to permit excavations for the two new dormitory buildings. This early digging reduced the yield and seriously affected their keeping qualities.

Table 17a gives comparative yields, acreages, etc., for the garden for the past three years. In view of the shortage of high grade and older patients, this is a remarkably creditable showing as the bulk of the hoeing, weeding, gathering, carrying, etc., was done by the imbecile group and a very young group of boys.

The flower beds were very attractive as usual, but grass cutting (12 acres) was almost too much for the boys.

Farm.

The year on the farm was an average one. Results are set out in Table 17b and c. Owing to shortage of boys working on the farm, we have had to engage an extra man. This condition, however, will right itself in time. When boys are ready for discharge, it is only right that they be discharged.

Laundry and Sewing Room.

The work of these two departments is set out in Table 15 and 16, where the totals for the year can be compared with totals for the preceding five years. The drop of 1,000 in the number of articles made in the Sewing Room and of over 10,000 in articles repaired, reflects the chronic shortage of new materials and the increasing scarcity of ward equipment and clothing in use. The drop of almost

75,000 in articles laundered reflects the same scarcity: scarcity of pillows, sheets, napkins, stockings and socks, etc.

School and Occupational Therapy.

Good work has been accomplished in these sections. Till mid-summer one of our own M.D.Gs. was outstandingly successful with the sense training group. One of the University students who came for the summer took over the group in September and fully maintained the standard. This is a difficult group—22 restless, pre-school children. The monitor system was tried in the Grade School and in the Occupational Therapy classes in an attempt to develop a sense of responsibility in some of the domineering type of 'teen-ager and get co-operation through liberty rather than rebellion through repression. The occupational work in the wards, especially in the older infirmary, was still further expanded and with most gratifying results. The happiness of the patients in this group has to be seen to be realized. The usual display was sent to the Edmonton Exhibition, and the exhibit at the Red Deer Fair gained the usual favourable attention. The output of the boys' carpentry classes was really amazing considering ages and mental handicaps of the boys. As their articles sell faster than they can be made, it was hard to get enough together for the Exhibition and the Fair. This work is still greatly handicapped by lack of room.

Extra-Institutional Activities.

In March, 3 graduates and 11 student nurses from Ponoka visited the Training School. Wards and departments were visited in the forenoon and clinical cases presented in the afternoon. At various times nurses taking their post-graduate training in public health at the Red Deer Guidance Clinic were shown through the Training School.

In May, Miss Ogilvie, R.N., of the Dominion Nursing Bureau of the Departmental of National Health and Welfare, interested in the status of graduate nurses and in questions of training visited the Training School. Miss Ferguson, R.N., Director of the Nurses' Aid Training School, Calgary, and Miss Moon also paid us a visit.

In July a talk was given to teachers of the Edmonton Rural Health area attending Dr. Siemen's summer course.

Three Guidance Clinics were held in Red Deer at which 18 cases were seen.

In October, Miss Hazeldine Bishop, Executive Secretary of the Edmonton Council of Social Agencies, and Miss Margaret B. Dick, Executive Director of Edmonton Family Welfare Bureau, visited the Training School offering a further extension of services which their organizations had already been able to render some of our patients before admission.

In November, visits were paid by Dr. Clarence Hincks, Director of the National Committee for Mental Hygiene, and Miss Marjorie Keyes. Dr. Swift, Deputy Minister of Education, also spent an afternoon seeing some of the work being done, and discussing problems.

All through the year an exceptionally large number of visitors, local, from other provinces and from a number of places in the States—teachers, students, workers in similar institutions and others—visited the Training School and were shown through.

TABLE 1
MOVEMENT OF FEEBLE-MINDED POPULATION

	Male	Female	Total
Defectives on books of Institution at January 1st, 1947:			
In the Provincial Training School, Red Deer, Alberta	148	124	272
ADMISSIONS:	Male	Female	Total
1. First admissions, voluntary	25	19	42
2. Re-admissions	—	—	—
3. Transfers, P.M.H.	—	—	—
Total number of admissions	23	19	42
Total number of Defectives on the books during 1947	171	143	314
OUTGOING:			
1. Paroles	7	6	13
2. Transfers	2	1	3
3. Deaths	5	4	9
Total number of outgoing	14	11	25
Defectives on books of the Institution at Dec. 31, 1947	157	132	289

TABLE 2

RESPONSIBILITY FOR MAINTENANCE OF PATIENTS IN RESIDENCE, DEC. 31, 1945

	In Residence	Percent.
Wards of the Province of Alberta	18	6.2
Wards of the Municipal Districts of Alberta	233	86.0
Wards of the Department of Municipal Affairs of Alberta	30	10.4
Private cases in Residence	1	.4
Wards of the Department of Pensions and Health, Ottawa	2	.7
Wards of the Dominion Government	2	.7
Unascertained	3	1.0
Total	289	

TABLE 3

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	6	6	12	—	—	—	—	—	—	6	6	12
Imbecile	10	5	15	—	—	—	—	—	—	10	5	15
Moron	7	8	15	—	—	—	—	—	—	7	8	15
Totals	23	19	42	—	—	—	—	—	—	23	19	42

TABLE 4

NATIVITY OF ADMISSIONS, RE-ADMISSIONS AND OF PARENTS OF ADMISSIONS

	Patients			Parents			Parents		
	Male			Male			Female		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Prince Edward Island	—	—	—	1	—	1	—	—	—
New Brunswick	—	—	—	1	—	1	1	—	1
Quebec	—	—	—	1	—	1	1	—	1
Ontario	—	—	—	2	1	3	2	5	7
Manitoba	—	1	1	—	1	1	—	—	—
Saskatchewan	1	—	1	1	—	1	1	2	3
Alberta	22	17	39	4	10	14	1	5	6
British Columbia	1	—	1	—	—	—	—	—	—
Canada	—	—	—	1	1	2	1	—	1
United States	—	—	—	4	4	8	3	1	4
England	—	—	—	5	2	7	2	1	3
Scotland	—	—	—	—	—	—	1	—	1
France	—	—	—	—	1	1	—	—	—
Poland	—	—	—	—	—	—	2	2	4
Russia	—	—	—	1	2	3	—	1	1
Roumania	—	—	—	1	—	1	1	—	1
Unascertained	—	—	—	1	1	2	3	2	5
Totals	23	19	42	23	23	46	19	19	38

TABLE 5a

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.
0-5	1	1	2	—	—	—	—	—	—	1	1	2
5-9	1	3	4	3	1	4	1	—	1	5	4	9
10-14	3	1	4	5	1	6	4	5	9	12	7	19
15-19	1	1	2	1	1	2	1	3	4	3	5	8
20-24	—	—	—	1	1	2	1	—	1	2	1	3
25-30	—	—	—	—	1	1	—	—	—	—	1	1
Totals	6	6	12	10	5	15	7	8	15	23	19	42

TABLE 5b

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	11	6	17	8	6	14	4	...	4	12	10	22
10-14	16	8	24	11	11	22	7	18	25	34	37	71
15-19	11	3	14	17	6	23	1	5	6	20	14	43
20-24	4	3	7	15	5	20	1	1	2	20	9	29
25-29	5	8	13	3	6	9	1	2	3	9	16	25
30-34	2	4	6	3	9	13	1	1	2	6	14	20
35-39	...	2	2	2	3	5	...	...	...	2	5	7
40-44	...	...	3	1	1	2	...	...	...	1	4	5
45-49	...	...	...	1	...	1	...	...	...	1	...	1
50-54	...	...	...	...	...	...	...	...	...	...	...	...
Totals	49	41	90	79	51	130	29	40	69	157	132	289

TABLE 6

ENVIRONMENT OF ADMISSIONS

	Idiot			Imbecile			Moron		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Rural	4	2	6	6	2	8	3	5	8
Urban	2	4	6	4	3	7	4	3	7
Totals	6	6	12	10	5	15	7	8	15

TABLE 7

RELIGION OF ADMISSIONS

Denominations	Idiot			Imbecile			Moron		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Presbyterian	1	...	1	1	1	2	...	...	...
United Church	...	1	1	3	1	4	1	2	3
Roman Catholic	3	...	3	2	...	2	1	2	3
Greek Orthodox	1	1	2	...	...	...	...	...	...
Pentecostal	...	...	...	...	...	...	1	...	1
Nazarene	...	...	...	...	...	...	1	...	1
Latter Day Saint	...	1	1	...	...	...	...	...	...
Church of England	...	...	...	1	2	3	1	1	2
Greek Catholic	...	...	...	1	...	1	...	...	...
Baptist	...	1	1	...	...	...	2	1	3
Unascertained	1	2	3	2	2	3	...	2	2
Totals	6	6	12	10	5	15	7	8	15

TABLE 8

ECONOMIC CONDITION OF FAMILIES OF ADMISSIONS CLASSIFIED WITH REFERENCE TO MENTAL STATUS

Economic Condition	Idiot			Imbecile			Moron		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Comfortable	...	1	1	4	...	4	...	1	1
Marginal	5	5	10	5	5	10	6	6	12
Dependent	1	...	1	1	...	1	1	1	2
Totals	6	6	12	10	5	15	7	8	15

TABLE 9

OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS AND CHRONOLOGICAL AGE

A—PAROLES

Age Group	Imbecile			Moron			Borderline			Years in Residence
	M.	F.	T.	M.	F.	T.	M.	F.	T.	
10-14	1	...	1	...	...	...	...	...	...	0/1 4/11
15-19	...	...	...	1	1	...	...	...	...	4/7 0/11 9/2 0/0 3/2 3/10
20-24	...	...	...	1	1	...	...	...	...	17/3 14/6 4/0 5/8 3/11
Totals	2	1	3	5	5	10	...	...	...	68/1

OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS AND CHRONOLOGICAL AGE

B—TRANSFERS

Age Group	Idiot			Imbecile			Moron			Years in Residence
	M.	F.	T.	M.	F.	T.	M.	F.	T.	
15-19	6-8
20-24	1	1	.....	.....	.....	.....	.....	.....	11/8 13/3
Totals	1	1	1	.....	1	.....	1	.....	31/7

OUTGOING PATIENTS CLASSIFIED WITH REFERENCE TO MENTAL STATUS AND CHRONOLOGICAL AGE

C—DEATHS

Cause of Death	Age	Idiot			Imbecile			Moron			Years in Residence
		M.	F.	T.	M.	F.	T.	M.	F.	T.	
Status Epilepticus	25-29	.....	.....	.....	.....	.....	.....	1	.....	1	12/2
Bronchopneumonia	5-9	1	.....	1	.....	.....	.....	.....	.....	.....	0/4
	10-14	.....	1	1	.....	.....	.....	.....	.....	.....	1/6
	25-29	.....	.....	.....	1	.....	1	.....	.....	.....	4/9
	30-34	1	.....	1	.....	.....	.....	.....	.....	.....	17/9 18/11
Myocarditis	20-24	.....	1	1	.....	.....	.....	.....	.....	.....	6/0
Severe Ulcerations of Mouth and Throat	15-19	.....	1	1	.....	.....	.....	.....	.....	.....	1/8
Epilepsy	40-44	1	.....	1	.....	.....	.....	.....	.....	.....	28/8
Total		3	4	7	1	.....	1	1	.....	1	91/9

TABLE 10

SOME OF THE TYPES IN RESIDENCE

Classification	Idiot			Imbecile			Moron			Total			Percentage
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
Infirmity Type:													
(a) Physically Helpless	17	15	32	11	9	20	3	1	4	31	25	56	19.4
(b) Mentally Helpless	30	24	54	22	8	31	2	.....	2	54	33	87	30.1
M.D. and Epileptic	14	14	28	12	3	15	6	7	13	32	24	56	19.4
M.D. and Delinquent	.....	.....	.....	.....	.....	.....	1	1	2	1	1	2	.7
M.D. and Psychotic	.....	1	1	.....	.....	.....	1	.....	1	1	1	2	.7
Mongols and Mongoloids	5	1	6	12	8	29	1	.....	1	18	9	27	9.3
Totals	66	55	121	57	29	86	14	9	23	137	93	230	79.6

TABLE 11

APPLICATIONS AWAITING ADMISSION

Applications dated:	Male Female Total			Applications dated:	Male Female Total		
	Male	Female	Total		Male	Female	Total
1928 to 1939	16	23	39	1945	21	18	39
1940	8	7	15	1946	21	16	37
1941	12	13	25	1947	17	17	34
1942	12	12	24		142	141	283
1943	16	16	32				
1944	19	19	38				

TABLE 12

KNOWN DEFECTIVES

Reported	M. F. T.			Reported during	M. F. T.		
	M.	F.	T.		M.	F.	T.
1926 to 1937	117	93- [*] 8	218	1944	15	19- [*] 2	36
1938	16	16- [*] 1	33	1945	22	11- [*] 1	34
1939	15	19	34	1946	23	18- [*] 4	45
1940	14	12	26	1947	16	13- [*] 6	35
1941	9	9	18		289	232	546
1942	27	15- [*] 1	43				
1943	15	7- [*] 2	24				

*Indicates sex unknown.

TABLE 13
EUGENICS SUMMARY

	Male	Female	Total
A—TRAINING SCHOOL CASES:			
Presented and Approved:			
P.T.S.	71	73	144
Out-patient	1	1	2
Totals	72	74	146
Operations			
Paroled, Transferred, etc.	60	71	131
In Residence	47	59	106
In Residence			
.....	13	12	25
B—STERILIZED BEFORE ADMISSION			
Paroled, Transferred, etc.	8	50	58
In Residence	4	36	40
In Residence			
.....	4	14	18
C—TOTAL OF STERILIZED CASES			
Total of Paroled, etc.	68	121	189
In Residence	51	95	146
In Residence			
.....	17	26	43
D—PERCENTAGE OF POPULATION			
	15.9%		

TABLE 14
STAFF—DECEMBER 31, 1947

	M.	F.	T.		M.	F.	T.
Medical Superintendent	1		1	Student	8	17	25
Social Worker, voluntary				Non-student	8	7	15
Medical Assistant	1	1		Farm Dormitory	2		2
Dentists				Boiler Room Staff, Public Works	6		6
Dietitian				Maintenance Staff, Public Works	3		3
Teachers:				Night Watchman, Public Works	1		1
Grade (Normal Grad.)	1	1					
Sense Training	1	1					
Occupational Therapist	1	1					
Gym Instructress							
Business Superintendent	1		1		38	53	91
Stenographers		3	3				
Clerks	1		1	Shortages:			
Kitchen Staff		2	2	Gym Instructress		1	1
Dining Room Staff		3	3	Stenographers		1	1
Laundry Staff		3	3	Kitchen Staff		3	3
Sewing Room Staff		2	2	Dining Room Staff		1	1
Gardener	1		1	Laundry		1	1
Farmer and Farm Help	2		2	Surgery Nurse, R.N.		1	1
Dairyman	1		1	Ward Aides, Student		4	4
Matron, R. N.		1	1	Farm Dormitory		1	1
Asst. Matron, S.R.N. Eng.		1	1				
Surgery Nurse				Authorized Public Health Quota	27	66	93
Night Supervisors, M.D.G.		2	2				
Attendants and W. Aides:							
Approved	3	8	11				

TABLE 15
SEWING ROOM—SUMMARY OF ARTICLES MADE AND REPAIRED IN 1947

Articles	Quantity	Articles	Quantity			
Aprons	87	Pads, Chair	15			
Bandages, triangle	28	Pillow Cases	186			
Bedjackets	87	Rompers	13			
Bibs	165	Sanitary Belts	37			
Blouses	43	Sheets	157			
Bloomers	282	Sleeves, Canvas	76			
Brassieres	3	Shorts	64			
Chemises	174	Slips	59			
Cloths: Face 208, Dish 4, Table 12, Tray 24 N	248	Suits, Canvas	4			
Coveralls	60	Suspenders	17			
Curtains	10	Towels: Huck 155, Tea 213	368			
Coats, Attendants'	2	Uniforms: Nurses 107, Caps 14	121			
Covers: Bedpan 24, Blanket 2, Book 1, Couch 3, Mattress 10, Cushion 2, Press 30	72	Dining Room 6, Aprons 8, Cuffs 16, Collars 8, Caps 4	42			
Dresses	417	Miscellaneous	18			
Halters	3	Total No. of articles made	3,932			
Handkerchiefs	84	Total No. of articles repaired	59,165			
Kneelers	8					
Knee Pads	3	Manufactured				
Laundry Bags	37	Repaired				
Mats, Bath	8	1942	1943	1944	1945	1946
Napkins	724	3,623	3,334	4,629	4,106	4,989
Nightgowns	210	69,151	69,151	69,310	75,322	69,500

TABLE 16
LAUNDRY

Articles laundered:				
1941	398,846	1945	510,000	
1943	466,174	1946	525,594	
1944	463,174	1947	451,038	

TABLE 17

A.—GARDEN PRODUCE FOR HOME CONSUMPTION

Product	1945	1946	1947
Beans, Green	lbs. 1,350	1,210	1,465
PMH—Canning		1,270	2,000
Beets	lbs. 12,000	9,600	9,630
Carrots	lbs. 20,500	20,060	22,060
Farm Use		3,000	22,000
Cabbage	lbs. 7,650	8,385	14,000
Chard, Swiss	lbs. 3,500	1,900	1,800
Celery	lbs. 900	645	920
Cucumbers	lbs.	253	479
Cauliflower	lbs. 1,800	1,340	1,850
Lettuce	lbs. 2,000	2,235	2,605
Onions	lbs. 1,275	1,560	1,270
Potatoes	124,025	147,450	113,860
Purchased			32,460
Parsnips	lbs. 11,710	8,700	11,035
Peas, Green	lbs. 1,500	1,385	1,320
PMH—Canning		1,220	2,700
Radishes	lbs. 564	390	370
Rhubarb	lbs. 3,420	3,460	2,470
Spinach	lbs. 1,140	1,750	1,420
PMH—Canning		5,790	Hilled
Turnips	lbs. 26,270	21,300	46,500
Farm Use		95,700	
Tomatoes	lbs.	395	482
Vegetable Marrows	lbs.	900	1,270
Book Value		\$ 3,913.84	\$ 3,800.55

ACREAGES:

Lawns and Flower Beds	12
Vegetable Garden	5
Potato Field	10

HEDGES:

Caragana	835 yds.
Spruce	637 yds.
Willow	120 yds.

B.—FARM PRODUCE FOR HOME CONSUMPTION

Product	1945	1946	1947
Barley	bus. 584		665
Beef	lbs.	1,870	
Eggs	doz. 4,354	4,460	4,934
Greenfeed	bdls. 14,500	43,000	13,617
Hay	tons 90	20	85
Oats	bus. 4,004	4,380	1,347
Milk, Kitchen	lbs. 262,500.5	269,924.5	296,132
Farm Feed	lbs.	14,068	
Pork, dressed	lbs. 9,445	10,331	13,996
Poultry, dressed	lbs. 815	826	1,323
Wheat	bus.		464
Book Value		\$13,995.04	\$15,318.35

C.—FARM PRODUCE SOLD AT MARKET

To Calf sales	\$ 95.00	\$ 67.00
To Cattle sales		240.00
To Lard sales	97.25	98.30
To Hog sales	1,429.38	486.41
To Horse sales		25.00
To Milk sales		89.39
	\$ 1,621.63	\$ 1,006.10

ACREAGES

Barley	31	Pasture, wild	20
Greenfeed	38	Pasture, tame	70
Hay	60	Summerfallow	26
Oats	46	Wheat	18
Wild Land	265	Camp and Barns	14

DEPARTMENT OF PUBLIC HEALTH

TABLE 18
STATEMENT OF REVENUE AND EXPENDITURE FOR THE YEAR ENDED
MARCH 31, 1947

REVENUE		Cost per Patient Day
Patients' maintenance charges	\$ 48,919.50	
Less: Charges to indigent patients and uncollective charges.....	3,615.70	
	<u>\$45,303.80</u>	
EXPENDITURE		
Administration	\$ 11,479.26	\$.1157
Professional care of patients	84,288.43	.8499
Occupational Activities	5,080.83	.0512
Kitchen and Dining Room	51,420.65	.5105
General House	13,750.54	.1386
Transportation	2,472.77	.0239
Stores Expense	1,238.71	.0125
Farm, garden and grounds	Cr. 3,457.76	Cr. .0349
Upkeep of buildings and power house	40,634.39	.4097
	<u>\$206,907.82</u>	<u>\$2.0862</u>
Total Expenditure	\$206,907.82	\$2.0862
Cash collected	45,303.80	
Net Cost to the Province	<u>\$161,604.02</u>	<u>\$1.6294</u>

Guidance Clinics

The year 1947 saw a considerable expansion in the Provincial Guidance Clinics, particularly in southern Alberta. For the first time in this Province, a full-time Clinic Psychiatrist, Dr. A. Ralph Schrag, was appointed, taking over his duties on this basis on September 1st, with headquarters in Calgary. Also, during the year two full-time Psychiatric Social Workers were appointed: Miss J. K. Lind and Miss J. Bingham, and a part-time worker, Mrs. N. Parsons, all for the Clinic in Calgary. Mrs. L. A. Storey, who has given such valuable service in the past years, resigned at the end of March to give her full time to her domestic duties. Mrs. Parsons took Mrs. Storey's place on a part-time basis, beginning the 1st of April.

The increased staff in Calgary allowed several Clinics to be re-opened and several new Clinics to be opened in southern Alberta, during the last four months of the year, as noted below. With no increase in staff available in Clinic work from Red Deer north, there has been little increase in Clinics in this part of the Province. However, regular Clinics have been maintained at Lamont, Red Deer and Stettler.

Dr. A. D. MacPherson, who joined the Provincial Mental Institute staff, took over the Edmonton Clinic work when Dr. A. R. Schrag left for Calgary. Dr. MacPherson has been assisted by Dr. F. B. Jordan of the Provincial Mental Institute staff. In January, 1947, Miss M. Spencer replaced Mrs. A. S. Gibson at the Edmonton Clinic, and carried on the work during the year. Miss Spencer was married in August, becoming Mrs. R. Brown, but she continued her duties with the Clinic.

The total number of Clinics held in 1947 was 106 as compared with 85 in 1946. This is accounted for, mainly, by the increased number of Clinics held in southern Alberta during the latter part of the year. The total number of new cases seen in 1947 was 487, as compared with 325 in 1946. The total number of follow-ups and interviews in 1947 was 1,303, as compared with 1,023 for 1946. The total case-load for 1947 (new cases plus follow-ups and interviews) was 1,790, as compared with 1,348 for 1946. The total new cases seen since the Guidance Clinic started in 1929, and to the end of 1947, is 6305. Further details regarding the work at the various Clinic Centres are as given in the sections below.

EDMONTON AND RED DEER DISTRICTS

Edmonton:

In 1947, 51 half-day Clinics were held, as compared with 48 in 1946; 166 new cases were seen, while 151 new cases were examined. The Edmonton Clinic has continued to be a very busy one, and the appointment list is usually filled for several Clinic days in advance. The regular Clinics are held each Monday afternoon, but from time to time special arrangements are made to see urgent cases who cannot be examined on regular Clinic days. The demand for the

Guidance Clinic service is steadily increasing in Edmonton, and even at its present level, full-day Clinics for one or more days per week could be maintained without difficulty.

Edmonton Rural Health Unit:

During 1947, 8 full-day Clinics were held for cases from the Edmonton Rural Health Unit. These Clinics were held in the Guidance Clinic rooms in the Provincial Building, and during the year 56 new cases were examined. During 1946, 52 new cases were seen. Mr. John McDougall, who is doing Mental Hygiene work in the Health Unit, attended each of the Clinics. He assisted with the work and was available for a discussion of cases which were examined. This arrangement has proved a very workable and advantageous one. The Clinics are held approximately every fourth Friday.

Lamont:

Four Clinics were held in Lamont during 1947 and 28 new cases were seen. The Clinics were held in the Health Unit Offices and the appointments arranged by the Health Unit staff. The co-operation and assistance of the Medical Health Officer and his staff are very much appreciated.

Ponoka:

Five new cases were examined by appointment at Ponoka during the year. No regular Clinics were held at this Centre.

Red Deer:

Dr. D. L. McCullough was in charge of the four Clinics held at Red Deer during 1947; 14 new cases were examined, as compared with 11 cases seen in 1946. Again the Clinic has enjoyed the co-operation and assistance of the Red Deer Health Unit staff. The Clinics were held in the Health Unit Offices, and appointments were made by the Health Unit staff.

Stettler:

No Clinics were held at Stettler during 1946. However, it was possible to arrange for two during the last half of 1947. Only four cases were seen, due to the fact that bad weather and blocked roads prevented other cases, for whom appointments had been made, from coming in on the Clinic days. Again we wish to thank the Stettler Health Unit staff for the splendid co-operation which they gave us. Dr. R. R. MacLean was in charge of one Clinic at Stettler, and Dr. T. C. Michie was in charge of the second.

SOUTHERN ALBERTA

During the first year eight months of the year the Clinics in Calgary were attended by Dr. R. R. MacLean, Dr. T. C. Michie, and Dr. J. M. Byers, from the Provincial Mental Hospital in Ponoka. Dr. A. R. Schrag took over on September 1st. The office in the City Hall, which had been supplied by the courtesy of the Health Department of the City of Calgary, was vacated on November 10th, and the new offices at 710 14th Avenue West, were occupied. These offices are proving very satisfactory, and we appreciate the many courtesies shown us by the Department of Public Works.

Calgary:

Twenty Clinics were held. There were 113 new cases, and the total case load was 817.

The following Clinics, which were closed because of lack of staff during the war, were re-opened:

Lethbridge:

Three Clinics were held, and 25 new cases were examined, the total case load was 61.

Appointments were made through the local Superintendent of Schools, and Mrs. E. Evans, Matron of the Lethbridge Nursing Mission.

Medicine Hat:

Six Clinics were held, 47 new cases were examined, and the total case load was 194. Appointments are made through the Senior Principal and Miss M. E. Hagerman, Public Health Nurse.

High River:

Two Clinics were held, 10 new cases were examined, and the total case load was 35. Appointments were made through the Foothills Health Unit.

Two Clinics were held, 5 new cases were examined, and the total case load was 19. Appointments were made through the Rosebud Health Unit.

New Clinics were organized at the following Centres:

Brooks:

One Clinic was held, 5 new cases were examined, and the total case load was 23. Appointments were made through the School Superintendent or the Public Health Nurse of the Brooks Health District.

Claresholm:

One Clinic was held, 8 new cases were examined, and the total case load was 24. Appointments are made through the Public Health Nurse of the Macleod Health Unit.

Pincher Creek:

One visit was made to organize the Clinic, and 1 new case was examined.

We gratefully acknowledge the assistance and helpful co-operation of School Superintendents of all the Clinic Centres, and of Mrs. E. Evans, Matron of the Nursing Mission, Lethbridge; Miss M. E. Hagerman, Public Health Nurse, Medicine Hat; the Medical Health Officers and Staffs of the Foothills and Rosebud Health Units, and of the Public Health Nurses for the Health Districts of Brooks and Macleod.

General:

It is of interest to note that Clinics have been re-opened in Lethbridge, Medicine Hat, Didsbury and Stettler, and at the end of 1947 the only Clinic Centre close during the war and not re-opened was Drumheller. Also it was not possible to re-establish the series of Clinics held in the fall in the Peace River-Grande Prairie Block. New Clinics have been opened at Brooks, Claresholm and Pincher Creek.

The tables which follow, and which are self-explanatory, give a statistical analysis for the work of the year.

TABLE 1
SUMMARY OF NEW CASES EXAMINED AND FOLLOW-UP WORK

Place	No. of Clinics	New Cases	Follow-ups and Interviews	Case Load Total	Total New Cases Since 1929
Edmonton	51*	166	405	571	2021
Edmonton Rural†	8	56	6	62	108
Calgary	20	113	704	817	1702
Lethbridge	3	25	36	61	652
Medicine Hat	6	47	57	104	592
Red Deer	4	14	7	21	156
Other Clinics	14	66	88	154	1074
Totals	106	487	1303	1790	6305

*Half-day Clinics. Other Clinics are full-day Clinics.

†Edmonton Rural Clinics dealt with cases referred from the Edmonton Rural Health Unit area. The Clinics are held in the Edmonton Clinic quarters.

Clinics in Lethbridge and Medicine Hat were re-opened in the fall of 1947.

Other Clinics include those at Brooks, Claresholm, Didsbury, High River, Lamont, Pincher Creek, Ponoka and Stettler.

TABLE 2
AGE AND SEX CLASSIFICATION OF NEW CLINIC CASES, 1947

Age Group	Edmonton			Calgary			Other Clinics			Totals			Percentages		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0-4	6	2	8	11	5	16	3	6	9	20	13	33	4.1	2.7	6.8
5-9	28	9	37	21	10	31	46	25	72	95	44	139	19.6	9.0	28.6
10-14	44	18	62	13	12	25	46	26	72	103	56	159	21.2	11.6	32.8
15-19	14	8	22	5	11	16	16	7	23	35	26	61	7.2	5.3	12.5
20-24	4	4	8	3	3	6	1	2	3	3	9	12	0.6	1.8	2.4
25-29	2	6	8	4	4	8	3	1	4	5	11	16	1.0	2.3	3.3
30-34	2	2	4	4	4	8	3	2	5	3	8	11	0.6	1.6	2.2
35-39	3	3	6	2	2	4	4	4	8	5	6	11	1.0	1.2	2.2
40-44	2	2	4	1	1	2	1	2	3	4	5	9	0.8	1.0	1.8
45-49	2	8	10	1	2	3	1	2	3	4	4	8	0.8	0.8	1.6
50 and over	3	4	7	1	4	5	6	5	11	10	13	23	2.1	2.7	4.8
Age unknown	2	3	5	.....	.....	.....	.....	.....	.....	2	3	5	0.4	0.6	1.0
Totals	108	58	166	55	58	113	126	82	208	298	198	487	59.4	40.6	100.0

M—Male. F—Female. T—Total.

TABLE 3a
CLASSIFICATION OF NEW CLINIC CASES—PRE-SCHOOL GROUP
(1 MONTH TO 6 YEARS 11 MONTHS)

Nature of Case	Edmonton	Calgary	Lethbridge	Medicine Hat	Other Clinics	Totals
Mental Deficiency:						
(a) General Retardation	3	13	2	1	4	23
(b) With Physical Defect	1	.....	.....	1	1	3
(c) With other Conditions	.....	.....	.....	1	1	2
Epilepsy	1	.....	.....	.....	.....	1
Behaviour Problems	.....	5	.....	.....	.....	5
Other Conditions	5	3	1	.....	1	10
Totals	10	21	3	3	7	44

TABLE 3b
CLASSIFICATION OF NEW CLINIC CASES—SCHOOL AGE GROUP
(7 YEARS 0 MONTHS-18 YEARS 11 MONTHS)

Nature of Case	Edmonton	Calgary	Lethbridge	Medicine Hat	Other Clinics	Totals
Mental Deficiency:						
(a) General Retardation	46	21	6	22	45	140
(b) With Physical Defect	4	3	.....	1	.....	8
(c) Epilepsy	10	2	.....	1	3	16
(d) Other Conditions	1	.....	.....	.....	.....	1
Backward in School	9	4	2	.....	10	34
Behaviour Problems	27	28	2	4	24	85
Sex Delinquency	.....	3	.....	.....	.....	3
Epilepsy	1	.....	.....	1	3	5
Other Conditions	21	6	.....	1	28	56
Totals	119	67	10	30	122	348

TABLE 3c
CLASSIFICATION OF NEW CLINIC CASES—ADULT GROUP
(19 YEARS AND OVER)

Nature of Case	Edmonton	Calgary	Lethbridge	Medicine Hat	Other Clinics	Totals
Mental Deficiency:						
(a) General Retardation	6	2	3	.....	.....	11
(b) Epilepsy	1	1	.....	.....	1	3
(c) Sex Delinquency .....	.....	.....	1	.....	.....	1
(d) Behaviour Problem .....	.....	.....	1	.....	.....	1
Psychosis:						
(a) Other than G.P.I.	15	11	2	8	.....	36
(b) Psychoneurosis	5	4	2	4	5	20
(c) Arteriosclerosis .....	.....	.....	1	.....	.....	1
Other Conditions	10	7	2	2	1	22
Totals	37	25	12	14	7	95
Table 3b Totals	119	67	10	30	122	348
Table 3b Totals	10	21	3	3	7	44
Grand Totals	166	113	25	47	136	487

TABLE 4
AGENCIES REFERRING NEW CLINIC CASES, 1947

Agencies	Edmonton	Calgary	Lethbridge	Medicine Hat	Other Clinics	Totals
School Officials and Teachers	56	19	8	26	1	110
Private Medical Practitioners	26	16	8	21	9	80
Full-time Health Units	4	1	.....	.....	107	112
Medical Health Officers, Public Health Nurses	16	20	.....	.....	13	49
Provincial Child Welfare, Children's Aid, Juvenile Court	26	20	1	.....	.....	47
Provincial Gaols, Adult Courts .....	.....	.....	7	.....	1	8
Homes (Beulah, Kiwanis, Mountview, Salvation Army, etc.)	4	11	.....	.....	.....	15
Parents, Relatives, Friends	13	11	.....	.....	1	25
Provincial Health Department	2	4	.....	.....	2	8
Self	6	3	1	.....	2	12
Other Agencies	13	8	.....	.....	.....	21
Totals	166	113	25	47	136	487

TABLE 5
MAJOR RECOMMENDATIONS MADE IN REGARD TO NEW CLINIC CASES, 1947

Recommendation	Edmonton	Calgary	Lethbridge	Medicine Hat	Other Clinics	Totals
Admission to Institutions:						
(a) Mental Hospital	10	5	4	2	2	23
(b) Provincial Training School	19	12	.....	1	6	38
(c) Private Institution .....	.....	6	1	3	5	15
Foster Home Placement	6	3	1	.....	.....	10
Special Class Placement or Modified School Programme	34	12	2	19	20	87
Special Vocational Guidance	3	.....	1	.....	1	5
General Advice with no Environmental Change	51	52	14	21	82	220
Medical Treatment by Referral:						
Source	4	5	1	1	3	14
Treatment by Guidance Clinic	9	18	1	.....	2	30
Other Recommendations	30	.....	.....	.....	15	45
Totals	166	113	25	47	136	487

DEPARTMENT OF PUBLIC HEALTH

TABLE 6
YEARLY SUMMARY OF GUIDANCE CLINIC WORK SINCE 1937

Year	No. of Clinics	New Cases	Follow-ups, Interviews	Total Case Load	Total New Cases Examined
Total New Cases from 1929 to 1937	97	406	632	1038	2942
1938	95	403	1275	1678	3348
1939	94	356	1398	1754	4107
1940	88	344	1315	1659	4451
1941	70	310	1272	1582	4761
1942	64	212	1013	1225	4973
1943	67	267	972	1239	5240
1944	60	253	695	948	5493
1945	85	325	1023	1348	5818
1946	106	48	1303	1790	6305

TABLE 7
SUMMARY OF NUMBER OF MENTAL DEFECTIVES EXAMINED BY YEARS, 1947

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.	M.	F.	T.		
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
1947	3	1	28	14	77	48	19	14	127	77	204	41.9%	2205

*Number of Mental Defectives examined previous to 1938 (based in part on estimates).
M—Males, F—Females, T—Totals.

The Eugenics Board

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

The Eugenics Board met five times during 1947, for the carrying out of its duties. All five meetings were held at the Provincial Mental Hospital, Ponoka, on the dates given below:

20 February, 1947—Provincial Mental Hospital.

1 May, 1947—Provincial Mental Hospital.

19 June, 1947—Provincial Mental Hospital.

25 September, 1947—Provincial Mental Hospital.

13 November, 1947—Provincial Mental Hospital.

Cases Presented.

During 1947 the Board examined 91 new cases and 1 female case previously considered was reviewed. Thirty-eight male cases and 53 female cases made up the 91 new cases presented and passed, a number subject to the consent of the patient, or parent or guardian, or to both patient and parent.

Thirteen of the 91 cases presented and passed by the Board had been examined previously at one of the Department of Health Guidance Clinics. This number is made up of 4 male and 9 female cases.

Operations, 1947:

Thirty-one operations for sexual sterilization were performed in 1947, 16 on male and 15 on female cases. All of the operations were performed at the Provincial Mental Hospital. In six of the female cases operated on the appendix was removed, and in one female case a hernia was repaired.

All the cases operated on were considered and passed by the Board during 1947, except 3 of the female cases, 2 of which were passed in 1946 and 1 in 1945.

The sexual sterilization operations were performed either by Dr. J. W. Richardson of Calgary, or by Dr. J. Ross Vant or Dr. R. H. Horner, both of Edmonton.

Board Member Changes.

The Board deeply regrets the death of Dr. E. G. Mason, one of its original members, early in 1947. Dr. Mason had taken a very keen interest in the activities of the Board during his long term as a member, and had made a very real contribution to its deliberations and work.

The vacancy caused by Dr. Mason's death has been very suitably filled by the appointment of Dr. E. R. Selby, of Calgary. Dr. Selby has attended all the meetings of the Board during the year, and his broad experience and mature judgment have proved a real asset.

Staff Changes.

There were no major staff changes during 1947. Mrs. A. M. James, who worked on a part-time basis only as Clinic and Eugenics Board stenographer during the first eight months of the year, came

on full-time in September. This has greatly facilitated keeping the records up-to-date. Mr. E. J. Kibblewhite continued during the year as Secretary of the Board.

Appreciation.

The Eugenics Board wishes to again express its appreciation and thanks to Dr. R. R. MacLean, General Medical Superintendent of Provincial Mental Institutions, and to his staff at the Provincial Mental Hospital, for the courteous treatment and able assistance which has been given them in their visits to Ponoka during the year.

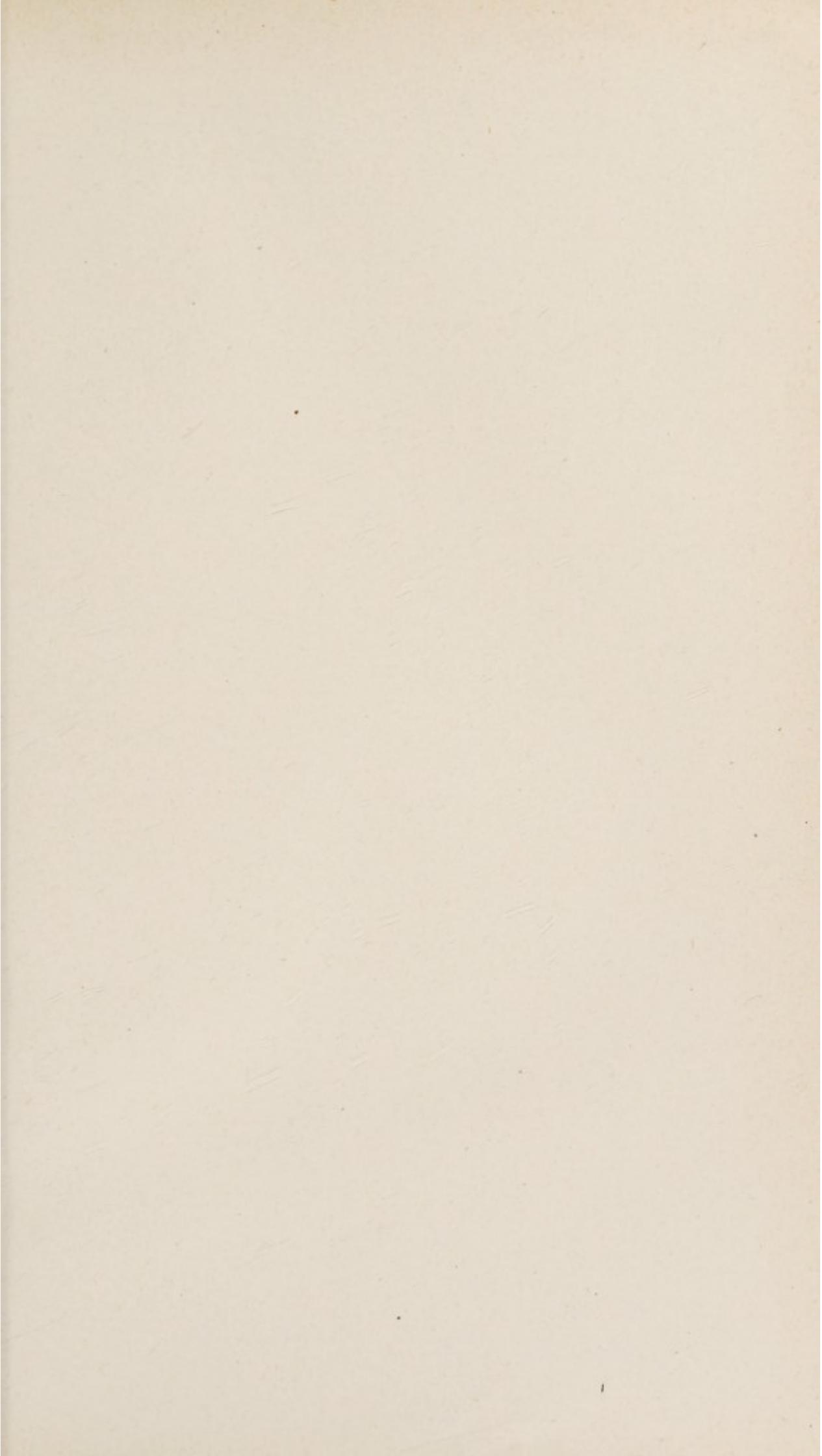
A tabular summary of the work of the Eugenics Board to December 31st, 1947, is appended.

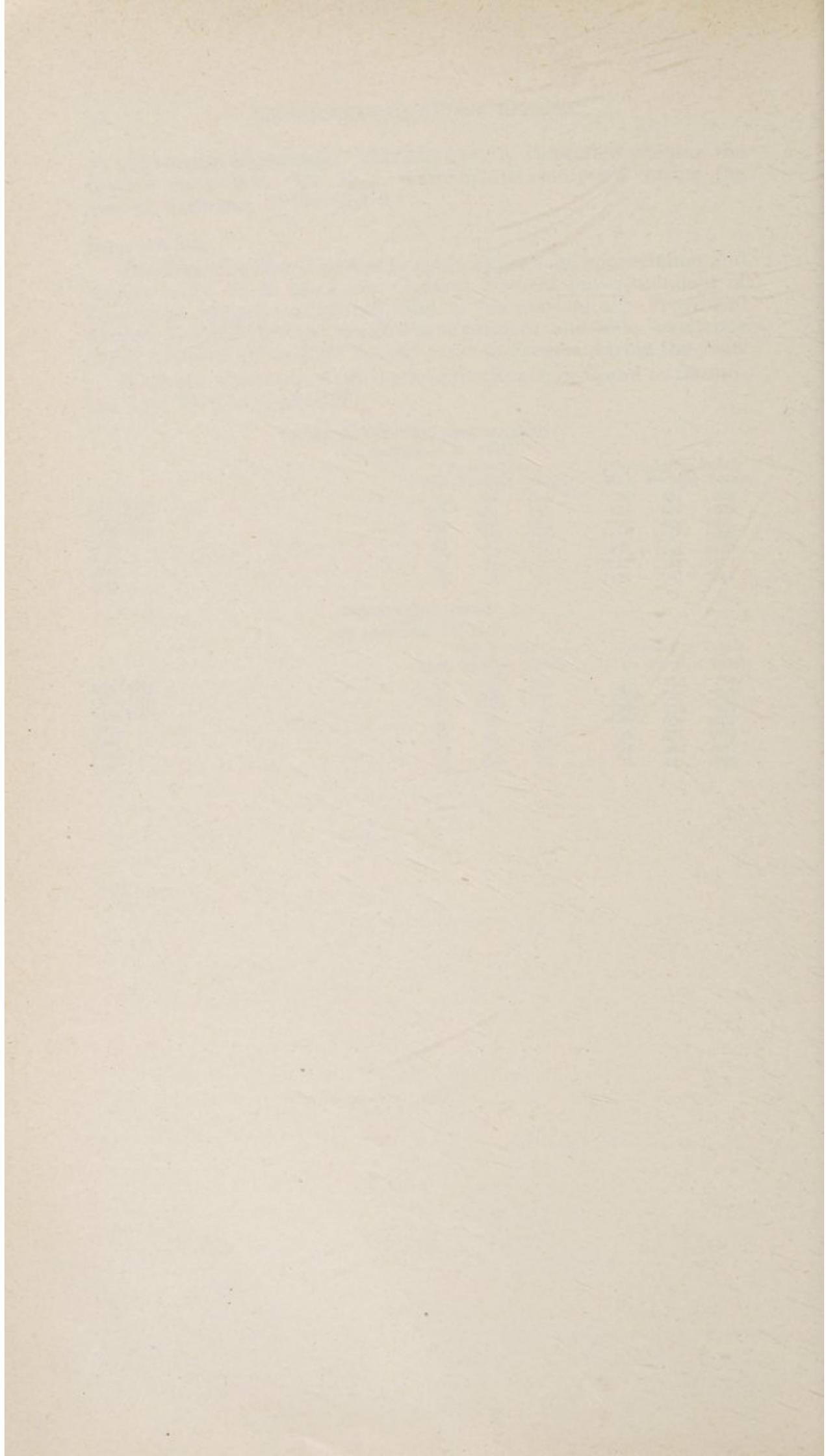
CASES PRESENTED AND PASSED (To December 31, 1947)

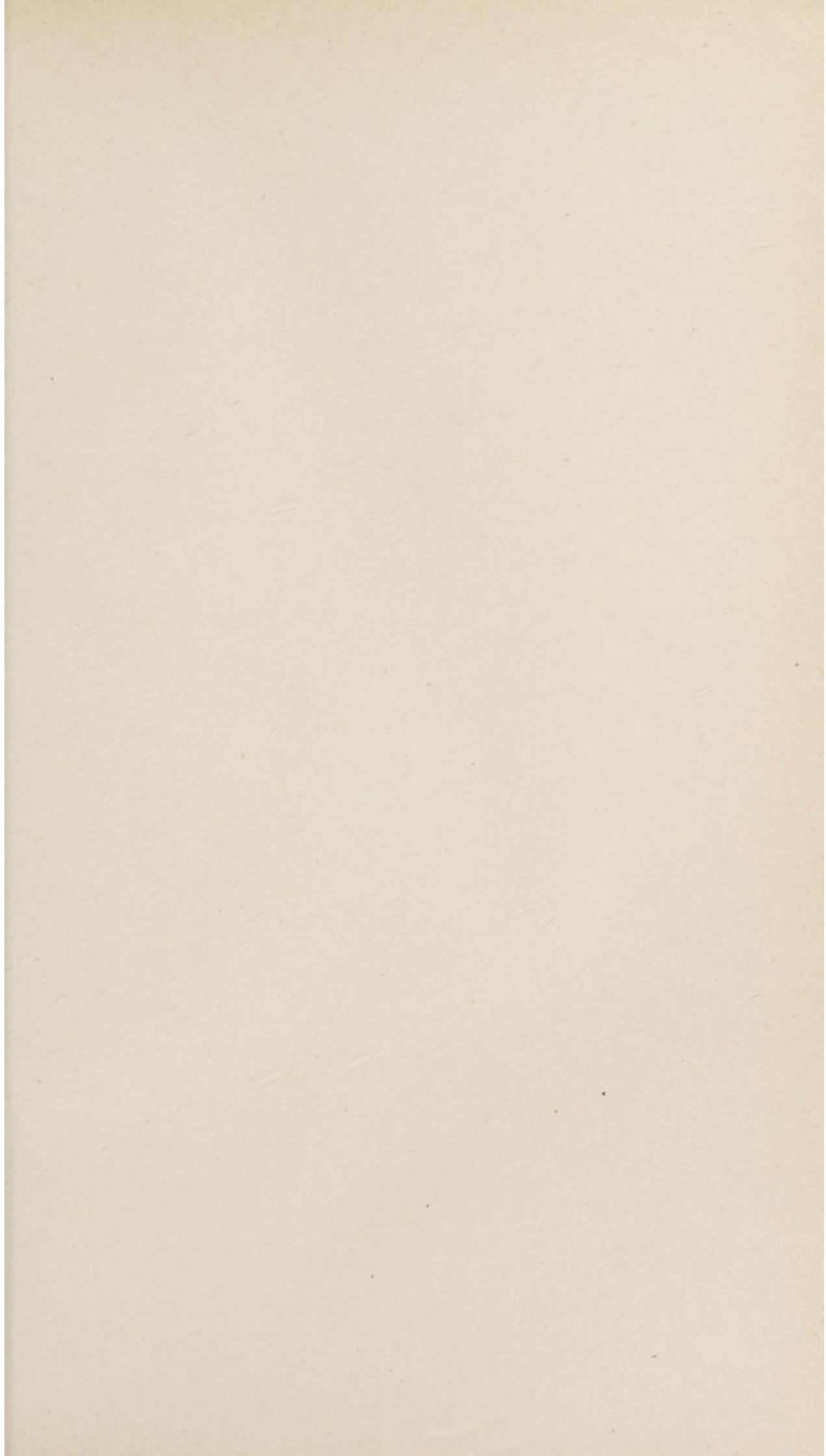
	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929-1933	87	201	288	87	201	288
1934-1938	557	438	995	644	639	1283
1939-1943	339	299	638	983	938	1921
1944	56	73	129	1039	1011	2050
1945	54	64	118	1093	1075	2168
1946	52	53	105	1145	1128	2273
1947	38	53	91	1183	1181	2364

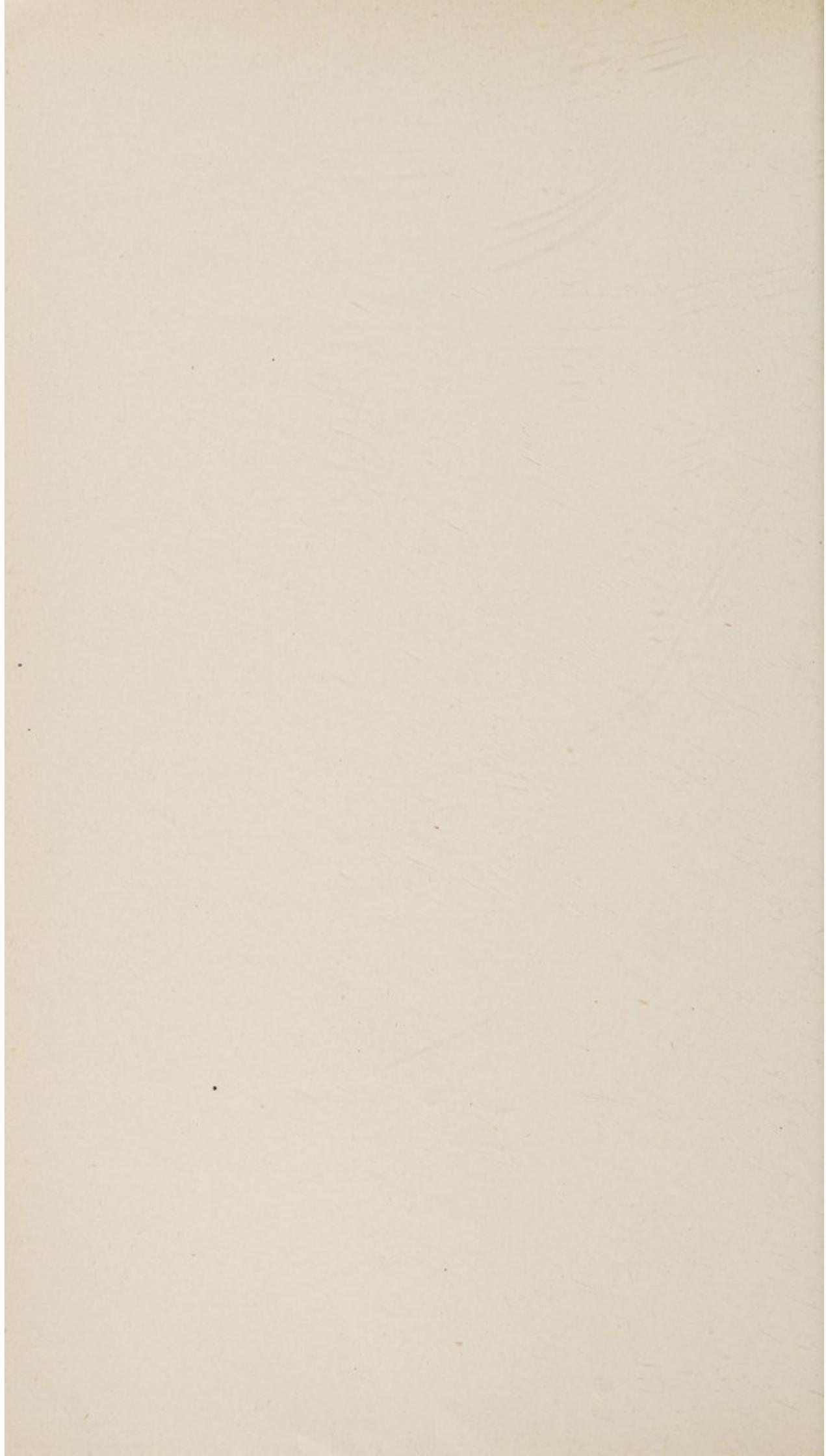
OPERATIONS ONLY (To December 31, 1947)

	Yearly Totals			Cumulative Totals		
	Male	Female	Totals	Male	Female	Totals
1929-1933	48	158	206	48	158	206
1934-1938	198	240	438	246	398	644
1939-1943	13	27	40	381	576	957
1944	18	29	47	399	605	1004
1945	24	31	55	423	636	1059
1946	122	151	273	368	549	917
1947	16	15	31	439	651	1090



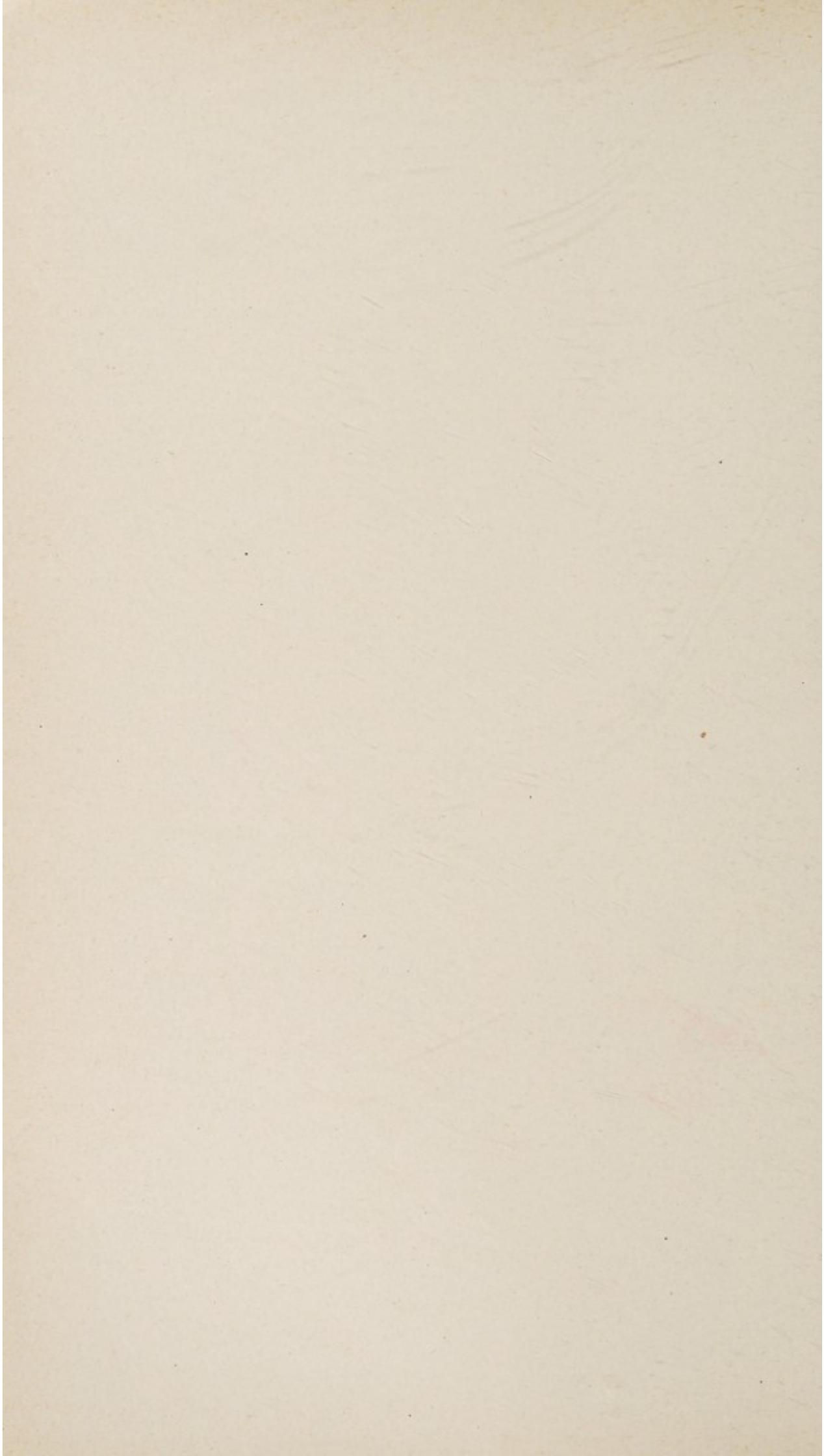






Vital Statistics Branch

Department of Health and Welfare
Ottawa, Ontario



ANNUAL REPORT

OF THE

Vital Statistics Branch

OF THE

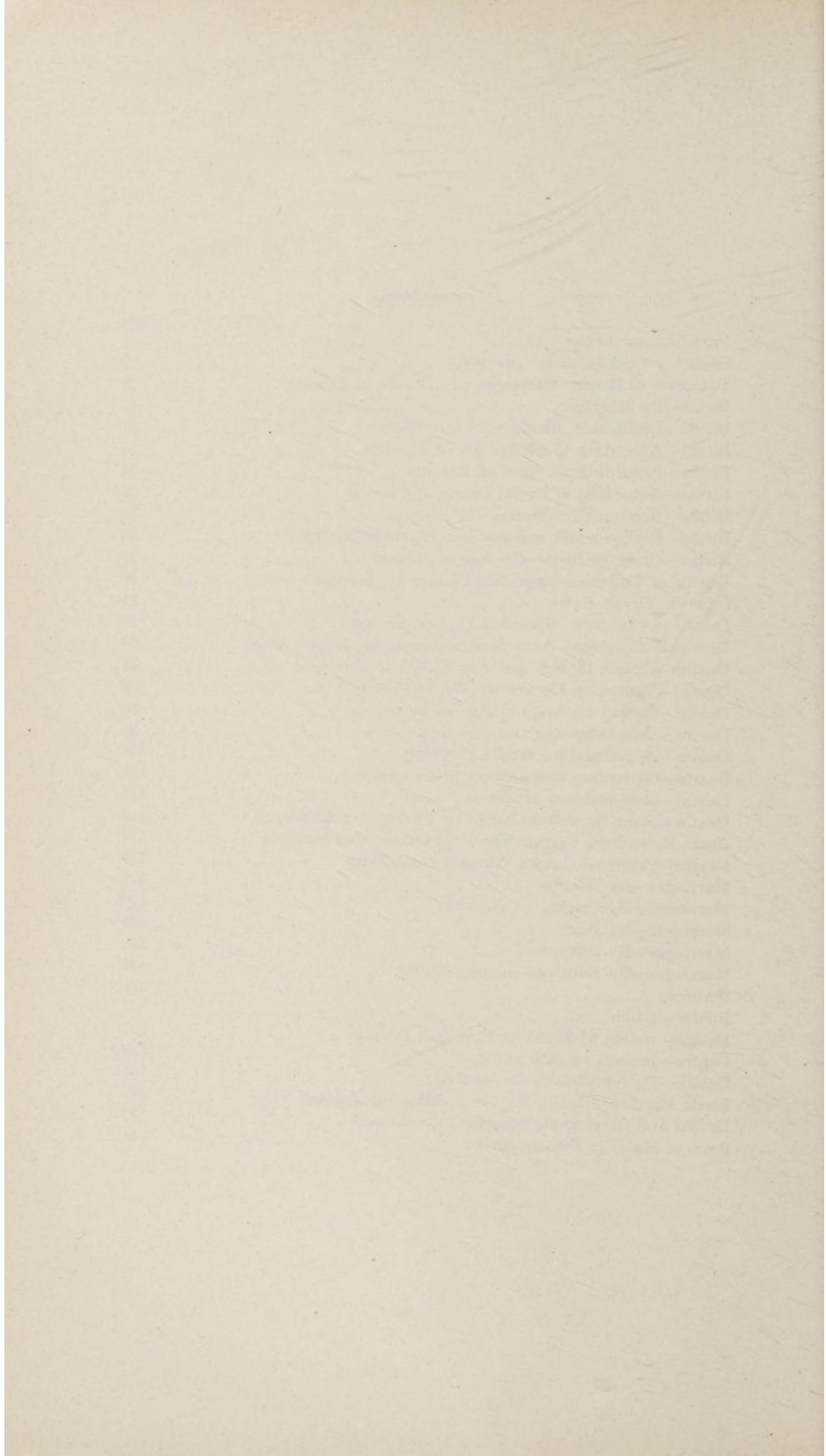
DEPARTMENT OF PUBLIC HEALTH
PROVINCE OF ALBERTA

1947

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VITAL STATISTICS BRANCH

(ARTHUR PACKFORD, *Deputy Registrar General*)

This is the 43rd Annual Report of the Vital Statistics Division of the Department of Public Health of the Province of Alberta, and is for the year 1947.

There was again a considerable increase in the birth rate, but the marriage rate was slightly less than the previous year. There was also a small decline in the death rate. The infantile death rate and the maternal mortality rate are the lowest in the history of the Province.

The birth rate is again the highest of the Western Provinces, and on only one occasion has a higher rate been recorded in Alberta—that was in 1914.

There was a slight decline in the number of marriages, but the number is still higher than normal, and has only been exceeded in two previous years, namely 1942 and 1946.

The death rates from communicable diseases are lower in all cases with the exception of typhoid and measles which show a slight increase. There were no deaths from scarlet fever.

Diseases of the heart and cancer, which are the chief causes of death and which have shown a considerable increase each year for a long period, showed a very slight increase, whilst the number of violent and accidental deaths was approximately the same.

POPULATION

The population of the Province of Alberta for the year 1947 has been estimated by the Dominion Bureau of Statistics at 822,000. All rates in this report are, therefore, based on that figure.

BIRTHS

The number of live births registered during the year was 24,631, and the birth rate was 30.0 per 1,000 population. There were 2,447 more births than in the previous year, and the birth rate was 2.4 higher. Of the total births, 12,680 were males and 11,951 were females, the ratio being 1,061 males to each 1,000 females. It is interesting to note that 17,861 fathers and 14,768 mothers were Canadian born, whilst 12,876 fathers and 10,978 mothers were born in Alberta. There were 289 twin births, and one case of triplets. There were 1,159 illegitimate births, 59 less than the previous year, the rate being 4.7 per cent of all live births.

Birth and death registrations are classified according to place of residence, and the number of children born to residents of cities and towns of 1,000 population or over was 10,149, and to rural residents 14,482. There were 1,194 Indian births. The number of births to residents of the four large cities were as follows: Edmonton, 3,999; Calgary, 3,069; Lethbridge, 588; and Medicine Hat, 378. The actual number of births in these cities were: Edmonton, 6,115; Calgary, 4,063; Lethbridge, 1,108; and Medicine Hat, 675.

For purpose of comparison the following are the birth rates for Canada, the Provinces, Great Britain and certain other countries for the year 1947:

BIRTH RATES

Canada	28.6	Scotland	22.0
Prince Edward Island	31.8	Eire	23.1
Nova Scotia	31.0	Northern Ireland	23.3
New Brunswick	36.2	New Zealand	26.4
Quebec	31.2	United States of America	25.9
Ontario	26.0	France	21.0
Manitoba	27.5	Belgium	17.8
Saskatchewan	27.7	Italy	21.6
ALBERTA	30.0	Czechoslovakia	23.8
British Columbia	25.2	Hungary	18.7
England and Wales	20.6		

MARRIAGES

There were 8,797 marriages registered during the year. This is 681 less than in the previous year, but is 619 more than the average for the five preceding years, the rate being 10.7 per 1,000 population (the 1946 rate was 11.8). Of the grooms, 4.2 per cent were widowers and 5.0 of the brides were widows, and 6.0 of the grooms and brides were divorcees. There were 133 brides of 16 years of age and under and 56 grooms were 18 years of age and under. Of the brides, 2,038 were 17 to 19 years of age and 3,904 were 20 to 24 years of age. There were 146 grooms and 66 brides over 60. Of these, 27 grooms and 8 brides were over 70 and 9 grooms and 2 brides were over 75.

The following are the marriage rates for Canada, the Provinces, Great Britain and certain other countries for the year 1947:

MARRIAGE RATES

Canada	10.1	Scotland	8.6
Prince Edward Island	7.2	Northern Ireland	7.1
Nova Scotia	9.4	Eire	5.5
New Brunswick	10.6	New Zealand	10.9
Quebec	9.6	United States of America	13.9
Ontario	10.5	France	10.3
Manitoba	10.4	Belgium	9.9
Saskatchewan	9.1	Italy	9.3
ALBERTA	10.7	Czechoslovakia	10.9
British Columbia	11.4	Hungary	10.1
England Wales	9.3		

DIVORCES

Divorces granted by decree absolute during the year numbered 882, this being 92 less than the previous year, but 316 more than the average for the preceding five years; 404 divorces were granted to husbands and 478 to wives. 14 decrees of nullity were also issued.

DEATHS

Deaths during the year (including 423 Indians) numbered 6,543, of which 3,916 were males and 2,627 were females. There were 58 less deaths than the previous year, the rates being 8.0 and 8.2 respectively. 501 males and 415 females were 80 years of age and over at the time of death. Of this number, 28 males and 12 females were 95 years of age and over and 4 males and 1 female were centenarians.

The number of deaths of residents of the four large cities were as follows: Edmonton, 953; Calgary, 1,038; Lethbridge, 146; and Medicine Hat, 130.

The chief cause of death, diseases of the heart, shows a slight increase over the previous year, the number being 1,755 and 1,721 respectively and the rates 213.5 and 214 per 100,000 population.

Diseases of the arteries numbered 118 as compared with 102 for 1946, the respective rates being 14.4 and 12.

There was an increase of 17 in the number of cancer deaths, the number being 877 as compared with 860 the previous year, the rates being 106.7 and 107.

Deaths from pneumonia show an increase, the numbers being 374 and 362 and the rates being 45.5 and 45.

Deaths from all forms of tuberculosis numbered 263, of these 129 were Indians. This is a decrease from the previous year's total of 302, of which 156 were Indians. The deaths from pulmonary tuberculosis numbered 215, of which 106 were Indians, as compared with the previous year's total of 233, of which number 113 were Indians. The death rate for tuberculosis, all forms, was 32 and for pulmonary tuberculosis 26, as compared with the previous year's rates of 37 and 29. Deaths from influenza numbered 70 as compared with 89 for the previous year.

The total of violent and accidental deaths was five less than the previous year, the number being 551. Automobile accidents accounted for 107 deaths, an increase of 17. Railway accidents caused 16 deaths and agriculture and forestry accidents 39, a decrease of 6. Deaths by suicide numbered 67, being 33 less than in 1946, and homicides numbered 8, being 2 more than the previous year.

The following are the death rates for Canada, the Provinces, Great Britain and certain other countries for the year 1947:

DEATH RATES

Canada	9.4	Scotland	12.9
Prince Edward Island	10.9	Northern Ireland	12.6
Nova Scotia	9.7	Eire	14.9
New Brunswick	9.8	New Zealand	9.4
Quebec	9.1	United States of America	10.1
Ontario	9.9	France	13.0
Manitoba	9.1	Belgium	13.3
Saskatchewan	7.8	Italy	11.2
ALBERTA	8.0	Czechoslovakia	11.9
British Columbia	10.2	Hungary	12.3
England and Wales	12.0		

MATERNAL MORTALITY

There was again a very considerable decrease in maternal mortality. The number of deaths due to puerperal causes being 22 as compared with 32 for the previous year, the death rate being .9 per 1,000 live births. The rate for 1946 was 1.4.

MATERNAL MORTALITY RATES PER 1,000 BIRTHS

Canada	1.5	ALBERTA .....	.9
Prince Edward Island	2.0	British Columbia	1.2
Nova Scotia	1.0	Scotland	2.1
New Brunswick	1.4	Northern Ireland	1.9
Quebec	2.2	Eire	1.6
Ontario	1.2	United States of America	1.5
Manitoba	1.1	Belgium	2.4
Saskatchewan	1.6		

INFANT DEATHS

There were 915 children who died under 1 year of age as compared with 945 the previous year. The rates per 1,000 live births being 37 and 43 respectively. Of this number, 561 children died under the age of one month, compared with 575 the previous year, the respective rates being 23 and 26.

The following are the infantile mortality rates for Canada, the Provinces, Great Britain and certain other countries for the year 1947:

INFANT MORTALITY RATES PER 1,000 BIRTHS

Canada	45	Scotland	56
Prince Edward Island	45	Northern Ireland	53
Nova Scotia	44	Eire	67
New Brunswick	59	New Zealand	25
Quebec	57	United States of America	32
Ontario	36	France	66
Manitoba	46	Belgium	69
Saskatchewan	44	Italy	82
ALBERTA	37	Czechoslovakia	88
British Columbia	36	Hungary	111
England and Wales	42		

There were 415 stillbirths, being 52 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 in blackface type. The former area or areas which make up the new units 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
ALBERTA	803,330	796,169	Division No. 1—Continued:		
Rural	448,934	489,583	Division No. 2	60,982	58,563
Urban	354,396	306,586	Rural	29,651	29,725
Division No. 1	31,256	29,595	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	16. Bright	2,264	2,427
91. I.D.	917	1,164	68. I.D. (pt.)	2,641	2,426
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
Division No. 2—Continued:			Division No. 4—Continued:		
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
Cooldale	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
Division No. 3			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:		
122. Jubilee I.D. (pt.)	614	633	Arrowwood	206	251
22. I.D.	631	637	Barons	270	233
125. I.D. (pt.)	17	4	Black Diamond	1,380	890
125 I.D. (pt.)	1,104	1,180	Blackie	222	223
23. I.D.	1,308	1,359	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	Division No. 5	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
Division No. 4	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	Division No. 6	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. (pt.)	663	668
189. Dinton	1,530	1,576	32. Turner Valley (pt.)	63	84
31. Highwood	3,497	3,552	222. I.D. (pt.)	63	84
159. Riley	1,686	1,721	29. I.D.	458	555
190. Sheep Creek	1,811	1,831	217. I.D.	458	555
32. Turner Valley (pt.)	4,540	6,175	40. Bow Valley	2,578	2,907
160. I.D.	1,461	2,422	218. Blackfoot	1,244	1,451
161. I.D. (pt.)	18	47	219. Bow Valley	1,334	1,456
191. Stockland	3,061	3,706	41. I.D.	686	893
33. I.D.	42	28			
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
Division No. 6—Continued:			Division No. 7—Continued:		
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	Sounding 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
Division No. 8—Continued:			Division No. 9—Continued:		
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	Rimbey	634	410
Bashaw	511	494	Division No. 10	51,881	58,807
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	186	172	512. Ethelwyn	2,815	3,158
Ferintosh	120	141	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	53	486. Beaver Lake (pt.)	2,093	2,422
Penhold	134	183	81. Eagle	11,787	14,483
Division No. 9	31,160	32,232	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. Lament	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	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	Myrnam	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.) .....	.....	.....	Division No. 11	168,331	149,193
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
Division No. 11—Continued:			Division No. 12—Continued:		
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	Division No. 13	30,352	33,172
551. Morthen (pt.)	2,519	2,609	Rural	27,775	30,805
Elk Island National Park	51	50	71. Vermilion 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
Division No. 12	16,718	17,431	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	Division No. 14	44,546	47,899
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
Division No. 14—Continued:			Division No. 15—Continued:		
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. (pt.)	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	Peace River	997	873
Towns:			Villages:		
Athabasca	747	578	Fahler	279	244
Villages:			Grouard		347
Barrhead	739	399	High Prairie	643	
Clyde	150	160	McLennan	823	
Lac La Biche	642	517			
Legal	445	462			
Radway	179				
Smoky Lake	457	430			
Waskatenau	258	237			
Westlock	854	590			
Division No. 15	17,097	17,484	Division No. 16	28,733	30,349
Rural	14,355	16,020	Rural	23,480	26,349
108. I.D. (pt.)	638	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
Division No. 16—Continued:			Division No. 17—Continued:		
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.		
Division No. 17	10,131	9,712	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, 1947

Divisions, Cities and Towns	Births (Exclusive of Still-births)			DEATHS						Stillbirths		Marrriages		
	Total	All Ages		Under 1 year		1-4 years		No. natal deaths (under 1 month)		M.	F.			
		M.	F.	M.	F.	M.	F.	M.	F.					
													Total	M.
TOTAL FOR THE PROVINCE	24631	12680	11951	6543	3916	2627	510	405	109	82	320	240	415	8797
Division No. 1	947	453	494	251	158	93	14	10	3	4	8	6	16	406
Division No. 2	1916	990	926	499	327	172	49	26	9	5	31	18	31	700
Division No. 3	440	226	214	76	47	29	6	5	1	1	4	3	7	110
Division No. 4	813	428	385	218	129	89	18	14	5	1	15	11	13	157
Division No. 5	435	222	213	133	83	50	7	5	3	3	5	3	6	98
Division No. 6	4775	2489	2286	1480	876	604	90	70	17	16	64	49	81	2280
Division No. 7	877	444	433	245	150	95	18	16	3	2	22	14	9	198
Division No. 8	1996	1015	981	595	351	244	46	34	10	2	35	20	42	636
Division No. 9	839	442	397	208	140	68	18	8	3	2	11	8	17	151
Division No. 10	1291	652	639	340	175	165	24	21	5	7	14	11	20	444
Division No. 11	5515	2857	2658	1323	793	530	98	79	14	10	54	37	76	2609
Division No. 12	505	256	249	139	97	42	16	8	1	1	10	6	5	88
Division No. 13	962	478	484	248	136	112	31	23	8	9	22	12	18	190
Division No. 14	1292	683	609	306	176	130	24	29	11	7	10	17	30	272
Division No. 15	757	399	358	134	80	54	15	18	4	2	6	8	15	140
Division No. 16	913	466	447	208	129	79	20	18	6	6	12	11	23	263
Division No. 17	358	180	178	140	69	71	16	21	9	8	5	8	6	55
CITIES:														
Calgary	3069	1597	1472	1038	601	437	56	48	5	7	38	35	57	1877
Drumheller	135	79	56	37	21	16	...	1	...	...	...	...	4	98
Edmonton	3999	2094	1905	953	576	377	75	55	10	3	40	27	59	2354
Lethbridge	588	296	292	146	98	48	8	4	...	1	5	2	9	359
Medicine Hat	378	166	212	130	74	56	5	4	2	2	3	2	8	327
Red Deer	227	111	116	54	36	18	8	3	1	...	6	3	4	124
Wetaskiwin	97	51	46	44	23	21	3	2	...	...	3	2	6	79
TOWNS:														
Blairmore	58	28	30	19	11	8	...	...	1	...	...	...	1	30
Brooks	56	25	31	9	5	4	...	...	...	...	...	...	1	39
Beverly	112	58	54	33	21	12	4	5	...	...	3	1	2	71
Camrose	77	42	35	24	12	12	5	4	...	...	5	4	...	66
Cardston	33	19	14	19	13	6	2	1	...	...	2	1	...	23
Clareholm	82	46	36	23	17	6	2	1	1	...	1	...	...	30
Coleman	41	23	18	11	7	4	1	1	1	1	4	3	...	41
Edson	103	58	45	21	14	7	4	3	1	1	4	...	1	101
Grande Prairie	67	30	37	19	10	9	...	...	...	...	...	...	2	38
Hanna	55	30	25	11	13	13	...	...	...	...	1	1	1	47
High River	68	31	37	18	8	10	3	2	...	...	3	...	...	42
Innisfall	33	17	16	9	5	4	1	3	...	...	1	2	...	47
Lacombe	57	26	24	17	9	8	...	...	...	...	1	...	...	62

Macleod	27	25	14	7	2	1	1	2	3	2	1	28
Magrath	14	15	7	4	3	1	1	3	1	1	1	11
Olds	28	17	16	17	6	1	2	6	5	1	1	49
Pincher Creek	42	20	22	3	12	1	1	3	1	2	2	22
Ponoka	76	36	27	11	5	2	1	5	5	3	3	42
Raymond	58	33	25	8	5	2	1	2	1	1	1	23
Redcliff	44	20	10	4	6	1	1	4	4	1	1	10
Rocky Mountain House	60	34	26	8	5	1	1	4	4	1	1	20
St. Paul	25	23	15	7	2	1	1	2	1	1	1	45
Stettler	50	27	23	18	1	1	1	1	1	1	1	42
Taber	93	46	19	8	2	2	2	2	2	1	1	38
Vegreville	51	25	11	8	2	2	2	2	1	1	1	51
Vermillion	64	30	16	8	1	1	1	1	1	1	1	41
Wainwright	28	16	8	3	1	1	1	1	1	1	1	26
VILLAGES:												
Black Diamond	36	22	14	8	2	1	1	2	1	1	1	7
Turner Valley	48	24	11	8	3	1	1	3	1	1	1	11

TABLE 2.—GENERAL SUMMARY OF BIRTHS, DEATHS AND MARRIAGES IN THE PROVINCE OF ALBERTA BY DIVISIONS INCLUDING CITIES, TOWNS AND VILLAGES OF 1,000 POPULATION AND OVER, BY PLACE OF OCCURRENCE, 1947

PROVINCE AND DIVISIONS	Births (Exclusive of Still-births)		Deaths						Marrriages					
	Total	M.	All Ages		Under 1 year		1-4 years			No. natal deaths (under 1 month)	Stillbirths			
			Total	M.	M.	F.	M.	F.				M.	F.	
														Total
TOTAL FOR THE PROVINCE	24556	12653	11903	6556	3926	2630	512	405	109	82	323	242	419	8797
Division No. 1	948	461	487	228	134	94	13	12	2	3	8	7	17	406
Division No. 2	2236	1163	1073	517	344	173	55	25	10	5	35	19	33	700
Division No. 3	338	179	159	68	42	26	3	5	2	1	2	2	9	110
Division No. 4	489	253	236	148	80	68	12	12	2	2	11	10	10	157
Division No. 5	283	141	142	102	59	43	5	3	2	1	5	3	4	98
Division No. 6	5187	2693	2494	1592	940	652	93	75	18	17	66	51	87	2280
Division No. 7	850	433	417	204	121	83	17	17	1	3	14	12	9	198
Division No. 8	2099	1068	1031	630	381	249	44	37	12	1	36	22	42	636
Division No. 9	564	299	265	155	110	45	20	4	3	2	10	4	10	151
Division No. 10	1081	541	541	283	148	135	21	16	2	4	12	9	15	444
Division No. 11	6191	3217	2974	1678	1023	655	116	91	22	19	61	47	96	2609
Division No. 12	372	188	184	95	64	31	3	7	2	3	8	5	3	88
Division No. 13	887	438	449	210	110	100	30	22	7	8	20	11	16	190
Division No. 14	1119	598	521	220	128	92	23	24	8	3	12	14	26	272
Division No. 15	681	350	331	121	71	50	13	18	6	3	5	8	14	140
Division No. 16	903	466	437	189	117	72	18	16	6	5	12	10	22	263
Division No. 17	328	166	162	116	54	62	17	21	6	8	6	8	6	55

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS) BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1947

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
ALBERTA	24631	1995	1956	2263	2141	2212	2223	2216	2059	2028	1887	1870	1781
Rural	14482	1225	1111	1339	1264	1267	1306	1298	1217	1206	1108	1094	1047
Urban	10149	770	845	924	877	945	917	918	842	822	779	776	734
DIVISION No. 1	947	79	75	79	70	72	108	73	82	75	83	87	64
Rural	476	39	38	38	34	38	55	35	42	40	47	46	24
Urban	471	40	37	41	36	34	53	38	40	35	36	41	40
City of Medicine Hat	378	34	27	35	32	29	42	33	33	29	28	28	28
Town of Taber	93	6	10	6	4	5	11	5	7	6	8	13	12
DIVISION No. 2	1916	161	153	173	180	172	178	162	167	150	162	145	113
Rural	897	76	64	89	100	71	83	71	78	71	80	68	46
Urban	1,019	85	89	84	80	101	95	91	89	79	82	77	67
City of Lethbridge	588	49	46	45	46	56	51	55	59	49	47	43	42
Town of Blairmore	58	7	5	2	4	3	6	4	3	1	6	5	6
Cardston	77	7	8	8	7	9	9	4	4	6	2	2	5
Clareholm	33	6	2	2	5	3	3	2	3	2	1	5	1
Coleman	82	7	6	8	6	7	5	10	6	6	9	10	2
Macleod	52	3	11	7	2	7	3	5	3	5	2	2	4
Magrath	29	2	4	3	2	3	3	1	2	5	1	1	3
Pincher Creek	42	1	1	1	4	3	8	5	2	3	8	4	3
Raymond	58	4	6	8	4	8	7	5	7	2	6	1	1
DIVISION No. 3	440	36	33	42	42	37	37	44	33	27	25	39	35
Rural	340	34	31	31	34	25	24	34	26	27	22	25	27
Urban	100	2	2	11	8	12	13	10	7	10	3	14	8
Town of Brooks	56	3	3	3	5	10	8	8	5	4	1	10	2
Redcliff	44	2	2	8	3	2	5	2	2	6	2	4	6
DIVISION No. 4	813	67	52	88	74	76	65	63	72	67	62	63	64
Rural	674	63	47	72	60	63	57	53	55	52	53	48	51
Urban	139	4	5	16	14	13	8	10	17	15	9	15	13
Town of High River	55	4	5	6	2	3	4	2	7	8	3	3	8
Village of Black Diamond	36	4	4	5	5	2	1	6	2	4	2	5	3
Turner Valley	48	.....	.....	5	7	8	3	2	7	3	4	7	2

DIVISION No. 5	435	29	36	32	36	39	45	43	33	39	36	29	38
Rural	368	24	30	26	31	32	36	41	28	34	31	25	30
Urban	67	5	6	6	5	7	9	2	5	5	5	4	8
Town of Hanna	67	5	6	6	5	7	9	2	5	5	5	4	8
DIVISION No. 6	4775	381	374	470	385	410	413	471	399	386	349	375	362
Rural	1526	127	110	154	114	125	130	148	126	129	95	139	129
Urban	3249	254	264	316	271	285	283	323	273	257	254	236	233
City of Calgary	3069	242	256	301	261	272	264	300	260	238	238	221	216
Drumheller	135	9	6	12	6	8	13	18	10	13	13	14	13
Town of Olds	45	3	2	3	4	5	6	5	3	6	3	1	4
DIVISION No. 7	877	74	67	79	78	80	103	73	70	73	60	58	62
Rural	849	74	64	74	76	75	102	70	68	71	60	55	60
Urban	28	.....	3	5	2	5	1	3	2	2	.....	3	2
Town of Wainwright	28	.....	3	5	2	5	1	3	2	2	.....	3	2
DIVISION No. 8	1996	158	162	162	202	198	172	178	167	185	140	135	137
Rural	1309	111	95	118	128	131	112	115	111	123	84	91	90
Urban	687	47	67	44	74	67	60	63	56	62	56	44	47
City of Red Deer	227	21	24	18	26	19	13	18	20	22	17	12	17
Town of Wetaskiwin	97	4	9	7	5	9	16	6	9	8	12	3	9
Town of Camrose	112	9	12	9	12	15	5	14	6	7	7	6	10
Innisfail	68	4	5	3	4	8	3	7	6	8	6	6	5
Lacombe	57	3	5	1	9	7	4	6	3	6	6	6	1
Ponoka	76	5	8	3	11	8	7	8	6	6	6	4	4
Stettler	50	1	4	3	7	1	12	4	6	5	2	4	1
DIVISION No. 9	839	68	65	75	66	70	78	76	67	86	59	69	60
Rural	779	67	65	71	58	64	68	67	65	77	57	64	56
Urban	60	1	.....	4	8	6	10	9	2	9	2	5	4
Town of Rocky Mountain House	60	1	.....	4	8	6	10	9	2	9	2	5	4
DIVISION No. 10	1291	112	91	112	101	121	117	127	122	110	86	104	88
Rural	1176	96	78	98	94	106	108	120	115	99	82	94	86
Urban	115	16	13	14	7	15	9	7	7	11	4	10	2
Town of Vegreville	51	9	5	6	3	5	3	5	5	5	1	3	1
Vermillion	64	7	8	8	4	10	6	2	2	6	3	7	1
DIVISION No. 11	5515	431	470	490	485	533	479	459	453	431	455	424	405
Rural	1493	126	124	124	126	151	126	121	124	115	144	116	106
Urban	4022	305	346	366	359	382	363	338	329	316	311	308	299
City of Edmonton	3999	305	346	366	355	378	362	337	327	313	310	301	299
Town of Beverly	23	.....	.....	.....	4	4	1	1	2	3	1	7	.....
DIVISION No. 12	505	33	37	60	58	47	51	49	38	50	33	34	35
Rural	464	30	35	55	38	42	50	46	36	45	28	26	33
Urban	41	3	2	5	3	5	1	3	2	5	5	8	2
Town of Edson	41	3	2	5	3	5	1	3	2	5	5	8	2

TABLE 3.—BIRTHS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS, CLASSIFIED AS RURAL AND URBAN, BY DIVISIONS,
IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1947—Continued

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DIVISION No. 13	962	92	96	87	86	79	67	88	76	78	66	81	66
Rural	914	90	94	85	78	77	65	81	72	73	60	77	62
Urban	48	2	2	2	8	2	2	7	4	5	6	4	4
Town of St. Paul	48	2	2	2	8	2	2	7	4	5	6	4	4
DIVISION No. 14	1292	120	94	123	111	102	119	108	103	113	107	86	106
Rural	1292	120	94	123	111	102	119	108	103	113	107	86	106
DIVISION No. 15	757	60	58	65	66	76	66	71	70	48	63	49	65
Rural	757	60	58	65	66	76	66	71	70	48	63	49	65
DIVISION No. 16	913	69	65	82	84	78	97	89	77	75	72	63	62
Rural	810	63	56	72	79	67	87	75	68	64	66	56	57
Urban	103	6	9	10	5	11	10	14	9	11	6	7	5
Town of Grande Prairie	103	6	9	10	5	11	10	14	9	11	6	7	5
DIVISION No. 17	356	25	28	44	37	22	28	42	30	25	29	29	19
Rural	358	25	28	44	37	22	28	42	30	25	29	29	19

TABLE 4.—LEGITIMATE AND ILLEGITIMATE BIRTHS (EXCLUSIVE OF STILL-BIRTHS), IN CITIES OF 5,000 POPULATION AND OVER IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1947

Province and Cities	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
TOTAL FOR THE PROVINCE	24631	12680	11951	23472	12064	11408	1159	616	543
Cities of 5,000 and over:									
Calgary	3069	1597	1472	2899	1508	1391	170	89	81
Edmonton	3999	2094	1905	3813	1990	1823	186	104	82
Lethbridge	588	296	292	564	281	283	24	15	9
Medicine Hat	378	166	212	354	155	199	24	11	13

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, 1947

Classification of Births	Number
TWIN BIRTHS	289
Two males (both living)	101
One male and one female (both living)	96
Two females (both living)	79
One male living and one male still born	4
One male stillborn and one female living	4
One female living and one female stillborn	3
Two males (both stillborn)	1
One male and one female (both stillborn)	1
TRIPLET BIRTHS:	1
One male and two females (all living)	1
Total multiple births	Number 290
	Male 314
	Female 267
Total single births	Number 24065
	Male 12377
	Female 11688
Total single stillbirths	Number 400
	Male 213
	Female 187
Total confinements	24755

Swedish	564	155	47	71	12	4	5	2	8	1	22	46	2	3	1	15	49	10	1	9	81	15	4	1		
Ukrainian	1895	87	34	53	9	2	5	15	5	4	24	37	7	1	3	1	19	22	14	17	13	1396	1	3	1	
Yugoslavic	36	2	2	4	4	2	1	4	2	1	1	2	1	2	2	2	1	1	2	2	2	2	15	3	4	
Other	30	2	4	4	2	1	1	2	2	1	1	2	2	2	2	2	1	1	1	1	2	2	3	3	1	
Asiatic	154	8	3	4	4	2	2	2	1	1	2	3	1	1	1	1	1	1	1	1	5	4	24	101	24	
Chinese	39	6	2	2	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	4	4	23	101	23	
Hindu (East Indian)	102	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Japanese	11	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Syrian	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	
Other	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	
Indian	844	11	4	4	4	2	12	3	1	2	3	1	2	3	1	2	3	1	2	2	2	2	805	62	1	
Jewish	80	6	2	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	
Negro	19	2	2	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Other races	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Unspecified	4	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Children born to married mothers:																										
Total	23472	6195	2502	3134	316	125	87	3189	288	60	1507	2170	15	154	36115	20739	772	642	91	597	534	2028	25	24	25	
Male	12064	3229	1284	1642	163	71	49	19113	26	78	787	1098	6	79	20	61	10384	381	320	44	290	283	1030	19	16	12
Female	11408	2966	1218	1492	153	54	38	298156	34	724	724	1072	9	75	16	54	10355	391	322	47	307	251	998	6	8	12
Children born to un-married mothers:																										
Total	1159	181	128	127	10	5	5	6	9	1	68	77	7	1	3	22	25	34	7	31	14	107	1	2	281	1
Male	616	88	72	68	6	3	1	2	7	1	37	39	2	1	2	10	17	15	6	20	7	45	2	2	159	1
Female	543	93	56	59	4	2	4	4	2	2	31	38	5	1	1	12	8	19	1	11	7	62	1	1	122	2
Children born to all mothers																										
Total	24631	6376	2630	3261	326	130	92	3195	297	61	1575	2247	15	161	37118	20761	797	676	98	628	548	2135	26	26	24	102
Male	12680	3317	1356	1710	169	74	50	193	139	27	820	1137	6	81	21	63	10394	398	335	50	310	290	1075	19	18	12
Female	11951	3059	1274	1551	157	56	42	2102	158	34	755	1110	9	80	16	55	10367	399	341	48	318	258	1060	7	8	12

TABLE 9.—TOTAL LIVE BIRTHS AND LIVE BIRTHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE OF MOTHERS IN ALBERTA, 1947

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	24556	207	8	279	11	24631	23194	203	8	271	9	23263

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, 1947

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	4012	1021	2	76	4	3069	4004	1020	2	75	4	3061
Edmonton	6069	2120	..	49	1	3999	6055	2119	..	46	1	3983
Lethbridge	1088	519	1	20	..	588	1086	519	1	19	..	585
Medicine Hat	661	296	..	13	..	378	658	295	..	13	..	376

TABLE 11—ORDER OF BIRTH OF LEGITIMATE CHILDREN BORN IN 1947 (INCLUDING STILLBORN CHILDREN),
IN ALBERTA, BY AGE AND RESIDENCE OF MOTHER

Order of birth of child	Total	Age of Mother											Age not stated		
		Under 15 yrs.	15 years	16 years	17 years	18 years	19 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years		40-44 years	45 years and over
1st child	8150	1	3	27	133	364	563	1090	3889	2129	785	223	30	3	1
2nd "	6531	1	1	14	14	50	136	201	2228	2561	1117	371	50	2	.....
3rd "	3773	.....	.....	.....	.....	1	14	15	758	1478	1042	408	69	3	.....
4th "	2095	.....	.....	.....	.....	.....	2	2	241	726	689	340	89	8	.....
5th "	1196	.....	.....	.....	.....	.....	.....	.....	78	333	419	269	92	5	.....
6th "	727	.....	.....	.....	.....	.....	.....	.....	19	163	258	217	63	7	.....
7th "	460	.....	.....	.....	.....	.....	.....	.....	3	79	158	157	55	8	.....
8th "	299	.....	.....	.....	.....	.....	.....	.....	1	34	94	117	51	2	.....
9th "	198	.....	.....	.....	.....	.....	.....	.....	.....	12	57	74	48	6	.....
10th "	149	.....	.....	.....	.....	.....	.....	.....	.....	.....	34	57	53	3	.....
11th "	122	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	68	35	9	.....
12th "	71	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	24	36	6	.....
13th "	48	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	21	19	5	.....
14th "	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	19	2	.....
15th "	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	9	.....	.....
16th "	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	1	.....
17th "	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....
18th "	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
19th "	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20th and over	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Not stated	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
TOTAL	23864	1	3	28	147	415	715	1308	7217	7515	4671	2353	725	72	2

160 Injury at birth	95	58	37	4	9	4	2	7	1	9	3	6	2	3	3	5	1	3	5	4	5	1
161 Other diseases peculiar to the first year of life	70	40	30	3	1	1	3	4	3	8	5	4	2	3	2	4	3	3	2	2	2	1
166-168 Homicides	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
169-195, 197 Other violent deaths	22	15	7	1	1	1	1	2	1	1	1	1	1	1	1	2	1	1	5	2	2	1
196-199 Other specified causes	11	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
199, 200 Ill-defined and unknown causes of death	15	11	4	2	2	2	1	1	1	1	1	1	1	1	1	2	1	1	3	3	3	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, 1947

Divisions and Cities	Death rate of children under one year of age to each 1,000 live 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	Deaths		With physician	Without physician	Not stated	Number of stillbirths	Rate per 1000 live births			
				Rate per 1000 live births	Number of deaths						With physician	Without physician	Not stated
Division No. 1—Medicine Hat (City of Medicine Hat excepted)	26	15	569	511	58	8	14.1						
Division No. 2—Macleod (City of Lethbridge excepted)	47	63	1328	1188	138	22	16.6						
Division No. 3—Bow	25	11	440	429	11	7	15.9						
Division No. 4—Nanton	39	32	813	798	14	13	16.0						
Division No. 5—Acadia	28	12	435	429	6	6	13.8						
Division No. 6—Calgary (Cities of Calgary and Drumheller excepted)	35	55	1571	1501	68	20	12.7						
Division No. 7—Battle River	39	34	877	873	4	9	10.3						
Division No. 8—Red Deer (Cities of Red Deer and Wetaskiwin excepted)	38	64	1672	1613	59	32	19.1						
Division No. 9—Rocky Mountain House	31	26	839	811	28	17	20.3						
Division No. 10—Victoria	35	45	1291	1261	30	20	15.5						
Division No. 11—Edmonton (City of Edmonton excepted)	31	47	1516	1430	71	17	11.2						
Division No. 12—Edson	48	24	505	472	32	5	9.9						
Division No. 13—Beaver River	56	54	962	812	147	18	18.7						
Division No. 14—Sturgeon	41	53	1292	1171	117	30	23.2						
Division No. 15—Clearwater	44	33	757	639	115	15	19.8						
Division No. 16—Peace River	42	38	913	860	52	23	25.2						
Division No. 17—Athabasca	103	37	358	182	162	6	16.8						
City of Edmonton	33	130	3999	3989	9	59	14.8						
City of Calgary	34	104	3069	3064	5	57	18.6						
City of Lethbridge	20	12	588	584	4	9	15.3						
City of Medicine Hat	24	9	378	377	1	8	21.2						
City of Red Deer	48	11	227	226	1	4	17.6						
City of Drumheller	7	1	135	134	1	4	29.6						
City of Wetaskiwin	52	5	97	97	0	6	61.9						
Divisions	40	643	16138	14980	1112	268	16.6						
Cities	32	272	8493	8471	21	147	17.3						
Whole Province	37	915	24631	23451	1133	47	16.8						

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, 1947

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	
Calgary	126	26	.....	4	.....	104	115	26	.....	4	.....	93
Edmonton	193	65	.....	2	.....	130	179	65	.....	1	.....	115
Lethbridge	31	21	.....	2	.....	12	30	21	.....	2	.....	11
Medicine Hat	17	8	.....	.....	.....	9	16	7	.....	.....	.....	9

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, 1947

	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	
Total for the Province	917	7	1	6	.....	915	682	7	1	5	.....	679

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1947

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						
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female			Male	Female	Male	Female	Male	Female	Male	Female	Male	Female				
DEATHS—ALL CAUSES	6543	915	96	43	25	27	94	67	77	110	107	106	137	134	224	295	433	656	698	765	618	472	318	98	24	4							
Male	3916	510	52	24	17	16	45	39	35	61	57	58	90	75	135	169	283	452	458	467	372	264	176	49	11	1							
Female	2627	405	44	19	8	11	49	28	42	49	50	48	47	59	89	126	150	204	240	298	246	208	142	49	13	3							
CLASS I.—INFECTIOUS AND PARASITIC DISEASES	447	67	20	11	9	5	35	14	20	32	27	20	21	10	22	23	28	30	20	13	10	10	1	1	1	1	1						
Male	242	32	9	5	4	5	15	5	7	11	10	9	11	5	16	20	20	25	15	10	4	8	1	1	1	1	1						
Female	205	35	11	6	5	5	18	9	13	21	17	11	10	5	6	3	8	5	5	3	6	2	1	1	1	1	1						
1 Typhoid fever	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						
2 Paratyphoid fever	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					
5 Undulant fever	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				
6 Cerebrospinal meningitis	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			
8 Scarlet fever	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
9 Whooping cough	6	3	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
10 Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
11 Erysipelas	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12 Tetanus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13-22 Tuberculosis	137	5	7	3	3	3	13	4	7	9	8	8	8	8	3	12	11	9	11	9	4	1	2	1	1	1	1						
Male	126	6	6	1	1	1	3	8	8	18	16	7	7	7	4	5	3	5	4	3	1	3	1	1	1	1	1						
Female	114	3	3	3	1	1	9	3	6	7	8	6	8	1	10	10	9	11	9	4	1	2	1	1	1	1	1						
13 Tuberculosis of the respiratory system	101	2	1	1	1	1	12	7	8	13	14	6	8	4	4	3	4	4	4	3	1	3	1	1	1	1	1						
Male	98	2	2	1	1	1	10	5	4	6	8	6	8	1	9	10	6	11	9	4	1	2	1	1	1	1	1						
Female	85	2	2	1	1	1	10	5	8	12	12	5	8	4	3	3	3	2	3	3	1	2	1	1	1	1	1						
(a) With mention of occupational diseases of lungs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
(b) Without mention of occupational diseases of lungs	98	2	2	1	1	1	10	5	4	6	8	6	8	1	9	10	6	11	9	4	1	2	1	1	1	1	1						
Male	98	2	2	1	1	1	10	5	4	6	8	6	8	1	9	10	6	11	9	4	1	2	1	1	1	1	1						
Female	85	2	2	1	1	1	10	5	8	12	12	5	8	4	3	3	3	2	3	3	1	2	1	1	1	1	1						

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1947—Continued

CAUSES OF DEATH	Total	AGES												Total	100 years and over	Not stated												
		Under 1 yr.	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
CLASS V.—CHRONIC POISONING AND INTOXICATION																												
77 Alcoholism	2																											
(a) Acute alcoholism	1																											
(b) Chronic alcoholism	1																											
(c) Others under this title	1																											
78 Lead poisoning	1																											
Total	621	17	3	4	2	2	2	5	4	4	2	4	7	4	4	11	12	31	36	59	86	102	90	74	46	13	4	
Male	316	8	3	2	1	1	1	4	4	4	2	3	3	3	7	8	14	16	29	31	54	50	32	32	9	1		
Female	305	9	2	2	1	1	1	1	3	1	2	4	4	1	4	4	17	20	30	30	55	48	40	42	14	4	3	
CLASS VI.—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS																												
80 Encephalitis (non-epidemic)	6																											
(a) Intracranial abscess	2																											
(b) Others under this title	4																											
81 Meningitis (non-meningococcal)	7																											
(a) Simple meningitis	5																											
(b) Acute cerebrospinal meningitis	2																											
82 Diseases of the medulla and spinal cord	10																											
83 Intracranial lesions of vascular origin	260																											
Total	263	2	1	1	1	1	1	1	1	1	1	1	2	2	4	6	13	14	24	29	49	48	29	30	9	1	3	
Male	263	2	1	1	1	1	1	1	1	1	1	1	2	2	4	6	13	14	24	29	49	48	29	30	9	1	3	
Female	263	2	1	1	1	1	1	1	1	1	1	1	2	2	4	6	13	14	24	29	49	48	29	30	9	1	3	

(a) Cerebral haemorrhage or effusion	109	2	1	1	1	2	2	2	6	7	7	9	10	20	18	12	8	3	1
Female	113											13	25	16	14	15	6		
(b) Cerebral embolism and thrombosis	16											3	1	4	4	5	1		2
Female	15											1	1	2					
(c) Cerebral softening	3											1		1					
Female																			
(d) Hemiplegia and other paralysis of unspecified origin	7														2	2	2		
Male	10											2	2	1	3	1	1		
Female	128											12	18	25	24	15	19	6	
(e) With mention of arteriosclerosis	122											8	25	22	23	20	7	4	1
Female																			
84 Mental disorders and deficiency (general paralysis of the insane excepted)	2											1							
Male	4																		
Female																			
(a) Schizophrenia (dementia praecox)																			
Male																			
Female																			
(b) Others under this title	2																		
Male																			
Female																			
(a) Epilepsy	10																		
Male	4																		
Female	4																		
(b) Convulsions (under 5 years of age)	4																		
Male	3																		
Female	1																		
87 Other diseases of the nervous system	14																		
Male	16																		
Female																			
(a) Chorea																			
Male																			
Female																			
(b) Neuritis	1																		
Male																			
Female																			
(c) Paralysis agitans	2																		
Male																			
Female																			
(d) Disseminated sclerosis	5																		
Male	8																		
Female	6																		
(e) Others under this title	6																		
Male	6																		
Female	2																		
88 Diseases of organs of vision																			
Male																			
Female																			
89 Diseases of the ear and of the mastoid process																			
Male	1																		
Female	2																		
(a) Otitis and other diseases of the ear																			
Male																			
Female																			
(b) Diseases of the mastoid process	2																		
Male																			
Female																			
CLASS VII.—DISEASES OF THE CIRCULATORY SYSTEM	1890																		
Total	1226																		
Male	664																		
Female																			
90-95 Diseases of the heart	1148																		
Male	608																		
Female																			

CLASS VII.—DISEASES OF THE CIRCULATORY SYSTEM

90-95 Diseases of the heart

TABLE 17.—CAUSES OF DEATH BY SEX AND AGE IN ALBERTA, BY PLACE OF RESIDENCE, 1947—Continued

CAUSES OF DEATH	Total	Ages																	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	100 years and over
107 Broncho pneumonia	102	30	4	3	3	2	2	1	1	1	4	1	1	1	1	1	1	2	4	16	8	8	7	4	4	2	...
Male	41	8	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	4	16	8	8	7	4	4	2	...
Female	108	12	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2	5	4	6	11	8	4	1	2	...
108 Lobar pneumonia	49	12	1	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	4	4	5	5	3	3	1	...	...
Male	38	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	5	5	3	3	1	...	...
Female	44	23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	4	4	1	1	1	...	...
109 Pneumonia (unspecified)	33	18	3	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1	...
Male	4	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1	...
Female	6	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	1	1	1	1	1	1	...
110 Pleurisy	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
Male	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
Female	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
(a) Empyema	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
(b) Others under this title	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
111 Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	...
Male	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	...
Female	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	...
(a) Haemorrhagic infarction and thrombosis of the lungs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
(b) Others under this title	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
112 Asthma	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	...
Male	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	...
Female	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	...
113 Pulmonary emphysema	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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	...
Female	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	...
114 Other diseases of the respiratory system (tuberculosis excepted)	371	100	7	3	4	7	4	7	4	3	5	10	7	9	15	21	20	28	41	30	27	12	7	7	7	7	...
Male	231	55	7	3	3	3	3	5	2	2	2	7	3	7	10	12	12	23	28	23	18	7	5	5	5	5	...
Female	140	45	1	1	1	1	1	2	2	1	1	3	6	8	11	8	8	5	13	7	9	5	2	2	2	2	...
(a) Silicosis	10	2	1	2	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	...
Male	5	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	...
Female	10	1	2	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	...

CLASS IX.—DISEASES OF THE DIGESTIVE SYSTEM

115 Diseases of the buccal cavity and annexe, and of the pharynx and tonsils

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1947

CAUSES OF DEATH	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
DEATHS—ALL CAUSES		590	561	627	566	533	526	520	516	498	532	535	539
Male	3916	344	347	377	336	310	306	290	290	315	324	337	335
Female	2627	246	214	250	230	223	214	226	183	208	198	204	204
CLASS I.—INFECTIOUS AND PARASITIC DISEASES		447	29	66	41	34	28	40	41	34	28	30	34
1 Typhoid fever	Male	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
2 Paratyphoid fever	Male	205	18	35	31	23	11	22	19	18	11	15	16
Female	242	19	31	10	11	11	17	18	22	16	17	15	18
5 Undulant fever	Male	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
6 Cerebrospinal meningitis	Male	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
7 Anthrax, malignant pustule	Male	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
8 Scarlet fever	Male	3	1	1	1	1	1	1	1	1	1	1	1
Female	6	1	1	1	1	1	1	1	1	1	1	1	1
9 Whooping-cough	Male	1	1	1	1	1	1	1	1	1	1	1	1
Female	6	4	1	1	1	1	1	1	1	1	1	1	1
10 Diphtheria	Male	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
11 Erysipelas	Male	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
12 Tetanus	Male	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
13-22 Tuberculosis		137	10	19	15	14	6	14	11	13	5	9	9
Male	126	6	10	12	7	5	13	12	16	9	14	9	13
Female	114	12	7	17	12	11	5	9	11	12	3	7	8
13 Tuberculosis of the respiratory system		101	5	6	9	4	8	9	14	9	12	8	12
(a) With mention of occupational diseases of lungs	2	1	1	1	1	1	1	1	1	1	1	1	1
(b) Without mention of occupational diseases of lungs	98	9	6	15	9	10	4	9	10	12	1	6	7
Female	85	4	5	9	4	3	8	8	12	7	9	5	11

42	Other diseases due to helminths	Male	1	77	70	72	77	78	61	68	73	102	73	66
		Female	1	44	42	42	45	38	38	35	42	63	39	36
43	Mycoses	Male	6	33	28	30	32	40	23	33	31	39	34	30
		Female	4	44	42	40	44	38	37	34	41	62	39	34
44	Other infectious and parasitic diseases	Male	1	29	25	19	32	17	22	20	23	26	23	22
		Female	4	13	8	16	8	15	8	9	11	16	17	8
		Sub-total	5	32	33	35	40	40	30	33	31	39	34	30
	(a) Other venereal diseases	Male	2	44	42	40	44	38	37	34	41	62	39	34
		Female	1	31	26	28	29	39	22	32	30	38	34	29
	(b) Lymphogranulomatosis (Hodgkin's disease)	Male	6	49	44	40	44	38	37	34	41	62	39	34
		Female	4	36	31	28	29	39	22	32	30	38	34	29
	(c) Mumps	Male	1	1	1	1	2	2	2	1	1	1	1	1
		Female	1	29	25	19	32	17	22	20	23	26	23	22
	(d) Others under this title	Male	1	18	13	16	8	15	8	9	11	16	17	8
		Female	1	11	8	11	8	15	8	9	11	16	17	8
45-55	Cancer and other malignant tumours	Male	137	12	14	9	12	12	10	13	9	13	14	7
		Female	45	6	3	7	3	5	1	5	1	3	6	4
		Sub-total	182	18	17	16	15	17	11	18	10	16	17	11
45	Cancer of the buccal cavity and pharynx	Male	287	29	25	19	32	17	22	20	23	26	23	22
		Female	147	13	8	16	8	15	8	9	11	16	17	8
46	Cancer of the digestive organs and peritoneum	Male	6	3	1	1	1	1	1	1	1	1	1	1
		Female	137	12	14	9	12	12	10	13	9	13	14	7
	(a) Cancer of the oesophagus	Male	45	6	3	7	3	5	1	5	1	3	6	4
		Female	137	12	14	9	12	12	10	13	9	13	14	7
	(b) Cancer of the stomach	Male	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
	(c) Cancer of the Duodenum	Male	23	1	5	6	6	2	2	1	2	3	3	3
		Female	18	3	1	2	1	2	1	1	1	4	4	4
	(d) Cancer of the rectum and anus	Male	55	6	6	6	8	3	1	3	5	5	3	6
		Female	44	3	3	3	2	4	5	3	7	2	5	2
	(e) Cancer of the intestines	Male	23	1	3	3	2	1	3	2	2	5	1	2
		Female	31	4	4	2	1	3	1	2	2	5	1	2
	(f) Cancer of the liver and biliary passages	Male	9	2	1	3	4	1	4	1	4	5	1	1
		Female	6	3	2	2	1	1	1	1	2	1	1	1
	(g) Cancer of the pancreas	Male	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
	(h) Cancer of the mesentery and peritoneum	Male	55	6	6	6	8	3	1	3	5	5	3	6
		Female	44	3	3	3	2	4	5	3	7	2	5	2
	(m) Cancer of other and unspecified sites	Male	23	4	4	2	1	3	1	2	2	5	1	2
		Female	31	4	4	2	1	3	1	2	2	5	1	2
47	Cancer of the respiratory system	Male	6	4	4	2	4	8	4	2	2	14	2	3
		Female	13	2	1	1	1	1	1	3	1	1	1	2
	(a) Of the Larynx	Male	29	4	3	1	1	4	1	2	1	8	1	2
		Female	9	2	2	1	1	1	1	2	1	1	1	1
	(b) Of the lung	Male	29	4	3	1	1	4	1	2	1	8	1	2
		Female	9	2	2	1	1	1	1	2	1	1	1	1

CLASS II.—CANCER AND OTHER TUMOURS

TABLE 18.—CAUSES OF DEATH BY SEX AND MONTH OF DEATH IN ALBERTA, BY PLACE OF RESIDENCE, 1947—Continued

CAUSES OF DEATH	Total	MONTHS												
		January	February	March	April	May	June	July	August	September	October	November	December	
(c) Of the Mediastinum and other sites	23	2	3	1	1	2	4	2	1	1	5	1	1	1
Male	4	1	1	1	1	1	1	1	1	1	1	1	1	1
Female	48	2	3	6	2	5	9	2	3	4	5	2	2	2
Sub-total	26	2	1	4	1	1	6	1	1	1	4	1	1	3
(a) Of the cervix	22	2	2	2	1	4	3	1	2	3	1	1	1	2
(b) Of other and unspecified sites	24	3	3	1	1	3	5	2	2	2	1	2	2	2
Cancer of other female organs	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer of the breast	70	6	3	5	5	6	6	4	6	4	8	4	10	7
Male	59	6	6	8	6	2	4	3	4	2	6	4	7	5
Cancer of the male genital organs	27	2	1	2	2	1	1	4	3	3	3	3	3	2
Sub-total	12	2	2	2	1	2	1	1	2	1	1	1	1	1
(a) Of the kidney	7	1	1	1	1	1	1	2	2	2	1	1	1	1
(b) Of the bladder	5	2	1	1	1	1	1	1	1	1	1	1	1	1
(c) Of other and unspecified sites	20	2	1	1	1	1	1	2	2	2	2	2	2	2
Cancer of the urinary organs	7	1	2	1	1	2	1	1	1	1	1	1	1	1
Cancer of the skin	6	1	1	1	1	1	1	1	1	1	1	1	1	1
Cancer of the brain	10	1	1	1	1	1	3	1	1	2	2	1	1	2
Cancer of other and unspecified organs	8	2	2	1	1	1	1	1	2	1	1	1	1	1
Male	44	3	1	1	9	2	3	3	3	8	9	2	2	1
Female	41	4	4	3	3	4	1	3	5	5	5	5	1	3
Total	6	3	2	2	1	3	1	1	1	1	1	1	1	1
Non-malignant tumours	13	3	1	1	1	2	1	1	1	1	1	1	1	1
(a) Of the ovary	3	1	1	1	1	1	1	1	1	1	1	1	1	1
(b) Of the uterus	6	2	1	1	1	1	1	1	1	1	1	1	1	1
(c) Of other female genital organs	1	1	1	1	1	1	1	1	1	1	1	1	1	1
(d) Of the brain and other parts of the central nervous system	3	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
Female	1	1	1	1	1	1	1	1	1	1	1	1	1	1

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	11	5
175(c)	Other agricultural accidents	1	.....
178	Accidental absorption of poisonous gas	8	1
180	Conflagration	2	4
	Accidental burns	18	9
170(a)	Motor vehicle accidents—collisions with trains	1	.....
170(c)	Automobile accidents (excluding trains or street-cars)	2	.....
170(d)	Motorcycle accidents (excluding automobiles)	1	.....
180	Conflagration	8	2
181	Accidental burns (conflagration excepted)	6	7
	Accidental Mechanical suffocation	9	4
174	Accidents in mines and quarries	1	.....
175(a)	Accidents involving agricultural machinery and vehicles	1	.....
176	Other accidents involving machinery	1	.....
182	Accidental mechanical suffocation	6	4
	Accidental drowning	31	10
170(c)	Automobile accidents (excluding trains or street-cars)	3	1
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles)	1	.....
172	Water transport accidents	3	2
175(e)	Other forestry accidents	1	.....
183	Accidental drowning	23	7
	Accidental injury by cutting or piercing instruments	3	1
170(c)	Automobile accidents (excluding trains or street-cars)	1	.....
175(a)	Accidents involving agricultural machinery and vehicles	1	.....
185	Accidental injury by cutting or piercing instruments	1	1
	Accidental injury by fall	72	45
169	Railway accidents (excluding motor vehicles)	2	.....
170(a)	Motor vehicles accidents—collisions with trains	2	.....
170(c)	Automobile accidents (excluding trains or street-cars)	4	.....
170(d)	Motorcycle accidents (excluding automobiles)	1	.....
171(b)	Other road transport accidents (excluding street-cars, trains, and motor vehicles)	3	.....
174	Accidents in mines and quarries	1	.....
175(a)	Accidents involving agricultural machinery and vehicles	3	.....
175(c)	Other agricultural accidents	2	.....
186(a)	Accidental injury by fall	54	45
	Accidental injury by crushing	161	20
169	Railway accidents (excluding motor vehicles)	14	.....
170(a)	Collisions with trains	9	2
170(c)	Automobile accidents (excluding trains or street-cars)	63	14
170(d)	Motorcycle accidents (excluding automobiles)	1	1
171(a)	Street-car accidents (excluding trains and motor vehicles)	2	.....
171(b)	Other road transport accidents (excluding street-cars, trains and motor vehicles)	4	1
173	Air transport accidents	9	.....
174	Accidents in mines and quarries	13	.....
175(a)	Accidents involving agricultural machinery and vehicles	12	.....
175(b)	Injury by animals, in agriculture	4	.....
175(c)	Other agricultural accidents	5	.....
175(e)	Other forestry accidents	6	.....
176	Other accidents involving machinery	11	1
186(b)	Accidental injury by crushing	7	1
187	Cataclysm	1	.....
	Accidents due to electric currents	2	.....
175(c)	Other agricultural accidents	1	.....
193	Accidents due to electric currents	1	.....

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, 1947

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	
Calgary	1201	231	6	72	2	1038	839	202	4	49	2	684
Edmonton	1443	563	.....	69	4	953	1107	532	.....	42	3	620
Lethbridge	209	81	1	18	1	146	168	75	.....	14	1	107
Medicine Hat	172	52	1	11	.....	130	128	49	1	7	.....	85

TABLE 23.—TOTAL DEATHS (EXCLUSIVE OF STILLBIRTHS) AND DEATHS IN INSTITUTIONS BY PLACE OF OCCURRENCE AND PLACE OF RESIDENCE IN ALBERTA, 1947

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	6556	109	15	91	20	6543	3989	77	8	56	15	3975

	2,472	24	111	102	797	840	126	169	164	139
157 Congenital malformations	7,391	49	360	409	2,806	2,031	404	443	412	477
158-161 Diseases peculiar to the first year of life	1,489	34	149	188	343	319	123	77	94	162
162 Senility	8,608	75	410	355	2,006	3,169	527	495	551	1,020
163-198—Violent deaths	947	6	36	26	134	367	81	89	67	141
163-164 Suicides	146	2	6	5	26	58	7	9	8	25
166-168 Homicides	262	7	7	10	57	93	45	13	16	21
169 Railway accidents (excluding motor vehicles)	1,860	13	85	102	486	727	78	58	107	204
170 Motor vehicle accidents	122	3	1	3	40	37	5	10	11	15
171 Street-car and other road transport accidents	280	3	28	20	51	103	20	12	7	36
172 Water transport accidents	41	1	1	1	4	10	7	1	9	8
173 Air transport accidents	99	3	6	2	29	26	5	3	15	13
174 Accidents in mines and quarries	309	3	9	15	51	67	19	39	39	67
175 Agricultural and forestry accidents	131	1	4	5	29	47	5	6	13	21
176 Other accidents involving machinery	278	4	12	13	86	76	15	25	16	31
180 Conflagration	4	43	215	153	1,013	1,556	239	230	242	438
187 Cataclysm	3,854	28	200	158	1,075	1,229	252	266	259	387
Other violent deaths										
Other specified causes										
Total specified causes	116,871	1,000	5,953	4,630	33,531	41,465	6,698	6,581	6,495	10,518
199, 200—Ill-defined and unknown causes	801	20	56	202	138	142	75	27	48	93
All causes	117,672	1,020	6,009	4,832	33,669	41,607	6,773	6,608	6,543	10,611

TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1947

Inf. list No.	Canada	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
1-2 Typhoid fever	0.5	1.1	0.3	0.6	1.1	0.1	0.1	0.1	0.4	0.6
6 Cerebrospinal meningitis	0.4	1.1	0.6	1.2	0.5	0.2	0.1	0.2	0.7	0.7
8 Scarlet fever	0.3	1.1	0.2	1.0	0.8	0.1	0.1	0.2	0.2	0.2
9 Whooping cough	1.8	1.1	1.1	4.3	2.3	1.8	2.2	0.4	1.1	1.6
10 Diphtheria	1.1	1.1	2.1	1.0	2.1	0.5	0.4	1.2	0.9	0.4
11 Erysipelas	0.1	1.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
13 Tuberculosis of the respiratory system	36.8	59.6	41.7	40.9	55.2	22.3	35.8	21.6	26.2	43.8
14-22 Tuberculosis, other organs	6.6	7.4	8.1	12.2	10.3	2.6	5.9	6.1	5.8	7.6
24 Purulent infection and septicaemia	0.2	1.1	0.5	0.4	0.3	0.1	0.3	0.1	0.1	0.1
30 Syphilis	4.7	5.3	5.5	5.1	5.8	3.7	5.4	2.4	4.3	6.4
33 Influenza	8.7	12.8	6.9	10.2	14.2	4.6	10.6	9.3	8.5	4.4
34 Smallpox										
35 Measles	1.1	3.2	2.3	0.2	1.0	0.3	1.6	1.8	2.6	1.6
36 Acute poliomyelitis and polioencephalitis	0.7	1.1	1.1	0.2	0.3	0.7	0.9	1.4	0.9	1.1
45-55 Cancer and other malignant tumours	124.3	128.7	138.3	116.1	112.0	136.8	121.8	107.0	106.7	142.1
56-57 Tumours, non-malignant and not specified	2.8	3.4	3.4	1.6	2.2	3.4	1.7	2.6	3.4	3.5
61 Diabetes mellitus	19.8	18.1	20.5	17.1	18.2	23.3	20.9	14.8	14.5	19.4
63 Diseases of the thyroid and parathyroid glands	2.5	3.2	1.4	0.6	1.6	3.2	2.8	2.5	2.8	3.5
73 Anaemias	2.5	2.1	4.3	2.4	2.0	3.1	3.1	2.1	2.4	1.4
74 Leukaemias and aleukaemias	0.7	3.2	3.7	2.6	3.0	4.5	4.0	4.8	4.7	5.0
77 Alcoholism	0.3	1.1	1.0	1.2	0.6	0.7	0.5	0.4	0.4	0.9
81 Meningitis (non-meningococcal)	2.3	3.2	2.7	1.8	4.6	1.1	1.3	0.8	1.7	1.3
83 Intracranial lesions of vascular origin	76.3	103.2	92.8	68.2	46.5	106.3	80.2	59.9	63.7	73.6

TABLE 25.—DEATH RATES PER 100,000 POPULATION FROM CERTAIN SPECIFIED CAUSES, BY PROVINCES, 1947—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)	1.1	4.3	1.8	2.2	0.6	1.5	0.9	1.1	0.7	0.6
85	Epilepsy	1.8	3.2	2.3	2.4	1.9	1.6	2.3	2.1	1.7	1.3
89	Diseases of the ear and of the mastoid process	2.0	0.5	0.5	2.0	5.4	0.6	0.4	0.4	0.4	0.6
90-95	Diseases of the heart	255.1	272.3	234.0	215.7	185.3	328.1	241.9	204.5	213.5	322.6
96, 97.											
99, 102	Diseases of the arteries	18.9	21.3	26.4	18.3	14.0	23.3	29.1	11.4	14.4	16.4
106	Bronchitis	2.9	2.4	2.4	3.1	2.5	3.3	4.2	3.1	2.2	2.7
107-109	Pneumonia	45.3	60.6	49.0	50.7	47.8	41.4	49.0	48.7	45.5	39.8
110	Pleurisy	1.1	1.1	0.8	1.4	1.4	1.0	0.4	1.0	1.2	1.2
111	Haemorrhagic infarction, congestion, oedema and thrombosis of the lungs	3.2	3.2	3.2	4.5	3.6	3.1	4.2	4.3	1.9	1.2
112	Asthma	2.0	1.1	1.8	1.8	2.1	1.8	3.6	1.8	1.8	1.3
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils	1.5		1.8	1.2	1.8	1.4	1.2	1.3	1.8	0.8
116-118	Diseases of the stomach	8.1	3.2	4.5	6.3	8.6	7.8	6.9	8.0	8.0	11.9
119-120	Diarrhoea and enteritis	15.8	14.9	11.4	25.5	29.7	6.5	14.4	14.1	12.9	7.0
121	Appendicitis	3.7	2.1	3.4	2.9	5.1	2.6	2.6	5.0	4.4	3.6
122	Hernia, intestinal obstruction	6.9	10.6	5.6	4.5	6.9	6.7	6.2	8.3	6.1	9.6
124	Cirrhosis of the liver	5.0	2.1	2.7	2.9	5.8	5.3	2.2	3.2	5.2	7.4
125-127	Other diseases of the liver	4.9	3.2	3.1	4.9	5.4	4.8	5.1	6.2	3.9	4.9
130-132	Nephritis	52.3	64.9	56.7	42.6	88.6	39.1	26.1	31.4	23.8	34.8
137	Diseases of the prostate	6.7	7.4	7.4	8.8	5.9	6.4	5.4	9.7	6.4	8.0
140-150	Puerperal causes	4.4	6.4	3.2	5.1	7.0	3.1	3.1	4.5	2.7	3.1
157	Congenital malformations	19.7	25.5	17.9	20.8	21.5	20.1	17.0	20.1	20.0	13.3
158-161	Diseases peculiar to the first year of life	58.8	52.1	58.0	83.3	75.6	48.5	54.4	52.6	49.9	45.7
162	Senility	11.9	36.2	24.0	38.3	9.2	7.6	16.6	9.1	11.4	15.5
163-198	Violent deaths	68.5	79.8	66.0	72.3	54.0	75.7	70.9	58.8	67.0	97.7
163-164	Suicides	7.5	6.4	5.8	5.3	3.6	8.8	10.9	10.6	8.2	13.6
166-168	Homicides	1.2	2.1	1.1	1.0	0.7	1.4	0.9	1.1	1.0	2.4
169	Railway accidents (excluding motor vehicles)	2.1	1.1	1.1	2.0	1.5	2.2	6.1	1.5	1.9	2.0
170	Motor vehicle accidents	14.8	13.8	13.7	20.8	13.1	17.4	10.5	6.9	13.0	19.5
171	Street-car and other road transport accidents	1.0	0.2	0.2	0.6	1.1	0.9	0.7	1.2	1.3	1.4
172	Water transport accidents	2.2	3.2	4.5	4.1	1.4	2.5	2.7	1.4	0.9	3.4
173	Air transport accidents	0.3	0.2	0.2	0.2	0.1	0.2	0.9	0.1	1.1	0.8
174	Accidents in mines and quarries	0.8	1.0	0.4	0.4	0.8	0.6	0.7	0.4	1.8	1.2
175	Agricultural and forestry accidents	2.5	3.2	1.4	3.1	1.4	1.6	2.6	4.6	4.7	6.4
176	Other accidents involving machinery	1.0	1.1	0.6	1.0	0.8	1.1	0.7	0.7	1.6	2.0
180	Conflagration	2.2	4.3	1.9	2.6	2.3	1.8	2.0	3.0	1.9	3.0
187	Cataclysm	3					3	0.1	0.1	0.1	
	Other violent deaths	32.9	45.7	34.6	31.2	27.3	37.1	32.2	27.3	29.4	42.0
	Other specified causes	30.7	29.8	32.2	32.2	29.0	29.3	33.9	31.6	31.9	37.1
199, 200	Total specified causes	930.6	1063.8	958.6	943.0	903.3	989.9	901.5	781.6	789.9	1007.5
	Ill-defined and unknown causes	6.4	21.3	9.0	41.1	3.7	3.4	10.1	3.2	5.6	8.9
	All causes	937.0	1085.1	967.6	984.1	907.0	993.2	911.6	784.8	795.5	1016.4

TABLE 26.—PRINCIPAL CAUSES OF DEATH BY NUMBERS AND RATES FOR EACH YEAR OF THE LAST DECENNIAL PERIOD

CAUSE OF DEATH	1947		1946		1945		1944		1943		1942		1941		1940		1939		1938	
	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	1756	213	1721	214	1663	199	1534	186	1550	194	1483	184	1394	177	1086	137	997	126	895	114
Cancer	878	107	860	107	830	100	781	84	748	94	784	97	712	90	759	95	647	82	682	87
Diseases of the Arteries	117	14	102	12	138	16	121	14	116	14	97	12	86	11	517	65	550	79	455	58
Violent Deaths (Suicides excepted)	484	59	456	56	472	57	484	59	588	73	483	58	524	67	415	52	364	46	357	46
Pneumonia (all forms)	374	45	362	45	369	44	379	46	497	51	335	41	473	47	376	47	362	46	488	62
Pulmonary tuberculosis	215	26	233	29	200	25	229	27	224	28	214	26	254	32	232	29	217	27	206	26
Influenza	72	8	89	11	58	7	128	15	153	19	75	9	276	22	255	32	216	27	174	22
Nephritis	197	24	215	26	255	31	257	31	284	36	260	32	255	32	217	27	214	27	243	31
Appendicitis	36	4	46	5	42	5	54	6	77	9	69	8	91	11	96	12	109	14	146	18
Suicides	67	8	100	12	76	9	57	7	79	10	86	10	103	13	96	12	103	13	100	12
Cerebral Haemorrhage	523	63	503	62	513	62	454	55	472	59	450	56	501	64	116	15	96	12	102	13
Diabetes Mellitus	119	14	119	14	143	17	120	14	116	14	106	13	122	15	90	11	90	11	85	11
Diarrhoea and Enteritis	106	13	128	15	87	10	120	14	116	14	106	13	99	13	92	12	90	11	118	15
Puerperal Causes	22	3	32	4	48	5	31	3	52	6	43	5	54	7	69	9	59	8	68	8
Whooping Cough	9	1	19	2	43	5	42	5	11	1	12	1	23	3	56	7	33	4	30	4
Scarlet Fever	...	...	1	...	1	...	9	1	7	...	11	1	6	1	9	1	19	2	25	3
Diphtheria	7	1	7	...	9	1	5	...	12	1	11	1	6	1	12	2	7	1	18	2
Typhoid and Paratyphoid	3	...	2	...	2	...	8	1	1	...	1	...	5	1	3	...	7	1	12	2
Measles	21	3	8	...	6	...	10	1	19	2	2	...	30	4	6	...	6	1	30	4
Poliomyelitis	7	1	8	...	...	...	1	...	...	...	...	...	8	1	4	...	6	1	15	2

TABLE 27.—MARRIAGES IN THE PROVINCE OF ALBERTA, BY MONTHS, 1947

	Total	MONTHS											
		January	February	March	April	May	June	July	August	September	October	November	December
Edmonton	2354	135	153	125	184	206	275	218	230	186	189	275	178
Calgary	1877	108	114	131	142	157	213	170	223	172	142	168	137
Lethbridge	359	18	36	16	23	35	39	36	24	30	40	45	17
Medicine Hat	327	20	20	13	23	22	27	35	24	34	42	37	30
Red Deer	124	2	8	8	12	8	15	10	12	11	13	15	10
Drumheller	98	6	4	5	5	9	17	6	8	11	12	9	6
Wetaskiwin	79	5	4	3	5	6	13	9	6	4	10	9	5
Rural Districts	3579	217	151	159	258	239	496	412	321	189	321	544	272
Total for the Province	8797	511	490	460	652	682	1095	896	848	637	769	1102	655

TABLE 28.—MARITAL STATUS OF BRIDEGRROOMS AND BRIDES IN ALBERTA, 1947

	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	Spinsters	Widows	Spinsters	Widows	Divorced Women	Widows	Divorced Women	Spinsters	Widows	Divorced			
Total for the Province	8797	7286	236	371	167	158	47	377	45	110	89.7	4.2	6.0	89.0	5.0	6.0

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	391	181	210	4	3	1
Calgary	358	151	207	7	4	3
Lethbridge	60	32	28	1	1	.....
Medicine Hat	17	10	7	1	1	.....
Peace River	10	5	5	.....	.....	.....
Grande Prairie	4	2	2	.....	.....	.....
Hanna	2	.....	2	.....	.....	.....
Red Deer	22	13	9	1	.....	1
Drumheller	4	2	2	.....	.....	.....
Macleod	8	5	3	.....	.....	.....
Wetaskiwin	3	1	2	.....	.....	.....
Vegreville	3	2	1	.....	.....	.....
Total	882	404	478	14	9	5

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
1947	404	478	882

TABLE 33.—BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS), BY MONTHS AND BY PLACE OF RESIDENCE OF MOTHERS, ALBERTA, 1947

	Total	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Total for the Province	1194	103	106	123	120	79	100	110	90	87	93	89	94

TABLE 34.—LEGITIMATE AND ILLEGITIMATE BIRTHS OF INDIANS (EXCLUSIVE OF STILLBIRTHS) IN ALBERTA, BY PLACE OF RESIDENCE OF MOTHERS, 1947

	Total Births			Legitimate			Illegitimate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total for the Province	1194	613	581	913	454	459	281	159	122

TABLE 35.—DEATHS OF INDIAN CHILDREN UNDER ONE YEAR (EXCLUSIVE OF STILLBIRTHS) FROM CERTAIN SPECIFIED CAUSES BY SEX IN ALBERTA, BY PLACE OF RESIDENCE, 1947

Int. list No.	Causes of Death	Total	Male	Female
	ALL CAUSES	139	76	63
6	Cerebrospinal meningitis			
8	Scarlet fever			
9	Whooping-cough			
10	Diphtheria	1		1
11	Erysipelas			
13	Tuberculosis of the respiratory system	5	3	2
14-22	Tuberculosis, other forms	3	2	1
27	Dysentery	4	3	1
30	Syphilis	1	1	
33	Influenza	12	5	7
35	Measles	3		3
36	Acute poliomyelitis and polioencephalitis			
64	Diseases of the thymus gland			
81	Meningitis (non-meningococcal)	1		1
86	Convulsions	2	2	
89	Diseases of the ear and of the mastoid process			
105	Diseases of the larynx			
106	Bronchitis			
107	Bronchopneumonia	19	9	10
108, 109	Pneumonia	27	12	15
115	Diseases of the buccal cavity and annexa, and of the pharynx and tonsils			
116-118	Diseases of the stomach	1		1
119	Diarrhoea and enteritis	18	12	6
130	Acute nephritis			
157	Congenital malformations	3	2	1
	(a) Congenital hydrocephalus			
	(d) Congenital malformations of the heart	2	1	1
	(b, c, e) Others under this title	1	1	
158	Congenital debility	1	1	
159	Premature birth	15	9	6
160	Injury at birth	2		2
161	Other diseases peculiar to the first year of life	8	5	3
166-168	Homicides			
169-195,				
197	Other violent deaths	3	3	
	Other specified causes	1		1
199, 200	Ill-defined and unknown causes of death	9	7	2

TABLE 38.—POPULATION BIRTHS, MARRIAGES, DEATHS, AND RATES FOR THE YEARS 1905-1947

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	20.41	927	6.77	1,091	6.68	100.27	6.33	13.36
1907	266,000	4,732	20.05	1,907	8.08	1,578	8.22	126.57	6.02	14.22
1908	301,000	5,373	22.45	2,032	7.63	2,188	8.81	.....	.....	14.07
1909	301,000	6,897	22.91	2,384	7.92	2,662	8.81	.....	.....	14.00
1910	336,000	8,321	24.49	3,086	9.18	3,526	10.49	129.49	8.63	13.88
1911	374,000	8,813	23.56	3,630	9.70	3,618	9.67	134.46	9.75	13.88
1912	400,000	10,284	25.71	4,429	11.07	4,232	10.58	124.47	8.26	15.13
1913	429,000	11,871	28.47	5,053	12.12	4,432	10.63	120.47	7.07	17.84
1914	459,000	13,685	30.75	4,623	10.39	4,417	9.32	100.54	6.13	21.43
1915	480,000	13,452	28.90	4,202	9.06	3,588	7.73	87.9	5.79	21.26
1916	496,000	13,331	27.87	4,230	8.53	4,058	8.18	90.5	7.20	18.69
1917	508,000	13,576	27.01	4,270	8.54	4,047	8.09	87.30	6.48	18.92
1918	522,000	14,890	25.72	4,048	6.98	7,924	13.86	107.10	5.51	11.86
1919	522,000	14,890	23.95	4,718	7.90	5,507	9.33	110.30	6.44	14.62
1920	565,000	16,565	26.72	5,110	7.92	5,675	9.15	93.70	8.38	17.57
1921	588,000	16,414	27.89	4,661	8.24	4,940	8.39	85.65	7.24	19.50
1922	592,000	16,163	26.44	4,272	6.99	5,281	8.62	91.93	6.68	17.83
1923	593,000	15,153	25.75	4,177	6.99	4,843	8.06	90.54	5.50	18.75
1924	597,000	14,598	24.74	4,160	7.50	4,907	8.30	82.40	6.18	16.42
1925	602,000	15,014	25.02	4,363	7.27	4,717	7.86	72.90	5.76	16.16
1926	608,000	14,455	23.79	4,498	7.40	5,156	8.49	81.63	5.82	15.31
1927	633,000	14,897	24.03	4,707	7.58	5,059	8.16	74.51	6.38	15.87
1928	658,000	15,682	24.79	5,776	9.12	5,699	9.00	76.50	6.75	15.79
1929	684,000	16,924	26.19	6,004	9.29	6,239	9.65	77.40	7.26	16.54
1930	708,000	17,649	26.74	6,004	8.08	6,239	8.33	63.57	6.46	18.41
1931	732,000	17,252	23.57	5,142	7.02	5,302	7.24	69.38	5.04	16.32
1932	740,000	16,990	22.96	5,054	6.83	5,521	7.46	58.68	3.76	15.50
1933	748,000	16,123	21.33	5,389	7.10	5,346	7.07	59.90	4.43	14.24
1934	756,000	16,286	21.10	6,053	7.87	5,337	6.93	54.89	4.99	14.01
1935	770,000	16,183	21.0	6,010	7.7	5,729	7.3	57.8	4.2	14.0
1936	772,782	15,786	20.4	6,020	7.8	6,147	8.0	60.0	5.8	12.5
1937	778,000	15,903	20.4	6,345	8.2	6,261	8.0	63.0	4.9	12.4
1938	783,000	15,891	20.3	6,973	8.9	5,871	7.5	51.0	4.3	12.8
1939	789,000	16,470	20.9	7,838	9.9	5,789	7.3	46.0	3.5	13.6
1940	790,000	17,359	21.8	8,782	11.8	6,203	7.8	48.0	3.9	14.1
1941	796,169	17,308	21.7	8,470	10.7	6,385	8.0	51.0	3.6	13.7
1942	805,000	18,317	22.7	9,034	11.2	6,091	7.5	38.0	2.3	15.2
1943	792,000	19,290	24.3	7,771	9.8	6,524	8.2	42.0	2.7	16.1
1944	818,000	19,373	23.7	7,299	8.9	6,320	7.7	46.0	1.6	16.0
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
1947	822,000	24,631	30.0	8,797	10.7	6,543	8.0	37.0	.9	22.0

TABLE 39.—DEATHS AND DEATH RATES FROM PUERPERAL CONDITIONS, 1947

	Births	Deaths from Puerperal Conditions	Death Rate per 1,000 Births
Whole Province	24,631	22	.9
City of Edmonton	6,069	1	.7
City of Calgary	4,012	3	.7
Small Cities	2,208	4	1.8
Rural	12,342	14	1.1

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	1927	1,065	2.94
1906	1,094	2.07	1928	1,064	2.75
1907	1,075	2.96	1929	1,042	2.71
1908	1,077	2.73	1930	1,027	3.21
1909	1,086	2.59	1931	1,075	3.25
1910	1,065	2.69	1932	1,052	3.08
1911	1,103	2.43	1933	1,053	3.01
1912	1,084	2.43	1934	1,032	3.04
1913	1,053	2.67	1935	1,055	2.81
1914	1,081	3.30	1936	1,049	2.57
1915	1,000	3.74	1937	1,019	2.38
1916	1,063	3.29	1938	1,046	2.70
1917	1,061	3.25	1939	1,046	2.85
1918	1,069	1.88	1940	1,033	2.79
1919	1,074	2.56	1941	1,054	2.71
1920	1,055	2.92	1942	1,058	3.02
1921	1,055	3.32	1943	1,041	2.96
1922	1,034	3.06	1944	1,060	3.06
1923	1,072	3.13	1945	1,061	3.08
1924	1,036	2.97	1946	1,036	3.36
1925	1,036	2.97	1947	1,061	3.76
1926	1,053	2.80			

